

Water Law Review

Volume 5 | Issue 2

Article 95

1-1-2002

Vol. 5, no. 2: Full Issue

Water Law Review

Follow this and additional works at: <https://digitalcommons.du.edu/wlr>

Custom Citation

5 U. Denv. Water L. Rev. (2002).

This Full Issue is brought to you for free and open access by the University of Denver Sturm College of Law at Digital Commons @ DU. It has been accepted for inclusion in Water Law Review by an authorized editor of Digital Commons @ DU. For more information, please contact jennifer.cox@du.edu, dig-commons@du.edu.

UNIVERSITY OF DENVER

WATER LAW REVIEW



ARTICLES

Wisconsin v. EPA: Tribal Empowerment and State Powerlessness
Under § 518(e) of the Clean Water Act

Paul M. Drucker

Watershed Down?: The Ups and Downs of Watershed
Management in the Southwest

Kara Gillon

An Environmental Water Account: The California Experience

Alf W. Brandt

Legal Underpinnings of the Right to Float Through Private
Property in Colorado: A Reply to John Hill

Lori Potter, Steven Marlin, and Kathy Kanda

LITIGATION UPDATE

Arizona Supreme Court Rejects Practicably Irrigable Acreage
Standard for Allocating Indian Water Rights

E. Brendan Shane

COMMENTARIES

Do Conservation Easements and Water Mix (in Colorado)?

Peter D. Nichols

"Here Is a Land Where Life Is Written in Water": Re-Writing
Western Water Law in the 21st Century

Jeffrey J. Clayton

POETRY

Selections of Poetry

Justice Greg Hobbs

BOOK REVIEW

BOOK NOTES

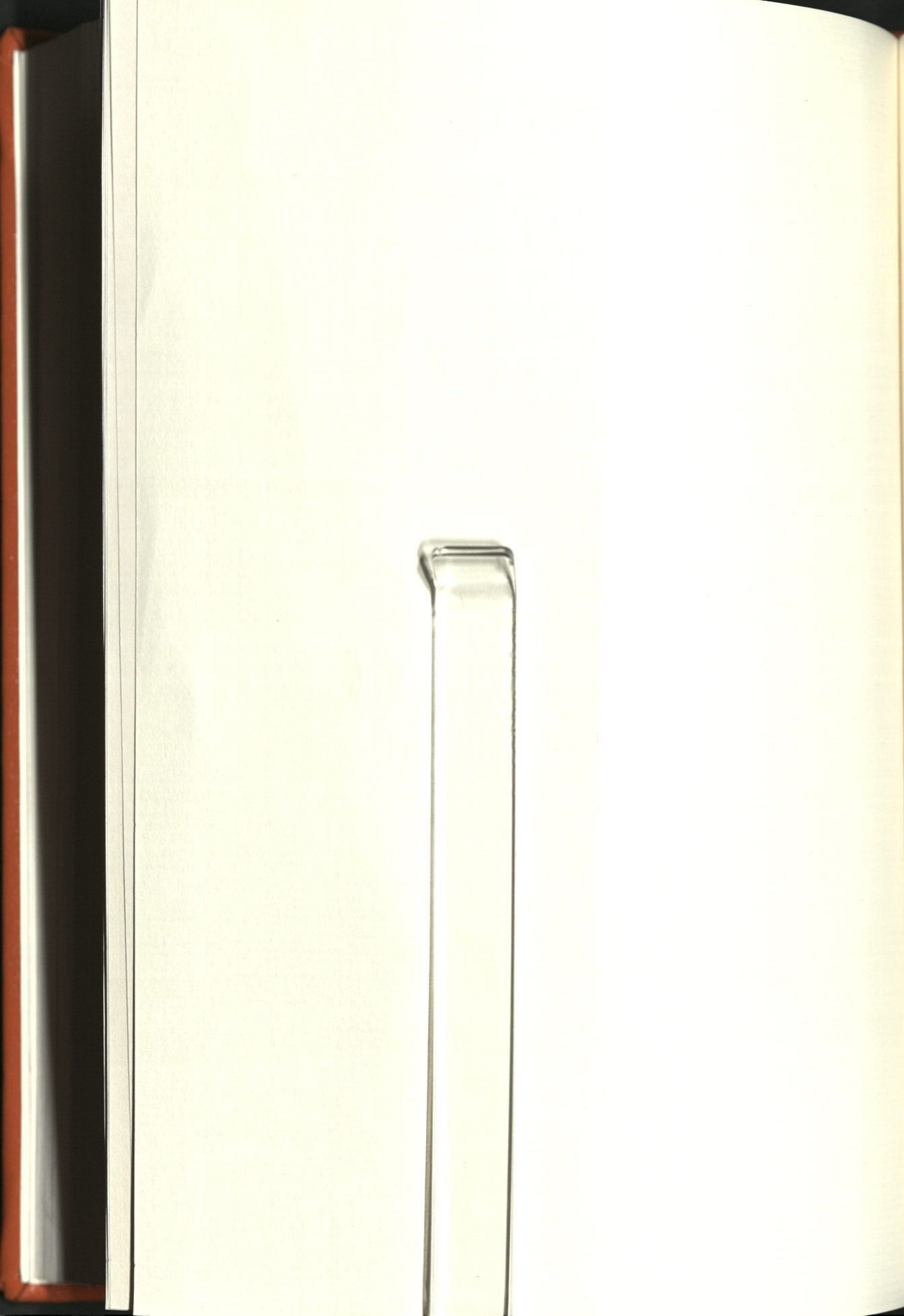
COURT REPORTS

COLORADO WATER RIGHTS APPLICATIONS

CONFERENCE REPORT

CUMULATIVE INDEX – VOLUMES 1-5

Volume 5/Issue 2/Spring 2002



Copyright 2002 by the
WATER LAW REVIEW

UNIVERSITY OF DENVER (COLORADO SEMINARY) COLLEGE OF LAW

WATER LAW REVIEW
is published twice annually
at the
University of Denver College of Law

Subscription Rates:

Annual Subscriptions:

Institution/professional rate..... \$40.00
Student rate..... \$20.00

Single Issues:

Institution/professional rate..... \$25.00
Student rate..... \$15.00

Please address subscriptions to:

Business Editor
Water Law Review
University of Denver College of Law
7039 East 18th Avenue
Denver, Colorado 80220 USA
Telephone: (303) 871.6223
Facsimile: (303) 871.6446
www.law.du.edu/waterlaw

Subscriptions will be renewed automatically unless timely notice of termination is received. The *Water Law Review* welcomes inquiries concerning its tax deductible donor program.

The opinions and conclusions expressed in this volume are solely those of the authors and do not necessarily reflect the views of the University of Denver College of Law or the *Water Law Review*. This publication is presented with the understanding that neither the publishers nor the authors are engaged in rendering legal or other professional services. In no event, including negligence on the part of the authors, reviewers, or the publisher, will the authors, reviewers, or the publisher be liable for any direct, indirect, or consequential damages resulting from use of this material.

ISSN # 1521 - 3455

Cover and logo by Lee Demary

MANUSCRIPT SUBMISSION GUIDELINES FOR AUTHORS

EDITORIAL POLICY

The *Water Law Review* welcomes the submission of articles of timely interest to the water law community. Articles should discuss topical issues in water law and related areas, such as environmental and natural resource law, land use, and water quality. They should provide an original, analytical, and in-depth treatment of the issue rather than a summary of previous research efforts. Anonymous peer review of articles is available upon request. In addition to articles, the *Water Law Review* also invites submissions of shorter works, such as book reviews, commentaries, and bibliographies.

STYLE

Articles should be well organized, concisely written, and presented in an articulate and scholarly manner. More descriptive presentation should be limited to background matter, and use of direct quotations should be kept to a minimum.

FORMAT

Manuscripts should be typed in MS Word format, double-spaced, and printed on 8½ x 11 paper. The text should be broken into appropriate headings and subheadings. The text should conform to the *Chicago Manual of Style* (14th ed. 1993). Citations to authority should be contained in footnotes. Footnotes may also include elaboration on points raised in the text or references to research sources pertaining to points peripheral to those discussed in the text. Footnotes must conform with *The Bluebook: A Uniform System of Citation* (17th ed. 2000), published by the Harvard Law Review Association, and should be current as of the date of submission.

When the *Water Law Review* accepts a manuscript for publication, the author will be required to provide a copy of the manuscript on a 3.5" diskette, preferably in MS Word 6.0 or higher format. As is the standard practice of journals in the United States, the *Water Law Review* will gain copyright as of publication.

UNIVERSITY OF DENVER
WATER LAW REVIEW

VOLUME 5

ISSUE 2

SPRING 2002

EDITORIAL BOARD

Editor-in-Chief

REBEKAH KING

Managing Editor

JASON S. WELLS

Assistant Managing Editor

MAKAYLA A. SHANNON

Production Editor

BRIAN L. MARTIN

Business Editor

SPENCER L. SEARS

Articles Editors

CHRISTINE ELLISON

KIOWA K. ENGWIS

HOLLY KIRSNER

KEVIN ROHNSTOCK

GLORIA M. SOTO

Court Reports Editor

KIMBERLEY E. MONTANARO

Assistant Court Reports Editor

NICOLE RESSUE

MEMBERS

MICHAEL BARRY
COLLEEN M. COOLEY
MATTHEW J. COSTINETT
ALAN CURTIS
ERIKA DELANEY-LEW
SHANDRA DOBROVOLNY
KATHARINE J. ELLISON
ANNE P. FRANCIS
WILLIAM H. FRONCZAK

MELISSA L. GORDON
CHRISTOPHER A. GRIFFIN
JOHN HELFRICH
SARAH A. HUBBARD
JON HYMAN
DAVID JACOB
ROBERT W. LYKOS
STACI A. MCCOMB
KIRSTIN MCMILLAN

STEFANIA NIRO
LUCIA C. PADILLA
MERC PITTINOS
MICHAEL SHEEHAN
JAMES SIEGSMUND
RACHEL M. SOBRERO
DANIEL C. WENNOGLE
JOHN P. WOOD

FACULTY ADVISOR

GEORGE (ROCK) PRING, PROFESSOR

ADVISORY BOARD

2001-2002

SCOTT BALCOMB, Esq.
Delaney & Balcomb, PC

HAMLET J. (CHIPS) BARRY, Esq.
Manager, Denver Water
Department

JAMES CORBRIDGE
Professor
University of Colorado,
School of Law

HARRISON C. DUNNING
Professor
University of California at Davis
School of Law

BARBARA J. B. GREEN, Esq.
Sullivan Green, LLC

GARY GREER, Esq.
Sherman & Howard, LLC

FELICITY HANNAY, Esq.
Deputy Atty General,
Natural Resources and
Environment Section, Colorado
Attorney General's Office

WILLIAM HILLHOUSE II, Esq.
White & Jankowski, LLP

HOLLY HOLDER, Esq.*
Holly I. Holder, PC

FRANK E. (SAM) MAYNES, Esq.
Bradford, Shipp & Sheftel, LLP

DAVID P. PHILLIPS, Esq.
Executive Director,
Rocky Mountain Mineral Law
Foundation

LORI POTTER, Esq.
Kelly, Haglund, Garnsey & Kahn,
LLC

DAVID ROBBINS, Esq.
Hill & Robbins, PC

HAL SIMPSON, P.E.
State Engineer, Colorado Division
of Water Resources

A. DAN TARLOCK
Professor
Chicago-Kent School of Law
Illinois Institute of Technology

WENDY WEISS, Esq.
First Assistant Attorney General,
Federal and Interstate Water Unit,
Colorado Attorney General's
Office

DR. PATRICIA WOUTERS
IWRA Board of Directors
Director, Water Law and Policy
Programme, University of
Dundee, Scotland

* As we approached press date for this issue, the *Water Law Review* was notified of the death of Holly Holder on June 9, 2002. In addition to serving as an Advisory Board member, Ms. Holder also contributed as an author in our inaugural issue. Holly Holder was a distinguished graduate of the University of Denver College of Law as well as a distinguished member of the water law community. The *Water Law Review* will greatly miss her input and support.

THE UNIVERSITY OF DENVER COLLEGE OF LAW FACULTY 2001-2002

ADMINISTRATIVE OFFICERS

Daniel L. Ritchie, A.B., M.B.A., Chancellor
Robert Coombes, Ph.D., Provost
Craig Woody, B.A., Vice Chancellor for Financial Affairs/Treasurer
Carol Farmsworth, M.A., Vice Chancellor for Communications
Mary Ricketson, B.A., J.D., Dean of the College of Law
J. Robert "Jay" Brown, B.A., M.A., Ph.D., J.D., Associate Dean for Academic Affairs
Gary L. Alexander, B.A., M.L.L., J.D., Asst. Dean of Information Services and Library Director
David Ricciardi, B.S., Registrar
Iain Davis, B.A., Financial Aid Director
Keryn Goldstein, B.A., Chief Financial Officer
Sheila Green, B.A., M.A.L.S., Reference Librarian
Martha Keister, A.B., M.A., M.L.S., International Law Librarian
Stephen Favreau, Masters, B.A., Asst. Dean of Administration
Lauri A. Mlinar, Director of Events
Nancy P. Nones, B.A., Administrator, International Legal Studies
Laura Dean, B.A., Director of Alumni Relations
Robin A. Ricker, B.S., Program Coordinator, Graduate Tax Program
Patty Powell, B.A., J.D., Dean of Student Services
Julie Field and Robert Yegge, Co-Directors, Clinical Programs
Forrest Stanford, B.A., J.D., Director of Admissions
Tim Henderson, B.A., M.S., J.D., Director of Career Services

FACULTY

Thomas A. Barnes, Jr., B.A., J.D., Lecturer
William M. Beaney, A.B., LL.B., Ph.D., Emeritus Professor of Law
Arthur Best, A.B., J.D., Professor of Law
Andrea Bloom, B.A., J.D., Lecturer
Jerome Borison, B.S., J.D., LL.M., Associate Professor of Law
Burton F. Brody, B.S.C., J.D., LL.M., Professor of Law
J. Robert "Jay" Brown, Jr., B.A., M.A., Ph.D., J.D., Associate Professor of Law
Penelope Bryan, B.S., M.A., J.D., Assistant Professor of Law
John A. Carver, Jr., A.B., LL.B., LL.D., Emeritus Professor of Law
Federico Cheever, B.A., M.A., J.D., Assistant Professor of Law
Alan K. Chen, B.A., J.D., Assistant Professor of Law
Christine Cimini, B.A., J.D., Assistant Professor of Clinical Programs
Alfred J. Coco, B.A., J.D., M.L.L., Emeritus Professor of Law
Roberto L. Corrada, B.A., J.D., Assistant Professor of Law
Tami D. Cowden, B.A., J.D., Lecturer
Edward A. Dauer, A.B., LL.B., Dean Emeritus and Professor of Law
Paul Stephen Dempsey, A.B.J., J.D., LL.M., D.C.L. Professor of Law and Director,
Transportation Law Program
Kate Duba, B.A., J.D., Lecturer
K.K. DuVivier, B.A., J.D., Assistant Professor & Director of Lawyering Process Program
Nancy S. Ehrenreich, B.A., J.D., LL.M., Assistant Professor of Law
Martha M. Ertman, A.B., J.D., Visiting Assistant Professor of Law

Christopher Gehring, B.A., J.D., Lecturer
J. Wadine Gehrke, B.A., J.D., Assistant Professor of Clinical Programs
Robert M. Hardaway, B.A., J.D., Professor of Law
Jeffrey H. Hartje, B.A., J.D., Associate Professor of Law
Timothy M. Hurley, B.A., J.D., Lecturer
Sheila K. Hyatt, B.A., J.D., Professor of Law and Associate Dean for Academic Affairs
Sam Kamin, B.A., J.D., Ph.D., Assistant Professor of Law
Martin Katz, A.B., J.D., Assistant Professor of Law
Francis W. Jamison, B.A., J.D., Professor of Law
Jan G. Laitos, B.A., J.D., S.J.D., Professor of law and Director of Natural Resources Program
Harry O. Lawson, B.A., M.S., Professor of Judicial Administrations and Director, Master of
Science in Legal Administration Program
Neil O. Littlefield, B.S., LL.B., LL.M., S.J.D., Emeritus Professor of Law
Lucy a. Marsh, B.A., J.D., Professor of Law
Michael G. Massey, B.A., J.D., Lecturer
Ved P. Nanda, B.A., M.A., LL.B., LL.M., Thompson G. Marsh Professor of Law and
Director, International Legal Studies Program
Julie A. Nice, B.A., J.D., Assistant Professor of Law
Stephen L. Pepper, A.B., J.D., Professor of Law
George W. "Rock" Pring, B.A., J.D. Professor of Law
John H. Reese, B.A., LL.B., LL.M., S.J.D., Professor of Law
Paula R. Rhodes, B.A., J.D., Associate Professor of Law
Edward J. Roche, Jr., B.B.A., J.D., Professor of Law
Howard I. Rosenberg, B.A., LL.B., Professor of Law
Thomas Russell, B.A., M.A., J.D., Ph.D., Professor of Law
John T. Soma, B.A., M.A., J.F.D., Ph.D., Professor of Law
Mary A. Steefel, B.A., J.S., LL. M., Lecturer
Joyce S. Sterling, B.A., M.A., Ph.D., Professor of Law
Celia R. Taylor, B.A., J.D., Assistant Professor of Law
Mark A. Vogel, B.B.A., J.D., LL.M., Associate Professor of Law and Director, Graduate
Tax Program
Timothy B. Walker, A.B., M.A., J.D., Emeritus Professor of Law
James E. Wallace, A.B., LL.B., B.D., Ph.D., Emeritus Professor of Law
James L. Winokur, B.A., LL.B., Professor of Law
Robert B. Yegge, A.B., M.A., J.D., Dean Emeritus and Professor of Law
Edward H. Ziegler, Jr., B.A., J.D., LL.M., Professor of Law

EDITOR'S NOTE

The summer of 2002 will surely be remembered by all in the water law community. At the time the *Water Law Review* went to press, the snow pack in the mountains was less than half of average and several communities already had water restrictions in place. In light of the less than adequate water supply facing the West this year, it seems fitting that the majority of Volume 5, Issue 2 focuses on alternatives to our current system of water management and allocation.

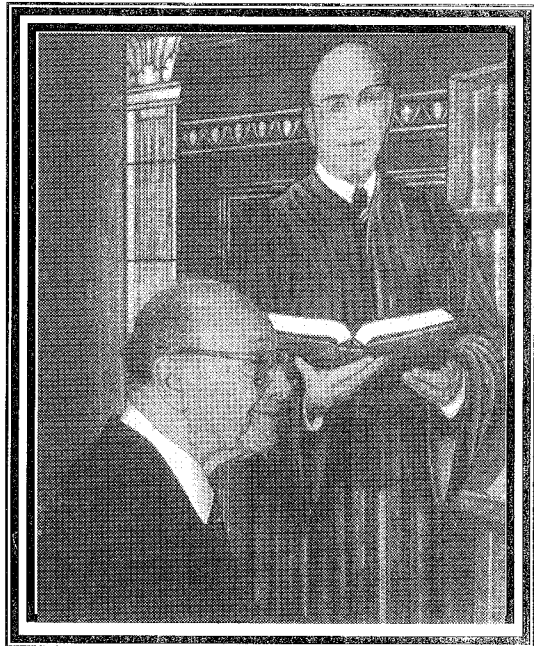
Water is a fluid resource, essentially incapable of being governed in accordance with political boundaries. Paul Drucker's article demonstrates problems that may arise when water bodies are governed not only by states, but also by Indian tribes. It is hard enough to get a few states to agree to water allocations, adding several hundred Indian tribes to the mix only magnifies the issues. Alf Brandt then describes one of the programs California is looking to in order to better balance the tension between consumptive use and instream flows. Although the program is still in its infancy, the CALFED Environmental Water Account provides one option to easing this tension. Kara Gillon's article proceeds to discuss how watershed management is working in the Southwest. Watershed management is an entirely different way of managing water resources. The technique focuses on ecological and geographical boundaries rather than political boundaries. Ms. Gillon's article also discusses binational water management, as many watersheds cross not only state and tribal boundaries, but also national boundaries.

The shortage of water we are facing this summer will also affect recreation and conservation uses. Lori Potter, Kathy Kanda and Steven Marlin address the "right to float" in their article, *Legal Underpinnings of the Right to Float Through Private Property in Colorado: A Reply to John Hill*. In addition, Peter Nichols discusses the implications of conservation easements on water, and whether it is likely the Colorado Supreme Court will recognize such easements. Both recreation and conservation significantly affect the allocation of water and will play a large role in the coming summer's water issues. Finally, Jeffrey Clayton urges us to rewrite water law, looking to economic factors to guide us. Mr. Clayton's commentary provides a different perspective, encouraging readers to open their minds to new ideas and concepts.

Ultimately, no matter where you are this summer, the shortage of water will play a large role. So whether you are a water lawyer, a water engineer, an academician, or someone for whom water is a fascinating subject; whether you are sitting in an office, or out in the wilderness hiking the Colorado Trail, take a moment to do as Mr. Clayton suggests, and "dream" of what "could be." Take a moment to entertain those far-fetched thoughts that you rarely let out of the back of your mind, and see where they lead....

Rebekah King
Editor-in-Chief

IN TRIBUTE



EDWARD E. "EDDIE" PRINGLE

CHIEF JUSTICE, PROFESSOR EMERITUS, RESPECTED FRIEND

Dedication to Edward E. "Eddie" Pringle
1914-2002

KIOWA K. ENGWIS[†]

The *Water Law Review* humbly dedicates its Spring 2002 issue to the extraordinary life of the late Edward E. "Eddie" Pringle; Colorado Supreme Court Chief Justice, Professor, friend and loved one. Known for his good nature and clarity in analysis and writing, Edward Pringle made a number of enduring contributions to the Colorado judicial system, Colorado water law, and legal scholarship.

Edward Pringle spent all but the first four years of his life in Colorado, graduating from North High School at sixteen and the University of Colorado School of Law at twenty-two. Over his eighty-seven years he contributed to our nation's efforts in World War II, overhauled the Colorado judicial system, made himself available to answer—in plain English—questions about rulings during his eighteen-year tenure on the Colorado Supreme Court, and shared his love for the law and lucid writing within the walls of the University of Denver College of Law.

In 1958 former governor Steve McNichols appointed Edward Pringle as a Denver District Court Judge, and three years later as a Supreme Court Justice. Between 1961 and 1979, Edward Pringle spent nine years as Chief Justice, a position that he used to broker an era of unprecedented judicial reform. Chief Justice Pringle is credited with re-establishing the Colorado Court of Appeals, and implementing the code of judicial conduct, the judicial disciplinary committee and planning council, continuing legal and judicial education programs, and judicial selection reforms. At all times Justice Pringle insisted on increasing transparency between the judicial system and the public.

Justice Pringle was also a key figure in shaping Colorado water law, formulating two vital statutes during his tenure—the 1965 Colorado Ground Water Determination Act and the 1969 Colorado Water Rights Determination Act. Most of the water rights-related cases brought before the Pringle court pertained to the interpretation of the 1965 and 1969 Acts, with an emphasis on the tenuous relationship between vested rights and maximum utilization. In 1970, in *Fundingsland v. Colorado Ground Water Commission*, Chief Justice Pringle considered the long-term impacts on groundwater withdrawal from designated groundwater basins and decided in favor of a "modified" prior appropriations system. *Fundingsland* ushered in an era of

[†] Kiowa K. Engwis became a staff member on the University of Denver *Water Law Review* in the fall of 2001. After demonstrating extraordinary commitment and exceptionally high quality work Kiowa was promoted to the Editorial Board as an Articles Editor after serving as a staff member for only one semester. Kiowa has been elected to serve as the Managing Editor for the 2002-03 school year. The tribute is one of the most important sections of the *Water Law Review*, thank you Kiowa, for taking the time and effort to write a great one.

“controlled depletion” of groundwater by establishing threshold depletion standards. The 1969 Act is considered closely in *Kuiper v. Well Owners* where the Supreme Court upheld the authority of the 1969 regulations. *Well Owners*, issued two years after the 1969 Act, authorized the phase-out of junior wells unless a plan of augmentation was submitted showing no affect on senior surface appropriators. *Fundingsland* and *Well Owners*, through Justice Pringle, worked to recognize the validity of both the 1965 and 1969 Acts.

After retiring from the Supreme Court in 1979, Edward Pringle sought a different form of leadership at the University of Denver College of Law. He shared his enthusiasm for legal training as the director for the University’s new legal research and writing program. That program served as a model for establishing research and writing programs for first-year students at law schools nationwide. Professor Pringle continued to serve the University after retirement as Professor Emeritus—keeping his door open for legal and philosophical debates with both faculty and students.

Edward Pringle is remembered fondly in the press as “a jurist who could evolve and change with the times while fighting fiercely to ensure that public passion or prejudice would not compromise the rights of individual defendants,” and as a man of gentle humor and a cheerful outlook. Perhaps the most enduring memory of Edward Pringle is the stained glass hanging in the Colorado Supreme Court Building, where his likeness stands above the words “honesty and integrity.”

This tribute could never fully capture the accomplishments of a man who was summarized as “one of the nicest, most interesting persons to ever trod the streets of Denver. Deeply devoted to the law, his family, his friends, his state and nation, there is nothing ordinary about this man.”

This issue of the *Water Law Review* is for you, Edward E. “Eddie” Pringle, for being extraordinary.

Edward Pringle’s life inspired many people. If you would like to contribute to his memory, donations can be made to the Edward Pringle Scholarship Fund at the University of Denver College of Law or to the Allied Jewish Federation.

UNIVERSITY OF DENVER
WATER LAW REVIEW

VOLUME 5

ISSUE 2

SPRING 2002

CONTENTS

ARTICLES

- WISCONSIN V. EPA: TRIBAL EMPOWERMENT AND STATE
POWERLESSNESS UNDER § 518(e) OF THE CLEAN WATER ACT..... 323
Paul M. Drucker
- WATERSHED DOWN?: THE UPS AND DOWNS OF WATERSHED
MANAGEMENT IN THE SOUTHWEST 395
Kara Gillon
- AN ENVIRONMENTAL WATER ACCOUNT: THE CALIFORNIA
EXPERIENCE..... 426
Alf W. Brandt
- LEGAL UNDERPINNINGS OF THE RIGHT TO FLOAT THROUGH
PRIVATE PROPERTY IN COLORADO: A REPLY TO JOHN HILL..... 457
Lori Potter
Steven Marlin
Kathy Kanda

LITIGATION UPDATE

- ARIZONA SUPREME COURT REJECTS PRACTICABLY IRRIGABLE
ACREAGE STANDARD FOR ALLOCATING INDIAN WATER RIGHTS..... 500
E. Brendan Shane

COMMENTARIES

- DO CONSERVATION EASEMENTS AND WATER MIX (IN COLORADO)? 504
Peter D. Nichols
- “HERE IS A LAND WHERE LIFE IS WRITTEN IN WATER”: RE-WRITING
WESTERN WATER LAW IN THE 21ST CENTURY..... 525
Jeffrey J. Clayton

POETRY

- SELECTIONS OF POETRY.....545
Justice Greg Hobbs

BOOK REVIEW

GREGORY M. SILKENSEN, THE FARMERS' HIGHLINE CANAL AND RESERVOIR COMPANY: A CENTURY OF CHANGE ON CLEAR CREEK	551
<i>John M. Dingess</i>	

BOOK NOTES

MARQ DE VILLIERS, WATER: THE FATE OF OUR MOST PRECIOUS RESOURCE	554
G. EMLLEN HALL, HIGH AND DRY: THE TEXAS-NEW MEXICO STRUGGLE FOR THE PECOS RIVER	556
CHAR MILLER, ED., FLUID ARGUMENTS: FIVE CENTURIES OF WESTERN WATER CONFLICT	558
OREGON TROUT, ED., OREGON SALMON: ESSAYS ON THE STATE OF FISH AT THE TURN OF THE MILLENNIUM.....	561
JEFFERY ROTHFEDER, EVERY DROP FOR SALE: OUR DESPERATE BATTLE OVER WATER IN A WORLD ABOUT TO RUN OUT	565
PAUL F. SCODARI, WETLANDS PROTECTION: THE ROLE OF ECONOMICS.....	566
GREG SHAPLAND, RIVERS OF DISCORD.....	568

COURT REPORTS

FEDERAL COURTS	573
UNITED STATES CIRCUIT COURTS	573
FIRST	573
SECOND	577
FOURTH	580
SIXTH.....	582
SEVENTH.....	583
NINTH.....	588
TENTH	594
FEDERAL CLAIMS COURT.....	598
UNITED STATES DISTRICT COURTS.....	600
STATE COURTS	605
ALABAMA.....	605
ARIZONA.....	607
CALIFORNIA.....	608
COLORADO.....	611
CONNECTICUT	617
FLORIDA	618
IDAHO	619
ILLINOIS	621
MINNESOTA.....	622

MISSOURI	624
MONTANA	625
NEBRASKA.....	629
NEW HAMPSHIRE.....	632
NEW JERSEY	632
OREGON.....	635
PENNSYLVANIA.....	636
TENNESSEE	638
TEXAS.....	639
VERMONT	640
WASHINGTON.....	641
WISCONSIN.....	644
WYOMING.....	644

COLORADO WATER RIGHTS APPLICATIONS

WATER COURT DIVISION 1	647
------------------------------	-----

CONFERENCE REPORT

THE 20TH ANNUAL WATER LAW CONFERENCE: GROWTH AND SCARCITY: MANAGING WATER TO AVOID CONFLICT.....	653
---	-----

INDEX

CUMULATIVE INDEX - VOLUMES 1 – 5.....	661
---------------------------------------	-----

UNIVERSITY OF DENVER
WATER LAW REVIEW

VOLUME 5

ISSUE 2

SPRING 2002

**WISCONSIN V. EPA: TRIBAL EMPOWERMENT AND
STATE POWERLESSNESS UNDER § 518(e) OF THE
CLEAN WATER ACT**

PAUL M. DRUCKER[†]

I.	Introduction.....	324
II.	The Clean Water Act	325
	A. Meeting the CWA's Goals: Effluent Limitations and Water Quality Standards	327
	1. Effluent Limitations and the National Pollutant Discharge Elimination System	328
	2. Water Quality Standards.....	330
	B. The Convergence of Water Quality Standards, Effluent Limitations, and NPDES Permits	332
	C. Transboundary conflicts: Pollution Flows Downstream ...	336
III.	The Clean Water Act's Cooperative Federalism and Indian Tribes.....	340
	A. "Treatment as a State" Status for Indian Tribes.....	340
	1. Section 303: Water Quality Standards	341
	2. Section 401: Certification of Compliance with Water Quality Standards.....	342
	3. Section 402: NPDES Permits.....	344
	B. <i>Albuquerque v. Browner</i> . "Treatment as a State" <i>Really Means</i> Treatment as a State	345
	C. Obtaining "Treatment as a State" Status	347

[†] Paul M. Drucker. B.A. 1995 University of Kansas, J.D. 1999 DePaul University College of Law (Dean's Scholar Scholarship Recipient 1996-1999), LL.M with distinction (Concentration: Environmental Law) 2002 Georgetown University Law Center. The author wishes to thank Professors Lisa Heinzerling and Richard Lazarus of Georgetown University Law Center for their expert guidance and steadfast support. The author also thanks his wife, Holly, for her unwavering patience. The author welcomes questions and comments by e-mail: pmd73@yahoo.com.

1.	Inherent Tribal Authority	349
i.	<i>Montana v. United States</i> : “The Montana Test”	350
ii.	<i>Brendale</i> Causes Debate	351
iii.	The EPA’s Resolution	352
iv.	The <i>Montana</i> Test and “Treatment as a State” Designation	354
v.	The EPA’s Presumption of Inherent Authority	355
D.	Opposing a Tribe’s Application for “Treatment as a State” Status	357
1.	“Appropriate” Governmental Entities: Who May Challenge?	357
2.	Limitations: What May Be Challenged?	359
IV.	When the Governmental Entity’s challenge to “Treatment as a State” Designation Has Failed – May It Please the Court: <i>Wisconsin v. EPA</i>	362
A.	Back on Their Heels: The Standard of Review of TAS Decisions	362
B.	Facts	364
C.	The Court’s Analysis	366
1.	Not “Within the Borders”	367
2.	The Equal Footing Doctrine	368
3.	Inherent Authority over Off-Reservation Activities	373
V.	Implications	375
A.	“Treatment as a State” Designations to Administer Water Quality Standards Will Increase	376
B.	Governmental Entity Challenges to “Treatment as a State” Designation: A Futile Exercise?	381
1.	The Waterbody Is Not Navigable	383
2.	Impairment of a Reservation Waterbody Will <i>Not</i> Have Serious and Substantial Effects on the Political Integrity, Economic Security, or Health or Welfare of the Tribe	385
VI.	An Alternative Approach – Watershed Management	388
VII.	Conclusion	393

I. INTRODUCTION

“In this case, we confront one of the more complex kinds of overlapping sovereignty that exists in the United States today: that between the States and Indian tribes.”¹

With this statement, Judge Diane Wood, writing for a unanimous panel of the United States Court of Appeals for the Seventh Circuit, began an opinion in a case marking a turning point in water pollution regulation under the Clean Water Act. In *Wisconsin v. EPA*, the court rejected the State of Wisconsin’s challenge to the EPA’s grant of

1. *Wisconsin v. EPA*, 266 F.3d 741, 743 (7th Cir. 2001).

"Treatment as a State" status to the Sokaogon Chippewa Community Indian Tribe for purposes of setting water quality standards under the Clean Water Act.² In doing so, the court confirmed what many in the environmental field have suspected or suggested: Indian tribes with "Treatment as a State" status are co-equal sovereign regulatory bodies of the same class as individual states under the Clean Water Act. In addition, it will be extremely difficult, if not impossible, for a state to challenge a tribe's "Treatment as a State" designation.

This article reviews the Seventh Circuit's seemingly simplistic decision over the complex issues in *Wisconsin v. EPA* with an eye toward its repercussions for nationwide water pollution regulation. To appreciate the implications of this decision, one must understand the basic framework of the Clean Water Act, including the important role of cooperative federalism in achieving the Act's goals. Accordingly, Part I of this article reviews the fundamental components of the Clean Water Act. Part II discusses the extension of the Clean Water Act's cooperative federalism to Indian tribes, enabling qualified tribes to exercise many of the same regulatory powers as states for waters within reservation boundaries. This discussion includes an important examination of how a tribe qualifies for "Treatment as a State" status and notions of "inherent authority." Part III reviews the facts in *Wisconsin v. EPA* and maps the court of appeals' opinion. Part IV assesses this case's implications, specifically focusing on the potentially significant increase in tribal assertion of authority under the Clean Water Act and the tremendous difficulty that states face in challenging a tribe's "Treatment as a State" designation. Part V considers watershed management as an alternative approach that may be better suited for comprehensive and cooperative water pollution regulation. The author argues four main points: (1) the Seventh Circuit's decision in *Wisconsin v. EPA* was correct as a matter of law; (2) more tribes will be seeking "Treatment as a State" status to administer water quality standards; (3) the court's opinion in *Wisconsin v. EPA* has eliminated most of the viable challenges a state may make in opposition to the grant of "Treatment as a State" status to a tribe; and (4) a potential influx of additional water pollution regulatory authorities is of questionable value to the Clean Water Act's operation which may be better served by basing regulation on hydrological boundaries rather than political borders.

II. THE CLEAN WATER ACT

The Federal Water Pollution Control Act of 1948 was the federal government's first, albeit modest, attempt to statutorily regulate water pollution in the twentieth century.³ The Act was revised numerous times between its enactment and 1971.⁴ As a whole, however, this

2. *Id.*

3. STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES AND EXPLANATIONS 222 (2d ed. 2001).

4. *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 202 n.2

initial attempt to control water pollution was flawed, deficient, and ineffective in many ways.⁵ The situation came to a head in 1971 when the Senate Public Works Committee concluded, "the national effort to abate and control water pollution has been inadequate in every vital aspect."⁶ In response to this finding,⁷ Congress enacted the Federal Water Pollution Control Amendments of 1972.⁸ In 1977, after additional amendments were enacted, the Federal Water Pollution Control Act became known as the Clean Water Act ("CWA" or "Act").⁹

The Supreme Court described the CWA as "an all encompassing program of water pollution regulation . . . [whose] 'major purpose . . . ' was to 'establish a *comprehensive* long range policy for the elimination of water pollution'."¹⁰ The statute itself proclaims that its overarching and lofty objective is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."¹¹ To reach this objective, the CWA sets forth specific attainment goals including: (1) eliminating pollutant discharge into navigable waters; (2) achieving an

(1976).

5. *See id.* at 202-03. The United States Supreme Court explained the specific problems with the statute before 1972:

[T]he Federal Water Pollution Control Act employed ambient water quality standards specifying the acceptable levels of pollution in a State's interstate navigable waters as the primary mechanism in its program for the control of water pollution. This program based on water quality standards, which were to serve both to guide performance by polluters and to trigger legal action to abate pollution, proved ineffective. The problems stemmed from the character of the standards themselves, which focused on the tolerable effects rather than the preventable causes of water pollution, from the awkwardly shared federal and state responsibility for promulgating such standards, and from the cumbersome enforcement procedures. These combined to make it very difficult to develop and enforce standards to govern the conduct of individual polluters.

Id. Professor Ferrey further described the statute's ineffectiveness:

Prior to 1972, enforcement of water pollution violations was difficult because enforcement depended on a discharger's ability to reduce the *ambient* water quality of the *receiving* waters below a specific level. . . . Given multiple discharges to many water bodies, the agency's burden in proving which discharger was the sole cause of pollution was nearly impossible.

FERREY, *supra* note 3, at 222-23. *See also* Piney Run Pres. Ass'n v. County Comm'rs, 268 F.3d 255, 264 (4th Cir. 2001) ("This water quality standard scheme . . . was plagued by many problems. Significantly, it was often difficult to formulate precise water quality standards and even more difficult to prove that a particular operator's discharge reduced water quality below these standards.").

6. Victor B. Flatt, *A Dirty River Runs Through It (The Failure of Enforcement in the Clean Water Act)*, 25 B.C. ENVTL. AFF. L. REV. 1, 7 (1997) (quoting S. REP. NO. 92-414 (1972), reprinted in 1972 U.S.C.C.A.N. 3668, 3674).

7. *State Water Res. Control Bd.*, 426 U.S. at 204.

8. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (1972). After a "long and contentious" debate, the amendments were enacted over a presidential veto on October 18, 1972. William A. Anderson, II & Eric P. Gotting, *Taken in Over Intake Structures? Section 316(b) of the Clean Water Act*, 26 COLUM. J. ENVTL. L. 1, 9 n.49 (2001).

9. Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566 (1977); Flatt, *supra* note 6, at 6 n.31.

10. *City of Milwaukee v. Illinois*, 451 U.S. 304, 318 (1981).

11. 33 U.S.C. § 1251(a) (1994).

interim water quality goal wherever attainable, which provides for fish, shellfish, and wildlife protection and propagation and recreation in and on the water (often referred to as the “fishable & swimmable” goal);¹² and (3) prohibiting toxic pollutant discharge in toxic amounts.¹³ From these admirable ambitions, one can discern that the ultimate aim of the CWA is the tall order of eliminating pollutant discharges into United States waterways.¹⁴

A. MEETING THE CWA'S GOALS: EFFLUENT LIMITATIONS AND WATER QUALITY STANDARDS

In order to work toward the CWA's objectives, there must be a way to gauge the “quality” of the Nation's waters and the pollutants that enter them. Without this ability, realistic regulatory enforcement has proved unworkable.¹⁵ Therefore, the CWA's new regulatory framework included a new set of “measuring tools.” The Court of Appeals for the Tenth Circuit explained the role and function of these new tools as follows:

The Clean Water Act provides two measures of water quality. One measure is an “effluent limitations guideline.” Effluent limitations guidelines are uniform, technology-based standards promulgated by the EPA, which restrict the quantities, rates and concentrations of specified substances discharged from point sources. The other measure of water quality is a “water quality standard.” Unlike the technology-based effluent limitations guidelines, water quality standards are not based on pollution control technologies, but express the desired condition or use of a particular waterway. Water quality standards supplement technology-based effluent limitations guidelines “so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels.”¹⁶

Thus, the CWA is generally concerned with regulating levels of *pollutants discharged* from point sources¹⁷ (i.e., effluent limitations) and

12. Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203, 209 n.35 (1999).

13. 33 U.S.C. § 1251(a)(1)-(3). The CWA's introduction sets forth a total of seven national “goals” and “policies.” Two “goals” set specific attainment target dates. Total elimination of pollutant discharge into the navigable waters was targeted to be accomplished by 1985. The attainment date for the establishment of water quality providing for the protection and propagation of fish, shellfish, and wildlife and providing for recreation in and on the water was July 1, 1983. Neither of these deadlines were met. FERREY, *supra* note 3, at 224.

14. Flatt, *supra* note 6, at 8.

15. See *supra* text accompanying note 5.

16. City of Albuquerque v. Browner, 97 F.3d 415, 419 n.4 (10th Cir. 1996) (internal citations omitted).

17. “Point sources” are defined as “any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14). A “nonpoint source” includes “everything that is not a ‘point

establishing pollution limits for navigable *water bodies that receive* pollutant discharges (i.e., water quality standards). These two gauges form the basis for virtually all water pollution control under the CWA.

1. Effluent Limitations and the National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System ("NPDES") is the heart of the CWA's enforcement regime.¹⁸ The NPDES mechanism "provides for the issuance of discharge permits ("NPDES permits") that allow the holder to discharge pollutants at levels below thresholds incorporated in the permit."¹⁹ The permit system is the means of achieving and enforcing the technology-based effluent limitations by specifically identifying to the polluter what may be legally expelled from an end-pipe into a waterbody.²⁰ The EPA promulgates effluent limitation guidelines using the latest scientific knowledge²¹ and after carefully considering various statutorily prescribed factors.²² By following the terms of their NPDES discharge permits, permit holders can avoid liability under the CWA.²³

At first blush, the idea that the CWA grants "licenses to pollute" seems squarely at odds with the Act's goal of eliminating pollutant discharge into navigable waters.²⁴ Yet, the CWA is a careful mix of absolutist language and carved-out exceptions. Section 301, known as the "centerpiece of the CWA,"²⁵ demonstrates this, stating "[e]xcept as in compliance with this section and [other sections of the Act], the discharge of any pollutant by any person shall be unlawful."²⁶ Thus,

source' or not associated with a discrete point of discharge." FERREY, *supra* note 3, at 217. Examples include discharges attributable to farming, construction, mining, and urban runoff. *Id.* There tends to be disparate regulatory treatment of point sources and nonpoint sources. "Consignment to the point source category brings attentive regulation Relegation to the nonpoint source group brings loose oversight." Flatt, *supra* note 6, at 8 n.53 (citing WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW § 4.5 at 303 (2d ed. 1994)). One reason for this may be that it is physically easier to monitor discrete discharges from, for instance, pipes of a factory than it is to measure runoff of polluted water into a waterbody. Another reason may be that nonpoint source pollution generally emanates from land use; therefore, to mitigate such pollution, land use activities must be controlled—often leading to an array of different problems. FERREY, *supra* note 3, at 217, 452-456.

18. 33 U.S.C. § 1342.

19. Trout Unlimited, Inc. v. City of New York, 273 F.3d 481, 486 (2d Cir. 2001).

20. EPA v. California *ex rel.* State Water Res. Control Bd., 426 U.S. 200, 204-05 (1976).

21. 33 U.S.C. § 1314(a)(1).

22. When considering effluent limitation guidelines, the EPA must make three essential determinations: "(1) whether the pollutant results from a non-point source or a point source; (2) whether the pollutant is classified as conventional, non-conventional, or toxic; and (3) whether the discharger is a new or existing source of pollution." Flatt, *supra* note 6, at 8.

23. Piney Run Pres. Ass'n v. County Comm'rs, 268 F.3d 255, 265 (4th Cir. 2001).

24. 33 U.S.C. § 1251(a)(1); *see also supra* text accompanying note 13.

25. Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 151 (4th Cir. 2000).

26. 33 U.S.C. § 1311(a).

the CWA creates a scheme of *strict liability* for *any* pollutant discharge *unless* the discharge fits into one of the CWA's limited exceptions.²⁷

In reality, the only "exception" by which a pollutant discharger can escape the strict liability of the CWA is by compliance with a valid NPDES permit.²⁸ Resultantly, the CWA regulatory regime does not create an outright discharge ban, but instead establishes a sophisticated discharge allowance system for polluters.²⁹ The ultimate goal, however, has not been forsaken. The NPDES permit mechanism contemplates a *gradual* progression of point source discharge reduction using *technology-based standards*.³⁰ The premise is that, "[a]lthough Congress intended the CWA to lead to the long-term elimination of pollutants in the nation's waterways, Congress recognized the technological infeasibility of prohibiting all pollutants in the short term."³¹ Therefore, rather than unrealistically forcing an immediate about-face by industry and other polluters, the CWA uses NPDES permits to "progress toward the national goal of eliminating the discharge of all pollutants."³² As pollution control technology improves and ostensibly becomes more economical, such technology will be incorporated into the tolerated pollutant limits in NPDES permits.³³ Thus, rather than contravening the fundamental purpose of the CWA, the "permits to pollute" are the monitoring tools used to achieve it.³⁴ "The availability of such permits simply recognizes 'that

27. *Piney Run Pres. Ass'n*, 268 F.3d at 265.

28. *Id.* (citing *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369, 1374 (D.C. Cir. 1977)) ("The legislative history makes clear that Congress intended the NPDES permit to be the only means by which a discharger from a point source may escape the total prohibition of [§] 301(a).").

29. *Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481, 486 (2d Cir. 2001). There are two basic types of NPDES permits: (1) individual and (2) general. An *individual permit* is specifically tailored to an individual facility using the detailed information contained in the permit application. A *general permit* covers multiple facilities within one category. It is a generally applicable permit, which covers categories of point sources having common attributes. General permits may only be issued to dischargers with similar characteristics located within a specific geographical region. The idea behind the general permits is to promote efficiency by covering similar dischargers under one preset permit rather than expending resources to issue individual permits. EPA Office of Water, Office of Wastewater Management, *National Pollutant Discharge Elimination System Permit Program*, at http://cfpub.epa.gov/npdes/index.cfm?program_id=0 (last visited Nov. 18, 2001).

30. 33 U.S.C. §§ 1311, 1314.

31. *Piney Run Pres. Ass'n*, 268 F.3d at 265.

32. 33 U.S.C. § 1311(b)(2)(A).

33. *See id.* §§ 1314(b)(1)(B), 1316(b)(1)(B).

34. Flatt, *supra* note 6.

The permits specify the control technology applicable to each pollutant, the effluent limitations a discharger must meet, and the deadline for compliance. Each pollutant then must be monitored, and the results submitted to EPA or to another governing entity in periodic discharge monitoring reports (DMRs). Permits under NPDES may be granted for no more than five years, but are renewable thereafter.

Id. at 12 (internal citations omitted). *See generally* Amy E. Fortenberry, *Moving Violations: Violations of the Clean Water Act and Implications for CERCLA's Federally Permitted Release Exception*, 24 B.C. ENVTL. AFF. L. REV. 821 (1997).

pollution continues because of technological limits, not because of any inherent rights to use the nation's waterways for the purpose of disposing of wastes'.³⁵ Clearly, the NPDES permitting structure constituted a major shift in mindset and procedure for both regulators and dischargers.

In addition, the CWA allows the federal government to delegate to state governments the authority to administer the NPDES program for point sources located within a state.³⁶ The EPA must approve any such state program,³⁷ and once it does, the state is considered a "primacy state" for CWA purposes.³⁸ In the absence of an approved state program, the EPA administers the NPDES permit program.³⁹ Even in primacy states, the EPA retains power to both block issuance of any NPDES permit to which it objects,⁴⁰ and take enforcement action.⁴¹ Importantly though, a primacy state may adopt discharge permit conditions more stringent than those federally required.⁴² Thus, the CWA sets up a system of "cooperative federalism,"⁴³ whereby the federal government offers the states the opportunity to regulate discharge limits so long as the state standards meet or exceed the federal standards.⁴⁴

2. Water Quality Standards

In the simplest of terms, "[a] water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water⁴⁵ and by setting criteria necessary to protect the uses."⁴⁶ When considering water quality standards, the frame of reference is not what is being *discharged* from an end-pipe, but rather the *water body* into which such a pipe expels pollutants. Thus, water quality standards and technology-based effluent limitations are, at least initially, distinct measuring tools.

35. *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 151 (4th Cir. 2000) (quoting *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369, 1375 (D.C. Cir. 1977)).

36. 33 U.S.C. § 1342(b). See, e.g., *Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481, 486 (2d Cir. 2001) (discussing NPDES program administered by New York State Department of Environmental Conservation which calls its program the State Pollution Discharge Elimination System).

37. The requirements that a state must meet for EPA approval are set forth at 33 U.S.C. § 1342(b).

38. *S. Ohio Coal Co. v. Office of Surface Mining*, 20 F.3d 1418, 1427 (6th Cir. 1994).

39. 33 U.S.C. § 1342(a) (1994); *Arkansas v. Oklahoma*, 503 U.S. 91, 103 (1992).

40. 33 U.S.C. § 1342(d)(2); *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 489 (1987).

41. 33 U.S.C. § 1342(i).

42. *Id.* § 1370; *S. Ohio Coal Co.*, 20 F.3d at 1427-28.

43. *New York v. United States*, 505 U.S. 144, 167 (1992); *S. Ohio Coal Co.*, 20 F.3d at 1427 (internal quotation marks omitted).

44. 33 U.S.C. § 1370.

45. For a concise explanation of the "use designation" process see Janet K. Baker, *Tribal Water Quality Standards: Are There Any Limits?*, 7 DUKE ENVTL. L. & POL'Y F. 367, 372-73 (1997); see also 40 C.F.R. § 131.10 (2001).

46. 40 C.F.R. § 131.2.

“Whereas technology-based and process-based controls are concerned with the reduction of pollution at the *source*, the water quality standards focus on the *receiving waters* and their designated uses. These standards create a baseline for the level of a particular pollutant that a body of water may tolerate.”⁴⁷ However, as will be more fully explained below, in the end, water quality standards and effluent limitations do not act in isolation but instead work together to form an integrated water pollution control system.⁴⁸

While the EPA generally promulgates effluent limitations,⁴⁹ the states have the primary role in promulgating water quality standards.⁵⁰ The EPA, however, provides states with substantial guidance in developing water quality standards. The EPA develops criteria for water quality reflecting the latest scientific knowledge and provides such information to the states as guidance.⁵¹ States can utilize the EPA’s recommended water quality criteria or use other criteria for which they have sound scientific support.⁵² While the states very often rely on the EPA’s recommended criteria,⁵³ they are also specifically authorized to develop standards more stringent than those recommended by the EPA.⁵⁴ The CWA requires that states review their water quality standards at least once every three years in a process commonly known as “triennial review” to ensure that the standards protect the public health or welfare, enhance the quality of water, and serve the purposes of the CWA.⁵⁵ A state must provide notice and hold

47. Flatt, *supra* note 6, at 11 (internal citations omitted) (emphasis added). The EPA’s Office of Water explains the fundamentals of water quality standards as follows: Water quality standards include designated uses for a water body (e.g., public water supply, propagation of fish and wildlife, recreation); water quality criteria necessary to support the designated uses; and a policy for preventing degradation of the quality of water bodies. Water quality criteria include numeric criteria for specific parameters (e.g., copper, chlorine, temperature, pH); toxicity criteria to protect against the aggregate effects of toxic pollutants; and narrative criteria that describe the desired condition of the water body (e.g., free from visible oil sheen).

EPA Office of Water, Office of Wastewater Management, *Overview of the Water Quality Standards-to-Permits Process*, at http://cfpub.epa.gov/npdes/wqbasedpermitting/wqoverview.cfm?program_id=2 (last modified Feb. 28, 2001).

48. See generally EPA Office of Water, Office of Wastewater Management, *Overview of the Water Quality Standards-to-Permits Process*, at http://cfpub.epa.gov/npdes/wqbasedpermitting/wqoverview.cfm?program_id=2 (last modified Feb. 28, 2001).

49. See 33 U.S.C. §§ 1311, 1314.

50. *Id.* § 1313(a)-(c); *Am. Paper Inst., Inc. v. EPA*, 996 F.2d 346, 349 (D.C. Cir. 1993); 40 C.F.R. § 131.4.

51. 33 U.S.C. § 1314(a); *City of Albuquerque v. Browner*, 97 F.3d 415, 419 n.5 (10th Cir. 1996).

52. *Albuquerque v. Browner*, 97 F.3d at 419 n.5.

53. 33 U.S.C. § 1314; *Am. Paper Inst., Inc.*, 996 F.2d at 349.

54. 40 C.F.R. § 131.4(a).

55. 33 U.S.C. § 1313(c)(1); *Am. Paper Inst., Inc.*, 996 F.2d at 349. “Additionally, the CWA directs states to consider a variety of competing policy concerns during these reviews, including a waterway’s ‘use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other

a public hearing before any water quality standard is adopted or revised.⁵⁶ The proposed water quality standards and supporting analyses must be available to the public prior to the hearing to allow for informed participation.⁵⁷

The EPA has the final word on a state's water quality standards. After a state has followed the required procedures and revised or adopted a new water quality standard, the state must submit said standard to the EPA for review and approval along with the various analyses the state employed in developing the standard.⁵⁸ The CWA requires the EPA to ensure that a state's standard is consistent with the provisions of the Act.⁵⁹ Specifically, the EPA ensures that the state has adopted criteria that protect the designated water uses, that the state has followed its own legal procedure for revising or adopting standards, and that the state's standards are based on appropriate data and scientific analysis.⁶⁰ If the EPA feels that a state's standard does not pass muster under the CWA, it will notify the state and specify the changes necessary for EPA approval.⁶¹ If the state does not adopt the EPA's revisions within ninety days after notification, the EPA will itself impose the standards on the state.⁶² The EPA may also impose revised or new water quality standards on a state "in any case" where the EPA determines that the standard is necessary to meet the requirements of the CWA.⁶³ This illustrates that, notwithstanding the CWA's "shift in focus of environmental regulation towards the *discharge* of pollutants,"⁶⁴ water quality standards still have an important role in the CWA regulatory scheme.⁶⁵ Indeed, as will be seen, state water quality standards are often at the heart of the extraterritorial conflicts concerning water pollution control.

B. The Convergence of Water Quality Standards, Effluent Limitations, and NPDES Permits

Water quality standards, technology-based effluent limitations, and NPDES permits all work together in an integrated system to accomplish the CWA's pollution reduction objectives. The NPDES permit program is the "point of contact"⁶⁶ between technology-based effluent limitations and water quality standards. The simple reason is

purposes.'" *Id.* at 349 (citing 33 U.S.C. § 1313(c)(2)(A)).

56. 40 C.F.R. §§ 131.10(e), 131.20(b).

57. *Id.* § 131.20(b).

58. 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. 131.20(c).

59. 33 U.S.C. § 1313(c)(3); 40 C.F.R. § 131.5(a)(1).

60. 40 C.F.R. § 131.5(a)(2)-(4).

61. 33 U.S.C. § 1313(c)(3); 40 C.F.R. § 131.5(b).

62. 33 U.S.C. § 1313(c)(3)-(4).

63. *Id.* § 1313(c)(4)(B).

64. *See supra* text accompanying note 5.

65. *Piney Run Pres. Ass'n v. County Comm'rs*, 268 F.3d 255, 265 (4th Cir. 2001) (emphasis added).

66. John S. Harbison, *The Downstream People: Treating Indian Tribes as States Under the Clean Water Act*, 71 N.D. L. REV. 473, 477 (1995).

that state water quality standards determine, in part, the allowable effluent discharge for an NPDES permit. While case law and commentary can agree on this point, they often seem to travel confusingly divergent statutory paths to reach the same conclusion. Although frustrating, such dissimilar explanations of the incorporation of water quality standards in the NPDES permit procedure is understandable. “The 1972 Act removed the requirement for a single implementation plan from the definition of [water quality standards] and replaced it with a series of somewhat confusing, overlapping planning and implementation requirements spread throughout various sections and subsections of the Act.”⁶⁷ With these hazards in mind this article will try to take the least circuitous route in explaining water quality standards under the NPDES permit program.

The starting point is section 302(a) of the CWA, which explains that where the application of federal effluent limitations would interfere with the attainment or maintenance of water quality standards in a water body, the effluent limitations for contributing point sources must be adjusted to promote the achievement of the water quality standards.⁶⁸ Next, section 303(d) of the Act requires individual states to adopt water quality standards, identify waters where technology-based effluent limitations will be insufficient to meet water quality standards, and limit pollutant discharge into those waters thus preventing contravention of water quality standards.⁶⁹ Finally, section 301, which has been described as the “centerpiece of the Clean Water Act,”⁷⁰ requires that effluent limitations shall be *achieved*⁷¹ as well as “any more stringent limitation, including those necessary to meet water quality standards . . . established pursuant to any State law. . . .”⁷² Thus, section 301 “expressly identifies the *achievement* of state water quality standards as one of the Act’s central objectives.”⁷³

Next, and perhaps most importantly, is the language of section 402 of the Act.⁷⁴ This section governs the NPDES permit system, irrespective of whether the EPA or a state is administering it. Section 402 allows issuance of NPDES discharge permits only upon the express condition that the discharge meets the requirements of sections 301 and 302.⁷⁵ As explained above, those sections require adherence to

67. Adler, *supra* note 12, at 215.

68. 33 U.S.C. § 1312(a) (1994).

69. *Id.* § 1313(d); *see also*, FERREY, *supra* note 3, at 221.

70. *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 151 (4th Cir. 2000).

71. 33 U.S.C. § 1311(b)(1)(A) (emphasis added).

72. *Id.* § 1311(b)(1)(C).

73. *Id.* § 1311(b)(1)(C); *Arkansas v. Oklahoma*, 503 U.S. 91, 106 (1992) (emphasis added).

74. 33 U.S.C. § 1342.

75. *Id.* § 1342 (a)(1). Section 402 also allows issuance of a permit prior to the taking of necessary implementing actions relating to all such requirements (i.e., those under §§ 1311, 1312, 1316, 1317, 1318, and 1343) if other conditions established by the EPA in furtherance of the NPDES process are met. *Id.* “This provision gives EPA considerable flexibility in framing the permit to achieve a desired reduction in

state water quality standards. This shows how section 402 is the “point of contact” between effluent limitations and water quality standards. In addition, EPA regulations pointedly state that a discharge permit may not be issued “[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.”⁷⁶ At the end of this statutory maze, the ultimate result is that NPDES permits must comply with sections 301 and 302 of the CWA as well as with the EPA’s regulations. Because these statutes and regulations mandate adherence to state water quality standards, NPDES effluent limitations are inextricably linked to state water quality criteria.⁷⁷

The upshot of all this is that a discharge permit transforms “generally applicable effluent limitations and other standards—including those based on water quality—into obligations . . . of the individual discharger’.”⁷⁸ Stated another way:

[T]he rubber hits the road when the state-created [water quality] standards are used as the basis for specific effluent limitations in NPDES permits. . . . [O]nce a water quality standard has been promulgated, section 301 of the CWA requires all NPDES permits for point sources to incorporate discharge limitations necessary to satisfy that standard.⁷⁹

Thus, not only does a prospective pollutant discharger have to demonstrate that it will *individually* comply with effluent limitation guidelines; but also it must demonstrate that its discharge, *in combination with other sources of pollution* to the water body, will not interfere with the attainment of state water quality standards.⁸⁰ Of

pollutant discharges,” and acknowledges “Congress did not regard numeric effluent limitations as the only permissible limitation on a discharger.” *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369, 1380 n.21 (D.C. Cir. 1977). In fact, as the *Costle* court recognized, the other limitations Congress contemplated were water quality standards. *Id.*

76. 40 C.F.R. § 122.4(d) (2001).

77. See Fortenberry, *supra* note 34, at 829; see also EPA Office of Water, Office of Wastewater Management, *Overview of the Water Quality Standards-to-Permits Process*, at http://cfpub.epa.gov/npdes/wqbasedpermitting/wqoverview.cfm?program_id=2 (last modified Feb. 28, 2001).

When assessing point source discharges to determine whether controls based on water quality standards are necessary, an NPDES permitting authority should conduct an analysis to determine whether the discharge causes, has the ‘reasonable potential’ to cause, or contributes to an excursion of any water quality criteria in the receiving water. Where effluent limits based on water quality standards are necessary, the permitting authority allocates responsibility for controls through wasteload allocations and then effluent limits in NPDES permits consistent with those wasteload allocations.

Id.

78. *United States Steel Corp. v. Train*, 556 F.2d 822, 830 (7th Cir. 1977) (quoting *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 (1976)).

79. *Am. Paper Inst., Inc. v. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1993).

80. See *Piney Run Pres. Ass’n v. County Comm’rs*, 268 F.3d 255, 266 (4th Cir. 2001) (“NPDES permits are therefore somewhat interdependent; the permitting authority must account for the effluent discharge of others in calculating the appropriate levels

course, if a prospective discharger's technology-based controls will be sufficient to meet both federal effluent guidelines *and* state water quality standards, that would normally be sufficient to obtain a discharge permit.⁸¹ However, a prospective discharge that would comply with federal effluent limitations would nevertheless violate the CWA if it hindered realization of state water quality standards.⁸² The permitting agency can issue a permit only if it incorporates the more stringent limitations, which exceed federal effluent guidelines and are sufficient to satisfy state water quality standards.⁸³

The Total Maximum Daily Load ("TMDL") provisions of the CWA provide the general method of translating a state's water quality standards into discharge permits.⁸⁴ The TMDL program has been described as "the intersection of the CWA's technology-based and water quality-based components of regulation."⁸⁵ Under section 303(d) of the CWA, states and tribes with "Treatment as a State" ("TAS") status must develop lists of impaired water bodies within their jurisdiction.⁸⁶ "These impaired waters do not meet water quality standards that states, territories, and authorized tribes have set for them, even after point sources of pollution have installed the minimum required levels of pollution control technology."⁸⁷ Section 303(d)(1)(C) of the Act requires each state to set TMDLs for the impaired waters identified.⁸⁸ "A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources."⁸⁹ The CWA requires "[s]uch load shall be

for an individual permit holder.").

81. Flatt, *supra* note 6, at 11.

82. See 33 U.S.C. §§ 1311(b)(1)(C), 1312(a), 1313(d), 1341, 1342.

83. *Id.* §§ 1311(b)(1)(C), 1312(a), 1313(d), 1341, 1342; see also Fortenberry, *supra* note 34, at 830.

84. 33 U.S.C. § 1313 (d).

85. J.B. Ruhl, *The Environmental Law of Farms: 30 Years of Making a Mole Hill Out of a Mountain*, 31 ELR NEWS & ANALYSIS 10203, 10211 n.115 (2001).

86. According to the EPA, the lack of water quality standard attainment continues to be a major problem:

Over 40% of our assessed waters still do not meet the water quality standards states, territories, and authorized tribes have set for them. This amounts to over 20,000 individual river segments, lakes, and estuaries. These impaired waters include approximately 300,000 miles of rivers and shorelines and approximately 5 million acres of lakes—polluted mostly by sediments, excess nutrients, and harmful microorganisms. An overwhelming majority of the population—218 million—live within 10 miles of the impaired waters.

EPA Office of Water, *Overview of Current Total Maximum Daily Load – TMDL – Program and Regulations*, at <http://www.epa.gov/owow/tmdl/overviewfs.html> (last modified May 17, 2001).

87. *Id.*

88. 33 U.S.C. § 1313(d)(1)(C).

89. EPA Office of Water, *Overview of Current Total Maximum Daily Load – TMDL – Program and Regulations*, at <http://www.epa.gov/owow/tmdl/overviewfs.html> (last modified May 17, 2001); see also *Natural Res. Def. Council, Inc. v. Muszynski*, 268 F.3d 91, 94 (2d Cir. 2001) ("In effect, a TMDL posts a limit on the total amount of a pollutant a water body may receive over a period of time."); see also Ruhl, *supra* note 85, at 10212 n.119 ("Point sources implement the wasteload allocations within TMDLs

established at a level *necessary to implement the applicable water quality standards* with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.⁹⁰ Thus, the TMDL system is how the CWA attempts to convert the desired water quality standards into practical discharge constraints allocated among the various dischargers to a water body.⁹¹

It is evident at this point that individual states wield great power over pollutant discharges from point sources located within their borders. The states have the central role in determining water quality standards, and state or EPA issued discharge permits must comply with such standards. Consequently, a state's EPA approved adjustment of water quality standards may single-handedly determine the ability of a prospective discharger to obtain an NPDES permit. This demonstrates that state authority under the CWA is not a mere facade without substance or implication. To the contrary, the states' role in setting water quality standards puts serious bite into the NPDES permit system.

C. TRANSBOUNDARY CONFLICTS: POLLUTION FLOWS DOWNSTREAM

There is nothing too surprising about a state's authority to regulate point source discharges or water quality standards for water bodies within its borders. Yet, it is very common for streams, lakes, rivers, groundwater, and all other types of water bodies and waterways to traverse the borders of more than one state. One of the fundamental physical characteristics of water as a natural resource is its mobility. Most pollutant discharges into a transboundary waterway do not simply contaminate the local region around the discharge; instead, such pollutants flow throughout the waters to which the original receiving waterway is connected. Thus, for every waterway that crosses a border, one state will be upstream and another downstream from the

through enforceable water quality-based discharge limits in NPDES permits authorized under section 402 of the CWA.") (internal quotations omitted); *see also supra* text accompanying note 77.

90. 33 U.S.C. § 1313(d)(1)(C) (emphasis added).

91. There has been extensive litigation and controversy concerning the development of TMDLs under the CWA.

While TMDLs have been required by the Clean Water Act since 1972, until recently states, territories, authorized tribes, and EPA have not developed many. Several years ago citizen organizations began bringing legal actions against EPA seeking the listing of waters and development of TMDLs. To date, there have been about 40 legal actions in 38 states. EPA is under court order or consent decrees in many states to ensure that TMDLs are established, either by the state or by EPA.

EPA Office of Water, *Overview of Current Total Maximum Daily Load – TMDL – Program and Regulations*, at <http://www.epa.gov/owow/tmdl/overviewfs.html> (last modified May 17, 2001). The EPA has promulgated new regulations to speed up the adoption and effectuation of the TMDL framework. However, through an appropriations rider, Congress has thus far prevented the Agency from spending any money to implement the rule. *Id.* *See generally* Jonathan Z. Cannon, *EPA and Congress (1994-2000): Who's Been Yanking Whose Chain?*, 31 ELR NEWS & ANALYSIS 10942 (2001).

discharge. Articulated from a more global perspective:

[A] fundamental ecological and economic truth [is that] in the watersheds⁹² in which we live, all of us are Upstream or Downstream People, and most of us are both. As Upstream and Downstream People, we exist in a complex web of ecological and economic connections with our watersheds and with each other.⁹³

Since the CWA requires all fifty states to promulgate water quality standards,⁹⁴ there are at least fifty upstream and downstream sovereigns with diverse interests in the water within their borders. The problem plainly arises: what happens when a proposed upstream discharge threatens to violate the water quality standards of a downstream state to which the water flows?⁹⁵

The United States Supreme Court answered this critical question in the seminal case of *Arkansas v. Oklahoma*.⁹⁶ In that case, the city of Fayetteville, Arkansas applied to the EPA for an NPDES permit for a new sewage treatment plant.⁹⁷ The EPA was the permitting authority because Arkansas was not authorized to administer its own NPDES permit program at the time of the plant's completion.⁹⁸ The EPA issued the permit authorizing the discharge of up to half of the plant's effluent into a stream in northwestern Arkansas.⁹⁹ That stream's flow passed through a series of creeks and eventually entered the Illinois River at a point twenty-two miles upstream from the Arkansas-Oklahoma border.¹⁰⁰ One of the conditions of the discharge permit was "that if a study then underway indicated that more stringent limitations were necessary to ensure compliance with Oklahoma's

92. The term "watershed" is often copiously used in academic discourse on pollution control without ever informing the reader what it means. A watershed is: the land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River basin contain thousands of smaller watersheds.

U.S. Geological Survey, *Water Science Glossary of Terms*, at <http://www.usgs.gov/edu/dictionary.html> (last modified July 5, 2001). "Watersheds are nature's boundaries. They are the areas that drain to water bodies, including lakes, rivers, estuaries, wetlands, streams, and the surrounding landscape. Ground water recharge areas are also considered." EPA Office of Water, Office of Wetlands, Oceans, & Watersheds, *EPA's Most Frequently Asked Questions Related to Wetlands, Oceans & Watersheds*, at <http://www.epa.gov/owow/questions.html> (last modified Sept. 5, 2001).

93. Harbison, *supra* note 66, at 473.

94. 33 U.S.C. § 1313(a)(3)(A).

95. At this juncture, this article is not referring to upstream dischargers which require a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities which may result in a pollutant discharge. *See id.* § 1341(a)(1). The special rules concerning a downstream state's voice in such matters is discussed later in Part II(A)(2) of this article.

96. 503 U.S. 91 (1992).

97. *Id.* at 95.

98. *Id.* at 103.

99. *Id.* at 95.

100. *Id.*

water quality standards, the permit would be modified to incorporate those limits."¹⁰¹

Both Arkansas and Oklahoma sought judicial review. "Arkansas argued that the Clean Water Act did not require an Arkansas point source to comply with Oklahoma's water quality standards."¹⁰² Oklahoma claimed the EPA permitted discharge in Arkansas violated Oklahoma's water quality standards which provided that "no degradation of water quality shall be allowed in the upper Illinois River, including the portion of the river immediately downstream from the state line."¹⁰³ Essentially, the court was faced with two questions. The first was whether the EPA must apply the water quality standards of downstream states when issuing a permit for a discharge in the upstream state. The second question was if the CWA does not *statutorily require* such consideration by the permitting agency, does the *EPA still have the authority* to mandate such compliance in its regulations.¹⁰⁴ The Court decided that it did not need to reach the first question because its answer to the second question disposed of Arkansas' challenge.¹⁰⁵ The Court held that even if the CWA does not *require* upstream discharges to comply with downstream water quality standards, the CWA does not limit the *EPA's authority* to direct such compliance by regulation.¹⁰⁶

In reaching this decision, the Court noted that the CWA does not authorize a downstream state to veto a discharge allowed by an upstream state simply because the downstream state alleges that its water quality standards will be compromised. Citing its decision in *International Paper Co. v. Ouellette*,¹⁰⁷ the Court reiterated that a downstream state's only recourse is to apply to the EPA Administrator when it is unhappy with the allowance of an upstream discharge.¹⁰⁸ In fact, the CWA sets forth a procedure that upstream states must follow to alert any state whose waters may be affected by the issuance of a permit.¹⁰⁹ After such notification, section 402 of the CWA provides:

101. *Id.*

102. *Arkansas v. Oklahoma*, 503 U.S. at 97. In addition to the condition in the EPA granted discharge permit, upon Oklahoma's challenge of the permit to the EPA, the Agency's Chief Judicial Officer had ruled that the CWA required any discharge permit be strict enough to meet downstate water quality standards. *Id.* at 96-97.

103. *Id.* at 95 (internal quotations omitted).

104. *Id.* at 104. A third question the court faced concerned the water degradation issues surrounding Oklahoma's challenge to the issuance of the permit and is not relevant for this article. The Court also made clear at the outset that its answers to these questions did not turn on whether a state or the EPA was the permitting authority since the requirements and procedures for issuing discharge permits are the same no matter which entity is administering the NPDES program. *Id.* at 102 n.7, 103, 105 n.10.

105. *Id.* at 104.

106. *Id.* at 105.

107. 479 U.S. 481 (1987).

108. *Arkansas v. Oklahoma*, 503 U.S. at 100 (citing *Ouellette*, 479 U.S. at 490-91).

109. 33 U.S.C. § 1342(b)(3) (1994).

[A]ny State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the [EPA] Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, . . . the permitting State will notify such affected State (and the [EPA] Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing.¹¹⁰

In connection with this provision, the CWA provides the EPA Administrator broad discretion to set conditions for NPDES permits issued by the EPA,¹¹¹ and allows the Administrator to block the issuance of a state discharge permit as being “outside the guidelines and requirements of this chapter.”¹¹² Furthermore, as mentioned above, the EPA’s regulations bluntly state: “No permit may be issued . . . [w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.”¹¹³ In *Arkansas v. Oklahoma*, the EPA relied upon this regulation when issuing the discharge permit for the sewage treatment plant.¹¹⁴

The Court connected the wide discretionary latitude given to the EPA Administrator in the Act with the EPA’s regulatory mandate that upstream discharges may not violate downstream water quality standards. In so doing, the Court concluded that:

The regulations relied on by the EPA were a perfectly reasonable exercise of the Agency’s statutory discretion. The application of state water quality standards in the interstate context is wholly consistent with the Act’s broad purpose “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” . . . [T]he achievement of state water quality standards [is] one of the Act’s central objectives. The Agency’s regulations conditioning NPDES permits are a well-tailored means of achieving this goal.¹¹⁵

The Court clarified that although the CWA limits participation by an *affected state* in permitting decisions (i.e., it can submit its recommendations about, but cannot veto a proposed permit), such limits “do not in any way constrain the EPA’s *authority* to require a point source to comply with downstream water quality standards.”¹¹⁶ This holding was a colossal event for water pollution control throughout the United States. It was a firm proclamation that

110. *Id.* § 1342(b)(5). This procedure applies irrespective of whether the EPA or a state is administering the permit program. *See id.* § 1342(a)(3).

111. *See id.* § 1342(a)(2); *Arkansas v. Oklahoma*, 503 U.S. at 105.

112. 33 U.S.C. § 1342(d)(2).

113. 40 C.F.R. § 122.4(d) (2001). This prohibition applies irrespective of whether the EPA or a state is administering the permit program. *See Arkansas v. Oklahoma*, 503 U.S. at 105 n.10; 40 C.F.R. § 123.25.

114. *Arkansas v. Oklahoma*, 503 U.S. at 105.

115. *Id.* at 105-106.

116. *Id.* at 106 (second emphasis added).

pursuant to the EPA's regulations, a state or the EPA may not issue a discharge permit if such discharge will violate another state's water quality standards.¹¹⁷ Thus, the regulatory battle lines were drawn—the borders of the individual states of the nation. After *Arkansas v. Oklahoma*, the victors in this battle would generally be the more vulnerable downstream states.

III. THE CLEAN WATER ACT'S COOPERATIVE FEDERALISM AND INDIAN TRIBES

As explained thus far, the CWA, like many other federal statutes,¹¹⁸ “anticipates a partnership between the States and the Federal Government, animated by a shared objective: ‘to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.’”¹¹⁹ Within this framework of cooperative federalism, states have a choice between letting the federal government wholly regulate water pollution of the navigable waters within the state or to self-regulate with federal approval and oversight.¹²⁰ Most states have chosen the latter option and, in addition to setting water quality standards as required by the CWA, have availed themselves of the opportunity to administer their own NPDES programs. To date, all but six states have EPA approved NPDES programs.¹²¹

A. “TREATMENT AS A STATE” STATUS FOR INDIAN TRIBES

In 1987, Congress amended the CWA to extend this cooperative federalism framework to include Indian tribes.¹²² Upon application and approval by the EPA, an Indian tribe may receive “Treatment as a State”¹²³ (“TAS”) status for purposes of the CWA.¹²⁴ The implications of

117. This is the general rule, and unless the EPA allows a variance, both the EPA and state permitting authorities must comply with this admonition. Certain types of variances are permitted under the EPA's regulations. See 40 C.F.R. §§ 123.25, 124.51(b), 124.62, 131.13.

118. See *New York v. United States*, 505 U.S. 144, 167-68 (1992) and cases cited therein discussing other statutes incorporating cooperative federalism mechanisms.

119. *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992) (quoting 33 U.S.C. § 1251(a)).

120. See *Kenaitze Indian Tribe v. Alaska*, 860 F.2d 312, 314 (9th Cir. 1988).

121. The only states that currently do not have approved NPDES programs are Alaska, Arizona, Idaho, Massachusetts, New Hampshire, and New Mexico. Puerto Rico also does not have an approved program. Interestingly, the Virgin Islands had a permit program approved in 1976. In 1998, Texas became the most recent state to obtain approval. All of the approved states (but not the Virgin Islands) also have an approved “general permits” program. EPA Office of Water, Office of Wastewater Management, *State Program Status*, at http://cfpub.epa.gov/npdes/statestats.cfm?program_id=12 (last modified Mar. 3, 2001); see also *supra* text accompanying note 29.

122. 33 U.S.C. § 1377(e) (1994).

123. The “Treatment as a State” terminology was recently changed to “treatment in the same manner as a State” in response to tribes objecting to the original phrase. “Many tribes commented that they are not ‘States’; rather, they have a unique relationship with the United States Government.” EPA Office of Water, American Indian Environmental Office, Resource Guide, *Chapter Three: EPA’s Approach to Environmental Protection in Indian Country*, at

a TAS designation are exactly as the name implies, a tribe will have the same regulatory opportunities as a state under the CWA. Specifically, a tribe may receive TAS status for purposes of:

- (a) research, investigations, training, and information under section 104;
- (b) grants for pollution control programs under section 106;
- (c) water quality standards and implementation plans under section 303;
- (d) reports on water quality under section 305;
- (e) reporting requirements under section 308;
- (f) enforcement of standards under section 309;
- (g) clean lake programs under section 314;
- (h) nonpoint source management programs under section 319;
- (i) certification under section 401 that federally issued permits or licenses will be in compliance with water quality standards;
- (j) issuance of NPDES permits under section 402; and
- (k) issuance of permits for dredged or fill material under section 404.

A tribe may receive TAS status for some or all of these CWA provisions depending on what the tribe applies for and what the EPA approves.¹²⁶

A number of tribes have seized upon the opportunity to become an integral player in water pollution control by seeking TAS status for some of the allowable purposes.¹²⁷ The most important functions mentioned for which a tribe can obtain TAS status are the opportunity to set water quality standards and implementation plans under section 303; the responsibility under section 401 to certify that federally issued permits or licenses will be in compliance with tribal water quality standards; and the power to issue NPDES permits under section 402.¹²⁸

These will be examined in turn.

1. Section 303: Water Quality Standards

The tribes obtain a powerful regulatory tool with the ability to set water quality standards. It enables a tribe to supplement the federally set effluent limitations with EPA approved water quality standards. Also, identical to the implications when a state sets water quality

<http://www.epa.gov/indian/resource/chap3.htm#86> (last visited Jan. 14, 2002); see also EPA Office of Water, American Indian Environmental Office, *Laws Regulations & Guidance*, at <http://www.epa.gov/indian/treatst.htm> (last visited Jan. 2, 2002) (“The term ‘treatment-as-a-State’ is somewhat misleading and may be offensive to tribes.”).

124. This concept is not unique to the CWA. Indian tribes may also receive “Treatment as a State” status under the Safe Drinking Water Act and Clean Air Act for certain types of program authorizations and grant awards. 42 U.S.C. §§ 300j-11, 7601(d).

125. Jane Marx et al., *Tribal Jurisdiction Over Reservation Water Quality and Quantity*, 43 S.D. L. REV. 315, 329 (1998); see also 33 U.S.C. § 1377(e); Amendments to the Water Quality Standards Regulations that Pertain to Standards on Indian Reservations, 54 Fed. Reg. 39,098 (Sept. 22, 1989) (codified at 40 C.F.R. pt. 131).

126. See, e.g., Paul G. Kent, *EPA Approves Treatment as a State Status for Mole Lake Tribe - Other Applications Pending*, 2 WIS. ENVTL COMPLIANCE UPDATE Issue 11 (Nov. 1995).

127. See EPA Office of Water, American Indian Environmental Office, *Treatment of Tribes in the Same Manner as States/Program Approval Matrix*, at <http://www.epa.gov/indian/matrix.htm> (last modified March 1998). No tribe has applied for TAS status for all of the permissible purposes under the CWA. *Id.*

128. See, e.g., Kent, *supra* note 126.

standards, a prospective pollutant discharge that would be in compliance with federal effluent limitations would nevertheless be unlawful under the CWA if it hinders realization of a TAS tribe's water quality standards. In such a situation, an NPDES permit for a prospective discharger on reservation land may be issued only if effluent limitations are incorporated that exceed the federal guidelines and protect tribal water quality standards. It is generally recognized that not only do Indian tribes commonly adopt water quality standards requiring more stringent effluent limitations than federally required, but also tribal water quality standards are usually more restrictive than even the state standards in which the reservations are located.¹²⁹

2. Section 401: Certification of Compliance with Water Quality Standards

As a counterpart to TAS designation for administering water quality standards, a tribe will also be subject to the responsibilities of section 401 of the CWA. Section 401 provides:

Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply with [effluent limitations and water quality standards].¹³⁰

Section 401, therefore, obligates states and TAS designated tribes to grant or deny certification for federally permitted or licensed activities that may result in a discharge into navigable waters within its borders. As explained by the EPA:

The decision to grant or deny certification is based on a State determination regarding whether the proposed activity will comply with, among other things, applicable water quality standards. States and Tribes qualifying for treatment as States may thus deny certification and prohibit the federal permitting or licensing agency from issuing a permit or license for activities that will violate water

129. See, e.g., *id.* The EPA permits TAS tribes great leeway in setting water quality standards. In fact, the "EPA believes that criteria sufficiently stringent to meet the fishable and swimmable goals may not be disapproved under the CWA, on the grounds that such criteria are more stringent than natural background water quality." Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,886 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131); see also 33 U.S.C. § 1341(a)(2). For an extensive review and critique of the EPA's position, see Mark A. Bilut, *Albuquerque v. Browner, Native American Tribal Authority Under the Clean Water Act: Raging Like A River Out of Control*, 45 SYRACUSE L. REV. 887, 898 (1994).

130. 33 U.S.C. § 1341(a)(1).

quality standards.¹³¹

In addition, a TAS tribe that is downstream from a proposed discharge activity under section 401 may protest a certification by the *originating* upstream state when the downstream TAS tribe determines that “the proposed activity would violate its water quality requirements.”¹³² When the EPA receives a federal license or permit application accompanied by a certification under section 401(a)(1) from the state in which the discharge *originates*, the EPA must notify other states and TAS tribes whose water quality may also be affected by the discharge “certified” by the originating upstream state.¹³³ If a state or TAS tribe then objects to the permit issuance because the extraterritorial effect of the applicant’s discharge will violate the state or tribal water quality standards, a series of procedural mechanisms begin. The end result is that the federal agency “shall condition such [federal] license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements [of the downstream state or TAS tribe]. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.”¹³⁴ Thus, a downstream TAS tribe’s water quality standards may, in effect, bar upstream activity subject to federal licenses or permits. The authority to set water quality standards is clearly a powerful tool.

It makes sense that a tribe’s capacity to “certify” compliance with its water quality standards (or protest another state’s certification) goes hand-in-hand with its authority to set water quality standards. Standards with which to “certify” compliance must exist. In fact, when the EPA approves a tribe’s TAS designation for purposes of section 303 (water quality standards) and section 401 (certification) it does so simultaneously and combines each approval into one category of TAS authorization (i.e., EPA approval of TAS status for sections 303/401 purposes).¹³⁵ To date, the EPA has granted only a small fraction of eligible tribes such authorization. Of the 145 tribes who have applied and been approved for TAS designation for at least one CWA activity, twenty-one have been approved for sections 303/401 purposes and

131. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,890.

132. *Id.* at 64,876; *see also* 33 U.S.C. § 1341(a)(2).

133. 33 U.S.C. § 1341(a)(2).

134. *Id.*; *see also* *Arkansas v. Oklahoma*, 503 U.S. 91, 103 (1992) (“Section 401(a)(2) appears to prohibit the issuance of any federal license or permit over the objection of an affected State unless compliance with the affected State’s water quality requirements can be ensured.”).

135. *See* EPA Office of Water, American Indian Environmental Office, *Treatment of Tribes in the Same Manner as States/Program Approval Matrix*, at <http://www.epa.gov/indian/matrix.htm> (last modified March 1998); *see also* 40 C.F.R. § 131.4(c) (2001) (“Where EPA determines that a Tribe is eligible to the same extent as a State for purposes of water quality standards, the Tribe likewise is eligible to the same extent as a State for purposes of certifications conducted under Clean Water Act section 401.”).

sixteen have applications pending.¹³⁶

3. Section 402: NPDES Permits

Finally, tribes may receive TAS status for purposes of administering an NPDES program under section 402 for discharges within the boundaries of the Indian reservation.¹³⁷ Interestingly though, the EPA has not authorized any tribes to issue discharge permits.¹³⁸ In fact, only two tribes have even applied to receive such authorization and their applications are still pending.¹³⁹ There may be many reasons for the dearth of requests for section 402 authorization, including a choice by tribes to allocate limited resources to other purposes for which they desire TAS designation.¹⁴⁰ Perhaps the most obvious explanation is that tribes simply do not need such authorization in order to protect their water resources. In the absence of an approved tribal NPDES program, the EPA bears the burden of administering the permit program for discharges within the boundaries of Indian reservations.¹⁴¹ Once a tribe has authorization to set water quality standards, the conditions in any discharge permit issued by the EPA for reservation point sources must be sufficient to satisfy such standards.¹⁴² The result is the enforcement of tribal water quality standards through an EPA administered NPDES permit program. Thus, the tribe accomplishes its regulatory goal without bearing the additional costs and administrative burdens of operating the permit program.

136. See EPA Office of Water, American Indian Environmental Office, *Treatment of Tribes in the Same Manner as States/Program Approval Matrix*, at <http://www.epa.gov/indian/matrix.htm> (last modified March 1998). Results from the 1990 census showed 278 federally recognized Indian reservations. EPA Office of Water, American Indian Environmental Office, Resource Guide, *Chapter One: Understanding Native Americans*, at <http://www.epa.gov/indian/resource/chap1.htm> (last visited Jan. 14, 2002).

137. 33 U.S.C. § 1377(e).

138. EPA Office of Water, Office of Wastewater Management, *State and Tribal Program Issues*, at http://cfpub.epa.gov/npdes/statestribes/issues.cfm?program_id=12 (last modified Feb. 21, 2001).

139. EPA Office of Water, American Indian Environmental Office, *Treatment of Tribes in the Same Manner as States/Program Approval Matrix*, at <http://www.epa.gov/indian/matrix.htm> (last modified March 1998).

140. In discussing a tribe's capability to manage water quality standards, the EPA explained that tribes need to "give serious consideration" to the "resource impacts" and "annual resource commitments" of assuming such a burden. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,883 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131); see also 33 U.S.C. § 1341(a)(2). Such considerations seem equally important for a TAS tribe considering whether to apply for NPDES permitting authority which would also require significant resources.

141. EPA Office of Water, Office of Wastewater Management, *State and Tribal Program Issues*, at http://cfpub.epa.gov/npdes/statestribes/issues.cfm?program_id=12 (last modified Feb. 21, 2001); see also *Arkansas v. Oklahoma*, 503 U.S. 91, 103 (1992).

142. *Arkansas v. Oklahoma*, 503 U.S. at 103.

B. *ALBUQUERQUE V. BROWNER*: "TREATMENT AS A STATE" REALLY MEANS
TREATMENT AS A STATE

In the real world of pollution control, of what relevance is the above discussion concerning TAS designation for water quality standards and certification of compliance? Can it really be that a TAS tribe is a co-equal sovereign with states for water pollution regulation, or is there some "catch"? A review of the important case of *Albuquerque v. Browner*¹⁴³ answers these questions and illustrates why TAS status really matters.

In *Albuquerque v. Browner*, the EPA granted the Isleta Pueblo Indian Tribe TAS status to administer water quality standards and to certify compliance with such standards (i.e., sections 303/401 authorization) for waters located within its reservation in New Mexico.¹⁴⁴ The tribe proposed, and the EPA approved water quality standards for the portion of the Rio Grande River that flows through the reservation. Not unexpectedly, the tribe's standards were more stringent than both the federal minimums and those set by the state of New Mexico.¹⁴⁵

The city of Albuquerque ("City") operated a waste treatment facility that created a point source discharge on the Rio Grande approximately five miles north of the Isleta Pueblo Reservation. The EPA issued a permit that authorized the facility's discharge,¹⁴⁶ so the plant was considered a federally licensed or permitted facility under section 401 of the CWA. Consequently, the Isleta tribe should have received two forms of protection if it was, in practice, to be treated as a state. First, the permitting authority (the EPA in this case) would not be allowed to issue a discharge permit for the treatment facility, pursuant to EPA's regulations and *Arkansas v. Oklahoma*, if the discharge would violate a downstream TAS tribe's water quality standards. Second, because Albuquerque's plant required a federal license or permit, it would fall under the purview of section 401, again requiring the imposition of conditions to insure compliance with downstream water quality standards.

The City filed suit against the EPA contending, among other things, that section 518 "does not allow tribes to establish water quality standards more stringent than federal standards and does not permit tribal standards to be enforced beyond tribal reservation boundaries."¹⁴⁷ With respect to its first argument, the City asserted that section 518 specifically listed the authorized functions for a TAS tribe under the CWA and section 510 was *not* included as one of the authorized functions.¹⁴⁸ That section of the Act allows a state to set

143. *City of Albuquerque v. Browner*, 97 F.3d 415 (10th Cir. 1996).

144. *Id.* at 419.

145. *Id.* at 419, 421.

146. *Id.* at 419. Recall that New Mexico is one of the few states that has not been authorized to administer its own NPDES permit system. See *supra* text accompanying note 121.

147. *Albuquerque v. Browner*, 97 F.3d at 421.

148. *Id.* at 423.

water quality standards more stringent than the federal minimums.¹⁴⁹ The City's argument, therefore, was the familiar doctrine of *expressio unius est exclusio alterius*, that inclusion of specific functions in the statute necessarily excludes functions not mentioned.¹⁵⁰ Since section 510 was excluded from section 518, the City argued, TAS tribes were *not* authorized to set water quality standards more stringent than the federal minimums.¹⁵¹

The EPA countered the City's position by pointing out that section 510 was merely a savings clause recognizing authority already possessed by the state.¹⁵² "Because a savings clause confers no new authority, but instead clarifies existing authority [that] is not preempted [by the CWA], it was not necessary for Congress to specifically reference section 510 when it authorized the [EPA] Administrator to treat tribes as states."¹⁵³ The Court of Appeals for the Tenth Circuit agreed that it was unnecessary to incorporate section 510 into section 518 to give tribes powers to set more stringent water quality standards because "Indian tribes have residual sovereign powers that *already guarantee* the powers enumerated in [section 510], absent an *express . . . elimination* of those powers."¹⁵⁴ In addition, although not expressly articulated by the court, one commentator noted the strongest and most obvious reason to interpret the CWA as allowing tribes to set more stringent standards than the federal minimums:

[I]t would make little sense for Congress to create section 518 as part of the 1987 Clean Water Act amendments, but give tribes no power to adopt stringent water quality standards. . . . If viewed as the City argues, section 518 would be an illusory delegation of power, since tribes would be unable to adopt more stringent standards and the [CWA prohibits] the adoption of standards less stringent than the federal criteria. As such, [tribes] would only be able to adopt standards neither more nor less stringent than federal standards, and this would render section 518 meaningless.¹⁵⁵

In *Albuquerque v. Browner*, the court of appeals made clear that section 518 was *not* an illusory delegation of power and that TAS tribes do indeed have the same authority as states to adopt water quality standards more stringent than the federal minimums.¹⁵⁶

The City's second argument that tribal water quality standards could not be enforced beyond reservation boundaries was a flashback to *Arkansas v. Oklahoma*. Recall in that case, the Supreme Court held

149. 33 U.S.C. § 1370 (1994).

150. *See, e.g.,* United States v. Rivera, 153 F.3d 809, 811 (7th Cir. 1998).

151. *Albuquerque v. Browner*, 97 F.3d at 423.

152. *Id.*

153. Bilut, *supra* note 129, at 898.

154. *Albuquerque v. Browner*, 97 F.3d at 423 (emphasis added).

155. Bilut, *supra* note 129, at 899.

156. *Albuquerque v. Browner*, 97 F.3d at 423.

that it was within the EPA's statutory discretion to promulgate and enforce regulations requiring upstream point source discharges to comply with downstream water quality standards. Now, the moment of truth had arrived for Indian tribes: could TAS tribal water quality standards receive similar protection from upstream discharges?

The court of appeals resoundingly answered that question in the affirmative based primarily on the fact that tribes, like individual states, are not the sovereign imposing their water quality standards on the upstream dischargers.¹⁵⁷ It was the *EPA exercising its authority* through its valid regulations requiring such compliance.¹⁵⁸ Furthermore, section 518 incorporated the relevant NPDES statutory provisions, construed in *Arkansas v. Oklahoma* to allow the EPA to require upstream dischargers to comply with downstream water quality standards.¹⁵⁹

The important thing to take away from *Albuquerque v. Browner* is that it made crystal clear that TAS tribes would be afforded identical rights and powers as actual states for authorized purposes under the CWA. TAS tribes are not second-class sovereigns,¹⁶⁰ but instead are bestowed with the statutory tools to make a major impact on transboundary water regulation. *Albuquerque v. Browner* confirmed that "Treatment as a State" *really means* treatment as a state.

C. OBTAINING "TREATMENT AS A STATE" STATUS

There is a specific process that tribes must follow to acquire TAS status. In section 518(e) of the CWA, Congress set out the threshold qualifications that a tribe must meet and directed the EPA to promulgate final regulations to expound upon and effectuate TAS designation.¹⁶¹ On December 12, 1991, after full notice and comment rulemaking, the EPA issued a final rule articulating: (1) the procedures by which an Indian tribe may qualify for treatment as a state for purposes of the CWA section 303 water quality standards and section 401 certification programs; and (2) a mechanism to resolve unreasonable consequences that may arise from Indian tribes and

157. *Id.* at 424.

158. See 40 C.F.R. § 122.4(d) (2001). Of course, this concept is somewhat of a legal fiction; hence its importance and constant reiteration throughout this article. The practical effect of the EPA's regulations is that a downstream state or TAS tribe will indeed be imposing its water quality standards on the upstream discharger. But, this is only made possible by the EPA's (i.e., the federal government's) regulations requiring upstream permits to comply with downstream water quality standards. If the EPA decided to repeal or amend its regulations, a downstream state would have no authority to veto upstream discharge permits which would result in the contravention of downstream water quality standards. By focusing on this argument in *Albuquerque v. Browner*, the court avoided heavy reliance on the second *Montana* exception (discussed *infra* Part II.C). See Andrea K. Leisy, *Inherent Tribal Sovereignty and the Clean Water Act: The Effect of Tribal Water Quality Standards on Non-Indian Lands Located Both Within and Outside Reservation Boundaries*, 29 GOLDEN GATE U.L. REV. 139, 166 (1999).

159. *Albuquerque v. Browner*, 97 F.3d at 424 n.13.

160. See *Wisconsin v. EPA*, 266 F.3d 741, 750 (7th Cir. 2001).

161. 33 U.S.C. § 1377(e) (1994).

states setting differing water quality standards on common bodies of water.¹⁶²

In these regulations, the EPA's TAS criteria track the threshold qualifications specified by Congress in section 518(e) and add that the applicant tribe must have federal recognition. The final rule states that the EPA "may accept and approve a tribal application for purposes of administering a water quality standards program if the Tribe meets the following criteria."¹⁶³

- (1) The Indian Tribe is recognized by the Secretary of the Interior. . . ;
- (2) The Indian Tribe has a governing body carrying out substantial governmental duties and powers;
- (3) The water quality standards program to be administered by the Indian Tribe pertains to the management and protection of water resources which are within the borders of the Indian reservation and held by the Indian Tribe, within the borders of the Indian reservation and held by the United States in trust for Indians, within the borders of the Indian reservation and held by a member of the Indian tribe if such property interest is subject to a trust restriction on alienation, or otherwise within the borders of the Indian reservation; and
- (4) The Indian Tribe is reasonably expected to be capable, in the Regional Administrator's judgment, of carrying out the functions of an effective water quality standards program in a manner consistent with the terms and purposes of the Act and applicable regulations.¹⁶⁴

The regulations go on to explain the information required to be included in the TAS application submitted by the tribe to the EPA. Of significance is the requirement that the tribe include "[a] descriptive statement of the Indian tribe's authority to regulate water quality"¹⁶⁵ in order to satisfy the third requirement of the EPA's TAS criteria. That

162. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131). In addition to requiring regulations specifying how Indian tribes shall be treated as states under section 518, Congress explicitly required the EPA to provide a dispute resolution mechanism of this type. 33 U.S.C. § 1377(e).

163. 40 C.F.R. § 131.8(a) (2001).

164. *Id.* § 131.8(a)(1)-(4).

165. *Id.* § 131.8(b)(3).

This statement should include: (i) A map or legal description of the area over which the Indian Tribe asserts authority to regulate surface water quality; (ii) A statement by the Tribe's legal counsel (or equivalent official) which describes the basis for the Tribes [sic] assertion of authority and which may include a copy of documents such as Tribal constitutions, by-laws, charters, executive orders, codes, ordinances, and/or resolutions which support the Tribe's assertion of authority; and (iii) An identification of the surface waters for which the Tribe proposes to establish water quality standards.

Id.

is, when are reservation waters sufficiently “held” by a tribe so that it may have jurisdiction to set water quality standards for them?¹⁶⁶ This becomes a crucial issue in Wisconsin’s challenge to the EPA’s grant of TAS status to the Sokaogon Chippewa Community Indian Tribe and requires exploration in more detail.

1. Inherent Tribal Authority

During the rulemaking process to develop qualifications for tribes to receive TAS status to administer water quality standards “[t]he issue of whether and how EPA should require Tribes to demonstrate . . . authority to regulate water quality within the boundaries of their reservations, attracted significant comment.”¹⁶⁷ Some commentators suggested the Tribes needed to submit detailed information and reasons supporting their jurisdictional claims over the waters they proposed to regulate and, in essence, start with a presumption against their inherent authority.¹⁶⁸ Predictably, “other commentators asserted that Tribes invariably possess inherent authority to regulate all reservation waters, and that EPA should presume the existence of such authority and not require Tribes to make any specific factual showing.”¹⁶⁹ Clearly, the EPA’s response is important to the Indian tribes:

The inherent sovereignty of Indian tribes is a longstanding precept of federal Indian law. The continued viability of tribal sovereignty, exercised through the tribal governmental powers that have not been diminished, is particularly relevant to the protection and enhancement of the natural resources on which many tribes depend for economic subsistence and cultural continuity. Water is perhaps

166. As discussed further below, the EPA found that section 518(e) as a whole was not an explicit delegation of regulatory authority to Indian tribes. The phrase in the third criterion concerning waters “otherwise within the borders of an Indian reservation” has been interpreted by the EPA “as a separate category of water resources and also as a modifier of the preceding three categories of water resources, thus limiting the Tribe to acquiring [TAS] status for the four specified categories of water resources within the borders of the reservation.” Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,881. So, according to the EPA, this phrase simply designates another category of water resources a tribe *may* be able to regulate *after* it provides sufficient evidence of its inherent authority over such waters.

167. *Id.* at 64,877.

168. *Id.*

169. *Id.* The specific context in which the debate arose was whether an Indian Tribe may enforce its water quality standards against non-members of the tribe on non-Indian-owned fee lands within the boundaries of the reservation. In *Wisconsin v. EPA*, 266 F.3d 741, 745 (7th Cir. 2001), none of the land within the Sokaogon Chippewa Community Reservation was controlled or owned outright by non-members of the tribe. The existence of fee land owned by non-tribal members on reservation land may require a more studied appraisal of the tribe’s TAS application, but does not alter the standards the EPA will use to evaluate a tribe’s authority over the water it proposes to regulate.

the most fundamental of such resources.¹⁷⁰

In order to resolve these differing views of the necessity and method of demonstrating inherent authority, the EPA considered and reconciled *Montana v. United States*¹⁷¹ and *Brendale v. Confederated Tribes and Bands of the Yakima Indian Nation*.¹⁷²

i. *Montana v. United States*: "The Montana Test"

In *Montana v. United States*, the Crow Tribe of Montana attempted to prohibit non-Indians from hunting and fishing on all lands within the reservation, including lands owned in fee simple by non-Indians.¹⁷³ The tribe believed it had authority to enact these regulations based on its claimed ownership of the bed of the Big Horn River,¹⁷⁴ the treaties which created the reservation,¹⁷⁵ and its inherent power as a sovereign.¹⁷⁶

The Supreme Court squarely rejected the tribe's authority to enact the regulation and refuted each of the tribe's underlying justifications.¹⁷⁷ The Court held that absent *express congressional delegation* "Indian tribes lack civil authority over the conduct of non-members on non-Indian land within a reservation."¹⁷⁸ The Court, however, carved out two exceptions to this rule, commonly referred to as the "*Montana* exceptions."¹⁷⁹ The Court held that "in certain circumstances, even where Congress has not expressly authorized it, Indian tribes retain sovereign power to exercise civil jurisdiction over non-Indians on fee lands."¹⁸⁰ The first exception permits tribes to exercise civil jurisdiction over non-members who enter into consensual relationships with a tribe or its members through commercial dealing, contracts, leases, or other arrangements.¹⁸¹ The second exception permits tribes to exercise jurisdiction over non-members whose conduct "threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe."¹⁸² For

170. Edmund J. Goodman, *Indian Tribal Sovereignty and Water Resources: Watersheds, Ecosystems and Tribal Co-Management*, 20 J. LAND RESOURCES & ENVTL. L. 185, 191-92 (2000).

171. *Montana v. United States*, 450 U.S. 544 (1981).

172. *Brendale v. Confederated Tribes & Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989).

173. *Montana v. United States*, 450 U.S. at 544.

174. *Id.*

175. *Id.*

176. *Id.*

177. *Id.* at 544-46.

178. See *Montana v. EPA*, 137 F.3d 1135, 1140 (9th Cir. 1998) (citing *Montana v. United States*, 450 U.S. at 564).

179. *Montana v. United States*, 450 U.S. at 565-66.

180. See *Montana v. EPA*, 137 F.3d at 1140 (citing *Montana v. United States*, 450 U.S. at 566).

181. *Montana v. United States*, 450 U.S. at 565.

182. *Id.* at 566. Although beyond the scope of this article, it is worth mentioning that concepts of inherent sovereignty arise in the first instance when examining

purposes of TAS designation and the CWA, the second exception is critical.

Accordingly, if the EPA were to follow the Supreme Court's interpretation of permissible tribal authority during the rulemaking, it had three questions to pose. First, the EPA had to determine whether Congress *expressly delegated* authority to tribes to regulate all reservation waters. If yes, then the inquiry ended and there was no need to evaluate inherent authority.¹⁸³ However, if the EPA found that Congress had not expressly delegated the authority to regulate all reservation waters, it would have to consider whether either of the two "*Montana* exceptions" applied.¹⁸⁴

In the context of water regulation, the first *Montana* exception concerning consensual relations is generally inapplicable. Therefore, the EPA would primarily evaluate whether the regulation of the water involved conduct that threatened or had some direct effect on the political integrity, the economic security, or the health or welfare of the tribe.¹⁸⁵ As will be explained in further detail below, because the EPA determined that section 518 is *not* an express grant of authority to tribes, the second *Montana* exception carries great weight in determining a tribe's authority to regulate non-member conduct.¹⁸⁶

ii. *Brendale* Causes Debate

During the rulemaking, there was considerable debate whether the *Montana* standards remained intact or if the Supreme Court had abrogated them in *Brendale v. Confederated Tribes & Bands of the Yakima Nation*.¹⁸⁷ In that case, both the Yakima Nation and the state of Washington "asserted authority to zone non-Indian real estate developments on two parcels within the Yakima reservation, one in an area that was primarily Tribal, the other in an area where much of the land was owned in fee by nonmembers [of the tribe]."¹⁸⁸ In an extensive and complicated opinion, the Court "split 4:2:3 in reaching the decision that the Tribe should have exclusive zoning authority over

certain aspects of sovereignty Indian tribes have lost or retained throughout the years. "[T]hrough their original incorporation into the United States as well as through specific treaties and statutes, the Indian tribes have lost many attributes of sovereignty." *Id.* at 563 (citing *United States v. Wheeler*, 435 U.S. 313, 323 (1978)). In sum, Indian tribes now have a "diminished status" as sovereigns. *Id.* at 565.

183. See Regina Cutler, *To Clear the Muddy Waters: Tribal Regulatory Authority Under Section 518 of the Clean Water Act*, 29 ENVTL. L. 721, 728 (1999) ("Under this analysis, an appeal to inherent sovereignty as a basis for a tribe's civil regulatory jurisdiction is unnecessary if Congress has directly delegated that authority to the tribe.").

184. *Id.*

185. *Montana v. United States*, 450 U.S. at 566.

186. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,880 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131).

187. *Brendale v. Confederated Tribes & Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989).

188. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,877.

property in the Tribal area and the State should have exclusive zoning authority over non-Indian owned property in the fee area.”¹⁸⁹ Perhaps because none of the three opinions in *Brendale* could agree on a common approach for applying the second *Montana* exception, or because neither of the two opinions representing the opinion of the Court rely on *Montana* as the basis for their holding, many commentators decreed that *Brendale* caused the death of *Montana*’s second exception.¹⁹⁰

The EPA disagreed with this assessment of *Brendale*. It found that the Supreme Court had not abrogated the viability of the *Montana* test, but simply could not reach a consensus how to formulate the second exception in the complicated factual scenario of *Brendale*.¹⁹¹ Putting it another way, “[a]lthough the Justices disagreed over how to apply *Montana*’s second exception in [the *Brendale*] context, a majority of the Justices nonetheless agreed that the *Montana* rule controlled.”¹⁹² The EPA recognized, however, that in *Brendale* several of the justices argued that in order for inherent authority to arise under the second *Montana* exception, the regulated activity’s effect should be “demonstrably serious.”¹⁹³

iii. The EPA’s Resolution

At this point in the rulemaking, the EPA decided the *Montana* test was still valid but that expressions by some Justices in *Brendale* combined with statements made in subsequent opinions provoked uncertainty as to what type of activity would trigger a tribe’s inherent authority under *Montana*’s second exception. The EPA responded to this predicament with a cautious, inclusive, and flexible approach:

In evaluating whether a tribe has authority to regulate a particular activity on land owned in fee by nonmembers but located within a reservation, EPA will examine the Tribe’s authority in light of evolving case law as reflected in *Montana* and *Brendale*. The extent of such tribal authority depends on the effect of that activity on the tribe. . . .

[T]he Agency will apply, as an interim operating rule, a formulation of [the second *Montana* exception, i.e., inherent authority] that will require a showing that the potential impacts of regulated activities on the tribe are serious and substantial.

The choice of an Agency operating rule containing this standard is taken solely as a matter of prudence in light of judicial uncertainty and does not reflect an Agency endorsement of this standard per

189. *Id.*

190. Cutler, *supra* note 183, at 729; *see also* Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,877.

191. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,877-78.

192. *Montana v. EPA*, 137 F.3d 1135, 1140 (9th Cir. 1998).

193. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,878 (internal citations omitted).

194
se.

Thus, the EPA adopted a careful blend of *Montana* and *Brendale*, perhaps on the hunch that further judicial development of the inherent authority concept would yield the same result.

It appears that EPA was correct. In 1997, the Supreme Court decided *Strate v. A-1 Contractors*¹⁹⁵ in which Justice Ginsburg penned a unanimous opinion resurrecting the *Montana* test from any perceived erosion. In *Strate*, the Court disallowed tribal court jurisdiction over a personal injury lawsuit resulting from an automobile accident occurring between two non-members on a state highway running through the Indian reservation.¹⁹⁶ The Supreme Court agreed the dispute was “distinctly non-tribal in nature . . . [arising] between two non-Indians involved in a run-of-the-mill highway accident.”¹⁹⁷ As such, tribal jurisdiction was not connected to the self-governance of the tribe. The Court held that because a tribe’s inherent power does not reach beyond what is necessary to protect self-government or to control internal relations of the tribe, the facts in this case could not trigger *Montana*’s second exception.¹⁹⁸

It is still not entirely clear whether Justice Ginsburg’s explanation of *Montana*’s second exception was a narrowing of its reach or merely a clarification of the original rule designed to head off overuse.¹⁹⁹ In any event, this holding was important for two reasons. First, the EPA had determined, during the rulemaking, that water quality management protects public health and safety and, therefore, is critical to the *self-government* of a tribe.²⁰⁰ Second, irrespective of how one interprets Justice Ginsburg’s statements, notions of protecting self-government and internal relations reflect potentially “serious and substantial” impacts on the tribe; the primary standard the EPA had used.²⁰¹ Thus, in its rulemaking statements discussing “self-government” and “serious

194. *Id.* (first and second emphasis added).

195. 520 U.S. 438 (1997).

196. *Id.* at 439. The state highway was a federally-granted right-of-way for which the state paid the Tribes. Since the Tribes could no longer assert a landowner’s right to occupy and exclude over the property, the Court likened it to land within reservation borders alienated to non-Indians in fee simple. Characterized as such, the *Montana* test was clearly applicable. *Id.* at 455-56.

197. *Id.* at 457 (internal indications omitted).

198. *Id.* at 459.

199. *Strate* may arguably be read as a mere clarification of the original intent of the *Montana* test with *Brendale* being a complicated transitional case between *Montana* and *Strate*. The most troublesome result of this reading is that while tribal “self-government” and “internal relations” can easily be paralleled to “political integrity” and “economic security,” a disconnect results when trying to connect *Montana*’s “health or safety” component. The extremely convenient bridge for this gap was the EPA’s finding that water quality management protects public health and safety and, therefore, is critical to the *self-government* of a tribe. See *infra* note 202.

200. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,879 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131) (emphasis added).

201. *Id.* at 64,878-79.

and substantial effects," it appears the EPA's standards for applying *Montana's* second exception foreshadowed the Supreme Court's holding in *Strate*.²⁰² Moreover, it is evident *Strate* is exactly the type of "evolving case law" the EPA hoped would arise to help guide the Agency in its future decisions.

iv. The *Montana* Test and "Treatment as a State" Designation

To where does this arduous exploration lead? It leads back to the original *Montana* test bolstered by the Supreme Court's indication that the EPA's rule that the potential impacts must be "serious and substantial" (indicated by threats to tribal self-government or internal relations) to trigger inherent authority is on target. To simplify, the following is the structure of the *Montana* test applied by the EPA:

- A. Did Congress expressly delegate authority to the tribes to regulate the activity over all reservation land or waters?
If yes, then the tribe has express authority to exercise civil regulatory jurisdiction over non-Indians on fee lands and there is no need to discuss inherent sovereignty.
- B. If no, does the activity fall into one of the two following *Montana* exceptions?
 - (1) It concerns activity relating to non-members who enter into consensual relationships with the tribes or its members through commercial dealing, contracts, leases or other arrangements; or
 - (2) It concerns conduct that threatens or has a direct serious and substantial effect on the political integrity, the economic security, or the health or welfare of the tribe.

Once it had established the proper framework of the *Montana* test, the EPA could use it to evaluate section 518(e) of the CWA.

Under this test, the EPA's first query was whether section 518(e) was an express delegation to qualified tribes of regulatory authority over all reservation waters. More specifically, the EPA needed to determine if the section resulted in expanding tribal authority and jurisdiction over non-Indians.²⁰³ The statute itself is not explicit in this regard so the EPA reviewed the legislative history. The legislative history was conflicting and ambiguous, reflecting many of the perils of straying beyond the text of a statute itself.²⁰⁴ Therefore, the EPA

202. *Montana v. EPA*, 137 F.3d 1135, 1141 (9th Cir. 1998).

203. Amendments to the Water Quality Standards' Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,880.

204. Judge Easterbrook of the Seventh Circuit has recognized the hazards of relying on legislative history:

One may say . . . that legislative history is a poor guide to legislators' intent because it is written by the staff rather than by members of Congress, because it is often losers' history ("If you can't get your proposal into the bill, at least write the legislative history to make it look as if you'd prevailed"), because it becomes a crutch ("There's no need for us to vote on the amendment if we can write a little legislative history"), because it complicates the task of execution and obedience (neither judges nor those whose conduct is

concluded that “[g]iven that the legislative history ultimately is ambiguous and inconclusive, EPA believes that it should not find that the statute expands or limits the scope of Tribal authority beyond that *inherent* in the Tribe absent an express indication of Congressional intent to do so.”²⁰⁵ The EPA was saying section 518(e) is not an express grant of additional authority to qualified tribes, but is only a mechanism to recognize authority that they already possess. In light of this finding, the EPA reached two important conclusions. The first was that for a tribe to receive TAS status under the CWA, it would need to have *inherent authority* over the waters it desired to regulate.²⁰⁶ That is, the second *Montana* exception needed to be satisfied. The second finding was that a tribe will need to make an *affirmative demonstration* of its inherent authority to the EPA.²⁰⁷ This had to be done by completing the TAS application and providing verifying documentation in support of the tribe’s authority. In sum, according to the EPA, section 518(e) authorized TAS treatment over activities already within a tribe’s inherent authority and the tribe must supply proof that such authority exists.

v. The EPA’s Presumption of Inherent Authority

At first glance, it appears there is a formidable roadblock to a tribe obtaining TAS status. After all, the idea of inherent authority over an activity that threatens or has a direct serious and substantial effect on the political integrity, the economic security, or the health or welfare of the tribe is seemingly amorphous and malleable. Now, the EPA

supposed to be influenced by the law can know what to do without delving into legislative recesses, a costly and uncertain process). Often there is so much legislative history that a court can manipulate the meaning of a law by choosing which snippets to emphasize and by putting hypothetical questions—questions to be answered by inferences from speeches rather than by reference to the text, so that great discretion devolves on the (judicial) questioner.

In re Sinclair, 870 F.2d 1340, 1343 (7th Cir. 1989).

205. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,880 (emphasis added).

206. At this point, this article becomes unconcerned with the first *Montana* exception. The consensual relationship concept is much more clear-cut and unlikely to give rise to complicated disputes. In any event, it is not a subject of EPA deliberation during the TAS rulemaking process, nor is it at issue in *Wisconsin v. EPA*.

207. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,881

The Agency does not believe . . . that it would be appropriate to recognize Tribal authority and approve treatment as a State requests in the absence of verifying documentation. In addition, in light of the legislative history of section 518, the question of whether section 518(e) is an explicit delegation of authority over non-Indians is not resolved. Therefore, the EPA does not believe it is currently appropriate to eliminate the requirement that Tribes make an affirmative demonstration of their regulatory authority. EPA will authorize Tribes to exercise responsibility for the water quality standards program once the Tribe shows that, in light of the factual circumstances and the generalized findings EPA has made regarding reservation water quality, it possess the requisite authority.

Id.

required “proof” of such authority from the tribes. From the legalese terminology to the desire for “evidence,” it sounded almost as if the intent was to intimidate tribes from applying for TAS designation.

To the contrary though, the EPA made the showing of inherent authority quite easy. In fact, although the Agency makes the ultimate decision concerning tribal jurisdiction on a case-by-case basis,²⁰⁸ “the Agency presumes that, in general, Tribes are likely to possess the authority to regulate activities affecting water quality on the reservation.”²⁰⁹ The EPA provided numerous reasons for this presumption including: (1) the Agency has “special expertise [in] recognizing that clean water . . . is absolutely crucial to the survival of many Indian reservations;”²¹⁰ (2) the enactment of the CWA itself constitutes a legislative finding that activities which affect water quality “may have *serious and substantial impacts*,”²¹¹ (3) the mobile nature of pollutants may cause *serious and substantial impacts* even if they do not originate on Indian owned lands;²¹² (4) Congress expressed a preference for tribal regulation of reservation water quality;²¹³ and (5) water quality management protects public health and safety and, therefore, is critical to *self-government*.²¹⁴ The EPA collectively labels these: “generalized findings regarding the relationship of water quality to tribal health and welfare.”²¹⁵ These generalized findings “supplement[] the factual showing a tribe makes in applying for treatment as a State.”²¹⁶ The obvious intent of this structure is to allow an applicant tribe to meet the *Montana* second exception without difficulty.

The EPA incorporated this intent into the TAS application process. Recall the criteria that the regulations require an applicant to meet in order to receive TAS designation.²¹⁷ The EPA frankly admits that to meet those requirements, a tribal application for TAS status “will need to make a relatively simple showing of facts”²¹⁸ asserting that: “(1) there are waters within the reservation used by the tribe, (2) the waters and critical habitat are subject to protection under CWA, and (3) impairment of waters would have a serious and substantial effect on the health and welfare of the tribe.”²¹⁹ Once the tribe meets this

208. *Id.* at 64,878, 64,881.

209. *Id.* at 64,881.

210. *Id.* at 64,878.

211. *Id.* (emphasis added).

212. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,878 (emphasis added).

213. *Id.*

214. *Id.* at 64,879 (emphasis added).

215. *Id.*; see also *Montana v. EPA*, 137 F.3d 1135, 1139 (9th Cir. 1998).

216. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,879; see also *Montana v. EPA*, 137 F.3d at 1139.

217. 40 C.F.R. § 131.8(a)(1)-(4) (2001).

218. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,879.

219. *Montana v. EPA*, 137 F.3d at 1139.

initial burden, the EPA will, in light of the facts presented by the tribe and supplemented by the Agency's generalized findings regarding the relationship of water to tribal health and welfare, *presume* an actual showing of tribal jurisdiction over fee lands.²²⁰ Unless an appropriate governmental entity demonstrates a tribe's lack of jurisdiction, the EPA will find that the tribe has inherent authority and will grant it TAS status for administering water quality standards.²²¹

D. OPPOSING A TRIBE'S APPLICATION FOR "TREATMENT AS A STATE" STATUS

The EPA's regulations include a specific procedure for the EPA's Regional Administrator to follow when processing an Indian tribe's application for TAS status to administer water quality standards.²²² The regulations require the Administrator provide "appropriate notice" to "all appropriate governmental entities" within thirty days after receipt of a tribe's TAS application.²²³ The notice "shall include information on the substance and basis of the Tribe's assertion of authority to regulate the quality of reservation waters."²²⁴ The governmental entities have thirty days to submit comments on the tribal application and the Administrator must consider such comments when evaluating whether the tribe should be granted TAS status.²²⁵ This process is important because, as discussed above, unless an appropriate governmental entity can demonstrate that a tribe lacks jurisdiction over reservation waters, the EPA will *presume* that the applicant tribe has inherent authority to set water quality standards. The notice and comment procedure is a governmental entity's primary opportunity to oppose TAS status. The regulations raise two important questions: (1) what exactly is an "appropriate governmental entity" permitted to comment on the TAS application?; and (2) are there any limitations to the permissible scope of the governmental entities' comments and challenges to a TAS application? These questions will be addressed in turn.

1. "Appropriate" Governmental Entities: Who May Challenge?

The concept of *which* governmental agencies are permitted to comment on a tribe's TAS application is of great interest to any locale or industry that may be affected by an Indian tribe being granted TAS status to set water quality standards. In other words, under the EPA's regulations, what is an "appropriate governmental entity?" There are many state, county, local, and tribal governments that may have important interests at stake if a particular tribe is given authority to set

220. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,879.

221. *Montana v. EPA*, 137 F.3d at 1139.

222. 40 C.F.R. § 131.8.

223. *Id.* § 131.8(c)(2)(ii).

224. *Id.* § 131.8(c)(2)(i).

225. *Id.* §§ 131.8(c)(3), 131.8(c)(4).

water quality standards for reservation waters. For instance, in *Albuquerque v. Browner*, would the city of Albuquerque have been an "appropriate governmental entity" entitled to comment on the Isleta Pueblo Indian Tribe's assertion of authority to adopt water quality standards for the Rio Grande water flowing through the reservation? Does a state that is located three or four states upstream from the reservation receive notice and comment privileges? What about a local county government coordinating a regional water reclamation program? The result in *Albuquerque v. Browner* made clear that these and other governmental entities may be drastically affected by the imposition of tribal water quality standards if a TAS application is approved.²²⁶

Recognizing this, during the notice and comment period for the proposed regulations specifying the TAS criteria and application processing procedures, several commentators requested clarification of what would be considered "appropriate governmental entities."²²⁷ The EPA responded that the phrase "appropriate governmental entities" would be defined as "States, Tribes, and other Federal entities located contiguous to the reservation of the Tribe which is applying for treatment as a State."²²⁸ Thus, the EPA not only significantly narrowed the type of governmental entity that could participate, but also curtailed the number of participants by restricting the geographic connection the entity must have with the tribe. Interestingly, the EPA also decided that neighboring tribes will be treated as "appropriate governmental entities" whether or not they have obtained TAS status.²²⁹

With respect to local governments such as cities and counties, the EPA excluded them from the definition of "appropriate governmental entities."²³⁰ Not only are these entities not entitled to notice under the regulations, but also, if such governments catch wind of a pending TAS application and submit comments challenging a tribe's assertion of authority, the EPA will not consider such comments.²³¹ However, the EPA does encourage local governments to direct their comments to the "appropriate State governments" which may then include such concerns in any comments they chose to submit.²³² To encourage such involvement, the EPA stated that it would "make an effort to provide notice to local governments by placing an announcement in appropriate newspapers . . . [that] will advise interested parties to direct comments on Tribal authority to appropriate State

226. See *City of Albuquerque v. Browner*, 97 F.3d 415, 424-26 (10th Cir. 1996).

227. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,884 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131).

228. *Id.*

229. *Id.*

230. *Id.*

231. *Id.*

232. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,884.

governments.”²³³ This appears to be a strangely contradictory element of the EPA’s policy. The Agency first says that local governments are not “appropriate governmental agencies” and will not receive notice of a TAS application or an opportunity to comment. Then, in the same breath, it decides to provide publication notice to local governments and encourages them to submit their comments to the EPA through the state. Why not provide notice and an opportunity to directly comment in the first instance? Or, at the very least, why not provide local governments with the same type and quality of notice that it provides to states,²³⁴ even if such notice only advises the local government to direct comments to the state government? If not internally inconsistent, the EPA’s approach is, at best, inefficient.²³⁵

Finally, the EPA clarified that the notice and comment procedure for TAS applications is “not intended to establish any form of adjudication or arbitration process to resolve differences between State and Tribal governments.”²³⁶ Instead, the comments are simply another piece of information for the EPA to evaluate as it deliberates whether a tribe has the requisite authority to receive TAS status.²³⁷ The EPA thus quashed any notions of the existence of a dispute resolution process before TAS status is granted, and reinforced that the Agency is the sole determiner of a tribe’s eligibility for TAS designation.

2. Limitations: What May Be Challenged?

Once it was determined that states, tribes, and other federal entities would be the only participants in the notice and comment process, the question arose as to about *what*, exactly, the EPA would permit these parties to comment. In practical terms, the question became: what type of objections would the EPA consider in opposition to a tribe’s TAS application and what, if anything, was excluded from challenge?

The proposed regulations had indeed narrowed the allowable subject matter of comments. The proposed rule stated: “The Regional Administrator shall provide thirty days for comments to be submitted on the Tribal application. *Comments shall be limited to the Tribe’s assertion of authority.*”²³⁸ This rule is a pared down way for the EPA to say that it

233. *Id.*

234. When alerting the state of a tribe’s TAS application, the EPA provides notice to “the most appropriate State contacts which may include, for example, the Governor, Attorney General, or the appropriate environmental agency head.” *Id.* This is certainly a more reliable and targeted type of notice than the mere publication notice which the EPA will “make an effort” to provide for local governments.

235. From a practical standpoint, it seems that it would be administratively more burdensome to identify the appropriate local newspapers and manage the logistics of proper publication notice than it would be to simply send a single form notice to the appropriate local government contact in the first instance.

236. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,884.

237. *Id.*

238. Amendments to the Water Quality Standards Regulations that Pertain to Standards on Indian Reservations, 54 Fed. Reg. 39,098, 39,108 (proposed Sept. 22,

intended only to consider comments that addressed the third criterion needed for TAS designation. As described above, the third criterion concerns the question of whether the waters in which the tribe sought to regulate are within the borders and “held” by the tribe either directly or indirectly.²³⁹ The answer to this question turns on whether the tribe has inherent authority over the waters for which it seeks to administer water quality standards, thus invoking the EPA’s use of the second *Montana* exception.²⁴⁰ Consequently, the proposed EPA rule only allowed comments on whether a tribe applying for TAS designation actually had inherent authority over the waters it sought to regulate.

This proposed rule did not sit well with governmental entities that were prospective challengers to TAS applications. In their comments to the proposed rule, they claimed that it was “unlawful to limit public comment to just the Tribal demonstration of authority [and that the regulations] should allow public review of all four statutory criteria.”²⁴¹ The EPA rejected this assertion. The Agency reasoned that the CWA does not require the EPA to provide notice and comment on TAS applications to begin with; therefore, if the Agency chose to accept comments at all it was within its discretion what subjects would receive consideration. But why did the EPA pick the third criterion—the tribe’s assertion of authority over the waters? The Agency’s answer was that it believed that it did not need any outside input to accurately decide the other TAS criteria.²⁴² That is, the Agency was sufficiently informed to determine whether the tribe is federally recognized, is a governing body carrying out governmental powers, and is capable of administering an effective water quality standards program. Accepting comments on these criteria, according to the EPA, would unnecessarily complicate and delay the TAS application process.²⁴³

In contrast, the “EPA believes that providing for comment on the authority criterion is appropriate because this is the only criterion which outside comments might help to address.”²⁴⁴ Implicit in this belief is the Agency’s concession that it may not have access to, or have the wherewithal to locate, all of the pertinent information concerning a tribe’s asserted inherent authority. Another reason may be that the “authority criterion” may be the one criterion that the commenting

1989) (to be codified at 40 C.F.R. pt. 131) (emphasis added).

239. 40 C.F.R. § 131.8(a)(3) (2001).

240. The reason for this, as explained above, is that the EPA had interpreted section 518(e) to *not* be an express grant of regulatory authority over all reservation waters (despite the “or otherwise within the borders of an Indian reservation” language in the statute). Under *Montana*, without an express delegation, tribal regulation of reservation waters would only be granted if tribes could demonstrate inherent authority over the waters.

241. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,884 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131).

242. *Id.*

243. *Id.*

244. *Id.*

governmental entities are in the best position to challenge. That is, unlike the other TAS criteria, other states may oppose tribal authority over certain waters because it believes that the subject waters are actually “held” by the state and could not be the subject of a tribe’s inherent authority. A state may be asserting authority over the same waters that a tribe wants to regulate; this factor makes the “authority criterion” unique.

In the end, the EPA adopted its proposed rule. In doing so, the EPA significantly limited the number of comments that it would have to contend with when processing a TAS application. The final regulations limit comments from appropriate government entities about a TAS application to a tribe’s assertion of authority.²⁴⁵ Only states, tribes, and other federal entities located contiguous to the applicant’s reservation are allowed to comment on a tribe’s request for TAS designation. The limitations incorporated in this rule appear to tip the decisional scale in favor of Indian tribes receiving TAS status, a viewpoint that becomes a major point of contention in *Wisconsin v. EPA*.

One may argue that not only does the EPA start with the presumption that an applicant tribe will have inherent authority over reservation waters, but also, that such a presumption is practically irrebuttable by a challenging governmental entity. The strict limitations placed on the notice and comment opportunities, the EPA’s generalized findings supporting tribal inherent authority, the EPA’s finding of congressional policy favoring tribal regulation of water quality, and the EPA’s express statements espousing a preference for delegation of authority to tribes all buttress the position that challenges to a TAS application by appropriate governmental entities will be futile. Of course, the response to this contention is that the entire notice and comment procedure for TAS applications is not statutorily required in the first instance, and the EPA is in fact being generous by allowing it. It would thus follow that there is no basis to complain about the restrictive nature of the comment process or the presumptive position in favor of tribal authority.

Is the opportunity to comment on tribal authority over particular water resources nothing but an illusory mechanism with a foregone conclusion? Is there any objectivity in the analysis of a tribe’s asserted authority over reservation waters? Are there effective legal challenges an “appropriate governmental entity” can make in opposition to a tribe’s TAS designation? These questions, as well as the numerous other issues discussed so far in this article, arise in the important case of *Wisconsin v. EPA*.

245. 40 C.F.R. § 131.8(c) (2001).

IV. WHEN THE GOVERNMENTAL ENTITY'S CHALLENGE TO "TREATMENT AS A STATE" DESIGNATION HAS FAILED – MAY IT PLEASE THE COURT: *WISCONSIN V. EPA*

When the EPA grants or denies treatment as a state status to a tribe, it is not necessarily the end of the line for the tribe or the governmental entities challenging the tribe's authority. The EPA is, after all, a federal administrative agency whose decisions are subject to judicial review by the federal courts. Because of the ease with which a tribe may demonstrate inherent authority over reservation waters and the EPA's proclivity to grant TAS status, the most likely factual scenario for judicial review is where a governmental entity is seeking review of a TAS designation. Such a situation played out recently when the state of Wisconsin sought judicial review of the EPA's decision to grant TAS status to the Sokaogon Chippewa Community Indian Tribe for purposes of setting water quality standards under section 303 and certifying compliance with those standards under section 401. In *Wisconsin v. EPA*,²⁴⁶ the Court of Appeals for the Seventh Circuit rejected Wisconsin's opposition to the TAS designation, thus establishing a high threshold for a governmental entity to successfully challenge a grant of TAS status.

A. BACK ON THEIR HEELS: THE STANDARD OF REVIEW OF TAS DECISIONS

It is especially important for purposes of this article to pay attention to the standard of review used by a federal court in reviewing a TAS designation. While the standard of judicial review is perhaps a mundane subject needing only quick mentioning in other contexts, the instant case demonstrates the application of review standards and attendant difficulties encountered by governmental entities opposing tribal authority status.

The well-settled rule is that a federal court will grant an agency substantial deference when reviewing its decisions. The Administrative Procedure Act ("APA")²⁴⁷ dictates that when an administrative agency is interpreting an agency-administered statute as applied to a particular set of circumstances, the reviewing court may only set aside the agency action if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."²⁴⁸ This standard applies when a court is reviewing agency *fact-finding* and, as applied, is very deferential.²⁴⁹

Furthermore, the long-standing test fashioned by the Supreme Court in *Chevron v. Natural Resources Defense Council*²⁵⁰ supports upholding agency interpretations of statutes they administer. In

246. *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001).

247. Administrative Procedure Act, 5 U.S.C. § 706 (1994).

248. *Id.* § 706(2)(a).

249. *CAE, Inc. v. Clear Air Eng'g, Inc.*, 267 F.3d 660, 675 (7th Cir. 2001).

250. *Chevron U.S.A., Inc., v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

Chevron, the Court held that “if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.”²⁵¹ Following this standard, when a lawsuit is brought by a governmental entity challenging the EPA’s finding of tribal authority over the reservation waters, the first step is to look at the CWA itself. Section 518 of the CWA does *not* address what standards to apply in order to ascertain whether a tribe has authority over reservation waters. That is, the statute does *not* explain how to determine if the waters are “held” directly or indirectly by the tribe, how to administer the application process, or what competing claims of authority over the subject waters may trump a tribe’s claim. However, section 518 is not completely silent; it expressly directs the EPA to “promulgate final regulations which specify how Indian tribes shall be treated as States for purposes of this chapter.”²⁵² The TAS regulations promulgated by the EPA are also “given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute.”²⁵³

Finally, not only will the promulgated regulations specifying the TAS designation procedure receive a “light touch review,” but the *actual decisions* the EPA makes in applying those regulations will also receive substantial deference. The Supreme Court reiterated this viewpoint recently when it stated: “[w]e have recognized a very good indicator of delegation meriting *Chevron* treatment in express congressional authorizations to engage in the process of rulemaking or adjudication that produces regulations or *rulings for which deference is claimed*.”²⁵⁴ Thus, the EPA’s decision (arising from its promulgated regulations) whether or not to grant a tribe TAS status to administer water quality standards will also receive substantial deference.

251. *Id.* at 843.

252. 33 U.S.C. § 1377(e)(3).

253. *Chevron*, 467 U.S. at 843-44.

If Congress has explicitly left a gap for the agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation. Such legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute.

Id. In *Montana v. EPA*, 137 F.3d 1135 (9th Cir. 1998), the Ninth Circuit rejected a facial challenge to TAS regulations. The court in *Montana* found that the EPA is not entitled to deference concerning the *scope* of tribal authority because it is a question of law, it has nothing to do with the EPA’s expertise, and it was not a subject specifically committed to the EPA’s regulation. Notwithstanding this heightened level of review, the court held the EPA had not “committed any material mistakes of law in its delineation of the scope of inherent tribal authority.” *Id.* at 1140.

254. *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001) (emphasis added); *see also Wisconsin v. EPA*, 266 F.3d 741, 746 (7th Cir. 2001).

[T]he EPA here has interpreted the statute by promulgating formal regulations, using plenary notice-and-comment procedures, and then implementing its rule with respect to the Band through a formal process in which the State was entitled to be heard. Its *regulations and subsequent decision* are therefore entitled to deference under *Mead* and *Chevron*. (emphasis added).

Id. at 746.

The ultimate result combines the APA's standard of review for agency *fact-finding* with *Chevron's* deference to an agency's promulgation and application of congressionally mandated regulations. Accordingly, when a governmental entity fails to convince the EPA that a tribe does not have the requisite authority for TAS status, the government must challenge the EPA's decision under the arbitrary, capricious, abuse of discretion, or otherwise contrary to law standard.²⁵⁵ This deferential standard makes challenging the grant of TAS status in the courts exceedingly difficult.

B. FACTS

Judge Wood's opinion explained the backdrop of *Wisconsin v. EPA* very clearly and, for that reason, this article shall generally restate the court's articulation of the facts²⁵⁶ (with some supplementary information from the parties' briefs and other materials). The Sokaogon Chippewa Community is an Indian tribe located in northeastern Wisconsin on an 1,850 acre reservation. The tribe is also known as the Mole Lake Band of Lake Superior Chippewa Indians and thus is referred to by the court as "the Band."²⁵⁷ There are three lakes on or adjacent to the Band's reservation: Mole Lake, Bishop Lake, and Rice Lake.²⁵⁸ Rice Lake, which lies at the headwaters of the Wolf River, is the largest waterbody on the reservation and is one of the last remaining ancient wild rice beds in the state of Wisconsin.²⁵⁹ The wild rice serves as a significant dietary, economic, and cultural resource for the Band. Each year in early autumn, the Band holds the traditional rice harvest on Rice Lake in the same manner as they have done for many years.²⁶⁰ The harvest is a significant part of the Band's heritage.²⁶¹ Furthermore, the Band is generally reliant on all of its reservation water resources for food, fresh water, medicines, and raw materials.²⁶²

A unique characteristic of the Mole Lake reservation is that all of the land within the reservation is held by the United States in trust for the tribe; none of the land is owned in fee by non-members of the tribe. This fact obviates many of the legal and policy intricacies of the *Montana* test because there is no concern about regulating activity by non-members of the tribe on fee lands within the reservation.

In August of 1994, the Band applied for TAS status to administer water quality standards for reservation waters.²⁶³ Pursuant to TAS

255. Conversely, this standard would apply equally where a tribe challenges the EPA's denial of TAS designation.

256. *Wisconsin v. EPA*, 266 F.3d at 744-45.

257. *Id.* at 745.

258. Great Lakes Intertribal Council, *Sokaogon (Mole Lake) Band of Chippewa Indians*, at <http://www.glitc.org/mlchip.htm>.

259. *Id.*

260. Wild Rice Harvest, *Article by Olive Glasgo*, at <http://www.molelake.com/>.

261. *Id.*

262. *Wisconsin v. EPA*, 266 F.3d at 745.

263. *Id.*

application processing regulations, the EPA notified Wisconsin of the Band's TAS application submission. The EPA invited comment from Wisconsin concerning the Band's assertion of authority over reservation waters and any competing claim of jurisdiction the state may have. "Wisconsin opposed the application, arguing that it was sovereign over all of the navigable waters in the state, including those on the reservation, and that its sovereignty precluded any tribal regulation."²⁶⁴ Specifically, Wisconsin sent two letters to the EPA claiming that the Equal Footing Doctrine reserved all navigable waters and land under them to the people of the states, and that the creation of the Mole Lake reservation ninety-one years after Wisconsin was admitted to the Union did not divest the state of its authority over those waters.²⁶⁵ Wisconsin emphasized that the EPA interpreted section 518(e) of the CWA as intending only to recognize authority the tribe already possessed; not to grant any new authority.²⁶⁶ Wisconsin argued that under the Equal Footing Doctrine the state possessed sovereignty over reservation waters long before the Mole Lake reservation was even created; therefore any grant of authority to the Band over such waters would extend *new* authority to the Band rather than simply recognize *preexisting* jurisdiction.

After extensive administrative hearings, the EPA granted TAS status to the Band for section 303 and 401 purposes. The EPA determined the Band met all four TAS criteria including demonstration of inherent authority over all of the reservation waters. In granting TAS status to the Band, the EPA dismissed Wisconsin's Equal Footing Doctrine argument primarily for two reasons. First, Wisconsin's reading of the doctrine as giving the state absolute authority over the *waters* overlying the submerged beds was overbroad. That is, even if the state has title to the shores and submerged beds of reservation waters, such rights do not trump the federal government's constitutional authority to regulate the navigable *waters* of the United States. Second, neither the Equal Footing Doctrine nor title to lakebeds is mentioned in section 518 of the CWA. Congress did not limit TAS designation to those tribes who *owned* submerged lands within their reservations. According to the EPA, inherent authority over reservation waters does not turn on who holds title to land underlying the waters. Consequently the Band received TAS status despite Wisconsin's objections to the application.

This plot, of course, is not without all the essential characters of a classic environmental melodrama. Upstream from Rice Lake on the Wolf River was a large, nearly completed, privately owned, zinc-copper sulfide mine.²⁶⁷ Mines create substantial point source discharges

264. *Id.*

265. Brief for Appellant at 10-11, *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001) (No. 99-2618).

266. See Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,880 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131).

267. In the court's opinion, Judge Wood characterized the Band's TAS designation

containing various pollutants that mandate NPDES permits.²⁶⁸ In addition, “[a]lthough mining permits are issued by various State agencies, the Office of Water may review State issued permits to ensure compliance with water quality criteria and ensure that effluent guidelines for ore/coal mining and processing are properly applied to wastewater discharges from these activities.”²⁶⁹ Now the picture becomes clear; if the Band received TAS status, it would likely set water quality standards stringent enough to proscribe some or all of the discharge from the upstream mine. Without being able to discharge certain amounts into the river, the operation of the mine may be severely limited or completely prohibited.

On January 25, 1996, Wisconsin filed an action with the District Court for the Eastern District of Wisconsin seeking revocation of the EPA’s grant of TAS status to the Band. On April 28, 1999, the district court upheld the TAS designation on summary judgment. The court found that the EPA reasonably interpreted its regulations when it determined that a tribe could regulate all water within a reservation regardless of who owned the submerged lands. Two months later Wisconsin filed a notice of appeal and the Band intervened as a defendant, filing a brief in support of TAS designation. Oral argument commenced on November 6, 2000 before a panel of the Seventh Circuit Court of Appeals consisting of Judges Diane Wood, Ann Williams, and Michael Kanne. More than ten months after oral argument, in late September of 2001,²⁷⁰ Judge Wood issued a unanimous opinion.

C. THE COURT’S ANALYSIS

At the outset of its opinion, the court of appeals pointed out that this case was ripe for adjudication. It did not matter that the Band had not yet promulgated specific water quality standards resulting in any sort of restriction on an upstream discharge or to an ongoing project. Wisconsin’s real challenge, the court explained, was the grant of TAS status to the Band. By granting TAS status, the EPA effectively created a state-like entity within the borders of Wisconsin.²⁷¹ If the court found

as “an action with the potential to throw a wrench into the state’s planned construction of . . . [the] mine.” *Wisconsin v. EPA*, 266 F.3d at 745. In its Petition for Rehearing and Suggestion for Rehearing *En Banc* of the Seventh Circuit Panel’s decision, Wisconsin characterized Judge Wood’s statement as a “glaring factual error.” Petition for Rehearing and Suggestion for Rehearing *En Banc* at 13-14, *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001) (No. 99-2618). Wisconsin sought to clarify that a private company, not the state, was planning and constructing the mine. However, even if true, this fact does not necessarily negate the state’s likely concern over the potentially stifling effect of the Band’s water quality standards on economic development upstream from the reservation (including the mine in question).

268. See generally EPA Office of Water, Office of Wastewater Management, *Mining*, at http://cfpub.epa.gov/npdes/indpermitting/mining.cfm?program_id=14 (last modified Nov. 26, 2001).

269. *Id.*

270. This delay perhaps reflected the intricacies of the issues involved in this case.

271. *Wisconsin v. EPA*, 266 F.3d at 745.

this action improvident, there was a present injury caused by the EPA that the court had the power to remedy.²⁷²

Turning to the substantive analysis, the court noted that “Wisconsin is challenging the EPA’s findings only with respect to the third requirement for TAS status—the demonstration of the tribe’s inherent authority to regulate water quality within the borders of the reservation.”²⁷³ The court was merely highlighting that the state was renewing challenges it was permitted to make during the notice and comment period.²⁷⁴ This raises the interesting question of whether, despite the state’s inability to submit comments on other TAS criteria, it could seek judicial review of conclusions pertaining to those criteria, e.g., a tribe’s capability to administer a water quality standards program. In this case, however, the sole focus was on the EPA’s finding that the Band sufficiently demonstrated inherent authority over the waters it sought to regulate.

1. Not “Within the Borders”

The court quickly rejected Wisconsin’s argument that Rice Lake was not within the borders of the Mole Lake Reservation. The argument was never presented to the district court and was not made to the EPA during the comment period; as a result, it was waived.²⁷⁵ For good measure, the court noted that even if it were to consider the argument, it would be of no merit. “Rice Lake is almost completely surrounded by reservation land (and the small percentage that is not abuts off-reservation trust lands).”²⁷⁶ In these circumstances, the EPA could reasonably conclude that Rice Lake was sufficiently within the reservation’s borders.²⁷⁷ Thus, while the argument was technically waived by Wisconsin, the court took the opportunity to make a significant statement concerning the geographic scope of waters that may fall within the purview of tribal regulation. It is conceivable that in the future, a tribe involved in similar litigation would cite to the court’s judicial dictum.²⁷⁸

272. *Id.*; see also *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992).

273. *Wisconsin v. EPA*, 266 F.3d at 746.

274. *Id.* at 745.

275. *Id.* at 746.

276. *Id.*

277. *Id.*

278. See *Alloy Int’l Co. v. Hoover-NSK Bearing Co.*, 635 F.2d 1222, 1225 n.5 (7th Cir. 1980) (discussing judicial dictum); see also *Cates v. Cates*, 619 N.E.2d 715 (Ill. 1993)

The term ‘*dictum*’ is generally used as an abbreviation of *obiter dictum*, which means a remark or opinion uttered by the way. Such an expression or opinion as a general rule is not binding as authority or precedent within the *stare decisis* rule. On the other hand, an expression of opinion upon a point in a case argued by counsel and deliberately passed upon by the court, though not essential to the disposition of the cause, if *dictum*, is a *judicial dictum*. And further, a judicial dictum is entitled to much weight, and should be followed unless found to be erroneous (internal citations omitted).

Id. at 717.

2. The Equal Footing Doctrine

The court next addressed Wisconsin's renewal of its argument that the tribe simply could not have authority over reservation waters because the state had title to reservation waters and lands submerged beneath those waters pursuant to the Equal Footing Doctrine. The Equal Footing Doctrine took shape in *Pollard v. Hagan*²⁷⁹ where the United States Supreme Court held that a state receives absolute title to the beds of navigable waterways within its boundaries upon admission to the Union.²⁸⁰ The general premise flowing from the Equal Footing Doctrine is that newly admitted states have the same rights, sovereignty, and jurisdiction over their lands as the original thirteen states.²⁸¹ Since the original states had title to the submerged lands within their borders, then so must the states subsequently admitted to the Union.²⁸² Thus, in *Pollard* "the Court established the absolute title of the States to the beds of navigable waters, a title which neither a provision in the Act admitting the State to the Union nor a grant from Congress to a third party was capable of defeating."²⁸³

Ownership of the submerged lands, however, does not result in a state's absolute right to regulate the *overlying waters*. In *Montana v. United States*, the Court explained:

[T]he ownership of *land* under navigable waters is an incident of sovereignty. As a general principle, the Federal Government holds such lands in trust for future States, to be granted to such States when they enter the Union and assume sovereignty on an "equal footing" with the established States. After a State enters the Union, *title to the land* is governed by state law. *The State's power over the beds of navigable waters remains subject to only one limitation: the paramount power of the United States to ensure that such waters remain free to interstate and foreign commerce.*²⁸⁴

Thus, the federal government retains a dominant navigable servitude to regulate waters of the country under the Commerce Clause.²⁸⁵ The tension becomes apparent, as Wisconsin is sovereign over the land on which the water in the state sits, while the overlying water is always subject to the extensive power of the Commerce Clause.²⁸⁶ The CWA

279. 44 U.S. 212 (1845).

280. *Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 374 (1977).

281. *Pollard*, 44 U.S. at 230.

282. *Id.* at 229.

283. *Corvallis Sand & Gravel Co.*, 429 U.S. at 374; *see also* *Idaho v. Coeur d'Alene Tribe*, 521 U.S. 261, 283-85 (1997).

284. *Montana v. United States*, 450 U.S. 544, 551 (1981) (internal citations omitted) (emphasis added).

285. *See* *Gibbons v. Ogden*, 22 U.S. 1, 197 (1824) ("The power of Congress [under the Commerce Clause], then, comprehends navigation, within the limits of every State in the Union; so far as that navigation may be, in any manner, connected with 'commerce with foreign nations, or among the several States, or with the Indian tribes'.").

286. *See* *United States v. Schaffner*, 258 F.3d 675 (7th Cir. 2001).

itself is an example of the federal government asserting its Commerce Clause authority over the quality of navigable waters throughout the nation.²⁸⁷ Only through federal delegation, strictly overseen, may a state administer its own programs under the CWA. Indeed, even in one of the savings clauses of the CWA, Congress chose its words very carefully in specifying what water rights states reserve under the Act: “[i]t is the policy of Congress that the authority of each State to allocate *quantities* of water within its jurisdiction shall not be superceded, abrogated or otherwise impaired by this chapter.”²⁸⁸

The Equal Footing Doctrine argument Wisconsin put forth is not cleanly disposed of by reference to a single case or statute. Nevertheless, the court of appeals convincingly rejected the argument. The court started its analysis by assuming Wisconsin did in fact have title to the beds of water within the reservation. The court next addressed the case of *Wisconsin v. Baker*,²⁸⁹ which Wisconsin continuously cited to in its briefs. In *Baker*, the Chippewa Indians claimed that an 1854 treaty with the United States creating the tribe’s reservation in Wisconsin also gave the tribe the *exclusive* right to hunt and fish in reservation waters.²⁹⁰ As a result, the tribe contended, it had the power to restrict *public* hunting and fishing in those lakes. However, eight years *prior* to the treaty creating the reservation, Wisconsin had been admitted to the Union on “equal footing” with the original states.²⁹¹ Therefore, it obtained title to all submerged lands including those that eventually were encompassed within the reservation boundaries.

In *Baker*, the court of appeals made two important findings. First, the 1854 treaty was silent concerning any grant of exclusive hunting

[I]n determining whether Congress, in exercising its power under the Commerce Clause, has acted within the bounds of its constitutional authority, we must keep in mind that congressional power under the Commerce Clause “is complete in itself, may be exercised to its utmost extent, and acknowledges no limitations, other than are prescribed in the Constitution.”

Id. at 678 (citing *Gibbons*, 22 U.S. at 196).

287. See *United States v. Hartsell*, 127 F.3d 343, 348 n.1 (4th Cir. 1997) (explaining that the CWA is certainly a valid exercise of congressional power under the Commerce Clause); *Burnette v. Rowland*, Nos. 3:94-CV-00420, 3:94-CV-00676, 1998 U.S. Dist. LEXIS 11710, at *8 (D. Conn. May 4, 1998) (“Congress enacted RCRA and the CWA, along with CERCLA, pursuant to the Commerce Clause.”).

288. 33 U.S.C. § 1251(g) (1994) (emphasis added). Wisconsin also attempts to rely on another savings clause in the CWA which declares that nothing in the Act shall be “construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.” *Id.* § 1370(2). Wisconsin contended that this provision reinforced that § 518(e) could not be used to trump its preexisting title and control over reservation waters. This argument does not further Wisconsin’s position because it merely begs the question of whether Wisconsin actually obtained title to and exclusive control over the reservation waters pursuant to the Equal Footing Doctrine.

289. 698 F.2d 1323 (7th Cir. 1983).

290. *Id.* at 1333.

291. *Id.*

and fishing rights on reservation waters to the Chippewa Tribe.²⁹² Second, the power to regulate fishing and hunting on navigable lakes was one of the powers held by the original thirteen states incidental to their ownership of the submerged lands;²⁹³ therefore, when Wisconsin was admitted to the Union on “equal footing,” it was vested with regulatory power over hunting and fishing.²⁹⁴ The court determined that the Equal Footing Doctrine gave Wisconsin both title to the submerged lands in the state and the power to regulate hunting and fishing on all of the state’s navigable waters. Since the court found that neither the 1854 treaty nor any other action by the United States government clearly divested Wisconsin of its regulatory power over hunting or fishing on navigable waters, the Chippewa Tribe could not claim it had that same authority over reservation waters.

Judge Wood rejected Wisconsin’s heavy reliance on *Baker* on three grounds. First, *Baker* was decided before section 518(e) of the CWA was enacted. “The legal structure governing *Baker* involved only the treaty that created the reservation, and that treaty did not contain any language regarding the tribe’s power to regulate reservation waters.”²⁹⁵ In this case, there exists section 518(e) of the CWA that allows a delegation of authority to Indian tribes over reservation waters when specific statutory and regulatory criteria are satisfied.²⁹⁶ Additionally, there is nothing in section 518(e) that limits such TAS grants only to those tribes with title to the submerged lands of reservation waters.

Second, unlike the Band in this case, the Chippewa Tribe in *Baker* did “not contend that public fishing and hunting pose[d] an imminent threat to the political integrity, the economic security, or the health or welfare of the [tribe].”²⁹⁷ As a result, the court found that not only did the Chippewa Tribe lack *express authority* to regulate reservation waters under the treaty, but also it did not make a claim that it had *inherent authority* under the second *Montana* exception. More importantly, to Judge Wood, the *Baker* court’s line of reasoning indicated that the court “left open the possibility that state ownership of lake beds may not preclude tribal authority over the waters if tribal regulation was necessary to protect the ‘political integrity, the economic security, or the health or welfare’ of the Band.”²⁹⁸ Thus, contrary to Wisconsin’s arguments, the *Baker* decision did not foreclose the possibility of a tribe obtaining regulatory authority over reservation waters even where the reservation was created subsequent to the state acquiring title to the submerged lands.²⁹⁹

292. *Id.* at 1333-34.

293. *Id.*; see also *Montana v. United States*, 450 U.S. 544, 550-51 n.1 (1981).

294. *Baker*, 698 F.2d at 1333-34.

295. *Wisconsin v. EPA*, 266 F.3d 741, 747 (7th Cir. 2001).

296. *Id.*

297. *Baker*, 698 F.2d at 1335 (internal quotations omitted).

298. *Wisconsin v. EPA*, 266 F.3d at 747.

299. Wisconsin makes too much out of the *Baker* court’s explanation that state regulation of hunting and fishing on state waters arises from the state’s title to the submerged lands. Wisconsin asserts that such authority must mean that the state has

Finally, the court of appeals rejected the application of *Baker* because it concerned hunting and fishing rights, which traditionally fall within the purview of state regulation.³⁰⁰ In contrast, *Wisconsin v. EPA* concerned water quality standards of navigable waters. Unlike hunting and fishing rights, the federal government (i.e., the EPA), not the state, regulates water quality.³⁰¹ In fact, the state can only act in this area when and how the federal government allows it. It is the revocable delegation of authority by the EPA that enables Wisconsin to set water quality standards for the state and to administer an NPDES permit program.³⁰²

After discrediting *Baker* as inapplicable to this case, the court went on to describe “legal principles” that *were* applicable. According to the court, these principles all “support the EPA’s determination that a state’s title to a lake bed does not in itself exempt the waters from all outside regulation.”³⁰³ Put another way, these concepts explain why the Equal Footing Doctrine is *not* an obstacle to a tribe obtaining TAS status.

The first concept is Congress’s expansive power to regulate navigable waters of the United States under the Commerce Clause as discussed above. The court’s strongest statement rejecting Wisconsin’s equal footing argument came when it pointed out that:

[Congress’s Commerce Clause power over navigable waters] has not been eroded in any way by the Equal Footing Doctrine cases, which “involved only the shores of and lands beneath navigable waters. [The doctrine] cannot be accepted as limiting the broad powers of the United States to regulate navigable waters under the Commerce Clause.”³⁰⁴

There is simply no body of precedent that gives states unbridled regulatory authority over the actual water that passes through or overlays the submerged lands they own.³⁰⁵ Despite Wisconsin’s references to case law, which make remarks that “navigable waters uniquely implicate sovereign state interests,”³⁰⁶ it ignores what Judge Wood ultimately finds controlling. Since *Pollard*, states have received

title to the waters and the exclusive right to control the use thereof. This is quite a leap! In fact, it seems that authority to regulate hunting and fishing as an incident to submerged land ownership is just that: the authority to regulate hunting and fishing.

300. *Wisconsin v. EPA*, 266 F.3d at 747.

301. *Id.*

302. *See, e.g.*, 33 U.S.C. § 1342(c)(3) (1994) (explaining procedure for EPA’s withdrawal of an EPA approved state NPDES program for noncompliance).

303. *Wisconsin v. EPA*, 266 F.3d at 747.

304. *Id.* (citing *Arizona v. California*, 373 U.S. 546, 597-98 (1963)).

305. States do manage appropriation and riparian water distribution systems. The CWA contemplates that it can coexist with such systems. 33 U.S.C. § 1251(g).

306. Wisconsin’s citation to *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 282-84 (1997) does not promote its position. In fact the majority of the language from the opinion that is cited explains that only the *lands underlying* navigable waters are “sovereign lands.” Simply because “navigable waters uniquely implicate [state] sovereign interests” does not mean states receive title to the waters themselves. *See generally id.*

both title and authority specifically over *submerged lands and shores* within the state. This separation of underlying lands and shores from the overlying water is intentional. The federal government's authority over all navigable waters applied to the original thirteen states and applies similarly to subsequently admitted states, such as Wisconsin, through the Equal Footing Doctrine. Congress' broad Commerce Clause power is not diminished by state ownership of submerged lands and shores. Even the state's power over the *beds of navigable waters* remains subject to "the paramount power of the United States to ensure that such waters remain free to interstate and foreign commerce."³⁰⁷

The United States' extensive authority over Indian tribes also worked to convince the court. This authority is exclusive and comes directly from the Constitution.³⁰⁸ In fact, the general rule is that state laws may only be applied to Indians on their reservations if Congress allows.³⁰⁹ For instance, in the case of the Mole Lake Band, the EPA, not Wisconsin, administers the NPDES permit program for reservation discharges in the absence of an approved tribal program.³¹⁰

At the close of its analysis, the court points out that Wisconsin does not deny that its ownership of submerged lands would not prevent the federal government from regulating reservation waters and, thus, "cannot now complain about the federal government allowing tribes to do so."³¹¹ While this argument initially sounds appealing, its brevity in the opinion makes it unclear and subject to attack. There are two problems with Judge Wood's statement. The first is that the CWA allows a tribe to receive "Treatment as a state" status under the CWA, not "Treatment as the Federal Government." There may be certain actions within the authority of the federal government to perform that would be constitutionally improper for a state to administer. For instance, the federal government could require Wisconsin to stop a project that might block a navigable waterway, but it is doubtful that it could authorize California to direct Wisconsin to do the same. If the federal government tried designating a similar federal duty to a TAS tribe, it would be giving the tribe privileges beyond what any other state could constitutionally obtain.

The second problem is that it gives the impression the court thinks that section 518(e) is an express grant of authority to tribes over reservation waters. Simply reasoning that if the federal government has regulatory jurisdiction, it can delegate the same to a tribe ignores the EPA's determination that section 518(e) was *not* an express delegation of authority to tribes over reservation waters. During the

307. *Montana v. United States*, 450 U.S. 544, 551 (1981).

308. U.S. CONST. art. I, § 8, cl. 3; *see also Wisconsin v. EPA*, 266 F.3d at 747.

309. *Wisconsin v. EPA*, 266 F.3d at 747 (citing *California v. Cabazon Band of Mission Indians*, 480 U.S. 202, 207 (1987)).

310. EPA Office of Water, Office of Wastewater Management, *State and Tribal Program Issues*, at http://cfpub.epa.gov/npdes/statestribes/issues.cfm?program_id=12 (last modified Feb. 21, 2001); *see also Arkansas v. Oklahoma*, 503 U.S. 91, 103 (1992).

311. *Wisconsin v. EPA*, 266 F.3d at 747.

rulemaking, the EPA determined section 518(e) of the CWA intended only to recognize authority that the tribe already possessed; not to grant any new authority.³¹² Wisconsin argued that any grant of authority to the Band over reservation waters would be extending *new* authority to the Band rather than simply recognizing *preexisting* jurisdiction. So, the issue is not whether the federal government can simply let the tribe do what the federal government could; the issue here is whether the tribe possessed inherent authority over the reservation waters to begin with. Although, in the next section of its opinion, the court recognized that the EPA does not consider section 518(e) an express grant of authority, the court's brief statement concerning federal delegation could be construed as an internal inconsistency in the opinion.

Read practically though, Judge Wood's statement simply calls Wisconsin's bluff concerning the Equal Footing Doctrine. If title to, and exclusive control over the reservation waters truly passed to the state under the Equal Footing Doctrine, regulation of the water would even be beyond federal power.³¹³ But, Wisconsin admits the federal government *can* regulate its waters (without any act of divestiture), and therefore simultaneously admits that the power over overlying waters could not have been part of the rights and powers granted to the states under the Equal Footing Doctrine. Such regulation falls under the Commerce Clause and exceeds the jurisdiction of the original thirteen states.³¹⁴ Accordingly, asserting title and control to overlying waters was received (and) granted (or) vested at the time of statehood as a defense to a tribe's inherent authority over reservation waters lacks merit.

3. Inherent Authority Over Off-Reservation Activities

The court of appeals next dealt with Wisconsin's argument "that the Band did not make the required showing of authority over those activities potentially affected by its imposition of water quality standards."³¹⁵ Wisconsin argued the Band could not establish its inherent authority over extraterritorial activity such as the upstream mine, because *Montana* only applies to on-reservation activities of non-members. Wisconsin believed a tribe could only establish its inherent authority by showing that impairment of the reservation's waters *from*

312. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,880 (Dec. 12, 1991) (emphasis added) (codified at 40 C.F.R. pt. 131).

313. Wisconsin's argument is that title to the overlying waters was granted to the state with the title to the submerged lands. If such title to the waters was of equivalent quality to that of the submerged lands, *Pollard* and its progeny would dictate that a state's title to the *waters* is "absolute" and neither a provision in the Act admitting the state to the Union nor a grant from Congress to a third party (i.e., an Indian tribe) is capable of defeating a state's title to the waters. See *Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 374 (1977).

314. See generally *United States v. Gardner*, 107 F.3d 1314, 1318-19 (9th Cir. 1996).

315. *Wisconsin v. EPA*, 266 F.3d at 748.

on-reservation activities would affect the political integrity, the economic security, or the health or welfare of the tribe.

The court's responses to this position prove it unavailing. First and foremost, Wisconsin ignored that Congress permits a tribe to receive "Treatment as a State" status. Such designation gives a tribe all of the rights and powers of a state for approved purposes under the CWA. The holding in *Arkansas v. Oklahoma* and the EPA's regulations instruct that upstream discharges must comply with downstream states' water quality standards. The lesson of *Albuquerque v. Browner* is that a TAS tribe is not a second-class sovereign but is treated as a full-fledged state under the CWA. Accordingly, upstream extraterritorial activities must comply with a downstream TAS tribe's water quality standards. Thus, by enacting section 518(e), Congress created an express statutory provision that allows TAS tribes the ability to regulate reservation waters even if extraterritorial activities are affected.

Wisconsin's argument that the Band has not shown inherent authority over extraterritorial activities (and it never could because its authority only extends to non-members *within* reservation boundaries) puts the cart before the horse. The Band sought to regulate the water quality standards of the reservation, not the activity of the upstream mine or any other facility. It is only *after* the Band shows it has authority to regulate the *reservation* waters that its water quality standards are imposed on upstream dischargers—not the other way around. Extraterritorial jurisdiction is not relevant in considering inherent authority in the first instance, but is simply a side effect arising from the grant of TAS designation. In addition, "[t]here is no case that expressly rejects an application of *Montana* to off-reservation activities that have significant effects within the reservation."³¹⁶ A TAS applicant need only establish inherent authority over the regulation of reservation waters by showing that: "(1) there are waters within the reservation used by the tribe, (2) the waters and critical habitat are subject to protection under the CWA, and (3) impairment of waters would have a serious and substantial effect on the health and welfare of the tribe."³¹⁷ A tribe need not demonstrate authority over *off-reservation activity* to satisfy any of these elements.

Second, and further evidencing that off-reservation effects are irrelevant in the TAS application stage, is that Congress mandated establishment of a dispute resolution mechanism to work out "unreasonable consequences" arising from different water quality standards set by states and tribes on the same waterbody.³¹⁸ The EPA established such a system. It is hard to conceive why Congress recognized this issue and required a transboundary dispute-solving device if it did not anticipate that a TAS tribe's water quality standards could restrict certain off-reservation activities.³¹⁹

316. *Id.* at 749.

317. *Montana v. EPA*, 137 F.3d 1135, 1139 (9th Cir. 1998).

318. 33 U.S.C. § 1377(e) (1994).

319. *Wisconsin v. EPA*, 266 F.3d at 749.

Third, the court pointed out that a TAS tribe is still subservient to the EPA's decisions concerning national water pollution control. Under the CWA, a downstream TAS tribe's only recourse is to apply to the EPA Administrator when it is unhappy with the allowance of an upstream discharge; it cannot veto an upstream activity.³²⁰ Indeed, it is the EPA—not the tribe or the state—requiring upstream compliance with downstream water standards.³²¹ The EPA's *regulations* prohibit issuance of permits that could cause downstream water quality standard violations.³²² The EPA could easily amend its regulations, allow for variances,³²³ or use the dispute resolution mechanism to allow an upstream discharge that may otherwise violate downstream water quality standards. The ultimate authority remains with the federal government and a TAS tribe receives no more than any other approved state under the CWA.

Finally, an underlying difficulty with Wisconsin's stance from the outset was that it "conceded that the waters within the Band's reservation are very important to the Band's economic and physical existence."³²⁴ In the court's view, this concession turned Wisconsin's argument into the following: "we acknowledge that the Band would have inherent authority over reservation waters *but for* our title to and control over the submerged lands and the overlying waters, and a tribe's inability to regulate non-members outside the reservation." Once the court refuted Wisconsin's two primary objections to inherent authority, it was left with Wisconsin's admission that the impairment of waters would have a serious and substantial effect on the health and welfare of the tribe. Wisconsin should not be faulted for such a position; a contrary argument would surely have been disingenuous.

V. IMPLICATIONS

There are 554 federally recognized Indian tribes in the United States.³²⁵ In the 1990 census, the federal government recognized 278 Indian land areas as reservations.³²⁶ Some reservation areas include significant acreage. For instance, "the Navajo Reservation consists of some 16 million acres in Arizona, New Mexico, and Utah."³²⁷ Such

320. *Arkansas v. Oklahoma*, 503 U.S. 91, 100 (1992) (citing *International Paper Co. v. Ouellette*, 479 U.S. 481, 490-91 (1987)). A TAS tribe also may submit comments and recommendations to the permitting state and the EPA with respect to any permit application being considered. 33 U.S.C. § 1342(b)(5).

321. *Arkansas v. Oklahoma*, 503 U.S. at 106.

322. 40 C.F.R. § 122.41 (2001).

323. See *supra* note 117.

324. *Wisconsin v. EPA*, 266 F.3d at 750.

325. EPA Office of Water, American Indian Environmental Office, *Tribal Environmental and Natural Resource Assistance Handbook*, at <http://www.epa.gov/indian/tribhand.htm>.

326. EPA Office of Water, American Indian Environmental Office, *Resource Guide, Chapter One: Understanding Native Americans*, at <http://www.epa.gov/indian/resource/chap1.htm>.

327. *Id.*

numbers make clear that the widespread grant of TAS designation to tribes to administer water quality standards could potentially have an enormous impact on the functioning of the CWA throughout the United States. Furthermore, while reservation land is spread throughout the country, the vast majority of reservations are concentrated in the western states and Alaska.³²⁸ The western states are historically where the most intense disputes have arisen over water regulation due to the constant supply and demand problems associated with the climate and topography.³²⁹ The patchwork of reservation land in the West comes with the potential for a collage of different water quality standards set by TAS tribes—a virtual guarantee of transboundary conflicts. Thus, a whole new saga in the storied water battles of the West may find a stage in section 518(e) of the CWA. Of course, although perhaps more pronounced in the West, transboundary conflicts may play out in any of the fifty states where TAS tribes are located (e.g., Wisconsin). Complications that arise from empowering more tribes with regulatory power under the CWA are not hard to envision.

The implications of the Seventh Circuit's holding in *Wisconsin v. EPA* concern the *prelude* to water quality conflicts between tribes and states; the TAS designation process itself. That is, the court's opinion helps set the tone concerning tribes' ability to obtain TAS status in the first instance, thus enabling them to become sovereign players in the CWA and assert their authority. Specifically, this article addresses two likely implications of the Seventh Circuit's holding. First, more tribes will apply for and receive TAS status to administer water quality standards. And second, opposition by governmental entities to TAS designation to administer water quality standards will be virtually futile. These predictions are reviewed in more detail below.

A. "TREATMENT AS A STATE" DESIGNATIONS TO ADMINISTER WATER QUALITY STANDARDS WILL INCREASE

The threshold determinant of the potential ramifications of section 518(e), and its accompanying regulations, is how many Indian tribes are going to apply for and obtain TAS designation to set water quality standards. Clearly, the easier it is for tribes to obtain TAS status, the more likely it is that additional tribes will apply for such designation.³³⁰ Indian tribes often have limited personnel and

328. "Four states (all in the West) have Indian populations of 100,000 or more: Oklahoma, California, Arizona, and New Mexico. The six states where Native Americans make up 5 percent or more of the total population are Alaska, New Mexico, Oklahoma, South Dakota, Montana, and Arizona." *Id.*

329. See generally Betsy Cody, *Western Water Resource Issues*, Congressional Research Service Reports, at <http://www.cnire.org/NLE/CRS/abstract.cfm?NLEid=16352>.

330. Such logic is subject to the caveat that resource limitations faced by many tribes may dissuade them from applying for TAS status irrespective of their anticipated ability to obtain such designation. See *supra* text accompanying note 140. Conversely, due to the extreme importance of water resources to many reservations, some tribes may pursue TAS status no matter how difficult the fight or how high the costs.

resources to deal with environmental matters³³¹ and pursuing TAS designation would seem more appealing when there are fewer obstacles (i.e., less expenditure of resources) to its attainment.³³² Thus far, this article has described some of the ways it has been made easier for tribes to show that they have sufficient inherent authority over reservation waters to receive TAS designation. In addition, this article has discussed some of the obstacles facing a governmental entity in opposing a tribe's assertion of authority during the TAS application phase or when seeking judicial review of the EPA's grant of TAS designation. In combination, these two observations appear to tip the scale in favor of tribal regulatory authority despite competing claims of jurisdiction from "appropriate governmental entities."

The state of Wisconsin would claim that this characterization is a drastic understatement of the practical realities of the TAS designation process. Although never addressed by the court of appeals' opinion, Wisconsin had vehemently argued this point in its briefs. Wisconsin pointedly asserted that the "TAS application process is designed to lead to a predetermined result—the granting of tribal applications for treatment as a state."³³³ According to Wisconsin, the EPA's proclamation that it would examine each tribal claim of authority on a "case-by-case basis" was nothing but lip service, and upon application by a tribe for TAS status, a finding of tribal authority over reservation waters was a forgone conclusion.

331. See EPA Office of Water, American Indian Environmental Office, *Tribal Environmental and Natural Resource Assistance Handbook*, at <http://www.epa.gov/indian/tribhand.htm>.

Many tribes have limited environmental staffs that are faced with the challenge of addressing a broad range of environmental issues. Unlike state environmental programs that have received annual federal funding for many years, Tribal environmental programs generally must compete annually for their funds. . . . Therefore, Tribal environmental staffs spend a large part of their time applying for grants and searching for sources of federal assistance.

Id.

332. In addition, population trends and industrial development may make it more important than ever for a tribe to assert control over its water resources. The EPA notes that population studies indicate Indians are not shifting away from reservation areas, Indian populations are growing, and more than half of tribal lands now have at least as many non-Indians as Indians residing there. The Agency observed:

There are two interesting implications of this information for environmental management purposes. First, Native Americans are not leaving their homelands and, in fact, there is a likelihood that these communities will develop to accommodate their increasing numbers. Second, many Native American communities perceive that they have been and are being encroached upon by the larger non-Native American populations. Environmental management will be needed more than ever before to minimize environmental impacts as populations grow. Also, Native American environmental management systems will need to be innovative and creative in accommodating the needs of their Native American and non-Native American populations.

EPA Office of Water, American Indian Environmental Office, *Resource Guide, Chapter One: Understanding Native Americans*, available at <http://www.epa.gov/indian/resource/chap1.htm>.

333. Brief for Appellant at 10, *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001) (No. 99-2618).

Specifically, Wisconsin was troubled by the lack of an honest appraisal by the EPA of a tribe's claim of jurisdiction over reservation waters. Remember, for a tribe to satisfy the second *Montana* exception (i.e., inherent authority) an application for TAS status "will need to make a relatively simple showing of facts"³³⁴ asserting that: (1) there are waters within the reservation used by the tribe; (2) the waters and critical habitat are subject to CWA protection; and (3) impairment of waters would have a serious and substantial effect on the health and welfare of the tribe.³³⁵ Once the tribe meets this initial burden, the EPA will presume, in light of facts presented in the TAS application supplemented by the Agency's generalized findings regarding the relationship of water quality to tribal health and welfare, that there has been an actual showing of tribal jurisdiction and thus, authority to set water quality standards.³³⁶

According to Wisconsin, this test "create[s] an insurmountable presumption that tribes should obtain TAS status"³³⁷ and is a "test for inherent tribal authority that no tribe can fail."³³⁸ The indignation underlying Wisconsin's assertions stems from what it believes to be the EPA's total disregard of competing claims of jurisdiction over reservation waters despite the Agency's policy "on paper" to seek out and consider input on the subject. In Wisconsin's view, the test implemented by the EPA belies any Agency intent to consider competing claims of jurisdiction. The only way a state could overcome the EPA's presumption of tribal inherent authority would be to show "that a reservation contains no water that is used by tribal members."³³⁹ Such a showing would be virtually impossible for a state to make.

It seems that Wisconsin's observations are not completely unfounded hyperbole. A careful reading of TAS regulations, rulemaking proceedings, and EPA policy statements expressed in various administrative publications support the position that everything will be done to ensure an applicant tribe will receive TAS status. Primarily, as discussed above, the EPA starts with the presumption a that tribe will have inherent authority over reservation waters. The Agency has assembled a collection of conclusions which, despite being innocuously labeled as "generalized findings," are in fact virtual proclamations that tribes will *always* possess authority to regulate reservation waters. The EPA attempts to mitigate the impact of the generalized findings' determinative quality by stating that the findings will simply *supplement* a tribe's factual showing in its TAS application. However, in the same breath, the Agency admits a

334. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,879 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131).

335. *Id.*

336. *Id.*

337. Brief for Appellant at 16, *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001) (No. 99-2618).

338. *Id.*

339. *Id.* at 40.

sufficient showing of facts will be “relatively simple.”³⁴⁰ With the question of TAS authorization turning on whether a tribe has inherent authority over the reservation waters, how can the EPA’s standards lead to any result but a grant of TAS designation?

Tribes that desire to chart the destiny of their water resources have a helping hand in the EPA because the Agency has an institutional predilection for tribal administration of water quality standards. More tribes will apply for TAS status because its bestowment by the EPA is virtually guaranteed. For those incredulous as to the existence of such a policy, one need only read the EPA’s own words:

Qualifying for administration of the water quality standards program is optional for Indian Tribes and there is no time frame limiting when such application can be made. *As a general policy, EPA will not deny a tribal application.* Rather than formally deny the tribe’s request, EPA will continue to work cooperatively with the tribe in a continuing effort to resolve deficiencies in the application or the tribal program so that tribal authorization may occur. EPA also concurs with the view that the intent of Congress and the EPA Indian Policy is to support tribal governments in assuming authority to manage various water programs.³⁴¹

Such policy statements send a clear signal to both tribes and interested governmental entities that when a tribe submits a TAS application to administer water quality standards, the EPA is hardly a neutral decision-maker weighing the application against any competing claims of jurisdiction.³⁴² Instead, the Agency’s institutional predisposition is

340. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,879.

341. EPA Water Quality Standards Branch, *Water Quality Standards Handbook Second Edition* (Sept. 1993 & Update Aug. 1994), available at <http://www.epa.gov/waterscience/library/wqstandards/handbook.pdf> (emphasis added); see also Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. at 64,884 (“the provision allowing appropriate governmental entities to comment on tribal assertions of authority is not intended as a barrier to Tribal program assumption.”); see *id.* at 64,881 (“the Agency presumes that, in general, Tribes are likely to possess the authority to regulate activities affecting water quality on the reservation.”); see *id.* at 64,888 (“Although EPA believes that tribes should be provided every opportunity to regulate water quality and to participate in environmental control programs, during dispute resolution actions the appointed mediator/arbitrator will act first and foremost as a neutral facilitator of discussions between parties.”) (emphasis added); see *id.* at 64,879 (A tribal application for TAS status “will need to make a relatively simple showing of facts.”).

342. In an effort to drive home its claim of EPA “bias” in the TAS designation process, Wisconsin explained that EPA officials had gone so far as to engage in criminal conduct to defeat Wisconsin’s competing claims of jurisdiction over waters of other reservations in the state. When *Wisconsin v. EPA* was initially filed in the district court, it was consolidated with four other cases where Wisconsin was challenging the EPA’s decisions granting TAS status to two additional tribes: the Menominee and Oneida. During the discovery phase of the consolidated cases, evidence surfaced that EPA officials had backdated EPA documents pertaining to the TAS applications of the Menominee and Oneida tribes and then falsely testified on multiple occasions about having done so. This was done by the EPA officials, Wisconsin explains, to “bolster the administrative records and thereby defeat Wisconsin’s claim of sovereignty over waters

to encourage tribal applications for TAS status, and, once received, make sure they are approved.

So it would seem that applying for TAS status to administer water quality standards would be an efficient use of limited tribal resources allocated for environmental protection. Water is traditionally one of the most important environmental aspects of Indian reservations and an integral part of many tribes' heritage. Therefore, reservation water quality likely ranks high on the environmental priority list of many tribes.³⁴³ The EPA has made the path to obtaining TAS designation for administering water quality standards one of little resistance; or perhaps more accurately, one where a tribe will be assisted until it reaches its destination.³⁴⁴ As verified by the Seventh Circuit in

within Wisconsin's Indian reservations." Brief for Appellant at 3-4, 13, 16-18, *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001) (No. 99-2618).

Consequently, a federal grand jury indicted Marc Radell, an Associate Regional Counsel of the EPA, and Claudia Johnson, the Region V Tribal Coordinator/Program Manager. Ms. Johnson died before the disposition of the case against her. However, Mr. Radell pleaded guilty to contempt of court for his actions and admitted the factual analyses in the records of the Oneida, Menominee, and Lac du Flambeau (another TAS tribe) cases did not exist at the time of the TAS decisions. He also admitted that he had filed false affidavits and had testified falsely at his deposition to conceal the fabrication of the administrative record. *Id.*

As a result, the EPA withdrew previously granted TAS designations to the Oneida and Lac du Flambeau tribes and the Menominee tribe voluntarily relinquished its TAS status. The Mole Lake Band's application was not affected, however, because "there was no similar factual findings document in the record of the Band's application." Without evidence of wrongdoing pertaining specifically to the Band, the original TAS designation remained in effect and the case proceeded. *Id.* at 13.

This chain of events certainly legitimizes suspicions that, in practice, the EPA's process for determining whether a tribe has inherent authority over reservation waters means nothing; approval of a TAS application is inevitable. After all, why would government employees, including an attorney, with seemingly no personal interest at stake conduct such malfeasance? Wisconsin reasonably argues it is a result of the EPA's institutional bias in favor of granting TAS applications under all circumstances. However, while such arguments are extremely interesting and intuitively reasonable, they are only of peripheral relevance to the situation in *Wisconsin v. EPA*. Wisconsin apparently does not dispute the finding that there was no misconduct with respect to the Band's application. To impute a type of "character evidence" from the malfeasance involved with a few tribal applications to the entire application and designation process (including the Band's application) would be legally dubious. The court of appeals did not even address these matters in its opinion.

343. See, e.g., Mni Sose Intertribal Water Rights Coalition, at <http://www.mnisose.org>. The EPA's American Indian Environmental Office also helps tribal environmental managers make decisions on environmental priorities for the reservation and provides for EPA implementation assistance for environmental programs. EPA Office of Water, American Indian Environmental Office, *Mission & EPA Contacts*, available at <http://www.epa.gov/indian/miss.htm>.

344. See EPA Office of Water, American Indian Environmental Office, Resource Guide, *Chapter Three: EPA's Approach to Environmental Protection in Indian Country*, at <http://www.epa.gov/indian/resource/chap3.htm>

[T]he Agency will recognize tribal governments as the primary parties for setting standards, making environmental policy decisions, and managing programs for reservations, consistent with Agency standards and regulations; and as impediments in our procedures, regulations, or statutes are identified that limit our ability to work effectively with tribes consistent with this Policy, we will seek to remove those impediments. (emphasis added).

Id. The mission of the American Indian Environmental Office within the EPA's Office

Wisconsin v. EPA, a tribe need not be concerned that its efforts in obtaining TAS status will be for naught because extreme deference will be afforded the EPA in any judicial review of its decision.

B. GOVERNMENTAL ENTITY CHALLENGES TO “TREATMENT AS A STATE” DESIGNATION: A FUTILE EXERCISE?

If more tribes apply for and receive TAS designation to administer water quality standards, then there may be a proportionate number of competing claims of jurisdiction over reservation waters by governmental entities. By this point, it should be clear that this article forecasts that opposition to tribal TAS applications will be futile. Three main points can be deduced from *Wisconsin v. EPA*: EPA approval of a TAS application is virtually guaranteed, courts will defer to Agency discretion, and almost all conceivable legal challenges by an “appropriate governmental agency” have been foreclosed.

The court of appeals, however, attempted to leave a glimmer of hope for other legitimate and successful challenges to TAS designation. In its conclusion, the court stated:

We have no occasion to say whether, on a different set of facts, the EPA might extend the notion of a tribe’s “inherent authority” to affect off-reservation activities so far as to go beyond the standards of the statute or the regulations. If it ever arises, that will be another case, for another day.³⁴⁵

It is, however, extremely difficult to envision the “day” and the “case” to which the court alludes. If the court was referring to an egregious hypothetical situation where the EPA is allowing a tribe to exercise extraterritorial jurisdiction over an activity completely unrelated to political integrity, economic security, or health or welfare of the tribe, then, of course, the court could halt such a warped application of the *Montana* test. But, in the more pragmatic context of TAS designation to tribes for section 303 and 401 purposes, the Seventh Circuit has foiled realistic challenges by governmental entities to the EPA’s decisions. The court not only gave substantial deference to EPA determinations, but, more importantly, squarely and convincingly rejected what may have been the only viable legal arguments for contesting a TAS designation to administer water quality standards.

A brief reflection on the arguments presented by Wisconsin and rejected by the court is in order. First, Wisconsin argued that Rice Lake was not within the borders of the Band’s reservation boundaries.³⁴⁶ Although this argument was waived, the court still

of Water is to coordinate the “Agency-wide effort to strengthen public health and environmental protection in Indian Country, with a *special emphasis* on building Tribal capacity to administer their own environmental programs.” EPA Office of Water, American Indian Environmental Office, *Mission & EPA Contacts*, at <http://www.epa.gov/indian/miss.htm> (emphasis added).

345. *Wisconsin v. EPA*, 266 F.3d 741, 750 (7th Cir. 2001).

346. *Id.* at 746.

spoke to it and decided that the EPA could reasonably conclude that Rice Lake was sufficiently within the reservation's borders.³⁴⁷ Second, the court repudiated Wisconsin's claim that the Equal Footing Doctrine vested the state with title to and exclusive control over submerged lands and overlying waters within the reservation's borders well before the reservation was created.³⁴⁸ Wisconsin argued that its title made it impossible for the Band to have inherent authority over the reservation waters because the EPA construed section 518(e) as only recognizing *preexisting* authority of tribes and Wisconsin was admitted to the Union before creation of the reservation. This legal argument is complicated and troubling until it is understood that the Equal Footing Doctrine concerns only the "shores of and lands beneath navigable waters"³⁴⁹ and in no way limits "the broad powers of the United States to regulate the navigable waters under the Commerce Clause."³⁵⁰ That is, the court rejected the assertion that a state receives title to *overlying waters* under the Equal Footing Doctrine. The court also refuted Wisconsin's contention that the Band could only establish its inherent authority over reservation waters by showing that impairment of waters from *on-reservation activities* would affect the political integrity, economic security, or health or welfare of the tribe. In rejecting this somewhat backwards argument, the court of appeals recognized that extraterritorial jurisdiction is not relevant in considering a tribe's inherent authority over reservation waters in the first instance, but is only a side effect arising from a *grant* of TAS designation. Furthermore, as explained in *Arkansas v. Oklahoma*, neither TAS tribes nor states truly exercise extraterritorial jurisdiction under the CWA. Rather, it is the *federal government* (pursuant to the EPA's regulations) that requires upstream states to comply with downstream water quality standards. Finally, it should not be forgotten that an underlying fundamental precept here is that the federal government is vested with exclusive authority over relations with Indian tribes.

The points argued by Wisconsin raised substantial questions of law. And, although this article's position is that the Seventh Circuit accurately disposed of the issues—Wisconsin's contentions were formidable. So formidable that it is difficult to conceive of a stronger challenge a state could mount in opposition to a TAS designation. Is there really a factual scenario, as the court of appeals muses, which could give rise to a different result?³⁵¹ What feasible argument is left

347. *Id.*

348. *Id.* at 746-47.

349. *Id.* at 747 (internal quotations omitted).

350. *Wisconsin v. EPA*, 266 F.3d at 747 (internal quotations omitted).

351. In briefly exploring this question, this article assumes that a court would scrutinize and likely reverse absolutely outrageous designations of TAS status. For instance, if a tribe were to apply for and receive TAS status to set water quality standards for a lake located 300 miles outside the reservation borders (and completely unconnected through waterways to the reservation), it can be safely assumed that a successful challenge could be brought. Here, this article will give credit to the tribes

for a governmental entity seeking review of a TAS designation to administer water quality standards?

1. The Waterbody Is Not Navigable

One possibility may be for a state to aver the waterbody or bodies a tribe seeks to regulate are not “navigable waters.” As discussed above, the federal government’s broad Commerce Clause jurisdiction creates an ever-present dominant navigable servitude over the navigable waters of the United States. Indeed, the CWA itself is borne of such authority.³⁵² However, the Supreme Court made clear that “the grant of authority to Congress under the Commerce Clause, though broad, is not unlimited.”³⁵³ In *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, the Supreme Court clarified that the phrase “navigable waters” as used in the CWA carries significant meaning. In that case, the Army Corps of Engineers (“Corps”) denied a consortium of Chicago municipalities a permit to fill some seasonal and permanent ponds created by abandoned gravel mining pits. The Corps claimed it had jurisdiction to issue fill permits for the ponds because the ponds met the definition of “navigable waters” found in the Corps’ regulations and because migratory birds that “crossed state lines” were using the ponds.

The Court disagreed that the Corps had jurisdiction over the ponds in the abandoned gravel pits. The Court acknowledged that under the CWA, Congress “evidenced its intent to regulate at least some waters that would not be deemed ‘navigable’ under the classical understanding of that term,”³⁵⁴ but, this did not make the term “navigable” devoid of meaning. According to the Court, the term “has at least the import of showing us what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could be reasonably so made.”³⁵⁵ However, the isolated ponds formed in the gravel pits were not adjacent to navigable waters or “inseparably bound up with the waters of the United States.”³⁵⁶ As a result, the Court concluded that the ponds were not navigable waters under the CWA subject to the Corps’ jurisdiction. The fact that migratory birds used the ponds could not be used by the Corps to bootstrap regulatory jurisdiction under the Commerce Clause. Specifically, the court refused to hold that “isolated ponds, some only seasonal, wholly located within two Illinois counties, fall under § 404(a)’s definition of ‘navigable waters’

and the EPA and avoid such “improbable hypotheticals.” *Nixon v. United States*, 506 U.S. 224, 238 (1993) (Stevens, J., concurring).

352. See *supra* text accompanying note 287.

353. *Solid Waste Agency v. United States Army Corps of Eng’rs*, 531 U.S. 159, 173 (2001) (citing *United States v. Morrison*, 529 U.S. 598 (2000); *United States v. Lopez*, 514 U.S. 549 (1995)).

354. *Id.* at 167 (citing *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 133 (1985) (internal quotations omitted)).

355. *Id.* at 172.

356. *Id.* at 167 (internal quotations omitted).

because they serve as habitat for migratory birds."³⁵⁷ Moreover, the Court explained that "[p]ermitting [the Corps] to claim federal jurisdiction over ponds and mudflats falling within the 'Migratory Bird Rule' would result in a significant impingement of the States' traditional and primary power over land and water use."³⁵⁸

This leaves open the possibility that a state could claim that TAS jurisdiction could not be given to a tribe for a waterbody within the reservation which is akin to an isolated pond not adjacent to navigable waters and not "inseparably bound up with the waters of the United States." In *Wisconsin v. EPA*, Judge Wood specifically noted that "here no one disputes that the waters at issue are 'navigable waters' for purposes of either the [CWA] or the Commerce Clause."³⁵⁹ Thus, a clear inference can be drawn that a set of facts that raises significant doubts concerning the navigability of waters a tribe seeks to regulate may lead to an effective challenge of TAS designation.

In the final analysis, however, a "navigability" challenge would seem an unlikely scenario. First, it would seem less likely that a tribe would apply for TAS designation over completely isolated water bodies in the first instance. This may not be an effective allocation of the tribe's limited resources dedicated to environmental protection. Protecting reservation waters from transboundary pollution is the major impetus for tribes seeking power over its water quality standards. If a waterbody is truly isolated and not connected to navigable bodies of water, it is unlikely that transboundary water pollution will be a major concern. Second, if one gives even a modicum of credit to the EPA, one would anticipate the Agency might filter out TAS designation claims for waters not falling under the jurisdiction of the CWA. This is a situation where one may expect the EPA would assist a tribe with its TAS application by dissuading requests for jurisdiction over non-navigable waters in favor of navigable water bodies. Third, it is questionable whether a state would care whether a tribe received TAS status over a non-navigable waterbody within reservation boundaries.³⁶⁰ If the waterbody was truly isolated from the other waters of the state, then even extremely strict water quality standards for that waterbody would have no restrictive effect on discharges outside the reservation because there is nothing "upstream" from an unconnected waterbody.

Finally, even if a tribe receives TAS status over a non-navigable waterbody within reservation boundaries and the state protests, there may be a standing issue. As the Seventh Circuit pointed out, "state laws may usually be applied to Indians on their reservations only if

357. *Solid Waste Agency*, 531 U.S. at 171-72.

358. *Id.* at 174.

359. *Wisconsin v. EPA*, 266 F.3d 741, 747 (7th Cir. 2001).

360. On the other hand, if a state owns fee lands within reservation borders or has an interest in a private property owner of fee lands within the reservation, a restriction on non-navigable waters that hinders use of the land may give rise to a jurisdictional dispute.

Congress so expressly provides.”³⁶¹ So, even if the waterbody was not navigable for purposes of the CWA, and a tribe should not have received TAS status for it, if it is located within reservation boundaries it is questionable whether the state could enforce its own laws concerning the water in the first place.³⁶² For these reasons, while contesting TAS status for a tribe to administer water quality standards of a non-navigable waterbody may still be an open avenue, the practical reality is that the likelihood of success is probably minimal.

2. Impairment of a Reservation Waterbody Will *Not* Have Serious and Substantial Effects on the Political Integrity, Economic Security, or Health or Welfare of the Tribe.

Another more obvious, albeit similarly restrictive, route for a state to take is to argue that impairment of the waterbody or bodies a tribe seeks to regulate will not have serious and substantial effects on the political integrity, economic security, or health or welfare of the tribe. In other words, a state could attempt to show the waterbody simply has no value to the tribe and any degradation of it would have no detrimental effect on the tribe whatsoever. Recall that one of the ways Judge Wood distinguished *Wisconsin v. EPA* from *Wisconsin v. Baker* is that the Chippewa Tribe in *Baker* did not claim the conduct it sought to regulate (public fishing and hunting) posed a threat to the political integrity, economic security, or health or welfare of the tribe. In *Wisconsin v. EPA*, both parties conceded that the waters within the Mole Lake Reservation “are very important to the Band’s economic and physical existence.”³⁶³

Similarly, in the context of a TAS designation, if a tribe fails to articulate how impairment of the waters it seeks to regulate will adversely impinge on the political integrity, economic security, or health or welfare of the tribe, a state may have a strong basis to contest an EPA grant of TAS status. Since the EPA’s generalized findings ostensibly will be used only to supplement the tribe’s factual showing of inherent authority, a complete failure by a tribe to present facts elucidating the importance of reservation waters to the tribe should be insufficient to receive TAS status. However, rather than a total failure by the tribe to provide, and the EPA to require, a sufficient factual showing, the more likely circumstances in which a state would lodge this type of challenge is when it believes a tribe is overstating the importance of the reservation waters it seeks to regulate. That is, no matter how useless or remote the waterbody, a tribe would always aver that any impairment thereof would harm the political integrity, economic security, or health or welfare of the tribe.

While taking the position that a tribe has misstated or the EPA has

361. *Wisconsin v. EPA*, 266 F.3d at 747.

362. A response to this argument is that, notwithstanding the state’s inability to set standards for reservation waters, the state would still prefer federal standards to be used rather than those set by the tribe.

363. *Wisconsin v. EPA*, 266 F.3d at 750.

misconstrued the true significance of reservation waters may lead to spirited debate about who is best equipped to answer such a question, the ultimate result will likely be the same: the challenging state will be unsuccessful. First, as a practical matter, it would seem less likely that a tribe would waste its time and limited resources in applying for TAS designation for water bodies that are completely irrelevant to it. Similarly, if TAS status were granted, the tribe would be dedicating its valuable regulatory assets to something inconsequential to the tribe.

In addition, courts will trust the EPA to make decisions concerning the importance of reservation waters. Given the deferential standard of review of TAS decisions, a court would be hard-pressed to substitute its judgment in favor of the Agency's in a sensitive area such as the significance of reservation waters to tribes. Absent egregious malfeasance by the EPA,³⁶⁴ the Agency will be considered the more capable arbiter as to the consequences arising from impairment of tribal water resources.

It is also difficult to conceive a factual scenario where a reservation waterbody would be considered irrelevant to the tribe. Given the breadth of the EPA's "generalized findings regarding the relationship of water quality to tribal health and welfare,"³⁶⁵ and the undemanding factual showing a tribe must make, virtually any waterbody located within the reservation would have *some* effect on the tribe if impaired. Even if a tribe does not consistently use the waterbody, is not dependent on it for water, food, or materials, or the water is already polluted; the traditional relationship between the waterbody and the political integrity, economic security, or health or welfare of the tribe is not necessarily disconnected. It must be considered that "[N]ative Americans have . . . views that are very different from mainstream world views and that what happens to land and resources matters a great deal to Native Americans."³⁶⁶ Indians generally believe that all resources on their homelands are essential and interconnected, and thus, it would be very difficult to posit that certain water bodies lack the requisite importance for a tribe to obtain authority over them. "In non-Indian parlance, traditional [Indian] wisdom is *systems thinking*. It is a discipline for seeing wholes, recognizing patterns and interrelationships, and learning how to structure human actions accordingly."³⁶⁷ Therefore, it would be repugnant to Indian heritage for a state challenging TAS designation to attempt a division of reservation water resources into those whose impairment would be

364. See *supra* note 342.

365. Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,879 (Dec. 12, 1991) (codified at 40 C.F.R. pt. 131); see also *Montana v. EPA*, 137 F.3d 1135, 1139 (9th Cir. 1998).

366. EPA Office of Water, American Indian Environmental Office, Resource Guide, *Chapter One: Understanding Native Americans*, at <http://www.epa.gov/indian/resource/chap1.htm>.

367. *Id.* (citing NATIVE HERITAGE, PERSONAL ACCOUNTS BY AMERICAN INDIANS 1790 TO THE PRESENT xix-xxii (Arlene Hirschfelder ed., 1995)).

significant to a tribe's way of life and those whose impairment would have no serious impact.

Nevertheless, there could be factual circumstances where a state could make a compelling argument that it was arbitrary and capricious, or otherwise contrary to law, for the EPA to grant TAS status for certain reservation waters. For example, what if there was a small navigable lake located on the outskirts of a reservation's boundaries that the tribe had explicitly or impliedly "disowned" on the day the reservation was created? The tribe constructed a barrier to the lake so no one on reservation land could gain access to it and it was never used for drinking, hunting, fishing, materials, industry or Indian rituals. So, although the lake was within the reservation boundaries, for all intents and purposes it was detached from the tribe's use and way of life. Furthermore, the lake is connected by rivers to upstream states, but is not connected by waterway to other water bodies in the reservation. The tribe then applies for and receives TAS status to administer water quality standards for the cordoned-off lake. In this situation, a state may have a legitimate, fact-based argument that TAS designation was improvidently granted because impairment of the lake's water quality would not have substantial or serious effects on the political integrity, economic security, or health or welfare of the tribe.

Such hypotheticals, while not impossible, do seem extreme. In addition, the state will encounter similar problems discussed above in the context of a navigability challenge. Again, it would be doubtful that a tribe would expend its resources on waters without relevance to it. And, of course, a court will generally trust the EPA's reasonable scrutiny of such circumstances, especially when the facts are on the margin. There would be other hurdles as well; one would be establishing a genuine schism between the waterbody and the health and safety of the tribe. For instance, even if no surface waters connect the lake to other water bodies or lands the tribe utilizes, it is very possible that contamination of the cordoned-off lake could have a groundwater effect potentially reaching drinking water, crops, and other water bodies.

Furthermore, just because the tribe has chosen to detach itself from the waterbody does not necessarily mean that it did not have preexisting authority over it. Similarly, it does not mean the tribe will not choose to utilize the water in the future for economic growth, food and water, or other purposes. While the test for inherent authority over reservation waters examines whether their impairment may seriously or substantially affect the political integrity, economic security, health or welfare of the tribe, there is no requirement that it be the tribe's *current* political integrity, economic security, health or welfare. Such a requirement would be counterintuitive to the whole rationale of preventing harm to the waters before it happens. The point is that even in the unlikely event that it could be genuinely shown that the impairment of a reservation waterbody is *currently* inconsequential to a tribe, a detrimental effect on the tribe's future utilization of the water resource may be sufficient for the tribe to

establish inherent authority.³⁶⁸ In any event, should such strange scenarios arise, a challenging state will wage its word against the EPA's and the tribe's as to whether the impairment of a reservation waterbody *really* would be germane to the tribe. A state taking such a stance would be wise to have a sound factual basis to avoid not only quick defeat in the courts, but also an appearance of offensive presumptuousness.

In sum, it appears that most of the strictly legal arguments a state would use to contest a TAS designation, especially in the course of judicial review of the EPA's decisions, have been foreclosed. The little room left by the Seventh Circuit to contest TAS designation revolves primarily around very specific factual situations, and even then, provides little assurance that such challenges will bear any fruit. The inexorable bottom line is that, absent entirely novel factual circumstances, state opposition to the grant of TAS status to a tribe to administer reservation water quality standards is futile.

VI. AN ALTERNATIVE APPROACH – WATERSHED MANAGEMENT

Although it is beyond the scope of this article to expound thoroughly upon possible alternative approaches to water regulation in the United States, it would be remiss to conclude without at least superficially touching upon the subject. After all, this article foretells the coming of a new age in water pollution regulation where numerous Indian tribes apply for, receive, and assert the authority made available to them by Congress in section 518(e) of the CWA and approved by various federal courts of appeal. What if all or a majority of the tribes located on the 278 United States Indian reservations did in fact apply for and receive TAS status to regulate reservation water quality? And what if these TAS tribes set water quality standards with an extremely high level of stringency as anticipated? Such a situation—whether it happens relatively rapidly or at a measured pace—theoretically has the potential to create a national water pollution program with over 328 independent sovereigns setting water quality standards within their borders.³⁶⁹ Not only would such a situation increase the incidence of transboundary conflicts, but also it would alter the entire character of the CWA. Is this the best way to operate a comprehensive federal statute intended “to restore and maintain the chemical, physical, and biological integrity of the Nation's waters?”

The fundamental problem with this framework is simple—it draws regulatory lines along political boundaries rather than geographic

368. Such an approach raises additional questions such as whether a tribe should be required to explain whether it actually intends to integrate the waterbody in the future or whether it need merely raise the possibility of doing so.

369. Under the CWA, “States” includes states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and the Trust Territory of the Pacific Islands. 33 U.S.C. § 1362(3) (1994).

boundaries. This method is incongruous to the character of the regulated resource. The Nation's waters, the lands that surround and affect them, and the sources of their pollution all transcend the political boundaries of states and Indian tribes. Water pollution is an intricate problem. An extremely broad range of chemical, physical, and biological factors causes injury to the country's waters and their aquatic ecosystems.³⁷⁰ Effective restoration and protection of the water resources in this country are not amenable to easy fragmentation and distribution of regulatory power based simply on each sovereign controlling what will be tolerated within its borders. As aptly stated by one commentator:

The current structure of the Clean Water Act, which vests regulatory authority in political units unrelated to environmental geography, is fractured along lines that lead away from either good economics or good environmental policy. Moreover, giving tribes the status of states under the Clean Water Act opens the fractures even wider, something the basic principles of ecology and economics would surely counsel against. We do not need *less* integrated planning on a basinwide scale. . . . Political boundaries are contingencies of human history; we come to geographical boundaries with our hats in our hands.³⁷¹

The EPA acknowledges that while the original framework of the CWA prompted significant progress in improving the country's waters, "[t]oday's problems require more creative, comprehensive solutions."³⁷² The rigidity of state and reservation borders form inflexible jigsaw-puzzle-like regulation that is simply mismatched to the mobile, multifaceted, and complex water resource.

This mismatch sets the stage for discord among not only states and tribes, but also the many "on the ground" users and influencers of water resources. "By locating regulatory authority along political boundaries—that is, by vesting it in individual states as opposed to a collective association of all affected parties—the Clean Water Act inevitably begets conflicts among upstream and downstream users asserting superior rights."³⁷³ The scale of these conflicts is not trivial. For example, in *Albuquerque v. Browner*, the Isleta Pueblo tribe set its standards for arsenic 1,000 times more stringent than New Mexico's standards, and almost 2,500 times more stringent than the EPA's standard for safe consumption.³⁷⁴ In addition, the level of the arsenic that occurred naturally in the Rio Grande was above the levels set by the tribe so that even if Albuquerque's wastewater was 100 percent pure when discharged, the arsenic levels in the reservation waters

370. Adler, *supra* note 12, at 204.

371. Harbison, *supra* note 66, at 495.

372. EPA Office of Water, *The Watershed Approach*, at <http://www.epa.gov/owow/watershed/wal.html>.

373. Harbison, *supra* note 66, at 481.

374. Bilut, *supra* note 129, at 896.

would still have exceeded the tribal standards.³⁷⁵ To comply with the arsenic standard, Albuquerque would have been “required to build a reverse osmosis tertiary level treatment facility at a capital cost of \$250,000,000, with approximately 26 million dollars per year in operating costs.”³⁷⁶ According to Albuquerque, the term “comply” in these circumstances is somewhat misleading because the treatment facility would serve no real purpose. The tribe’s arsenic standard was “below levels measurable by modern laboratory equipment [and] the ambient level [of arsenic would] never improve due to the natural background conditions in the groundwater.”³⁷⁷ In the end, however, Albuquerque lost. The point here is that the tensions created by the CWA are real and substantial, and that the border-based framework can lead to sub-optimal results. Add a considerable number of TAS tribes to the mix, and the friction increases exponentially.³⁷⁸

So what is all this talk of “geographical boundaries” and how do they work in the water regulation context? The concept of regulating water pollution using “geographical boundaries” simply means regulation and management on a *watershed* basis. As mentioned earlier, a watershed is:

[T]he land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River basin contain thousands of smaller watersheds.³⁷⁹

Thus, the borders of sovereigns do not define watersheds. “Watersheds are *nature’s boundaries*. They are the areas that drain to water bodies, including lakes, rivers, estuaries, wetlands, streams, and the surrounding landscape. Groundwater recharge areas are also considered.”³⁸⁰ The idea is that by regulating swaths of naturally

375. *Id.*

376. *Id.*

377. *Id.* at 903.

378. The EPA’s regulations (required by Congress in section 518(e) of the CWA) setting forth a dispute resolution mechanism for disputes arising between states and tribes as a result of differing water quality standards on common bodies of water are not the panacea for these conflicts. 40 C.F.R. § 131.7 (2001). The regulations provide for two mechanisms. The first is mediation in which the EPA appoints a mediator who simply acts as a neutral facilitator “whose function is to encourage communication and negotiation between all parties to the dispute.” *Id.* § 131.7(f)(1)(ii). The mediation process has no binding effect on the parties. The second mechanism provided for is arbitration. Under this process, “[t]he parties are not obligated to abide by the arbitrator’s or arbitration panel’s recommendation unless they voluntarily entered into a binding agreement to do so.” *Id.* § 131.7(f)(2)(iv). Participation in either mediation or arbitration is strictly voluntary. *Id.* § 131.7(f)(1)(i), (f)(2), (f)(3). Thus, it is arguable the dispute resolution mechanism, although venerable in name and concept, lacks efficacy to solve transboundary conflicts.

379. U.S. Geological Survey, *Water Science Glossary of Terms*, at <http://www.ga.usgs.gov/edu/dictionary.html>.

380. EPA Office of Water, Office of Wetlands, Oceans & Watersheds, *EPA’s Most Frequently Asked Questions Related to Wetlands, Oceans & Watersheds*, at

interrelated lands and aquatic ecosystems, water pollution is being addressed on a more holistic and thoughtful level rather than looking one-dimensionally at sovereign borders. The EPA observed that, “because watersheds are defined by natural hydrology, they represent the most logical basis for managing water resources. The resource becomes the focal point, and managers are able to gain a more complete understanding of overall conditions in an area and the stressors which affect those conditions.”³⁸¹ The ultimate hope of watershed management is optimal pollution control with minimal conflict.

Watershed management is a broad area, and is the subject of extensive writing. It is only cursorily touched upon in this article to show that stark divisions between TAS tribes, states, and other interested parties in the water pollution arena do not necessarily have to be the norm. A watershed management development plan typically follows certain distinct phases: watersheds are identified and mapped; the “stakeholders” in the watershed including federal, state, tribal, and local agencies are assembled to analyze threats to the watershed and to devise responses to these threats; the selected responses are applied to the watershed; and progress in achieving water quality goals are regularly monitored, with adjustments made as necessary.³⁸² The effort is aimed at being a cooperative, integrated approach, devoid of power mongering and autocracy.

The EPA has articulated three “guiding principles” on which to build all watershed programs. The first is “*partnerships*,” whereby those parties “most affected by management decisions are involved throughout and shape key decisions.”³⁸³ This, according to the EPA, “ensures that environmental objectives are well integrated with those for economic stability and other social and cultural goals. It also provides that the people who depend upon natural resources within the watersheds are well informed of and participate in planning and implementation activities.”³⁸⁴ The second principle is a “*geographic focus*,” which changes the boundaries for water pollution management to those created by nature rather than the mere political borders of sovereigns.³⁸⁵ The third is “*sound management techniques based on strong science and data*,” whereby the stakeholders in the watershed collectively employ sound science to set goals, implement action plans, and monitor results.³⁸⁶ The idea behind this approach is that “actions are

<http://www.epa.gov/owow/questions.html> (emphasis added).

381. EPA Office of Water, *Why Watersheds?*, at <http://www.epa.gov/owow/watershed/why.html>.

382. PETER S. MENELL & RICHARD B. STEWART, ENVIRONMENTAL LAW AND POLICY 514 (1994); see also EPA Office of Water, *Watershed Protection – An Introduction*, available at <http://www.epa.gov/owow/watershed/index2/html>.

383. EPA Office of Water, *Watershed Approach Framework*, at <http://www.epa.gov/owow/watershed/framework.html>.

384. *Id.*

385. *Id.*

386. *Id.*

based upon shared information and a common understanding of the roles, priorities, and responsibilities of all involved parties.³⁸⁷ The obvious motivation and hopeful result of these idealistic guiding principles is to manage and reduce water pollution with a minimum of conflict.

To accomplish this, entire jurisdictions are divided into geographic management units based on hydrologic connections, with existing regulatory programs and political boundaries “factored into” decisions about the formation of the units.³⁸⁸ Thus, the regulatory framework is founded upon the practical realities of how water pollution really works and merely adds in the existence of political boundaries as a supplemental, but not primary, consideration. States, tribes, and local interests can then compare priorities, develop plans, reach compromises, and “leverage their limited resources to meet common goals.”³⁸⁹ The result is a water pollution regulatory system that transcends political borders by defining and regulating water using hydrologic boundaries, and fostering cooperation by all stakeholders in the watershed from the outset.

So, unlike the confrontational posture the state/TAS tribe dichotomy creates, the watershed approach envisions cooperative efforts from those affected and affecting the waterbodies of the country. By creating an atmosphere of teamwork between states, TAS tribes, local governments, and individual parties, “the watershed approach can build a sense of community, reduce conflicts, increase commitment to the actions necessary to meet societal goals and, ultimately, improve the likelihood of sustaining long-term environmental improvements.”³⁹⁰ The EPA believes that states and tribes are the principal players in implementing a watershed approach because they already manage many of the existing water and natural resource protection programs.³⁹¹ Indeed, “[f]or the long term, EPA envisions locally-driven, watershed-based activities embedded in comprehensive state and tribal watershed approaches all over the United States.”³⁹²

Implementing such a utopian paradigm is, of course, no simple matter.³⁹³ And, multi-party settings have their own set of difficulties.³⁹⁴ The EPA, however, is taking major steps to encourage watershed management and provide support for its development. The Agency

387. *Id.*

388. *Id.* (emphasis added).

389. EPA Office of Water, *Watershed Approach Framework*, at <http://www.epa.gov/owow/watershed/framework.html>.

390. *Id.*

391. *Id.*

392. *Id.*

393. See generally William Goldfarb, *Watershed Management: Slogan or Solution?*, 21 B.C. ENVTL. AFF. L. REV. 483 (1993).

394. See Harbison, *supra* note 66, at 491-92 (explaining certain potential difficulties in watershed management with multiple parties involved that, while formidable, are not insuperable).

has made a “[c]onsiderable effort...in streamlining program administrative requirements that hinder watershed approaches and [has invested] in developing useful watershed tools and services.”³⁹⁵ The EPA has also recognized the damaging nature of transboundary conflicts to internal political relations as well as to the protection of the country’s water resources. The Agency’s Office of Water has announced that it has put a “[h]igh priority...on developing and supporting comprehensive state and tribal watershed approach strategies that actively involve public and private interests at all levels to achieve environmental protection.”³⁹⁶ Thus, the push is on to fundamentally change the model of water regulation in this country to a watershed approach, and this article submits that such a plan is a potent alternative to the divisions and conflicts inevitably produced by the current framework.

VII. CONCLUSION

The decision by the Seventh Circuit Court of Appeals in *Wisconsin v. EPA* was important in that it both confirmed TAS Indian tribes’ status as co-equal sovereigns for authorized functions under the CWA, and correctly foreclosed the most feasible legal challenges to a tribe’s TAS designation. In fact, it now appears that in all practicality, any opposition by a state to the grant of TAS status is futile. Put simply, the court’s opinion and the EPA’s regulations and operating procedures make clear that TAS status to administer water quality standards is available for the tribes’ taking. The importance of water resources to tribes and this latest affirmation of the ease in which TAS status may be obtained will likely persuade many Indian tribes to direct their limited environmental resources to obtaining control over reservation waters. As more tribes assert this control, transboundary water pollution conflicts will increase on a scale not yet seen. The EPA, however, is trying to stem this potential tide of conflict and discord between sovereigns by redrawing the regulatory lines to those created by hydrologic boundaries rather than those marking political borders. Such watershed management practices envision cooperation over conflict and environmental protection over environmental protectionism. Thus, the CWA itself is at a crossroads. It will be up to

395. EPA Office of Water, *Why Watersheds?*, at <http://www.epa.gov/owow/watershed/why.html>.

396. EPA Office of Water, *Watershed Approach Framework*, at <http://www.epa.gov/owow/watershed/framework.html>. On January 25, 2002, the EPA announced that President Bush is including \$21 million in his 2003 budget for new watershed protection initiatives. The money will be used to “target up to 20 of this country’s most highly-valued watersheds for grants. EPA will be working cooperatively with state governors, tribes and other interested parties on this initiative.” In her enthusiastic statement announcing the allocation, EPA Administrator Christie Whitman stated: “I have heard a watershed defined as ‘communities connected by water,’ a good reminder that we all live downstream from someone.” U.S. Environmental Protection Agency, EPA Newsroom, *EPA Announces New Initiative to Protect and Preserve America’s Waterways*, at http://www.epa.gov/epahome/headline4_012502.htm (last updated Mar. 19, 2002).

the CWA's integral participants—the EPA, states, and empowered Indian tribes—to take the path that restores and protects the water resources of the United States while also preserving and protecting a cooperative spirit among its inhabitants.

WATERSHED DOWN?: THE UPS AND DOWNS OF WATERSHED MANAGEMENT IN THE SOUTHWEST

KARA GILLON[†]

I.	Introduction.....	395
II.	Patchwork of Existing Statutes and Authorities that Recognize Jurisdictions of Federal, Tribal, and State Agencies	398
III.	The Law of the Colorado River	403
IV.	The Law of the Rio Grande	408
V.	Sharing Power, Crossing Boundaries	411
VI.	Facing the Void	418
	A. Middle Rio Grande	423
VII.	Conclusion.....	425

I. INTRODUCTION

This article began as a presentation on interjurisdictional watershed management. “Interjurisdictional” is really just verbiage. A watershed, defined by physical rather than political boundaries, rarely falls under the management of a single entity. The land area that drains to a single body of water such as a river or lake is the watershed itself.¹ Also, a few acres may drain to a small stream or wetland while those small streams and wetlands may drain into larger rivers, which in turn drain into estuaries.² Watershed management, therefore, “uses

[†] Kara Gillon is Wildlife Counsel with Defenders of Wildlife, a biodiversity advocacy organization based in Washington, D.C., with a field office, *inter alia*, in Albuquerque, NM. Since 1994, Defenders has embarked on a legal, scientific and political strategy to protect and conserve the Sonoran Desert ecosystem, including that oasis which is the Lower Colorado River and Delta. Ms. Gillon is also a participant in the Middle Rio Grande ESA Collaborative Program.

1. This has become the popular definition, as the U.S.G.S. defines watershed as “The divide separating one drainage basin from another and in the past has been generally used to convey this meaning. However, over the years, use of the term to signify drainage basin or catchment area has come to predominate, although drainage basin is preferred Used alone, the term “watershed” is ambiguous and should not be used unless the intended meaning is made clear.

W.B. LANGBEIN & KATHLEEN T. ISERI, GENERAL INTRODUCTION AND HYDROLOGIC DEFINITIONS, GEOLOGICAL SURVEY WATER-SUPPLY PAPER 154-A (1995), *available at* <http://water.usgs.gov/wsc/glossary.html>. This article will refer to basin—“A part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water”—interchangeably with watershed. *Id.*

2. See ENVIRONMENTAL PROTECTION AGENCY, PROTECTING AND RESTORING AMERICA’S

hydrologically defined areas (watersheds) to coordinate the management of water resources” as well as “all activities within a landscape that affect watershed health.”³ One look at a topographic map of North America can tell you that virtually any comprehensive watershed management is by definition interjurisdictional.

But imagine if it were not. In 1890, John Wesley Powell, then director of the United States Geological Survey, suggested that the federal government organize the western United States into watersheds. Powell drafted a map that divided the lands west of the hundredth meridian into twenty-four river basins, which were further divided into approximately 150 watershed units.⁴ Each watershed unit would be a self-governing body.⁵ As we can see, Congress did not realize Powell’s vision, and “desert islands” dot the West.⁶

Two major rivers of the American West—the Colorado and the Rio Grande—are prime examples of the clash between Powell’s vision and our reality. The Colorado River serves Los Angeles, San Diego, Denver, Salt Lake City and tens of other cities that lie outside of the river’s watershed.⁷ The river has even been engineered to direct a portion of its flow to the Rio Grande. Moreover, early compacts divided these rivers to measure and enforce water deliveries, continually partitioning the basins,⁸ and leading to the peculiar phenomena of prohibiting water flow within a river simply because it would move from an upper to a lower basin.⁹

Renewed emphasis on watershed management faces the challenges left by centuries-old fragmentation of the watershed.¹⁰ Since Powell

WATERSHEDS: STATUS, TRENDS, AND INITIATIVES IN WATERSHED MANAGEMENT 9 (2001), available at <http://www.epa.gov/owow/protecting/>.

3. *Id.* at 10.

4. Alex Philp, *John Wesley Powell’s Watershed Commonwealths: Mapping a West that Might Have Been*, CASCADIA PLANET, (1998) (citing UNITED STATES GEOLOGICAL SURVEY, ARID REGION OF THE UNITED STATES, SHOWING DRAINAGE DISTRICTS, PL., LXIX, ELEVENTH ANNUAL REPORT, 1889-1890, PART II, IRRIGATION (1891), available at http://www.tnews.com/text/powell_story.html).

5. *Id.*

6. See Todd Wilkinson, *Roman Aqueducts of New West: Water Pipes*, CHRISTIAN SCI. MONITOR, May 3, 2001.

7. See MILTON N. NATHANSON, UPDATING THE HOOVER DAM DOCUMENTS 1 (1978) (population of 2.5 million within the basin, but twelve million receive some portion of their water supply from the Colorado River).

8. The Colorado River is divided at Lee Ferry into an Upper and Lower Basin, not inclusive of Mexico. Colorado River Compact, 123 Colo. Sess. Laws 684, COLO. REV. STAT. § 37-61-101 to 104 (2001). The Rio Grande is commonly divided into four reaches: Upper Rio Grande (within Colorado); Middle Rio Grande (Colorado/New Mexico state line to Elephant Butte Reservoir); Paso del Norte (Elephant Butte to Presidio Dam, “the Forgotten Reach”); and Lower Basin (Presidio to Gulf of Mexico). William A. Paddock, *The Rio Grande Compact of 1938*, 5 U. DENV. WATER L. REV. 1, 4-10 (2001).

9. See David J. Guy, *When the Law Dulls the Edge of Chance: Transferring Upper Basin Water to the Lower Colorado River Basin*, 1991 UTAH L. REV. 25 (1991).

10. See generally A. Dan Tarlock, *Putting Rivers Back in the Landscape: The Revival of Watershed Management in the United States*, 6 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 167 (2000).

first drew his map, the lands of the West have been divided among cities, states, and countries rather than connected to streams, lakes, and rivers. The United States has developed separate laws for clean water, clean air, endangered species, irrigated agriculture, and land use management, for implementation at the federal level.¹¹ Each of the western states has developed similar, yet diverse, laws governing the allocation and use of water rights, administration of groundwater resources, and wildlife management.¹² Separate agencies administer these laws at federal, state, and tribal levels.¹³ Each entity has different missions, authorities, and modes of operation.

What we are left with is a patchwork of statutes that recognize jurisdictions of state, federal and tribal agencies regarding countless issues affecting a watershed. Where these authorities overlap, it is often difficult for governmental entities to cooperate and share power among themselves as well as the regulated community. Where issues arise that do not fall squarely within existing structure, it is difficult for these entities to cross political and historical boundaries. Therefore, watershed initiatives must overcome fragmented, incomplete and shared regulatory schemes—existing among and within different levels of government. Because property and political boundaries of countries, states, tribes, counties, and municipalities are largely unrelated to watersheds, stakeholders have found it difficult to coordinate watershed protection and restoration efforts.¹⁴

The Colorado River and the Rio Grande provide a fascinating case study of the interplay of political boundaries and watersheds in resource management. Both rivers' headwaters are in Colorado, in the Rocky Mountains and San Juan Mountains, respectively, both head south collecting water from tens of tributaries, and both form part of our border with Mexico. Political boundaries have not respected geographic ones, and the contradiction has generated Congressional enactments, Supreme Court decisions, interstate compacts, and international treaties.¹⁵ Despite the fact that these rivers supply water

11. See, e.g., Fish and Wildlife Coordination Act, 16 U.S.C. § 661 (2000); Endangered Species Act, 16 U.S.C. § 1531 (2000); Clean Water Act, 33 U.S.C. § 1251-1387 (1994); Clean Air Act, 42 U.S.C. § 7401-7671 (1994). Land use management also encompasses the watershed concept, see Multiple Use-Sustained Yield Act, 16 U.S.C. § 528 (2000); National Forest Management Act, 16 U.S.C. § 1600 (2000); Federal Land Policy and Management Act, 43 U.S.C. § 1701-1785 (1994) (commanding the Forest Service, 16 U.S.C. § 1604(e), (g)(3), and Bureau of Land Management, 43 U.S.C. § 1702(c) to consider the watershed in its land use plans and multiple use decisions).

12. See generally UNITED STATES DEPARTMENT OF INTERIOR, THE NATURE CONSERVANCY, PRESERVING OUR NATURAL HERITAGE, VOLUME II STATE ACTIVITIES (1978).

13. Several statutes provide that qualifying Tribes be treated as states in implementing parts of the Clean Water Act, 33 U.S.C. § 1377(e); Safe Drinking Water Act, 42 U.S.C. § 300h-1(e); Clean Air Act, 42 U.S.C. § 7474(e).

14. For a discussion on whether watershed initiatives are practicable or preferable, see Robert W. Adler, *Addressing the Barriers to Watershed Protection*, 25 ENVTL. L. 973 (1995); see also BETSY RIEKE & DOUG KENNEY, RESOURCE MANAGEMENT AT THE WATERSHED LEVEL (1997).

15. Both rivers live and die according to each's "Law of the River." The Law of the

to two of the fastest growing regions in the world, there has been little ecological coordination between the two countries. Rather than allowing the watersheds to serve as boundaries, the rivers themselves do, and the international border severs both basins.¹⁶ Adding insult to injury, the United States federal government has further scorned the watersheds of the two rivers by turning the Colorado River into a tributary of the Rio Grande, diverting approximately 110,000 acre-feet of water from a Pacific watershed to an Atlantic one, each year.¹⁷

This article will first discuss in more detail the multitudinous obligations of federal, state, and tribal entities under the patchwork of laws and jurisdictions currently governing the majority of operations on the Lower Colorado River and Middle Rio Grande. The next section will examine several tangible examples of the overlap and gaps created by the exercise of these authorities and the fulfillment of these obligations. The last section will describe existing river restoration efforts in the two basins and their ability to overcome these obstacles and achieve watershed management and protection.

II. PATCHWORK OF EXISTING STATUTES AND AUTHORITIES THAT RECOGNIZE JURISDICTIONS OF FEDERAL, TRIBAL, AND STATE AGENCIES.

When dealing with river basins, the landmark Clean Water Act ("CWA") sets the stage.¹⁸ The CWA sets out to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and establishes national goals to achieve such: the elimination of "the discharge of pollutants into the navigable waters;" the prohibition of "the discharge of toxic pollutants;" and "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water."¹⁹

In general, the CWA institutes various regulatory structures to achieve these goals. First, the Environmental Protection Agency ("EPA") must set effluent limits based on what is technologically and economically feasible for hundreds of pollutants for categories of dischargers.²⁰ At the same time, states must set ambient water quality

Colorado River is the subject of lawsuits as well as novels. *See, e.g.*, MARC REISNER, *CADILLAC DESERT* (1993) (general history of federal, state, and private water development).

16. *See* Multi-Species Conservation Program (MSCP) for the Lower Colorado River, Arizona, Nevada and California, 64 Fed. Reg. 27,000, 27,001 (May 18, 1999) (calling the MSCP a "comprehensive conservation approach" for the Lower Basin, to the Southerly International Boundary).

17. *See* CHARLES F. WILKINSON, *CROSSING THE NEXT MERIDIAN, LAND, WATER AND THE FUTURE OF THE WEST* 222 (1992). The waters of the Navajo, Little Navajo and Blanco Rivers, which would flow west into the San Juan and then into the Colorado, are sent instead into the Azotea Tunnel and transported across the Continental Divide to Azotea Creek, a tributary of the Rio Chama in the Rio Grande watershed, which drains into the Gulf of Mexico. *Id.*

18. 33 U.S.C. § 1251-1387 (1994).

19. *Id.* § 1251(a).

20. *Id.* § 1311.

standards for the receiving waters.²¹ Dischargers must obtain a permit that certifies the discharged pollutant(s) satisfy both the effluent limitations and the water quality standards.²²

The process of setting water quality standards is where the watershed itself comes into play. To establish the standards, states must first inventory all state waters and identify those not protected by EPA-set effluent limits.²³ State standards divide the waters into segments, determine the present and attainable uses for each segment (endangered species, recreation, domestic use, etc.), and set numeric limits on pollutants that will protect these uses.²⁴

In addition to setting water quality standards, states are required to assign the "total maximum daily load" ("TMDL") for water bodies that do not meet existing water quality standards.²⁵ TMDLs are, in effect, a "pollution budget" among both point and nonpoint sources of pollution.²⁶ The key elements of an EPA regulatory strategy for dealing with the vast number of polluted waterbodies call for identification of polluted waterbodies, of pollutants and their sources, and a quantification of a pollutant load.²⁷ The allocations may require land use controls for nonpoint sources of pollution since technological control of point sources have not satisfied state standards.²⁸ A bill introduced into the Senate in 1994 included a title on watershed planning, in part to address the contentious issue of nonpoint source pollution.²⁹

21. *Id.* § 1313. If state law is absent or insufficient, the EPA will promulgate water quality standards. *Id.* § 1313(a)(3)(C).

22. The EPA, or a state, if delegated federal permitting authority through an acceptable program, may issue "a permit for the discharge of any pollutant." *Id.* § 1342(a)(1). A tribe may also issue discharge permits. *Id.* § 1377(e). Furthermore, if existing water quality is better than state water quality standards, discharges may not be permitted if they degrade the water to meet the standards—the antidegradation requirement. *Id.* § 1313(d)(4)(B).

23. *Id.* § 1313(d)(1)(A).

24. 40 C.F.R. § 131.2 (2001).

25. 33 U.S.C. § 1313(d)(1)(C) (1994).

26. United States Environmental Protection Agency, Office of Water, *Final TMDL Rule: Fulfilling the Goals of the Clean Water Act*, at <http://www.epa.gov/owow/tmdl/finalrule/factsheet1.html>. The fact sheet also notes that over 20,000 waterbodies in the United States have been identified as polluted, including 300,000 river and shoreline miles and five million acres of lakes.

27. *See* Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to Water Quality Planning and Management Regulation, 65 Fed. Reg. 43,586 (July 13, 2000). However, this rule acknowledged the EPA's inability to implement the TMDL rule until October 31, 2001, *id.* at 43,660, and has since postponed implementation until April 30, 2003. Effective Date of Revision to the Water Quality Planning and Management Regulation, 66 Fed. Reg. 53,044 (Oct. 18, 2001).

28. *See generally* Oliver A. Houck, *The Clean Water Act TMDL Program: Law, Policy, and Implementation*, 32 ENVTL. L. RPT. 10,358 (2002).

29. S. 2093, 103d Cong. (1994). As of this writing, the Bush administration and EPA announced a request of \$21 million for fiscal year 2003 for watershed protection for the same purposes. John Heilprin, *EPA Plans Watershed Protection Program*, WASH. POST, Jan. 28, 2002, at A19.

In contrast, the Endangered Species Act's role in protecting ecosystems has united stakeholders, resource managers and enforcement agencies in an effort to protect and recover endangered species in a river basin. While the trigger is usually endangered aquatic species, such efforts to protect the species have the potential to expand their scope to riparian and terrestrial species.³⁰

Congress passed the Endangered Species Act ("ESA") in order to "provide a means whereby the *ecosystems* upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such [] species."³¹ The ESA contains procedural and substantive requirements that serve to carry out the conservation and recovery goals of the Act, including the development of recovery plans, the duty to conserve listed species, the duty to avoid jeopardizing listed species via consultation with the Fish and Wildlife Service or National Marine Fisheries Service, and the prohibition on taking listed species.³² In order to trigger these protections, the services must list species as threatened or endangered and designate the critical habitat of that species.³³

Once listed, it is illegal for anyone to "take" an endangered or threatened species.³⁴ The federal government has additional obligations: to utilize their authorities and carry out programs for the conservation of listed species, and to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any federally listed species or result in the destruction or adverse modification of designated critical habitat.³⁵ In the event that a federal agency determines that its action "may affect" a listed species or designated critical habitat, the agency is required to consult with the Fish and Wildlife Service regarding the degree of impact and

30. For more detail, *see infra* note 180 and accompanying text (discussing the initial impetus behind the Lower Colorado River Multi-Species Conservation Program and its eventual scope).

31. 16 U.S.C. § 1531(b) (2000) (emphasis added).

32. *Id.* §§ 1533(f) (recovery plans), 1536(a)(1) (duty to conserve), 1536(a)(2) (duty to consult), 1538 (taking).

33. *See id.* § 1533(a). An endangered species is defined as "any species which is in danger of extinction throughout all or a significant portion of its range." *Id.* § 1532(6). While the Act requires designation of critical habitat to occur concurrently with listing, this rarely occurs. In fact, the Service often designates critical habitat only after a court decision mandating such. *See DEFENDERS OF WILDLIFE, CONSERVATION IN ACTION: SAFEGUARDING CITIZEN RIGHTS UNDER THE ENDANGERED SPECIES ACT* (2001).

34. 16 U.S.C. § 1538(a)(1)(B); 50 C.F.R. § 17.21(a), (c), 17.31 (2001). The term "take" is broadly defined to include "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or . . . attempt to engage in any such conduct." 16 U.S.C. § 1532(19). The FWS has further defined "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife" and "harass" to include activities that disrupt normal behavioral patterns, including but not limited to, breeding, feeding or sheltering. 50 C.F.R. § 17.3.

35. 16 U.S.C. § 1536(a)(1)-(2). "Jeopardize the continued existence of [a species] means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02.

measures available to avoid or minimize the adverse effects.³⁶

In addition, pursuant to the Fish and Wildlife Coordination Act ("FWCA"), the Fish and Wildlife Service, National Marine Fisheries Service, and state wildlife agencies must review federal water projects that may impound, divert, or otherwise modify a waterbody for the impacts to wildlife "with a view to the conservation of wildlife resources by preventing loss of and damage to such resources."³⁷ While the consultation process under the FWCA may not stop a project, the Act does extend to fish and wildlife not covered by the ESA.³⁸

Naturally, the most encompassing federal obligation originates from the National Environmental Policy Act ("NEPA")—"our basic national charter for protection of the environment."³⁹ Its purpose is to "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man,"⁴⁰ and to "help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore and enhance the environment."⁴¹ In one way or another, these watershed efforts will undergo NEPA analyses.

Section 102 of NEPA contains action-forcing provisions, aimed at fulfilling NEPA's intent, that require all federal agencies to prepare an environmental impact statement for "major Federal actions significantly affecting the quality of the human environment," that includes "the environmental impact of the proposed action," "any adverse environmental effects which cannot be avoided," and "alternatives to the proposed action."⁴² Without these provisions, public participation would be less meaningful.⁴³

Development of alternatives to the proposed action is the heart of the EIS.⁴⁴ The Council on Environmental Quality ("CEQ") regulations call on federal agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives, . . . [d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits[,] . . . [i]nclude the alternative of no action . . . [and] [i]nclude appropriate mitigation measures not already included in the proposed action or alternatives."⁴⁵

36. See 16 U.S.C. § 1536(a)-(b).

37. *Id.* § 662(a).

38. See *id.* § 661 (declaring a purpose of the Act to provide "that wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs . . .").

39. 40 C.F.R. § 1500.1(a) (2001).

40. 42 U.S.C. § 4321 (1994).

41. 40 C.F.R. § 1500.1(c).

42. 42 U.S.C. § 4332(C).

43. See *Weinberger v. Catholic Action of Hawaii/Peace Educ. Project*, 454 U.S. 139, 143 (1981) (NEPA fully informs the public of environmental effects and facilitates public input into the decision-making process).

44. 40 C.F.R. § 1502.14.

45. *Id.* § 1502.14.

The environmental consequences section of the EIS “forms the scientific and analytic basis” for the comparison of alternatives.⁴⁶ This section discusses the direct and indirect effects of the alternatives, the significance of the environmental effects, and the means to mitigate adverse impacts.⁴⁷ Once an action is considered to have significant impact, mitigation measures must be developed where it is feasible to do so.⁴⁸

In a discussion of western watersheds, the Reclamation Act may have left a greater legacy than any environmental law.⁴⁹ Local irrigation interests did not have the capital to build and sustain private irrigation projects; federal resources were required for the widespread irrigation envisioned in the arid west.⁵⁰ The Reclamation Act hastened settlement and irrigation of the federally owned desert; since then, the Bureau of Reclamation alone has built 133 water projects in the western United States⁵¹

Under the Reclamation Act, Congress restricted the use of water delivered by federal projects to that reasonably needed for beneficial use.⁵² Many states have similar rules, as one court observed:

water is too valuable to be wasted, either through an extravagant application for the purpose appointed or by waste by misapplication which can be avoided by the exercise of a reasonable degree of care to prevent loss, or loss of a volume which is greatly disproportionate to that actually consumed.”⁵³

46. *Id.* § 1502.16.

47. *Id.* Direct effects are caused by the action and occur at the same time and place, indirect effects are”

[C]aused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Id. § 1508.8.

48. *Id.* §§ 1502.14(f), 1502.16(h), 1508.14.

49. Reclamation Act of 1902, ch. 1093, 32 Stat. 388 (codified as amended at 43 U.S.C. §§ 331-616 (1994)) (establishing the purpose of Bureau of Reclamation to construct and operate irrigation facilities in the sixteen arid western states).

50. The All-American Canal in southern California is a prime example. As the Colorado River continually silted up the canal and eventually flooded the entire works, farmers cried out for a canal built entirely in the United States that could withstand the wildly varying flows and courses of the Colorado, but this could not be done without an upstream dam (eventually Hoover Dam). See Imperial Irrigation District, *How it Works, The Imperial Dam*, at <http://www.iid.com/water/works-imperialdam.html>.

51. WESTERN WATER POLICY REVIEW ADVISORY COMMISSION, WATER IN THE WEST: CHALLENGE FOR THE NEXT CENTURY 4-3 (1998), available at <http://www.den.doi.gov/wwprac/reports.htm>.

52. 43 U.S.C. § 372 (1994) (beneficial use is the basis, measure, and limit of water use under the Reclamation Act); see also N.M. CONST., art. XVI, § 3; *Jicarilla Apache Tribe v. United States*, 657 F.2d 1126, 1133-34 (10th Cir. 1981).

53. *Jicarilla Apache Tribe*, 657 F.2d at 1134 (citations omitted); see also *Imperial Irrigation Dist. v. State Water Res. Control Bd.*, 275 Cal. Rptr. 250, 255 (Cal. Ct. App. 1991) (estimates of water loss by the district’s system ranged from 53,000 to 135,000

In addition to this express limitation, federal reclamation projects generally must conform with state water laws, unless doing so would interfere with other federal requirements or interests.⁵⁴

The CWA, ESA, and NEPA are federal statutes that apply throughout the United States. A report to Congress on the proper federal role in western water management well summarizes the intricacies:

The federal role continues to be fragmented, with multiple agencies, each with specific and narrow legal mandates and constituencies, managing or controlling certain aspects of water uses. For example, Reclamation built and manages specific projects primarily for the benefit of agricultural water users, although this mission has broadened considerably in recent decades. The Corps [of Engineers] manages projects, maintains navigation channels, and operates and maintains reservoirs and levees to control floods and for such incidental uses such as hydroelectric power generation. The Fish and Wildlife Service (Service) and the National Marine Fisheries Service administer the Endangered Species Act (ESA) and the Fish and Wildlife Coordination Act (FWCA) to protect the fish and wildlife whose survival may be jeopardized by a federal activity or where private actions, such as a diversion, threaten to harm the species when water is removed from stream channels. More recently, the Clean Water Act allowed a new federal agency, the Environmental Protection Agency (EPA), to set water quality standards for and control discharges into surface waters, but specifically exempted agricultural return flows as nonpoint sources.⁵⁵

When one delves into the complexities of a river system, particularly a western river, these authorities transform to a maze of laws. Each major river basin will inevitably acquire its own "Law of the River"—the product of decades of litigation and negotiation among these and other parties.

III. THE LAW OF THE COLORADO RIVER

The Secretary of the Interior serves as the "Watermaster" for the Lower Colorado River, the only river system in the country that has been so federalized.⁵⁶ The Secretary delegated the responsibility of

acre-feet per year through "canal spill" and 312,000 to 559,000 acre-feet per year through excessive "tailwater"); *Erickson v. Queen Valley Ranch Co.*, 99 Cal. Rptr. 446, 450 (Cal. Ct. App. 1971) (finding five-sixths of flow of water lost in delivery via earthen ditch inefficient and wasteful and therefore not beneficial use even though it was consistent with local custom); *Doherty v. Pratt*, 124 P. 574, 576 (Nev. 1912) (allowing two-thirds of the water diverted to become lost in a swamp is not a reasonable and economical method of diversion).

54. 43 U.S.C. § 383 (1994); *California v. United States*, 438 U.S. 645 (1978); *Arizona v. California*, 373 U.S. 546, 589 (1963); *Ivanhoe Irrigation Dist. v. McCracken*, 357 U.S. 275, 291 (1958).

55. WESTERN WATER POLICY REVIEW ADVISORY COMMISSION, *supra* note 51, at 4-3 to 4-6; *see also id.* at 4-4 to 4-5 for a table of Major Federal Laws and Actions Affecting Western Water Resources.

56. Historically, the basin states have feared California's rapid water consumption. *Arizona v. California*, 373 U.S. 546, 555 (1963). For most of the twentieth century,

operating and maintaining the extensive network of dams, reservoirs, water diversions, levees, canals, and other water control and delivery systems on the river to the Bureau of Reclamation ("Bureau"). The Bureau's authority and discretion is guided by a body of treaties, Congressional enactments, compacts, and other agreements known as the "The Law of the River."⁵⁷

Significant components of the Law of the River include the Colorado River Compact of 1922,⁵⁸ the Boulder Canyon Project Act of 1928,⁵⁹ the Treaty Respecting the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande of 1944,⁶⁰ the Supreme Court's decision and subsequent decree in *Arizona v. California*,⁶¹ and the Colorado River Basin Project Act.⁶² Environmental laws, including the ESA, NEPA, and CWA must also be considered part of the Law of the River due to the substantial obligations they impose on the Bureau of Reclamation.⁶³ South of the border, Mexican federal law is pertinent.

The Colorado River Compact of 1922 created the Upper Division (Wyoming, Colorado, New Mexico, and Utah) and the Lower Division (Arizona, Nevada and California), and allocated 7.5 million acre-feet of water each to the Upper and Lower Basins.⁶⁴ Soon after, Congress

only California was able to acquire water rights due to its population and the amount of farmland. REISNER, *supra* note 15, at 124. Arizona's fears were particularly intense and spawned "five lawsuits in the United States Supreme Court, a filibuster in the Senate, a muster of troops by Arizona at the California border, and hundreds of thousands of words in congressional hearings and judicial proceedings." Charles J. Meyers, *The Colorado River*, 19 STAN. L. REV. 1, 37-38 (1966). Arizona was concerned that the doctrine of prior appropriation would apply in this situation, giving California the right to the water because it was the first to put the water to a beneficial use. The other less developed basin states wanted to assure that water would be available for them in the future. See *Wyoming v. Colorado*, 259 U.S. 419 (1922). Thus, the Supreme Court held that Congress placed the "full power to control, manage, and operate the Government's Colorado River works and to make contracts for the sale and delivery of water" in the hands of the Secretary. *Arizona v. California*, 373 U.S. at 594.

57. Eric L. Garner & Michelle Ouellette, *Future Shock? The Law of the Colorado River in the Twenty-First Century*, 27 ARIZ. ST. L.J. 469, 470 (1995).

58. Colorado River Compact, 123 Colo. Sess. Laws 684, COLO. REV. STAT. §§ 37-61-101 to 104 (2001).

59. Boulder Canyon Project Act of Dec. 21, 1928, ch. 42, 45 Stat. 1057 (codified as amended at 43 U.S.C. § 617 (1994)).

60. Treaty Respecting the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Feb. 3, 1944, U.S.- Mex., 59 Stat. 1219 [hereinafter *Water Treaty of 1944*].

61. *Arizona v. California I*, 373 U.S. 546 (1963); *Arizona v. California II*, 376 U.S. 340 (1964) (decree implementing opinion of 373 U.S. 546).

62. Colorado River Basin Project Act, 43 U.S.C. §§ 1501-1556 (1994).

63. *Arizona v. California I*, 373 U.S. at 594 (recognizing that "Congress still has broad powers over this navigable international stream [and] can undoubtedly reduce or enlarge the Secretary's power if it wishes"); see also BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT, COLORADO RIVER INTERIM SURPLUS CRITERIA 1-10 (2000).

64. 70 Cong. Rec. 324, 325 (1928). The Lower Basin, for example, "means those parts of the states of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River System below Lee Ferry,"

quantified, and the Secretary contracted, the allocations to the Lower Basin states of California, Nevada and Arizona in the Boulder Canyon Project Act ("BCPA").⁶⁵ The Water Treaty of 1944 then allocated 1.5 million acre-feet to Mexico, with the prospect of another 200,000 acre-feet to Mexico if the United States determines a surplus exists.⁶⁶ Later, the Upper Colorado River Compact of 1948 allocated percentages of the Upper Basin's 7.5 million acre-feet share to Colorado, Utah, New Mexico, Arizona and Wyoming.⁶⁷

The Supreme Court approved the States' apportionments and set the priorities for Colorado River waters in *Arizona v. California*.⁶⁸ Although Congress and the Supreme Court approved the States' apportionments, they amended the Colorado River Compact, via the BCPA and Decree respectively, by reestablishing the priorities for Colorado River waters. Top priorities include controlling floods,⁶⁹ improving navigation, and regulating the flow, the secondary priorities are water for irrigation and domestic purposes, and the lowest priority is power generation.⁷⁰ The Decree enjoins the Secretary to release water in accordance with these priorities.⁷¹ The other top priorities, regulating the flow of the river and improving navigation, are purely within the Secretary's discretion.⁷²

and all parts within the states but outside the basin which will be served by those waters. *Id.* art. II(g).

65. See Boulder Canyon Project Act of Dec. 21, 1928, ch. 42, 45 Stat. 1057 (codified as amended at 43 U.S.C. § 671 (1994)) (apportioning the 7.5 million acre-feet per year among the Lower Basin states: 300,000 acre-feet per year to Nevada; 2.8 million acre-feet per year to Arizona; and 4.4 million acre-feet per year to California). The BCPA also requires parties using water to have contracts with the Secretary of the Interior whose terms are for permanent service, "under such general regulations as [the Secretary] may prescribe." *Id.* § 617d. Between 1930 and 1944, the Secretary entered into contracts for water delivery with five California agencies, the State of Nevada, and the State of Arizona for their full entitlements. The Secretary has contracts with water users in California amounting to 5.362 million acre-feet per year, almost one million acre-feet greater than its apportionment. See MILTON N. NATHANSON, *UPDATING THE HOOVER DAM DOCUMENTS 1-27* (1978).

66. Water Treaty of 1944, *supra* note 60, art. 10. However, average annual flows immediately before the Compact negotiations were approximately 18.1 million acre-feet per year (1906-21). WESTERN WATER POLICY REVIEW ADVISORY COMMISSION, *supra* note 51, at 2-3. Long-term annual average flow is closer to 13.5 million acre-feet per year, leaving the river seriously overappropriated. DALE PONTIUS, *COLORADO RIVER BASIN STUDY 6* (1997).

67. Upper Colorado River Basin Compact, 63 Stat. 31, 33, COLO. REV. STAT. §§ 37-62-101 to 106 (2001) (allocating 51.75 percent to Colorado, 11.25 percent to New Mexico, 23 percent to Utah, 14 percent to Wyoming, and 50,000 acre-feet to Arizona).

68. *Arizona v. California I*, 373 U.S. 546 (1963); *Arizona v. California II*, 376 U.S. 340 (1964).

69. The Corps of Engineers dictates flood control for Lake Mead; the Bureau manages for flood control related to the Davis and Parker Dams. See Flood Control Act of 1944, 33 U.S.C. § 709; U.S. ARMY CORPS OF ENGINEERS, *WATER CONTROL MANUAL FOR FLOOD CONTROL: HOOVER DAM AND LAKE MEAD COLORADO RIVER, NEVADA AND ARIZONA* (1982).

70. 43 U.S.C. § 617e (1994).

71. *Arizona v. California II*, 376 U.S. at 341.

72. *Laughlin River Tours, Inc. v. Bureau of Reclamation*, 730 F. Supp. 1522, 1524 (D. Nev. 1990).

In the decree, the Court held that the Secretary controls Colorado River water in the Lower Basin.⁷³ Congress granted the Secretary “broad power”⁷⁴ to “make contracts for the distribution of the water.”⁷⁵ Nothing in the BCPA changes the decision that the Secretary’s contracts “control the apportionment of water among the States”⁷⁶ and that the Secretary “is not bound by these sections to follow state law.”⁷⁷

The Colorado River Basin Project Act directed the Secretary to adopt “operating criteria” for the long-range operation of Colorado River reservoirs in order to comply with and carry out the provisions of the Colorado River Compact, the Upper Colorado River Basin Compact, and the Water Treaty of 1944.⁷⁸ Each year, the Bureau of Reclamation consults with the seven basin states, the general public and other interested parties in preparing the Annual Operating Plan (“AOP”) for Colorado River reservoirs.⁷⁹ The AOP is developed with “appropriate consideration of the uses of the reservoirs for all purposes, including flood control, river regulation, beneficial consumptive uses, power production, water quality control, recreation, enhancement of fish and wildlife, and other environmental factors.”⁸⁰ The plan also determines the amount of water available for delivery pursuant to the 1944 U.S. Mexico Water Treaty.⁸¹ Finally, the AOP determines whether the reasonable consumptive use requirements of users in the Lower Basin will be met under a “normal,” “surplus,” or

73. *Arizona v. California*, 373 U.S. at 588-90. The Court held that the Boulder Canyon Project Act’s provisions were:

[P]ersuasive that Congress intended the Secretary . . . both to carry out the allocation of the waters of the main Colorado River among the Lower Basin States and to decide which users within each State would get water [H]ad Congress intended so to fetter the Secretary’s discretion, it would have done so in clear and unequivocal terms.

Id. at 580-81.

74. *Id.* at 585.

75. *Id.*

76. *Id.* at 586.

77. *Id.*; see also *id.* at 589.

78. 43 U.S.C. § 1552 (1994); U.S. Bureau of Reclamation, *Criteria for Coordinated Long Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968*, at <http://www.lc.usbr.gov/~g1000/pdfiles/opcritcr.pdf> [hereinafter *Operating Criteria*].

79. Articles I-IV of the Operating Criteria require the Secretary to prepare an Annual Operating Plan, the purposes of which are to determine: (1) the projected operation of the Colorado River reservoirs under varying hydrologic and climatic conditions; (2) the quantity of water considered necessary as of September 30, to be in storage in the Upper Basin reservoirs as required by Section 602(a) of the CRBPA; (3) water available for delivery to Mexico; (4) whether the Secretary will declare a “normal,” “surplus,” or “shortage” condition as outlined in Article III of the Operating Criteria; and (5) whether water apportioned to, but unused by, one or more Lower Basin States exists and can be used to satisfy beneficial consumptive use requests of mainstream users in other Lower Basin States as provided in the *Arizona v. California* decree. *Id.*; see also United States Bureau of Reclamation, *2002 Annual Operating Plan for Colorado River System Reservoirs*, at http://www.lc.usbr.gov/g4000/aop02_final.pdf.

80. *Operating Criteria*, *supra* note 78, art. I(2).

81. *Id.* at preamble.

“shortage” condition.⁸² While the AOP purports to take fish and wildlife values into account when planning operations, the guidelines do not contain any environmental criteria.

If the Secretary determines that surplus water is available, he may allocate water to the states in excess of their apportionments, pursuant to Article II(b)(2) of the Decree—50 percent to California, 46 percent to Arizona, and 4 percent to Nevada.⁸³ At the close of its term, the Clinton administration promulgated Interim Surplus Guidelines to establish criteria for determining and allocating surplus waters until 2016.⁸⁴

In recent years, Congress and the basin states have become more alert to the ecological problems facing the Colorado River. Water quality concerns in the 1970s led to the Colorado River Basin Salinity Control Act⁸⁵ and environmental and aesthetic concerns in the Grand Canyon led to the Grand Canyon Protection Act of 1992.⁸⁶ Additionally, efforts to include the river’s delta in United States discussions have increased our understanding of Mexican environmental laws.

To begin, the General Law on Ecological Balance and Environmental Protection is the principle federal environmental law in Mexico and sets forth general principles that guide ecological policies as well as instruments for implementing those policies.⁸⁷ Most environmental protection functions are the responsibility of one agency, the Secretariat for Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales or “SEMARNAT”), who implements the Federal Ecology Law.⁸⁸ The federal government implements matters under this general law by issuing regulations, which are in turn implemented by technical standards, known as Official Mexican Norms.⁸⁹ Under this process, Mexico has established four levels of protection for sensitive species: endangered, threatened, rare and species under special protection.⁹⁰

82. *Id.* art. III(3).

83. *Arizona v. California II*, 376 U.S. 340, 342 (1964).

84. RECORD OF DECISION COLORADO RIVER INTERIM SURPLUS GUIDELINES, FINAL ENVIRONMENTAL IMPACT STATEMENT (2001). The Interim Surplus guidelines define surplus according to the level of Lake Mead rather than by hydrology and forecast, providing a more reliable supply.

85. 43 U.S.C. §§ 1571-1599 (1994).

86. Pub. L. No. 102-275, tit. XVIII, 106 Stat. 4669.

87. Ley General del Equilibrio Ecológico y la Protección al Ambiente, at <http://www.cddhcu.gob.mx.leyinfo/148/> [hereinafter Federal Ecology Law]. See generally ENVIRONMENTAL LAW INSTITUTE, DECENTRALIZATION OF ENVIRONMENTAL PROTECTION IN MEXICO: AN OVERVIEW OF STATE AND LOCAL LAWS AND INSTITUTIONS 5-30 (1996) [hereinafter DECENTRALIZATION OF ENVIRONMENTAL PROTECTION IN MEXICO], available at <http://www.eli.org/pdf/resreportdecen.pdf>.

88. With the new administration, SEMARNAT formed out of SEMARNAP when the “P” (Pesca or Fisheries) was relocated to SAGAPA, the Secretariat of Agriculture, Livestock, Fisheries and Food.

89. DECENTRALIZATION OF ENVIRONMENTAL PROTECTION IN MEXICO, *supra* note 87, at 6.

90. “Normas Oficiales Mexicanas, Que Determina las Especies y Subespecies de

This norm lists over 2,000 species, including several in the Lower Colorado River basin—vaquita, totoaba, razorback sucker, Yuma clapper rail, and desert pupfish.⁹¹

Agencies within SEMARNAT include the Comisión Nacional del Agua (“CNA”) and Instituto Nacional de Ecología (“INE”). CNA has jurisdiction over water quality, water resources and planning, and administers Mexico’s system of water rights and pumping permits.⁹² CNA is encouraging decentralization of its decisionmaking by participating in local watershed councils called District Water Committees (Comités Hidráulicos).⁹³ INE carries out environmental research and development, evaluates Mexico’s environmental policies and implements its natural resource programs.⁹⁴ INE administers the National System of Protected Natural Areas and is responsible for managing the Biosphere Reserve of the Upper Gulf of California.⁹⁵ A reflection of his administration’s priority on the U.S.-Mexico border, President Fox has created a new executive position for border affairs.⁹⁶

IV. THE LAW OF THE RIO GRANDE

The Law of the Rio Grande is quite similar to that of the Colorado; it contains an interstate compact, federal and state laws, and international treaties. It also retains vestiges of indigenous culture and Spanish and Mexican laws and grants.⁹⁷ Although not addressed

Flora y Fauna Silvestres Terrestres y Acuáticas en Peligro de Extinción, Amenazadas, Raras y las Sujetas a Protección Especial y que Establece Especificaciones para su Protección,” D.O., 16 de mayo de 1994 (NOM-059-ECOL-1994), available at http://www.ine.gob.mx/dgva/normas/rec_nat/no_059.htm.

91. *Id.*

92. DECENTRALIZATION OF ENVIRONMENTAL PROTECTION IN MEXICO, *supra* note 87, at 18.

93. Jennifer Pitt et al., *Two Nations, One River: Managing Ecosystem Conservation in the Colorado River Delta*, 40 NAT. RESOURCES J. 819, 839 n.86 (2000).

94. DECENTRALIZATION OF ENVIRONMENTAL PROTECTION IN MEXICO, *supra* note 87, at 18.

95. Pitt, *supra* note 93, at 838-39. Mexico established the Upper Gulf of California and Colorado River Delta Biosphere Reserve (El Alto Golfo de California y Delta del Río Colorado). It is recognized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), has a management plan, and contains a core zone and a buffer zone totaling 934,755 hectares. See Wendy Laird et al., *Cooperation across Borders: A Brief History of Biosphere Reserves in the Sonoran Desert*, 39 J. OF THE SOUTHWEST 307, 309 (1997).

96. See David A. Shirk, *Mexico’s New Border Commission: A First Look*, BORDERLINES, April 2001. Also in 2000, Mexico adopted a new federal wildlife law, Ley General de Vida Silvestre, D.O.F. 7 de marzo 2000, available at http://www.ine.gob.mx/dgvs/ley_vs.html; see William Snape III et al., *Protecting Ecosystems Under the Endangered Species Act: The Sonoran Desert Example*, 41 WASHBURN L.J. 14, 45-48 (2001).

97. After the war with Mexico, Mexico ceded nearly half its territory (529,000 square miles) to the United States Treaty of Peace, Friendship, Limits and Settlement with the Republic of Mexico, Feb. 2, 1848, U.S.-Mex., 9 Stat. 922 [hereinafter Treaty of Guadalupe Hidalgo]. Subsequently, the Gadsden Treaty clarified boundary issues unresolved by the Treaty of Guadalupe Hidalgo, and Mexico ceded an additional 29,142,000 acres to the United States Boundary Treaty, Dec. 30, 1853, U.S.-Mex., 10 Stat. 1031; see also ERNIE NIEMI & TOM MCGUCKIN, WATER MANAGEMENT STUDY: UPPER

above, but just as applicable, are Indian water rights and trust assets.⁹⁸ In the Middle Rio Grande, there are approximately eighteen Indian pueblos (Acoma, Cochiti, Isleta, Jemez, Laguna, Nambé, Picuris, Pojoaque, San Felipe, San Ildefonso, San Juan, Sandia, Santa Ana, Santa Clara, Santo Domingo, Tesuque, Taos, Zia), “the Navajo Nation and certain Navajo allottees, and the Jicarilla Apache Nation.”⁹⁹ Annual flow of approximately one million acre-feet engenders a constant balancing of supply and demand; the presence of unquantified, senior water rights threatens to tip the scales.¹⁰⁰

Winters v. United States established the “doctrine of reserved rights,” which ensures that lands set aside by the federal government have sufficient water for the purposes for which they were set aside.¹⁰¹ The reservation of water dates back to the establishment of the reservation.¹⁰² Later, the Supreme Court developed the “practically irrigable acreage” (“PIA”) standard by which to calculate the water rights of a reservation.¹⁰³ Indian water rights were thus established and to be met from each state’s entitlement.

In turn, the United States holds Indian land and resources in trust, with the beneficiary interest residing in the tribe. This fiduciary relationship has imposed a responsibility on the federal government to protect tribal property, treaty rights, and culture, including water rights.¹⁰⁴ The trust responsibility imposes “most exacting fiduciary standards” on every federal agency.¹⁰⁵ Inevitably, this fiduciary duty

RIO GRANDE BASIN 11 (1997); James M. Burson, *Middle Rio Grande Regional Water Resource Planning: The Pitfalls and the Promises*, 40 NAT. RESOURCES J. 533, 537-38 (2000).

98. There are generally recognized thirty-four tribes in the Lower Colorado River basin with both quantified and unquantified water rights. See WESTERN WATER POLICY REVIEW ADVISORY COMMISSION, *supra* note 51, at 75.

99. Memorandum from the Regional Director, Region 2, to Area Manager, Albuquerque Area Office, Bureau of Reclamation 6 (June 29, 2001) (on file with author).

100. See generally Allen V. Kneese & Gilbert Bonem, *Hypothetical Shocks to Water Allocation Institutions in the Colorado Basin*, in NEW COURSES FOR THE COLORADO RIVER: MAJOR ISSUES FOR THE NEXT CENTURY 87, 94-98 (Gary D. Weatherford & F. Lee Brown eds., 1986).

101. *Winters v. United States*, 207 U.S. 564, 576-77 (1908) (holding that water rights exist because reservation lands were practically useless without irrigation and argument for retention of waters is of more force since ambiguities are resolved in favor of Indians).

102. In the case of some Pueblos, whose sovereignty was recognized by prior Spanish and Mexican governments, their water rights may predate the reservation. NIEMI & MCGUCKIN, *supra* note 97, at 20; see also Burson, *supra* note 97, at 545-48.

103. *Arizona v. California*, 373 U.S. 546, 595-601 (1963) (granting approximately 761,000 acre-feet to five tribes along the mainstem and applying the reservation of water to other types of federal reservations, such as wildlife refuges and parks). Recently, the Arizona Supreme Court rejected PIA as the standard for determining allocation, and established a set of factors based on history and culture of the tribe and geography, topography, population growth and groundwater availability of the reservation. *In re Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source*, 35 P.3d 68 (Ariz. 2001).

104. See generally Mary Christina Wood, *Indian Land and the Promise of Native Sovereignty: The Trust Doctrine Revisited*, 1994 UTAH L. REV. 1471 (1994).

105. *Seminole Nation v. United States*, 316 U.S. 286, 297 (1942); see also Sec. Order

comes into conflict with implementation of other federal statutes and obligations.¹⁰⁶

Just as Colorado River basin states sought to protect their rights from California's use, downstream users on the Rio Grande, including the governments of Mexico and Texas, sought guaranteed delivery of historic water rights in response to increased withdrawals by Colorado and New Mexico. The U.S.-Mexico Water Treaty of 1906 obligates the United States to deliver 60,000 acre-feet of water each year to the International Dam at Ciudad Juarez.¹⁰⁷ To help fulfill its delivery commitment, the United States built Elephant Butte Dam and Reservoir, the southern boundary of the Middle Rio Grande.¹⁰⁸ In 1938, Colorado, New Mexico, and Texas entered into the Rio Grande Compact, again to ensure the delivery of water to downstream users in New Mexico and Texas.¹⁰⁹ Each state's share is based on runoff, rather than a set numerical allocation.¹¹⁰

Federal involvement in the Middle Rio Grande began in earnest when it launched the Middle Rio Grande Project. In 1947 and 1948, the Bureau of Reclamation and Army Corps of Engineers prepared the Rio Grande Flood Control Program—detailed studies and a joint proposal for development of federal reclamation and flood and sediment control works on the river.¹¹¹ The project called for the Bureau to rehabilitate the dam and diversion facilities of the Middle Rio Grande Conservancy District ("District" or "MRGCD"), which had fallen into disrepair, channelize 127 miles of the river, and acquire the District's outstanding debt.¹¹² In return, the District conveyed its property interests in the facilities to the Bureau.¹¹³ In 1962, Congress

No. 3206: American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (June 5, 1997) (on file with author); Department of Justice Policy on Indian Sovereignty And Government-to-Government Relations With Indian Tribes, Op. Att'y Gen. (1995) (on file with author).

106. See *infra* notes 150-54 and accompanying text.

107. Convention between the United States and Mexico, Equitable Distribution of the Waters of the Rio Grande, Jan. 16, 1907, U.S.-Mex., art. II, 34 Stat. 2953, 2954. The Water Treaty of 1944 also divides the Rio Grande waters, requiring delivery of 1.75 million acre-feet every five years from tributaries in Mexico to the river below Elephant Butte. Water Treaty of 1944, *supra* note 60, art. IV.

108. NIEMI & MCGUCKIN, *supra* note 97, at 4, 9.

109. Rio Grande Compact, COLO. REV. STAT. §§ 37-66-101 to 102 (2001), 53 Stat. 785.

110. *Id.*

111. Congress approved those proposals in the Flood Control Acts of 1948 and 1950. Pub. L. No. 80-858, ch. 771, 62 Stat. 1175; Pub. L. No. 81-516, ch. 188, 64 Stat. 170.

112. See *Middle Rio Grande Water Users' Ass'n v. Middle Rio Grande Conservancy Dist.*, 258 P.2d 391, 393 (1953) (holding the 1951 contract between MRGCD and the Bureau valid).

113. By the late 1940s, 60 percent of farms in MRGCD, totaling 90 percent of MRGCD's acreage, was delinquent in their taxes. See MIDDLE RIO GRANDE CONSERVANCY DISTRICT WATER POLICIES PLAN 21-23 (C.T. DuMars & S.C. Nunn eds., 1993). The United States would thus assume ownership of all MRGCD diversion and storage facilities until project costs were repaid and Congress ordered a transfer back to MRGCD. See 43 U.S.C. §§ 491, 498 (1994).

approved the San Juan-Chama Project, which currently diverts up to 110,000 acre-feet of water from the San Juan River basin into the Rio Grande.¹¹⁴

The Army Corps of Engineers ("Corps") also has a hand in managing the reservoirs in the Middle Rio Grande. The Corps owns and operates two major and several minor dams and reservoirs on the river that trap sediment and prevent overbank flooding in the Middle Rio Grande.¹¹⁵ Abiquiu Dam and Reservoir are on the Rio Chama below El Vado Reservoir, thirty-two river-miles upstream from the confluence with the Rio Grande, and were completed in 1963.¹¹⁶ Abiquiu has a storage allocation of nearly 600,000 acre-feet for sediment and flood control, but Congress has authorized up to 200,000 acre-feet for storage of San Juan-Chama or native Rio Grande water.¹¹⁷

The second major Corps facility, Cochiti Dam and Reservoir, located on the mainstem Rio Grande about fifty miles north of Albuquerque, began filling in 1975.¹¹⁸ Cochiti has a storage capacity of over 600,000 acre-feet for sediment and flood control purposes, but has a 50,000 acre-foot "pool" dedicated to recreation and fish and wildlife purposes.¹¹⁹

Other Corps dams and reservoirs that are part of the Middle Rio Grande Project are Jemez Canyon Dam, located on the Jemez River about 2.8 miles upstream from its confluence with the Rio Grande; Platoro Dam on the Conejos River; and Galisteo Dam on Galisteo Creek.¹²⁰ The various Flood Control Acts authorized all of these dams for flood control and sediment retention, preventing overbank flooding and sediment deposition.

V. SHARING POWER, CROSSING BOUNDARIES

As we have seen, there are myriad authorities influencing river management to varying degrees. Domestic and international affairs, federal, state and Indian governments have their own niches. As a result, it is difficult for agencies to cooperate and share power among themselves as well as the regulated community and to cross political boundaries.¹²¹

114. 43 U.S.C. § 620a. New Mexico is still looking for additional ways to tap into the Colorado. See Tania Soussan, *State Considers Drawing on Gila Water*, ALBUQUERQUE J., Aug. 21, 2001, at A1.

115. Flood Control Act of 1960, Pub. L. No. 86-645, 74 Stat. 480 (setting the operating criteria for the Corps dams).

116. See *supra* note 111.

117. Pub. L. No. 97-140, 95 Stat. 1717, § 5(b) (authorizing San Juan-Chama storage); Pub. L. No. 100-522, 102 Stat. 2604 (authorizing Rio Grande storage).

118. Flood Control Act of 1960, Pub. L. No. 86-645, 74 Stat. 488.

119. Pub. L. No. 88-293, 78 Stat. 171.

120. U.S. ARMY CORPS OF ENGINEERS PROGRAMMATIC BIOLOGICAL ASSESSMENT OF U.S. ARMY CORPS OF ENGINEERS WATER-OPERATION RULES ON THE MIDDLE RIO GRANDE, NEW MEXICO 7 (2001).

121. See Pitt, *supra* note 93, at 836-42.

The most illustrative example is the perceived tension between the United States Departments of Interior and State when dealing with Lower Colorado River issues. In the Lower Basin, the Secretary of Interior, through the Bureau of Reclamation, is the "Watermaster," who has a great deal of authority and discretion in the operation of federal facilities. However, United States management of the entire basin has severely degraded the Colorado River Delta and Upper Gulf of California.¹²² The delta once spanned approximately 780,000 hectares of wetlands and riparian areas—nearly the size of Rhode Island.¹²³ In the past century, river flows into the Delta have been reduced nearly 75 percent; from 1906 to 1921 flows averaged 18.1 million acre-feet,¹²⁴ but from 1984 to 1999 they averaged 4.2 million acre-feet.¹²⁵ With the construction of Hoover Dam in 1936, the Delta began to dry up as the river filled huge reservoirs and was diverted to agricultural and municipal use.¹²⁶ When Glen Canyon Dam was completed and Lake Powell began filling, forty-five years and over twenty dams later, water rarely made it all the way to the Gulf.¹²⁷ The delta has shrunk to about 60,000 hectares, but is still a major stopover on the Pacific Flyway and supports numerous species listed by one or both countries as endangered, threatened, or sensitive.¹²⁸

Despite the Secretary's enormous influence in managing the river, the Water Treaty of 1944 has placed consultation with Mexico regarding these impacts in the domain of the International Boundary and Water Commission ("IBWC"), subject to its different mission and priorities and diplomatic process.¹²⁹ The IBWC, known as the Comisión Internacional de Límites y Aguas ("CILA") in Mexico, is a binational institution with authority over surface waters in the border region and is responsible for carrying out the Water Treaty of 1944.¹³⁰

122. See generally Peter Friederici, *Stolen River: The Colorado River and Its Delta Are Losing Out*, 11 DEFENDERS 10 (1998).

123. Edward Glenn et al., *Effects of Water Management on the Wetlands of the Colorado River Delta, Mexico*, 10 CONSERVATION BIOLOGY 1175, 1176 (1996).

124. WESTERN WATER POLICY REVIEW ADVISORY COMMISSION, *supra* note 51, at 2-9.

125. EDWARD P. GLENN, IMPORTANCE OF UNITED STATES' WATER FLOWS TO THE COLORADO RIVER DELTA AND THE NORTHERN GULF OF CALIFORNIA, MEXICO 14 (unpublished manuscript) (1998) (on file with author) [hereinafter IMPORTANCE OF UNITED STATES' WATER FLOWS].

126. Glenn, *supra* note 123, at 1177.

127. *Id.*

128. NORTH AMERICAN WETLANDS CONSERVATION COUNCIL, WETLAND MANAGEMENT & RESTORATION IN THE COLORADO RIVER DELTA: THE FIRST STEPS 4 (1998).

129. Water Treaty of 1944, *supra* note 60, art. II.

130. The 1944 Water Treaty provides that the IBWC shall consist of a United States Section and a Mexican Section.

The Treaty further provides that it shall in all respects have the status of an international body, that the head of each Section must be an Engineer Commissioner and that wherever Treaty provisions call for joint action or joint agreement by the two Governments such matters shall be handled by or through the Department of State of the United States and the Secretariat of Foreign Relations of Mexico.

The International Boundary, United States and Mexico, at http://www.ibwc.state.gov/ORGANIZA/about_us.htm.

Their scope of work includes boundary maintenance, reclamation projects, allocation of water resources, construction of sanitation works and resolution of treaty and water quality disputes.¹³¹

Until recently, IBWC/CILA focused on issues of water supply and quality rather than environmental protection. A look at past treaty minutes and technical reports demonstrates the emphasis on construction, delivery, and water quality.¹³² In 1997, IBWC established a work group covering studies of the Colorado River delta.¹³³ More technical than policy oriented, the objective of the Fourth Work Group is to "perform a joint baseline study of the water and natural resource conditions in the Cienega de Santa Clara and the adjoining lowermost part of the Delta of the Colorado River to guide the participating agencies in making recommendations"¹³⁴ The Work Group has several proposals before it, but has yet to act on any.¹³⁵

Notwithstanding the international diplomacy, it has been the Department of the Interior who has spurred great advances for binational Colorado River and Delta restoration.¹³⁶ The delta issue has gathered momentum over the past decade, with the publication by environmental organizations and scientists of various studies noting the importance of continuous flows to the delta and the likelihood that increasing use in the United States will end these flows.¹³⁷ The Department, with so many agencies active in the border region, has worked closely with its counterparts in Mexico, signing the Letter of Intent with SEMARNAP,¹³⁸ the Joint Declaration,¹³⁹ and other cross-

131. Charles J. Meyers & Richard L. Noble, *The Colorado River: The Treaty with Mexico*, 19 STAN. L. REV. 367 (1967).

132. See generally Stephen P. Mumme, *Reinventing the International Boundary and Water Commission*, BORDERLINES, July 2001.

133. INTERNATIONAL BOUNDARY AND WATER COMMISSION, IBWC-34-97, MEETING OF THE COMMISSION TO FORM A FOURTH COLORADO RIVER MATTERS TASK FORCE REGARDING THE COLORADO RIVER DATA MEXICALI, BAJA CALIFORNIA (1997) (on file with author).

134. TERMS OF REFERENCE, LOWER COLORADO RIVER DELTA TASK FORCE (October 28, 1997) (on file with author).

135. The work group has recently coordinated and approved proposals to develop an ecological-scientific studies database, a water flow inundation model, and a pilot restoration project. INTERNATIONAL BOUNDARY AND WATER COMMISSION, ANNUAL REPORT 2000, at 7 (2000) (on file with author).

136. For example, the IBWC even leads consultation with the government of Mexico when the Department or an agency proposes an action that may impact the delta or Gulf. See BUREAU OF RECLAMATION, COLORADO RIVER INTERIM SURPLUS CRITERIA: FINAL ENVIRONMENTAL IMPACT STATEMENT vol. I, at 5-7 (2000); BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT/FINAL ENVIRONMENTAL IMPACT REPORT VIII-3 (1994) (describing the IBWC's consultation process with Mexico, with the assistance of the Bureau of Reclamation) (on file with author).

137. See, e.g. DANIEL F. LUECKE ET AL., A DELTA ONCE MORE: RESTORING RIPARIAN AND WETLAND HABITAT IN THE COLORADO RIVER DELTA (1999); Glenn, *supra* note 123, at 1184.

138. In 1997, Secretary Babbitt and Secretary Carabias signed a joint Letter of Intent announcing plans

to expand existing cooperative activities in the conservation of contiguous natural protected areas, . . . to harmonize activities directed at the conservation of biological diversity, . . . beginning with pilot projects . . . in Mexico, the Biosphere Reserves of the Alto Golfo de California y Delta del

border initiatives between the FWS and SEMARNAT and INE.¹⁴⁰ IBWC, on the other hand, has moved exceedingly slowly in recognizing the delta issue, despite its direct role in implementing the Treaty.¹⁴¹

While attending a meeting held by the Department of the Interior, in follow-up to the Joint Declaration, members of the United States section of the IBWC suggested a “conceptual minute” to the Water Treaty of 1944.¹⁴² A conceptual minute does not call for action such as construction or boundary work, but instead calls for cooperative work—in this case, assessing the threats to and restoring the delta.¹⁴³

On December 12, 2000, the United States and Mexico signed such a minute—an agreement on a framework for cooperation on studies and recommendations regarding the riparian and estuarine ecology of the Delta.¹⁴⁴ Minute 306 recognizes the growing binational collaboration among government authorities and scientific, academic and non-governmental organizations interested in preserving the Delta and Upper Gulf.¹⁴⁵ The minute will establish a framework for

Rio Colorado . . . [including] harmonization and coordination of policies leading to the conservation of natural and cultural resources.

Letter of Intent between the Department of Interior (DOI) of the United States and the Secretariat of Environment, Natural Resources and Fisheries (SEMARNAP) of the United Mexican States for Joint Work in Natural Protected Areas on the United States-Mexico Border (May 5, 1997) (on file with author).

139. In May 2000, the United States and Mexico collaborated on a Joint Declaration that recognizes the increasing efforts of non-governmental organizations and communities and the IBWC Task Force. Joint Declaration between the Department of the Interior (DOI) of the United States of America and the Secretariat of Environment, Natural Resources and Fisheries (SEMARNAP) of the United Mexican States to Enhance Cooperation in the Colorado River Delta (May 18, 2000) (on file with author). The countries have committed to support the Task Force, coordinate research efforts and “[s]trengthen cooperative action and mechanisms, to improve and conserve the natural and cultural resources of the Colorado River Delta, including the river and associated wetland habitats.” *Id.*

140. *See, e.g.*, North American Wetlands Conservation Council Participation in Conservation Efforts in the Delta of the Colorado River, Mexico and Summary List of Delta Projects [where DOI is involved] (distributed at United States Stakeholders Workshop, Colorado River Delta, Oct. 11, 2000) (Oct. 2000) (on file with author).

141. While the Fourth Work Group formed in 1997, it was inactive for two years. Pitt, *supra* note 93, at 837 n.77. The lack of activity may also be due to “the position of the United States State Department through the United States Section of the International Boundary and Water Commission that the United States does not mitigate for impacts in a foreign country.” BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT COLORADO RIVER INTERIM SURPLUS CRITERIA, vol. I, at 3.17-3 (2000).

142. U.S. Stakeholder Meeting for the Implementation of the DOI-SEMARNAP Joint Declaration on the Colorado River Delta (Oct. 11, 2000) (on file with author).

143. Minute 302 to the 1944 Treaty is another example of a conceptual minute. *See* <http://www.ibwc.state.gov/FORAFFAI/MINUTES/minindex.HTM>.

144. Conceptual Framework for United States-Mexico Studies for Future Recommendations Concerning the Riparian and Estuarine Ecology of the Limitrophe Section of the Colorado River and its Associated Delta (Minute 306), *available at* <http://www.ibwc.state.gov/FORAFFAI/MINUTES/minindex.HTM>; *see also* Ken Ellingwood & Tony Perry, *U.S., Mexico Pledge to Save Colorado Delta*, L.A. TIMES, Dec. 26, 2000, at A3.

145. Minute 306, *supra* note 144.

cooperation between the United States and Mexico, including examining possible approaches to ensure use of water for ecological purposes, and a forum for public participation and exchange of information, and will develop joint studies and recommendations.¹⁴⁶

Before Minute 306, the primary obstacle facing Delta restoration was the absence of a binational forum facilitating comprehensive restoration and long-term planning while also empowering nontraditional decisionmakers such as non-governmental organizations and academic institutions.¹⁴⁷ Minute 306 was the catalyst for the U.S.-Mexico Binational Symposium on the Colorado River Delta.¹⁴⁸ Unfortunately, the tragedies of September 11 impeded the participants' full attendance and attention and we wait for the Symposium's proceedings to discuss the next steps.¹⁴⁹

Lest the reader think this an extreme example of interagency cooperation, the presence of Indian pueblos and tribes in a river basin presents a similar dynamic because tribes too are sovereigns. Adding another cook to the kitchen, the Bureau of Indian Affairs ("BIA") represents Indian Trust assets for over thirty-four Indian tribes in the Lower Colorado River Basin, as well as approximately twenty tribes and pueblos in the Middle Rio Grande. Even the Department of Interior itself may have conflicting mandates in these situations, where protecting Indian trust assets may conflict with operating Bureau water projects or enforcing the ESA.¹⁵⁰

The trust relationship requires the Department of Interior (or any federal agency) to conduct government-to-government consultation with Indian tribes and Pueblos.¹⁵¹ When a federal agency plans to take action that may affect trust assets, including water rights, the agency must consult with the affected tribes and thereafter represent those concerns and rights in the federal government and in environmental and other compliance processes for the action.¹⁵²

146. *Id.*

147. Press Release, United States and Mexico Sign Agreement on Colorado River Delta, (Dec. 13, 2000) (recognizing growing influence of these stakeholders), available at <http://www.ibwc.state.gov/PAO/CURPRESS/ColoradoMin306final.htm>. Cf. Roberto Sanchez, *Public Participation and the IBWC: Challenges and Options*, 33 NAT. RESOURCES J. 283 (1993) (discussing the historic lack of public participation in IBWC processes).

148. Colorado River Delta Symposium, Welcome and Objectives, Mexicali, Baja California, Sept. 11-12, 2001 (on file with author).

149. See Brent Israelsen, *Rejuvenating Colorado River Delta Remains at Odds With Water Rights*, SALT LAKE TRIB., Sept. 17, 2001.

150. See, e.g., Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. 252, 256 (D. D.C. 1972), modified on other grounds, 360 F. Supp. 669 (D. D.C. 1973), rev'd on other grounds, 499 F.2d 1095 (D.C. Cir. 1974), cert. denied, 420 U.S. 962 (1975); Tim Vollmann, *The Endangered Species Act and Indian Water Rights*, 11 NAT. RES. & ENVT. 39 (1996).

151. Memorandum for the Heads of Executive Departments and Agencies, Government-to-Government Relations with Native American Tribal Governments, 59 Fed. Reg. 22,951 (May 4, 1994) (Government-to-Government Directive); see also Exec. Order No. 13175, 65 Fed. Reg. 67,249 (Nov. 6, 2000).

152. See *supra* note 151; see also Klamath Tribes v. United States, 1996 WL 924509 (D. Or. 1996).

The difficulties inherent in such an arrangement are manifest when it is the Department of the Interior itself undertaking the action. In the Middle Rio Grande, the FWS is currently involved in ESA litigation involving the endangered silvery minnow and southwestern willow flycatcher.¹⁵³ Early in 2001, therefore, FWS quickly issued a biological opinion on the impacts of federal and nonfederal activities on these species in the Middle Rio Grande. Before issuance of the biological opinion, the Fish and Wildlife Service must consult with Indian governments.

After the government-to-government consultation, the Department must reconcile the duty of the FWS to enforce the ESA for the conservation of the silvery minnow and southwestern willow flycatcher, with the duty of the FWS as manager of national wildlife refuges in the Middle Rio Grande, with the duty of the BIA as trustee for the Indian trust assets, and with the duty of the Bureau of Reclamation to comply with the ESA.¹⁵⁴ Given a short timeline and numerous tribal governments, the FWS cannot always accomplish this successfully.

On the state level, water resources departments, fish and game departments, environment departments and river commissions are very heavily invested in river management. Of course, irrigation districts have long-standing interests since they hold significant water rights and contracts.¹⁵⁵ With the advent of federal environmental laws, new stakeholders are demanding input into decisionmaking. Here too, the state-federal nexus often generates conflict, where state and local interests often resent enforcement of federal laws, regarding them as unfunded federal mandates and impositions on states' rights.¹⁵⁶

For example, in the Middle Rio Grande, there is extensive information showing that the Middle Rio Grande Conservancy District's ("MRGCD") water diversions are wasteful, far beyond any reasonable beneficial use under both federal and state law.¹⁵⁷ MRGCD received a state permit in the 1920s which has since expired.¹⁵⁸ The District has not applied for permanent water rights—called a "proof of beneficial use"—to detail how much land is irrigated and with how

153. *Rio Grande Silvery Minnow v. Keys*, No. CV-99-1320 JP/RBM-ACE (D. N.M. filed July 2, 2001) (challenging the adequacy of ESA Section 7 consultation).

154. For a general overview of Departmental responsibilities, see Mary Christina Wood, *Fulfilling the Executive's Trust Responsibility Toward the Native Nations on Environmental Issues: A Partial Critique of the Clinton Administration's Promises and Performance*, 25 ENVTL. L. 733, 754 n.80 (1995).

155. See Lisa D. Brown, *The Middle Rio Grande Conservancy District's Protected Water Rights: Legal, Beneficial, or Against the Public Interest in New Mexico?*, 40 NAT. RESOURCES J. 1 (2000).

156. See, e.g., Isabel Sanchez, *Irrigation District Can't Shake Feds*, ALBUQUERQUE J., May 31, 2001, at D1; Tania Soussan, *Farmers' Water Called Safe*, ALBUQUERQUE J., Feb. 2, 2001, at B3.

157. Ben Neary, *Water District Might be Headed for Restrictions*, SANTA FE NEW MEXICAN, Mar. 7, 2001, at B1.

158. Mike Taugher & Tania Soussan, *Middle Rio Grande Water District's Use, Rights Unknown*, ALBUQUERQUE J., Aug. 30, 1999, at A1.

much water.¹⁵⁹ The State and Bureau have MRGCD reports showing diversions averaging 609,000 acre-feet per year for 53,685 acres—more than 11 acre-feet per acre.¹⁶⁰ This amount is double other irrigators in New Mexico.¹⁶¹ The State Engineer has announced that these diversions are excessive and that he expects an efficiency of greater than 22 percent. New Mexico will only allow consumption of 2.1 acre-feet per acre, a reduction of over one-third.¹⁶²

By exceeding any reasonable beneficial use requirement, MRGCD's diversions are thus unlawful under both federal and state law. Yet MRGCD has not reduced its demand for water deliveries from federal reservoirs, the Bureau still delivers all water MRGCD calls for, and the State Engineer has not enforced beneficial use requirement via a Proof of Beneficial Use ("PBU"). As long as neither the state nor the federal government exercises its authority, the river suffers from lack of certainty and inability to move forward.

Inertia can also set in when no entity has clear authority for a necessary or proposed action. Instream flows, a challenge to obtain and enforce in even the smallest stream, are nearly impossible to discuss in the context of an international river. In the Lower Colorado River basin, the Delta has received water in recent years largely due to luck; this will end unless legal mechanisms are created to ensure continued flows.¹⁶³ The concept of instream flow rights has been recognized by most western states and federally established with such conservation laws as the Wild Scenic Rivers Act of 1968,¹⁶⁴ Grand Canyon Protection Act of 1992¹⁶⁵ and the Central Valley Project Improvement Act.¹⁶⁶ The Upper Basin of the Colorado River has provided for minimum streamflows in a recovery program for endangered fish.¹⁶⁷ Before we can extend these concepts internationally to our neighbors in Mexico, we must first overcome the

159. Ben Neary, *Make Do With Less Water, Irrigators Told*, SANTA FE NEW MEXICAN, Mar. 24, 2001, at A1.

160. *Id.* In addition, the original permit was for 120,000, so the District has also shrunk. *Id.*

161. Lowry McAllen, *A River of Discord*, ALBUQUERQUE TRIB., Mar. 31, 2001, at A1.

162. Tania Soussan, *Effective Irrigation Advocated*, ALBUQUERQUE J., Mar. 24, 2001, at A1.

163. Glenn, *supra* note 123, at 1184.

164. 16 U.S.C. §§ 1271-1287 (2000). Portions of eight tributaries and the mainstream have been studied for designation as wild and scenic rivers. 16 U.S.C. § 1276 (a)(34), (36), (38), (39), (43), (47), (55), (56).

165. Grand Canyon Protection Act of 1992, Pub. L. No. 102-575, tit. XVIII, 106 Stat. 4669. As a result of the Act and an EIS, daily releases from Lake Powell are strictly limited and occasional releases of 30,000 to 40,000 cfs are allowed to build sandbars and stream channels. In 1996, for seven days the Grand Canyon was flooded in order to restore sandbars and beaches. Scott K. Miller, *Undamming Glen Canyon: Lunacy, Rationality, or Prophecy?*, 19 STAN. ENVTL. L.J. 121, 162 (2000).

166. Pub. L. No. 102-575, tit. XXXIV, 106 Stat. 4706.

167. U.S. FISH AND WILDLIFE SERVICE RECOVERY IMPLEMENTATION PROGRAM FOR ENDANGERED FISH SPECIES IN THE UPPER COLORADO RIVER BASIN 5-7 (rev. 1995); *see also* David H. Getches, *Competing Demands for the Colorado River*, 56 U. COLO. L. REV. 413, 447 (1985).

obstacles of the Law of the River. Two challenges are apparent: the ability to transfer water from the Upper Basin to the Lower Basin, and from the Lower Basin to Mexico. State and federal entities in both basins believe these challenges are actually impossibilities.¹⁶⁸

VI. FACING THE VOID

These are just some of the conflicts in each region. How do basinwide projects deal with them? Watershed protection efforts must continually face fragmented, incomplete and shared regulatory schemes.

Current watershed or basin initiatives generally fall under the auspices of federal environmental statutes. Examples are the Lower Colorado River Multi-Species Conservation Program ("LCR MSCP") and the Middle Rio Grande ESA Collaborative Program ("Program"). However, these programs arose out of crisis and exist solely to resolve it—in these cases, ESA compliance. As a consequence, the scope and coverage of these programs fail to encompass the problem watershed. For example, the Middle Rio Grande ESA Collaborative Program initially covered only that stretch of the Rio Grande where the endangered silvery minnow still survives—from Cochiti Dam to Elephant Butte Reservoir.¹⁶⁹ This stretch of river is only 5 percent of the minnow's current habitat.¹⁷⁰ It is not a complete watershed effort because it lacks actions that will address additional endangered species in the region. On the other hand, the LCR MSCP covers nearly 100 endangered and sensitive species, but has limited its geographic scope to the United States portion of the river.¹⁷¹ Despite the limited purpose and scope of these programs, they still have difficulty overcoming the obstacles of a fragmented and overlapping regulatory framework.

The Lower Colorado River Multi-Species Conservation Program

168. See James S. Lochhead, *An Upper Basin Perspective on California's Claims to Water from the Colorado River Part I: The Law of the River*, 4 U. DENV. WATER L. REV. 290 (2001) (asserting that interbasin transfers violate the Compact and *Arizona v. California* Decree); BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT COLORADO RIVER INTERIM SURPLUS CRITERIA, vol. I, at 2-4 (2000).

169. The biological opinion of 2001 expanded the scope to cover all activities from the Colorado state line south to Elephant Butte Reservoir. U.S. FISH AND WILDLIFE SERVICE, PROGRAMMATIC BIOLOGICAL OPINION ON THE EFFECTS OF ACTIONS ASSOCIATED WITH THE U.S. BUREAU OF RECLAMATION'S, U.S. ARMY CORPS OF ENGINEERS', AND NON-FEDERAL ENTITIES' DISCRETIONARY ACTIONS RELATED TO WATER MANAGEMENT ON THE MIDDLE RIO GRANDE, NEW MEXICO 56 (June 29, 2001) (on file with author).

170. Endangered and Threatened Wildlife and Plants; Final Rule to List the Rio Grande Silvery Minnow as an Endangered Species, 59 Fed. Reg. 36,988 (July 20, 1994) (to be codified at 50 C.F.R. pt. 17).

171. Multi-Species Conservation Program (MSCP) for the Lower Colorado River, Arizona, Nevada, and California, 64 Fed. Reg. 27,000, 27,001 (May 18, 1999). The boundary between the United States and Mexico is delineated by the Northern International Boundary ("NIB") between California and Baja California until it meets the Colorado River, where, for twenty-two miles the River forms the boundary (known as the limitrophe), and meets the Southern International Boundary ("SIB"), the boundary between Arizona and Sonora.

was formed in 1995 in response to the critical habitat designation for the Colorado pikeminnow, razorback sucker, bonytail, and humpback chub in 1994¹⁷² and the listing of the southwestern willow flycatcher as endangered in 1995.¹⁷³ The Bureau of Reclamation and the lower Colorado River Basin states of California, Arizona, and Nevada began negotiations over the development of a conservation plan and incidental take permit application to obtain regulatory certainty for continuing dam operations and water diversions. The Department of Interior and Lower Basin states formalized their partnership with a Memorandum of Agreement ("MOA") on August 2, 1995.¹⁷⁴ The intent of the MOA was to provide interim regulatory assurance during a three-year program development period and long-term assurance with the end conservation program, the MSCP.¹⁷⁵ Instead of consulting with FWS, who would develop a reasonable and prudent alternative ("RPA") to the agency's actions, (so that the Bureau could ensure its activities did not jeopardize listed species), the signatories designed the MOA to serve as the RPA, thereby postponing ESA section 7 consultation.¹⁷⁶ Conservationists threatened to sue the federal agencies if the Bureau did not begin consultations with FWS as the ESA required.¹⁷⁷ In response, the federal and state agencies issued a Memorandum of Clarification ("MOC") that ostensibly recognized that the agencies participating in the MSCP could not avoid the legal requirements of the ESA.¹⁷⁸

The LCR MSCP is a partnership of state, federal, tribal, and other public and private stakeholders with an interest in managing the water and related resources of the Lower Colorado River Basin. The purposes of the LCR MSCP are to:

- (1) conserve habitat and work toward the recovery of threatened and endangered species as well as reduce the likelihood of additional species listings under the Federal Endangered Species Act . . . ,
- (2) accommodate current water diversions and power production and optimize opportunities for future water and power development . . . ,
- and (3) provide the basis for take authorization pursuant to

172. Endangered and Threatened Wildlife and Plants; Determination of Critical Habitat for the Colorado River Endangered Fishes: Razorback Sucker, Colorado Squawfish, Humpback Chub, and Bonytail Chub, 59 Fed. Reg. 13,374 (Mar. 21, 1994) (to be codified at 50 C.F.R. pt. 17). The Colorado squawfish has been renamed the Colorado pikeminnow.

173. Endangered and Threatened Wildlife and Plants ; Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher, 60 Fed. Reg. 10,694 (Feb. 27, 1995) (to be codified at 50 C.F.R. pt. 17).

174. Memorandum of Agreement for Development of a Lower Colorado River Species Conservation Program (Aug. 2, 1995) (on file with author).

175. *Id.*

176. *Id.*

177. See Letter from Gregory Sater, Defenders of Wildlife, to Bruce Babbitt, Secretary, United States Department of the Interior et al., (Feb. 6, 1996) (outlining the Bureau's attempts to avoid consultation and the agency's legal obligations under the ESA) (on file with author).

178. Memorandum of Clarification (July 17, 1996) (on file with author).

ESA¹⁷⁹

The overarching goal of the LCR MSCP is to provide long-term compliance with the ESA for federal and non-federal entities for the next fifty years.¹⁸⁰

There is, however, no representation of environmental and Mexican interests because of the limited geographic scope. Despite this, the MSCP is widely touted as an ecosystem approach to conservation planning.¹⁸¹ In late 1998, the Bureau of Reclamation had supported a proposal to fund a study of conservation needs and opportunities of the basin south of the Southern International Boundary ("SIB") with Mexico.¹⁸² The MSCP Steering Committee, however, refused to agree to this proposal and instead limited the geographic scope of the MSCP planning area to the river corridor from Glen Canyon Dam to the SIB and restricted its binational involvement to receiving progress reports on the Bureau's work in Mexico.¹⁸³ Conservationists felt that the MSCP's continued refusal to adopt a conservation strategy that followed ecosystem boundaries, in favor of a plan that left the status of Mexico and the delta in limbo, would doom the effort to failure.¹⁸⁴ As a result, the last conservationists on the MSCP steering committee, the Center for Biological Diversity and Defenders of Wildlife, withdrew from the process.¹⁸⁵

Although the MSCP Steering Committee may have intended to limit the scope of the MSCP in order to concentrate their efforts and funds on a manageable project, the effect might be to compromise the final product. For example, withdrawal of all four environmental groups from the committee has raised questions about the adequacy of representation and public participation in the MSCP. More recently, questions have arisen regarding the MSCP's reliability, particularly over the long-term, given that environmental impacts in Mexico have not been addressed.

For example, after seeing that the MSCP would not effect, but

179. Department of the Interior, *Bureau of Reclamation*, at http://www.lcrmscp.org/noi_2000.html.

180. MULTI-SPECIES CONSERVATION PLAN, REVIEW DRAFT INTRODUCTION, PURPOSE AND NEED, DESCRIPTION OF COVERED ACTIONS, EFFECT OF COVERED ACTIONS, AND NO ACTION ALTERNATIVE 3-5 (1999) (on file with author).

181. See Multi-Species Conservation Program (MSCP) for the Lower Colorado River, Arizona, Nevada, and California, 64 Fed. Reg. 27,000 27,001 (May 18, 1999).

182. Facilitation Team Issue Paper Recommendation (Sept. 21, 1998) (on file with author).

183. Lower Colorado River Multi-Species Conservation Program, Steering Committee Meeting (Nov. 5, 1998) (on file with author).

184. See November 5, 1998 MSCP Steering Committee Meeting Notes, Comment, *Myopia on the Colorado*, ARIZONA DAILY STAR, Nov. 12, 1998, at 14A (on file with author).

185. See Letter from John Fritschie and David Hogan, Defenders of Wildlife and Center for Biological Diversity, to Robert Johnson, Regional Director, Bureau of Reclamation (Nov. 9, 1998) (on file with author); see also John Kostyack, *Habitat Conservation Planning: Time to Give Conservationists and Other Concerned Citizens a Seat at the Table*, 14 ENDANGERED SPECIES UPDATE 51 (July-Aug. 1997).

could instead foreclose protection and restoration of the Colorado River Delta, four non-governmental organizations from the United States and four from Mexico challenged the adequacy of the ESA consultation over the Bureau of Reclamation's operations and maintenance of dams, reservoirs and water diversions along the Lower Colorado River.¹⁸⁶ The consultation did not fully consider the adverse impacts to listed species that have some or all of their habitat in Mexico, either in the Delta and/or Gulf of California. By excluding species such as the totoaba, vaquita, Yuma clapper rail and southwestern willow flycatcher from the consultation,¹⁸⁷ the Bureau has hastened the demise of several endangered species. Whatever the outcome of this litigation, it will have a profound effect on the scope of future ESA consultations, and particularly the LCR MSCP, which is still in development.

In addition to the outstanding issues of the Defenders of Wildlife litigation, binational implementation of Minute 306 also implicates the LCR MSCP. Not only are the two processes quite separate, but also they are likely to remain so, given the inability (thus far) for the Departments of State and Interior to reach a reciprocal working relationship. Furthermore, the divergence of the two processes will put one to the disadvantage of the other. The MSCP aims to lock in river operation and management, and accompanying mitigation measures, for the next fifty years. Non-federal entities in particular will rely on the "no surprises" policy, which provides assurances to a permit holder that no additional land use restrictions or compensation will be required even if unforeseen circumstances indicate that additional mitigation is required.¹⁸⁸ As a result, MSCP members will resist any additional mitigation requested via Minute 306.

On the other hand, in the interests of international diplomacy, the Department of State, in one, five or twenty years, could impose a bilateral agreement or new Treaty minute on United States interests.¹⁸⁹ In January 2000, the government of Mexico delivered a demarche, accompanied by a diplomatic note, in which Mexico officially objected to the adoption of the Interim Surplus Guidelines ("ISG") because it

186. See *Defenders of Wildlife v. Babbitt*, Civ. No. 00-1544 (D. D.C. filed June 28, 2000). At press this important case has been fully briefed on the merits and the judge has heard oral argument.

187. See generally 50 C.F.R. § 17.11 (2001); see also 60 Fed. Reg. 10,694 (Feb. 27, 1995) (southwestern willow flycatcher); 51 Fed. Reg. 10,842 (Mar. 31, 1986) (desert pupfish); 50 Fed. Reg. 1056 (Jan. 9, 1985) (cochito); 44 Fed. Reg. 29,478 (May 21, 1979) (totoaba); 32 Fed. Reg. 4001 (Mar. 11, 1967) (Yuma clapper rail).

188. See Habitat Conservation Plan Assurances ("No Surprises") Rule, 63 Fed. Reg. 8859 (Feb. 23, 1998) (to be codified at 50 C.F.R. pt. 17). Just as the Secretary may permit incidental takings by federal entities after section 7 consultation, the Secretary may also issue incidental take permits to private parties under section 10. 16 U.S.C. § 1539(a) (2000). First, the parties must submit a habitat conservation plan ("HCP") that specifies impacts, steps to minimize and mitigate impacts, any available funding, and other necessary measures. *Id.* § 1539(a)(2)(A). Thus there will also be an HCP component of the MSCP for non-federal interests.

189. In fact, the treaty itself, and Mexico's allocation, was finalized to the dismay of the seven basin states. See Meyers & Noble, *supra* note 131, at 381-86.

did not take into account or mitigate for the transboundary impacts Mexico warned of, asked for postponement of the ISG to allow time for bilateral consultations, and invited the United States government to initiate diplomatic negotiations on the matter in order to prevent any adverse transboundary impacts.¹⁹⁰ Mexico is also reported to have filed an objection to the United States lining of the All-American Canal, which will prevent seepage that currently recharges an aquifer pumped by Mexicali Valley farmers.¹⁹¹ The United States took eleven months to respond to the demarche, and the Secretariat of SEMARNAT, Victor Lichtinger, has stated that he is concerned about the current method of allocating waters between the United States and Mexico and that a primary issue of his agency will be to deal with water supply and quality issues in Mexico.¹⁹²

Second, addressing the question of international instream flows is made more difficult by the separation of these two processes. In November of 1999, more than thirty-five non-governmental organizations from Mexico and the United States sent a letter to both governments urging them to establish international instream, perennial flow rights in the Colorado River from the United States into Mexico's Colorado River Delta and Upper Gulf of California, and describing the treaties, laws and agreements relevant to doing so.¹⁹³ Establishing instream flow rights would require the United States to deliver water to the border specifically for conservation purposes as well as a joint commitment from Mexico to use this water for the ecosystem.¹⁹⁴ The Minute 306 process, without the LCR MSCP, will have difficulty securing a source(s) for instream flows and a mechanism for protecting that flow while instream. Therefore, recent attempts to inject the idea or the principle into river management have had to go through existing channels, and have been rebuffed.¹⁹⁵

190. See Semarnat, *en desacuerdo con la decisión unilateral: Afecta a México cambio de EU en el manejo del río Colorado*, LA JORNADA, Jan. 24, 2001; *Mexico Warns United States Over Risks to River*, REUTERS NEWS SERVICE, Feb. 7, 2001.

191. Haley Nolde, *Fate of region high and dry after canal fix*, SAN JOSE MERCURY NEWS, Dec. 17, 2000.

192. Carlos Reyes, *Urgen Mexico y EU Aclarar Uso del Agua*, EL NORTE, Feb. 23, 2001, available at <http://www.elnorte.com/nacional/articulo/092521/>.

193. Letter from Defenders of Wildlife et al., to Rosario Green, Minister of Foreign Affairs; Arturo Herrera, Commissioner, CILA; Julia Carabias, Secretaria de Medio Ambiente Recursos Naturales y Pesca (SEMARNAP); Comision Nacional del Agua (CNA); Madeleine Albright, Secretary, U.S. Department of State; John Bernal, Commissioner, IBWC; George Frampton, Chair, Council on Environmental Quality; Bruce Babbitt, Secretary, U.S. Department of the Interior; William M. Daley, Secretary, U.S. Department of Commerce; Carol Browner, Administrator, U.S. Environmental Protection Agency (Nov. 24, 1999) (on file with author).

194. See Frank S. Wilson, *A Fish Out of Water: A Proposal for International Instream Flow Rights in the Lower Colorado River*, 5 COLO. J. INT'L ENVTL. L. POL'Y 249 (1994).

195. See BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT COLORADO RIVER INTERIM SURPLUS CRITERIA, vol. I, at 2-4 (2000) (rejecting Pacific Institute surplus criteria alternative that would provide perennial base flows and periodic flood flows to the Colorado River Delta); Courses Of Action Identified At The Symposium On The Delta Of The Colorado River Held Sept. 11-12, 2001 (developed by the Mexican delegation, proposing "[t]hat both governments promise to provide

It remains to be seen how successful independent efforts are.¹⁹⁶

A. MIDDLE RIO GRANDE

The Middle Rio Grande Endangered Species Act Collaborative Program ("Program") has roots similar to those of the LCR MSCP. Through 1999, an informal group of federal, state, and environmental representatives had been meeting to exchange information and discuss ways of improving the river's environmental health. That year also saw the designation of critical habitat for the silvery minnow,¹⁹⁷ severe minnow populations losses,¹⁹⁸ the suppression of an adverse biological opinion on the Middle Rio Grande,¹⁹⁹ and the subsequent filing of a complaint challenging the failure of the federal agencies to complete ESA consultation.²⁰⁰ Realizing that all parties needed to take a step forward with meaningful, coordinated action to save the minnow, stakeholders from the federal, state, and city governments, the MRGCD, and the environmental community inked a Memorandum of Understanding establishing the Program.²⁰¹ The purpose of the Program is to protect and improve the status of endangered species, "while existing and future water uses are protected."²⁰²

The Program is still a work in progress, and of several issues remaining, two have been alluded to already: tribal participation and commitments for water. First, although no tribes or pueblos are signatories to the MOU, representatives have attended several Program meetings and have provided valuable input. However, recent events may have strained the relationship between the Program and

volumes of water to protect and restore the ecosystems of the Delta.") (on file with author).

196. See, e.g., Jo Clark et al., IMMEDIATE OPTIONS FOR AUGMENTING WATER FLOWS IN THE COLORADO RIVER DELTA IN MEXICO (May 2001), available at http://www.sonoran.org/pdf/Colorado_River.pdf (exploring sources of water in the United States and Mexico for Delta restoration).

197. Endangered and Threatened Wildlife; Final Designation of Critical Habitat for the Rio Grande Silvery Minnow, 64 Fed. Reg. 36,274 (July 6, 1999) (to be codified at 50 C.F.R. pt. 17).

198. Mike Taugher, *Silvery Minnow Losses Send Biologists into Crisis Mode*, ALBUQUERQUE J., Nov. 11, 1999, at A1 (asserting that the minnow was closer to extinction than ever seen before).

199. Mike Taugher, *Feds Ask Biologists to Redo River Report*, ALBUQUERQUE J., Nov. 3, 1999, at A1. The Fish and Wildlife Service had produced a draft biological opinion on the effects of federal activities on the minnow and flycatcher, but did not release or finalize it. Instead, they agreed to issue a new biological opinion, which was not produced until June 29, 2001. See Letter from Regional Director, Region 2, to Area Manager, Albuquerque Area Office, Bureau of Reclamation (June 29, 2001) (on file with author).

200. Plaintiffs' Complaint, *Rio Grande Silvery Minnow v. Martinez*, Civ. No. 99-1320-JP/KBM-ACE (D. N.M. filed Dec. 3, 1999). After the issuance of the June 2001 biological opinion, plaintiffs filed an amended complaint challenging the adequacy of the consultation, particularly the scope of federal actions analyzed.

201. Memorandum of Understanding, Middle Rio Grande Endangered Species Act Collaborative Program (Jan. 3, 2000) (on file with author).

202. *Id.*

pueblos and tribes. During the fiscal year 2001 appropriations cycle, the Senate made clear that future funding requests would have to come through one collaborative group.²⁰³ Several parties interpreted this as an ultimatum for tribal sovereigns (as well as other entities) to become Program participants, or risk future funding for river restoration initiatives.

This ultimatum relates to a more encompassing tension—perception that absence of tribal signatories hinders the Program's progress. In addition to the underlying question of various parties' commitments, there is a misconception that the need for government-to-government consultation between the Indian governments and the federal government is a barrier to the Program process.²⁰⁴ This can hardly be true, since the Program still must settle critical substantive issues and undergo NEPA and ESA compliance, among other things. In addition, the consultation on the June 2001 biological opinion was rushed, and not performed to the satisfaction of the pueblos.²⁰⁵ The Department of the Interior would like to, and needs to, do a better job this time.²⁰⁶ In the meantime, the process of requesting and funneling money for ESA and restoration projects through the Program, with the involvement of tribal entities, continues to break new ground, and hopefully, forge better relationships.²⁰⁷

A second outstanding issue imperiling the Program's success is the lack of commitment to securing water for the minnow. The lack of quantification or proof of beneficial use by MRGCD, coupled with allegations of wasteful water use, have targeted MRGCD as a logical source of supplemental water. Because the Bureau and Corps manage the river to supply the MRGCD, they too are under the microscope. A crucial issue in the ongoing *Rio Grande Silvery Minnow* litigation is the extent of federal control over the facilities (reservoirs, dams, etc.) in the Middle Rio Grande, and the corresponding ability to use that control for the benefit of endangered species.²⁰⁸ Therefore, a program

203. See S. REP. NO. 106-395, 95 (2000) (in appropriating funds to the Bureau of Reclamation:

But more can and must be done to establish a single entity, reflecting the range of interests, along the Rio Grande if the recovery effort is to be successful and to ensure the efficient use of available resources. Further, a single comprehensive group will ensure that activities undertaken are based on sound science and contribute directly to silvery minnow recovery. Future funding will be dependent upon a program plan for recovery activities that is supported by State and local governments, Federal agencies, Tribes, and water users.).

204. See Norman Gaume, Director, New Mexico Interstate Stream Commission *Presentation at the CLE International Law of the Rio Grande Conference, ENDANGERED SPECIES ACT IN THE MIDDLE RIO GRANDE* (Jan. 18, 2002) (presentation available in CLE International Course Materials, Law of the Rio Grande) (on file with author).

205. ESA Work Group Meeting, at 9 (July 27, 2001).

206. ESA Work Group Meeting, at 7 (Aug. 3, 2001). The Bureau of Reclamation and Corps of Engineers, as parties to the Program, must also consult.

207. See ESA Work Group Meeting, at 2-4 (Sept. 17, 2001) (devising ways to involve the pueblos in the Program's fiscal year 2002 funding request).

208. See Plaintiffs' Opening Case Brief on Second Amended Complaint, *Rio Grande Silvery Minnow v. McDonald*, Civ. No. 99-1320-JP/RLP-ACE (D. N.M. filed July 16,

whose purposes are not only to protect imperiled species, but also to *recover* these species, allows the Rio Grande to go dry—a serious threat to silvery minnows.²⁰⁹ It is the hope of environmental representatives that before the Program is finalized, there will be firm commitments to supply water to the river to prevent its going dry.

VII. CONCLUSION

Even though these groups were formed to address one problem, they still have difficulty overcoming the obstacles of a fragmented and overlapping regulatory framework. Furthermore, and ironically, the self-imposed, limited scopes of both programs are poised to cause the delay that the participants had originally hoped to avoid. Challenges like those of Indian water rights, the Colorado River delta, and the definition and proof of beneficial use will require commitment by all stakeholders in the river basin. If we are to learn anything from the Law of the River(s), it is that there is no “permanent and definitive solution”²¹⁰ when difficult questions are not addressed.

Put simply, the mere presence of these efforts, whether in response to, or in anticipation of, a crisis is a start. Although problems such as sufficient funding and equitable decisionmaking remain,²¹¹ increased interaction and openness will better frame the issues and solutions to reach a broader spectrum of concerns and achieve lasting, though not likely permanent, accord.

2001) (alleging that in issuing its biological opinion, FWS simply accepted the Bureau's position on its discretion, and thus did not consult on the full range of operations or consider the full spectrum of mitigation measures). Shortly before this article went to press, Judge Parker issued a decision finding that the Bureau violated the ESA by failing to consult with the Fish and Wildlife Service about using water from two federal reclamation projects. *Rio Grand Silvery Minnow v. Keys*, Civ. No. 99-1320 JP/RLP-ACE (D. N.M. April 19, 2002).

209. Associated Press, *Draft Species Protection Plan Allows Dry Rio Grande at Times*, ALBUQUERQUE TRIB., Mar. 15, 2001.

210. Commentators often sarcastically refer to Minute 242 and the 1944 Water Treaty, titled “The Permanent and Definitive Solution to the International Problem of Salinity at the Colorado River,” because it is hardly that.

211. Ann Brower et al., *Consensus versus Conservation in the Upper Colorado River Basin Recovery Implementation Program*, 15 CONSERVATION BIOLOGY 1001 (2001).

AN ENVIRONMENTAL WATER ACCOUNT: THE CALIFORNIA EXPERIENCE

ALF W. BRANDT[†]

I.	Introduction.....	426
II.	Why an Environmental Water Account in California?	428
	A. Background.....	429
	B. Short History of CALFED EWA	431
	C. Theory of Environmental Water Accounts.....	433
III.	Development of the CALFED EWA	435
	A. Conflict/Competition	435
	B. The Regulatory Baseline	437
	C. Federal-State Cooperation	439
	D. Funding.....	442
	E. Structure	443
	F. Regulatory Assurances: "The Commitments"	445
IV.	Implementation	446
	A. Building the Assets.....	447
	B. Accounting/Measurement.....	449
	C. Coordination with Other Programs/Goals	451
	1. Conjunctive-Use Groundwater Storage	451
	2. Multiple Use/Multiple Objectives	451
	3. Other Environmental Programs	452
	D. Decisions	453
	1. Setting Priorities Through the Watershed	454
V.	Conclusion.....	455

I. INTRODUCTION

Spring has returned to the West once again. The carpet of natural grass and desert foliage has turned green as vegetation blooms across the varied landscape. Runoff from mountain snow rises in the rivers, and for farmers, irrigation season has begun. In California and across the West, the risk of conflict grows between those who divert water and those who defend the water needs of fish. Fish need water in the streams to survive—the same water humans divert out of the stream for

[†] J.D. 1988, Boalt Hall School of Law, University of California, Berkeley. During the early stages of the conflict discussed in this article, the author represented the City of Los Angeles on the Board of Directors of Metropolitan Water District of Southern California. Since 1997, he has worked for the United States Department of the Interior. This article reflects the author's personal perspective, not the views of the United States Department of the Interior.

consumptive uses. Many of today's western water conflicts are sparked by the listing of threatened or endangered fish species under the Endangered Species Act ("ESA"). Once listed, those responsible for its survival work intensely, often in the face of challenges from the consumptive users, to bring it back from the brink of extinction. From salmon in the Columbia River to the silvery minnow in the Rio Grande, stakeholders and government agencies confront the conflicts that accompany the listing of an endangered species of fish.

After a decade of conflict, however, California has initiated a series of projects reflecting a more cooperative approach, under the banner of the CALFED Bay-Delta Program.¹ Among these projects, the Environmental Water Account ("CALFED EWA") offers one of the most important tools for healing relationships between the ecosystem and the water stakeholder community in a time of farmer/fish conflicts.

In addressing its ESA water issues in the last decade, California has used a combination of regulation and water acquisitions to provide the water that its listed fish species need to avoid jeopardy and move toward recovery. In the early 1990s, when California confronted conflicts arising out of ESA listings and the state experienced its worst drought in history, its multitude of water stakeholders joined with state and federal governments to find a way out of the quagmire. A 1994 accord on water quality regulation provided time to craft a long-term solution for the state's water flashpoint; the San Francisco Bay/Sacramento-San Joaquin Delta ("Delta"). At that time, the governments and stakeholders shared a common goal: recovery of listed species. Because of the government mandate to protect listed species, water users needed to find a solution that not only recognized their long-term interests in a reliable water supply, but also stabilized and restored important fish species that had suffered dramatic declines. The solution was to establish an environmental water account that would set aside water for fishery needs. Thus, the CALFED EWA was born.²

The CALFED EWA creates a water supply for fishery needs without relying on regulatory edicts. Instead, its operators in state and federal agencies acquire water for the environment from existing water right holders or from maximizing the use of water project facilities. With this water supply at their disposal, state and federal water project operators can make timely, critical adjustments in operations to make

1. The term "CALFED" originated from the combination of the state (CAL) and federal (FED) governments working together to resolve the environmental and water management conflicts in the San Francisco Bay/Sacramento-San Joaquin River Delta.

2. See CALFED BAY-DELTA PROGRAM, PROGRAMMATIC RECORD OF DECISION 54-58 (2000) [hereinafter CALFED ROD]. The reader may access the Record of Decision at <http://www.calfed.water.ca.gov>. The Record of Decision establishes a comprehensive ecosystem recovery and water management program of which the CALFED EWA is just one part. The CALFED EWA, however, required the most attention from the federal and state government CALFED negotiators. This article will use the term "CALFED EWA" to refer specifically to the CALFED account.

water available to fulfill the needs of listed species and project contractors while preventing reductions in deliveries due to such adjustments. These adjustments either use the CALFED EWA's assets directly for reservoir releases and instream demands, or indirectly to compensate project water users for reductions in project diversions. While the CALFED EWA developed over a two-year period, its origins date back more than a decade to the 1990 listing of winter-run salmon as threatened pursuant to the ESA, and the conflict that followed. That conflict forged some of the ingredients necessary for the CALFED EWA, including the research and identification of the water needs of listed species and a consensus on a regulatory baseline of protection necessary to stabilize fishery populations.

The lessons that California has learned in creating and implementing the CALFED EWA may provide insight for water stakeholders in other watersheds. An environmental water account offers a more efficient and effective method of drawing together conflicting stakeholders to work toward recovery. It creates and uses a water budget with maximum flexibility for restoring an entire aquatic ecosystem rather than prescribing standards that restrict water project operations for the benefit of a particular listed species. An environmental water account can lead toward recovery with minimal water losses to consumptive water users, or at least compensation for any such losses. The California experience shows how an environmental water account can contribute to conflict resolution, the elements required to create an account, and the challenges that account managers face in implementing an environmental water account. The CALFED EWA does not resolve all difficulties and conflicts. Instead, it offers an essential tool for addressing those conflicts. The CALFED EWA is a framework for continued cooperation in helping the watershed's fishery recover.

II. WHY AN ENVIRONMENTAL WATER ACCOUNT IN CALIFORNIA?

In moving from the jeopardy avoidance stage to the start of recovery with the CALFED EWA, California spent a decade in varying degrees of conflict between the water needs of the fish and the needs of consumptive users. The stages of that conflict were not too different from conflicts in other watersheds where excessive diversions had brought species to the brink of extinction. As in other watersheds, at each stage, the federal and state governments in California worked with the watershed's stakeholders to resolve the immediate conflict and the particular needs of the Central Valley watershed. The CALFED EWA's development in the later stages of the conflict reflected a concerted effort to address the long-term needs for fishery recovery.

A. BACKGROUND

The CALFED EWA arose out of a conflict in California's Sacramento-San Joaquin River Delta, which flows into the San Francisco Bay. The Delta serves—both figuratively and literally—as the heart valves for the state's north-south water conveyance system and the most valuable estuary ecosystem on the West Coast. Water from upstream reservoirs on the Sacramento River and its tributaries flows into the Delta to mix with flows from several other river systems and out to the San Francisco Bay. At the Delta's south end, large federal and state pumping facilities take water south to San Joaquin Valley farms and southern California cities. At the same time, the Delta's unique mix of waters—both fresh and salt—creates a rich estuary ecosystem for fish and wildlife. These competing demands for the Delta's waters led to conflict, which led to the CALFED EWA.

The roots of the Delta water conflict can be traced back to the earliest days of diversions in the Sacramento Valley.³ The more recent legal conflict over regulation for fishery needs dates back to 1978, when the State Water Resources Control Board ("SWRCB") adopted a water quality control plan for the Delta ("1978 Plan") and an accompanying water rights decision ("D-1485"). D-1485 imposed conditions on the permits for federal and state water projects that pumped water from the Delta.⁴ The state and federal agencies operating the water projects, as well as several other parties, challenged the 1978 Plan and D-1485 because they restricted project operations in order to protect fish. Those challenges resulted in a landmark California court decision rejecting the 1978 Plan and D-1485 because they did not adequately address fishery needs and consider water right permits throughout the watershed.⁵ The SWRCB issued a new draft water quality control plan and decision in December 1992, in the midst of California's worst drought and after Delta fishery conditions had changed dramatically with the listings of certain salmon species in the Central Valley. At the Governor's request, the SWRCB withdrew the draft decision, deferring to federal regulation under the ESA.⁶

In the early 1990s, several events changed the nature of water and ecosystem management in the Delta. First, the Fish and Wildlife Service and the National Marine Fisheries Service (collectively "ESA Agencies") listed as threatened certain fish species that lived in or

3. See *Town of Antioch v. Williams Irrigation Dist.*, 205 P. 688, 689 (Cal. 1922) (conflict over saltwater intrusion into the Delta due to upstream diversions).

4. *In re Permit 12720*, Decision No. 1485, 1978 Cal. ENV LEXIS 41 (Aug. 16, 1978).

5. *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161 (1986). See also Alf W. Brandt, *United States v. State Water Resources Control Board: A Comprehensive Approach To Water Policy In California*, 14 *ECOLOGY L.Q.* 713 (1988).

6. Phase of the Bay-Delta Estuary Proceedings, Apr. 22, 1993 [hereinafter SWRCB Order No. 90-5].

passed through the Delta.⁷ Adding listed species to the system required the Federal Central Valley Project ("CVP") to consult with the ESA Agencies as to how to avoid jeopardizing survival of the listed species. Initially, the CVP was required to maintain cooler temperatures in the Sacramento River to support salmon spawning.⁸ In 1991, the federal Environmental Protection Agency ("EPA") disapproved the state's 1978 Delta water quality standards as not meeting the requirements of the Clean Water Act, which ultimately led environmentalists to sue to require the EPA to promulgate federal water quality standards.⁹ Second, in 1992, the "take" of listed salmon at the Delta pumps led to temporary pumping reductions at both CVP and State Water Project ("SWP") facilities, whose close coordination was required by statute and allowed for ESA coverage of the state's pumping.¹⁰ Finally, in 1992, President Bush signed legislation that added fish and wildlife protection as one of the CVP's authorized purposes and dedicated 800,000 acre-feet of CVP yield to fish restoration purposes.¹¹

The environmentalists' lawsuit against the EPA provided the lever to force resolution of the immediate conflict over Delta water quality standards for fishery needs. The resulting consent decree required the EPA to promulgate federal water quality standards for the Delta by December 15, 1994.¹² All of the federal and state agencies involved in the Delta agreed to work together in addressing the Delta's needs.¹³ Those agencies then engaged the Delta's stakeholders in negotiating new standards, ultimately agreeing to the 1994 Bay-Delta Accord ("Accord") in compliance with the December 15 deadline.¹⁴ The Accord provided for close coordination of the state and federal water projects in complying with new water quality standards and fulfilling Delta fishery needs for an interim period of three years.¹⁵ Those three years were intended to provide time for state and federal agencies to

7. Listing of the Sacramento River Winter-run Chinook salmon, 55 Fed. Reg. 49,623 (Nov. 30, 1990) [hereinafter Chinook Listing]; Fish and Wildlife Service Delta Smelt Listing, 58 Fed. Reg. 12,863 (Mar. 5, 1993).

8. See SWRCB Order No. 90-5, *supra* note 6.

9. *Golden Gate Audubon Soc'y v. Browner*, No. 93-646-LKK (E.D. Cal. 1994) (consent decree requiring EPA promulgation pursuant to the Clean Water Act) (on file with author).

10. *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001).

11. Amendments to Central Valley Project Authorizations, Pub. L. No. 102-575, § 3406(b)(2), 106 Stat. 4714.

12. *Golden Gate Audubon Soc'y*, No. 93-646-LKK.

13. FRAMEWORK AGREEMENT BETWEEN GOVERNOR'S WATER POLICY COUNCIL OF THE STATE OF CALIFORNIA AND THE FEDERAL ECOSYSTEM DIRECTORATE 1-2 (1994) [hereinafter FRAMEWORK AGREEMENT] (on file with author).

14. UNITED STATES DEPARTMENT OF INTERIOR ET AL., AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE STATE OF CALIFORNIA FOR COORDINATED OPERATION OF THE CENTRAL VALLEY PROJECT AND THE STATE WATER PROJECT (1994) [hereinafter BAY-DELTA ACCORD]. See also Elizabeth Ann Rieke, *The Bay-Delta Accord: A Stride Toward Sustainability*, 67 U. COLO. L. REV. 341 (1996).

15. BAY-DELTA ACCORD, *supra* note 14.

work with urban, agricultural and environmental stakeholders to craft long-term Delta solutions.¹⁶

Those long-term solutions developed into the CALFED Bay-Delta Program, a cooperative program of twenty-one state and federal agencies with responsibilities in the Bay-Delta and its watershed. CALFED addresses four primary concerns for the Delta: ecosystem restoration, water management (including storage and conveyance), water quality, and levee system integrity.¹⁷

As the conflicts developed, the Department of the Interior began implementing the Central Valley Project Improvement Act ("CVPIA"). In addition to shifting 800,000 acre-feet of CVP yield to environmental purposes, the CVPIA also required re-operation of the federal project to protect anadromous fish, so long as the re-operation did not affect deliveries to CVP contractors.¹⁸ Additionally, the CVPIA required the Secretary of the Interior to develop a plan for increasing Project yield to replace the 800,000 acre-feet dedicated to environmental purposes.¹⁹ These and many other CVPIA requirements shifted the attention of CVP operators to a broader range of Project purposes.

B. SHORT HISTORY OF CALFED EWA

As the CALFED agencies worked with stakeholders during the fall of 1998, the ESA Agencies proposed additional periods of reduced project pumping to protect and promote the recovery of listed fish species.²⁰ Shortly thereafter, agencies and stakeholders working with Interior Secretary Bruce Babbitt and the governor's chief of staff proposed establishing a collection of water assets to satisfy the needs of the Delta's fish.²¹

With preliminary support from the state and federal governments in December 1998, agencies and stakeholders began to study and pursue development of the CALFED EWA. Michael J. Spear of the Fish and Wildlife Service and Timothy Quinn, representing the Metropolitan Water District of Southern California, led the discussions with a small group of stakeholders, biologists, and water project

16. *Id.*

17. CALFED ROD, *supra* note 2.

18. Department of the Interior, Bureau of Reclamation, *Central Valley Project Improvement Act*, available at <http://www.mp.usbr.gov/cvpia/index.html>, required the Secretary "to modify Central Valley Project operations to provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish . . . from other sources which do not conflict with fulfillment of the Secretary's remaining contractual obligations to provide Central Valley Project water for other authorized purposes."

19. *Id.*

20. CALFED BAY-DELTA PROGRAM, REVISED PHASE II REPORT 38-39 (1998) [hereinafter 12/98 PHASE II REPORT], available at <http://calfed.water.ca.gov/historical/phase2/chapter2/chapter2.html>.

21. The formal EWA proposals developed during stakeholder meetings hosted by Secretary Babbitt during the fall of 1998. Secretary Babbitt and California Governor Pete Wilson's Chief of Staff decided to pursue an EWA at stakeholder meetings at the Los Angeles Airport Hilton during the first week of December 1998.

modelers.²² The group considered several possible structures, including a water project contractor for the environment, an environmental water credit account within each water project, and an independent environmental water broker, ultimately studying a range of CALFED EWA designs to determine what worked best for the Delta and those who rely on the Delta.²³ After this small group completed their analysis, the CALFED agencies convened in the fall of 1999 with another group of senior agency and stakeholder representatives to negotiate the CALFED EWA and other CALFED programs. Despite intense debate among stakeholders, those discussions failed to achieve consensus on the terms for creating the CALFED EWA.²⁴

In 1999, as agencies and stakeholders began developing how the CALFED EWA might work, new crises arose where the state and federal export projects were required to make operational adjustments and/or reduce pumping from the Delta pursuant to the Delta Water Quality Control Plan or the ESA.²⁵ While there was some discussion of creating an EWA pilot project for the 1999 water year, the ESA Agencies determined that too many issues required resolution before an EWA could be demonstrated effectively—from how to account for use of the environmental water to what assets the fish needed most.²⁶ The 1999 operational adjustments, however, made the creation of an environmental water account that much more urgent, particularly for the water user stakeholders.

The water users who were dependent on the two water projects objected to the 1999 operational adjustments because of the risk of lower project water deliveries. They believed that the creation of a water account for the environment would provide the water needed to “make up” for the reduced deliveries they had experienced due to fishery needs. The water users therefore advocated immediate acquisition of water for the environment to replace their losses. Proposed acquisitions included existing groundwater from actively

22. CALFED BAY-DELTA PROGRAM, REVISED PHASE II REPORT 98-99 (1999) [hereinafter 6/99 PHASE II REPORT], available at <http://calfed.water.ca.gov/historical/phase2/chapter2/chapter2.html>.

23. 12/98 PHASE II REPORT, *supra* note 20, at 115.

24. CALFED, Water Management Development Team (“WMDT”) Report (contained in 12/99 CALFED Policy Group Agenda Package) (on file with author). Compare Letter from Ag/Urban WMDT Members, to The Honorable Gray Davis, Governor of California and The Honorable Bruce Babbitt, Secretary of Interior (Nov. 5, 1999), with Letter from Environmental Water Caucus, to Mike Spear, U.S. Fish and Wildlife Service and Steve Macaulay, Department of Water Resources (Nov. 15, 1999) (all on file with author).

25. In May 1999, the Delta pumping facilities exceeded their take limit for delta smelt and responded by reducing the level of pumping to 3500 cfs. In November 1999, salmon began migrating down the Sacramento River and the Delta Cross-Channel was closed to prevent salmon from being drawn into the central Delta. The Delta Cross-Channel was designed to improve water quality in the central Delta and near the export pumps. Due to a dry fall, the closure led to water quality degradation at the pumps and pumping was again reduced.

26. 6/99 PHASE II REPORT, *supra* note 22, at 98-101.

managed groundwater basins (recently refilled by several wet years), drainage water, and water from other non-project storage facilities.²⁷ Stakeholder pressure during early 2000, including a state legislature hearing on the 1999 reductions, encouraged the federal and state administrations to proceed with final negotiations for the CALFED Bay-Delta Program, with particular emphasis on the EWA.²⁸

C. THEORY OF ENVIRONMENTAL WATER ACCOUNTS

The premise behind an environmental water account is that it provides an efficient and flexible mechanism to acquire and use water assets to adjust water project operations in response to changing hydrology and fishery needs.²⁹ An environmental water account allows maximum flexibility to respond to the changing needs of the fishery and the ecosystem as a whole, working better than fixed prescriptive standards that restrict water project operations for the benefit of several particular listed species.³⁰ Such an account can share the benefits of wet hydrology and new facilities, allowing both the ecosystem and water users to enjoy improved conditions.³¹

The key aspects of the CALFED EWA operation include water asset development and use for fishery needs, or in other words, deposits and withdrawals. The CALFED EWA starts with a baseline of regulatory protection for listed species. This baseline serves as both an initial cap on project yield reductions arising out of regulatory decisions, and from an accounting perspective, the “zero point” for tracking deposits and withdrawals from the account. The EWA grows by water acquisitions and “reoperation” of project facilities. Reoperation is the use of excess project pumping or storage capacity and increased project yield arising out of operational adjustments during periods when listed species are not at risk.³²

Such project reoperation for the EWA arises out of the unique attributes of the Delta system. For example, a key asset is the EWA’s access to “joint point of diversion,” where the state and federal water projects may use each other’s Delta pumping facilities. This asset particularly benefits the federal CVP because its smaller pumping capacity (4,600 cfs compared to the state’s 10,000 cfs) makes it more

27. See, e.g., DRAFT WATER PURCHASE AGREEMENT BETWEEN KERN COUNTY WATER BANK AUTHORITY AND UNITED STATES BUREAU OF RECLAMATION (1999) [hereinafter KERN AGREEMENT] (on file with author).

28. Testimony of Lester A. Snow, Regional Director, Mid-Pacific Region, Bureau of Reclamation, at a Joint Hearing, Senate Agriculture and Water Committee and Assembly Water, Parks and Wildlife Committee, Feb. 1, 2000 (on file with author).

29. 12/98 PHASE II REPORT, *supra* note 20, at 115; 6/99 PHASE II REPORT, *supra* note 22, at 95.

30. 12/98 PHASE II REPORT, *supra* note 20, at 115; 6/99 PHASE II REPORT, *supra* note 22, at 96.

31. 12/98 PHASE II REPORT, *supra* note 20, at 115-20; 6/99 PHASE II REPORT, *supra* note 22, at 95-101.

32. This paragraph reflects a summary of the Environmental Water Account Operating Principles Agreement [hereinafter EWA Op. Prins.], which is Attachment 2 to the CALFED ROD, *supra* note 2.

difficult to fill its share of the San Luis Reservoir, south of the Delta, which the two projects operate jointly. The State Water Project ("SWP") can therefore increase CVP yield by pumping CVP water after it fills its share of San Luis Reservoir. At other times, however, the SWP can benefit when listed fish congregate near its Delta intake, requiring reduced SWP pumping to limit "take." In such situations, the CVP can pump water for the SWP. The EWA gets credit for 50 percent of the CVP benefits from "joint point," increasing its deposits. Another reoperation example is the ESA Agencies' discretion to allow increased pumping during certain periods when listed fish are not near the pumps and therefore not at risk. Still another EWA asset is "borrowing," where pumping may be reduced in one year without affecting that year's deliveries, and if the following winter is wet enough, the water debt may be repaid by increased pumping during periods of high Delta outflow.³³

The CALFED EWA's assets can be used directly for either instream water needs or indirectly to compensate water project users for reduced diversions that result in reduced water deliveries. Additional releases out of upstream reservoirs or reduced diversions upstream from the Delta may supplement instream water flows. Alternatively, EWA managers may call for reduced state and federal water project pumping in the Delta to reduce take at the pumps or to support anadromous fish migration to the ocean. Although the EWA generally promotes recovery of listed species, its assets may be used for any reason that supports the fishery, including reducing take to prevent incidental take limits from being exceeded. The assets therefore may help avoid jeopardy as well as support recovery.³⁴

While California water users have focused on compensation for water "lost" to the environment, the CALFED EWA is more than a mere mechanism to acquire water for "makeup" to water users for environmental actions. Its intent is to maximize project efficiency and flexibility, allowing the projects to provide both fish and water users with reliable water supplies. Setting seasonal pumping restrictions by biological opinion under the ESA generally does not allow for a response to constantly changing hydrologic and fishery conditions. Only when project operations exceed ESA take limits do the fishery agencies seek additional pumping reductions, and, at that point, the reductions are often substantial, and are too late to prevent the excess take. With an EWA as collateral, the fishery agencies can call for early and moderate pumping reductions that minimize both the take of listed species and the need for subsequent, substantial pumping reductions.³⁵ In some cases, subsequent hydrology may allow project

33. CALFED ROD, *supra* note 2, at 54-58; EWA Op. Prins., *supra* note 32.

34. CALFED ROD, *supra* note 2, at 54-58; EWA Op. Prins., *supra* note 32.

35. Although the EWA had not been created yet, the water projects and ESA Agencies agreed to reduce pumping in the early spring of 2000, which helped delta smelt to pass the project pumps early and avoided a substantial violation of take limits

contractors to avoid any delivery reductions resulting from the pumping reductions. In other cases, avoiding delivery reductions may require drawing down the EWA.

III. DEVELOPMENT OF THE CALFED EWA

Although the final negotiations to create the CALFED EWA did not last much longer than six months, the roots of its development date back a decade. In order to achieve the consensus support for the EWA, federal and state governments and the stakeholders needed to resolve several issues, including identifying the biological needs of fish, resolving initial conflicts, building a stable state-federal relationship, and establishing a regulatory baseline. At that point, the key agencies and stakeholders could turn their attention to creating an EWA to serve the peculiar needs of the Bay-Delta watershed.

A. CONFLICT/COMPETITION

The need for the CALFED EWA did not arise until conflict ensued when fishery water requirements reached a critical point in the 1990s. Populations of salmon and delta smelt had declined precipitously, particularly during the drought of the late 1980s and early 1990s. The ESA Agencies listed those fish and focused their efforts on drawing the species back from the brink of extinction.³⁶ Initially, salmon protection efforts focused on maintaining cool temperatures in the Sacramento River and minimizing take by upstream diversions.³⁷ The CVP and SWP did not reduce pumping from the Delta due to excessive take until 1992, two years after listing the winter-run salmon.³⁸ At that point, the perilous condition of the fish allowed the ESA Agencies to use the ESA's powerful regulatory tools to take drastic steps to prevent jeopardy of the fish.³⁹

The biological need for an environmental water account may not become obvious until a water project has been in operation for many years, the biological need becomes critical, and conflict becomes intense. Intense conflict in California helped agencies and stakeholders alike recognize the risks of long-term conflict and promoted greater creativity when resolving more than the immediate dispute. Intense regulatory conflict saps financial, natural and emotional resources, without improving the environmental conditions

in May. When May pumping exceeded take limits slightly, the ESA Agencies did not call for any additional pumping reductions.

36. Determination of Threatened Status for the Delta Smelt, 58 Fed. Reg. 12,854 (Mar. 5, 1993) (to be codified at 50 C.F.R. pt. 17); Listing of the Sacramento River Winter-run Chinook Salmon as Threatened, 55 Fed. Reg. 49,623 (Nov. 30, 1990) (to be codified at 50 C.F.R. pt. 17).

37. SWRCB Water Rights Order 90-5, *supra* note 6.

38. Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313, 315-16 (2001).

39. See discussion *infra* Part II.E for a more complete description of ESA regulation.

at the heart of the conflict.⁴⁰ Antagonists will pay their lawyers to go to court, their lobbyists to the Capitol, and their chief executives to regulatory agency executive suites. As the conflict continues, delayed regulation may result, and environmental conditions may deteriorate further, risking heightened restrictions on water use to save an environment in a more dire condition. The listed fish in California suffered from just such a delay.⁴¹

Still, opportunity also arose from California's conflict. Although California stakeholders and government agencies had been litigating the Delta's water quality standards for fishery needs for more than a decade, the ESA listings brought the water conflict into sharper focus and helped frame the debate over how to restore the ecosystem. The disputing stakeholders paid not only for lawyers, but also for a broad array of biologists from agencies who contributed to a better understanding of the biological needs of the listed fish. The debate among biologists led to identification of remedies that did not require water, such as habitat restoration.⁴² The conflict turned agency and stakeholder attention to restoration of the ecosystem. If the ESA Agencies had not listed salmon and delta smelt, the conflict would not have reached crisis proportions. Without the crisis, stakeholders would not have invested in the research identifying watershed-specific needs of the listed fish; attention would never have turned to the recovery of these species.

An environmental water account offers flexible tools to achieve recovery, provided its managers have access to dedicated biological research and monitoring. Each listed species' lifecycle will lead to different kinds of water needs at different times of the year or in different types of hydrologies. Defining these needs requires careful research. The importance of investing in research cannot be overstated, as each scientific conclusion, particularly by regulatory agencies, will be carefully analyzed and often challenged by stakeholder scientists. In California, the conflict led agricultural, urban and environmental stakeholders to hire scientists to review the biological conclusions of the ESA agencies.⁴³ At times of particular

40. As a Metropolitan Water District ("MWD") director, I participated in that conflict. The MWD Board created the Delta Political Advisory Committee in order to address the ongoing legal and political conflict over the Delta's waters.

41. Seven years after a California court rejected the 1978 Delta water quality control plan and D-1485 in 1986, the SWRCB still had not adopted new Delta water quality standards and withdrew its new draft Delta water quality control plan. While the water quality standard debate continued, new fishery conflicts at the pumps arose and the Fish and Wildlife Service issued a jeopardy opinion for water project operations later that same year. See *Tulare Lake Basin Water Storage Dist.*, 49 Fed. Cl. at 315-16.

42. Although NMFS biologists had advocated spawning habitat restoration, water user biologists touted these non-water projects as the answer for listed salmon. A key part of the 1994 Bay-Delta Accord was funding for habitat restoration. See BAY-DELTA ACCORD, *supra* note 14.

43. When the ESA Agencies presented their 1993 biological opinions at a public

frustration, some stakeholder agency managers would denigrate the biological opinions and decisions as emanating from "third-level biologists."⁴⁴ At the point that agencies and stakeholders invest in creating an environmental water account, no doubt about the biological need for environmental water can exist. The biological need must be clear to achieve cooperation, win the necessary commitments, and successfully implement the environmental water account.

Conflicts over environmental water needs continue to rage across the West, but should be recognized for the opportunities they may present. The California conflict of the early 1990s showed that conflict provides the opportunity for a shift in the water supply/use paradigm. Instead of focusing only on defending existing urban and agricultural water supplies, antagonists should recognize the larger need for healing the conflict and resulting damage to the watershed's ecosystem. Without healing, the conflict will only make those water supplies less reliable, risking a downward spiral of environmental damage and increasing regulatory requirements. Recognition of that risk, which can only arise out of intense conflict, sets the cornerstone for building an environmental water account that can lead to ecosystem healing.

B. THE REGULATORY BASELINE

Clearly establishing a regulatory baseline, against which use of environmental water will be measured is critical to success. Achieving a consensus baseline, however, is not easy. Creating a baseline requires three steps: (1) establish the historical facts of water demands and environmental conditions; (2) determine baseline conditions that would best stabilize the fishery; and (3) draft precise regulatory requirements for that baseline.⁴⁵ With those pieces in place, structuring the environmental water account can begin.

The most hotly debated issue in any environmental water conflict is the "cost" of changing water project operations for environmental/fishery needs. Measuring that cost requires a baseline against which to compare new operations. In the early stages of the California conflict, each stakeholder measured these costs against the baseline that favored its particular interests. As a result, stakeholders battled over baselines.⁴⁶ They argued over alternative legal

meeting, stakeholder scientists attended and analyzed each statement in the biological opinions at the meeting.

44. During the early years of the California conflict, I represented the city of Los Angeles on the Board of Directors of the MWD, a major participant in the Delta conflict. I heard the "third-level biologist" phrase on several occasions during the 1992-94 period when SWP pumping was reduced.

45. California achieved this baseline when the agencies and stakeholders adopted the 1994 Bay-Delta Accord. The parties were fortunate to have more than seventy years of hydrologic data and fifty years of fishery data. See discussion *supra* Part I.A.

46. As the Environmental Water Account concept began to germinate, Secretary Babbitt urged stakeholders to put aside their "baseline theologies."

interpretations of regulatory baselines as well as differing theoretical baselines of current water demands.⁴⁷ The stakeholders then debated how much water the fish had a right to use based on the different "existing" baselines.⁴⁸ In a world of conflicting and shifting baselines, it is impossible to calculate precisely what losses water users actually suffer from water project operational adjustments for fish, thus the conflict continues.

The CALFED EWA would not have taken shape without the regulatory baseline established by the 1994 Bay-Delta Accord. The Accord was achieved at the end of the state's worst drought, when stakeholders could see the risks of long-term conflict in the next drought if the environmental problems were not resolved. The stakeholders and agencies therefore conceded to significant water project operations changes and agreed to a regulatory baseline.

With the 1994 Bay-Delta Accord baseline in place, California then turned its attention to improving environmental conditions and avoiding a future debacle during which listed species populations could drop precipitously, risking jeopardy and causing substantial curtailment of project pumping. The stakeholders and agencies focused on addressing those occasional crises that arise even with a regulatory baseline, as occurred in 1997 and 1999. The intent of the CALFED EWA was, in part, to address such unpredictable events.⁴⁹ If, however, the parties were still at war over basic environmental protections, then the EWA would have had little opportunity to succeed because its resources would have been needed to maintain the regulatory baseline.

Without a clear and agreed upon baseline of environmental protection and water demands, accounting for an environmental water account may become impossible. The baseline is the necessary starting point at which to begin building environmental assets. As

47. See, e.g., BAY-DELTA Accord, *supra* note 14 (establishing a thirty day spring period where pumping could not exceed the inflow from the San Joaquin River (*i.e.* one-to-one standard)). The subsequent 1995 biological opinion for delta smelt, however, indicated that smelt needed pumping to be no more than half of San Joaquin River inflow (*i.e.* the two-to-one standard). Less pumping means a higher risk of reduced project water deliveries. In addition, the projects had agreed to meet that standard pursuant to an agreement with San Joaquin River water right holders and a subsequent SWRCB order. During the final EWA negotiations, SWP contractors argued successfully that the SWP should abide only by the Accord's "baseline" one-to-one standard. Some environmentalists argued that the SWP had already agreed to abide by the two-to-one standard. The EWA now compensates the SWP for the difference between the two standards.

48. Interview with Michael Thabault (Nov. 11, 2001). In California in 1993, for example, storage facilities downstream from the Delta were virtually full, and there was not much agricultural water demand because the soil was still moist in late spring when NMFS called for reduced pumping in response to excessive take of salmon. The State Water Project operators asserted that late-spring pumping reductions were not part of the regulatory baseline, and the reductions therefore caused substantial water losses, even though there was no where to put the water.

49. CALFED ROD, *supra* note 2, at 54; EWA Op. Prins., *supra* note 32, at 1.

environmental water assets are contributed, they may be needed just to stabilize the ecosystem, to keep moving toward that baseline. The debate will rage as to allocation of all water resources in the watershed, as well as how to measure the water used for the environment. When does the environmental water account incur charges? When do the account's assets grow? When the watershed enjoys a high precipitation year and instream flows are substantial, does the account get charged for the additional instream flows? How much is the charge? By establishing the baseline of protection and water project operations (or water use) in various types of hydrological conditions, the environmental water account operators can begin accounting for growth and declines in the account's assets based on changes from baseline conditions.

The regulatory baseline also can provide a different kind of water asset that an environmental water account does not effectively provide: the minimum conditions that the fishery requires in every type of hydrological year. The drafters designed the CALFED EWA to respond to changes in hydrology or fishery needs. The basis for its initial moderate size was an estimate of fishery needs beyond the regulatory baseline, so the listed fish could move toward recovery.⁵⁰ In contrast, regulatory requirements provide for the minimum needs of listed species that are consistent year in and year out. If the EWA were required to provide the baseline of regulatory protection, the water costs would deplete the EWA's assets in many years, and preclude the flexible responses necessary for improving fishery conditions and moving toward recovery. The California experience shows that creating a strong foundation for an environmental water account starts with setting the baseline.

C. FEDERAL-STATE COOPERATION

Dominant federal regulation of endangered species and water quality, combined with state control of water rights, make federal-state cooperation an important element of a successful environmental water program. Each government can contribute particular legal authority, expertise, and experience. If one level tries to direct policy alone, it faces roadblocks to success, which only the other government can remove. By working together, the federal and state governments can avoid such barriers and engage a much broader array of contributions to an environmental water account's success.

The federal and state governments each play important roles in managing the West's water resources. Congress has passed a number of federal laws related to water, from sweeping regulatory laws⁵¹ to

50. CALFED Bay-Delta Program, CALFED EWA Fishery Needs 3 (Dec. 21, 1999) (Staff Draft) (on file with author).

51. *See, e.g.*, Federal Water Pollution Control Act, 33 U.S.C. § 1251 (1994); Safe Drinking Water Act, 42 U.S.C. Sub. Ch. XII (1994); Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2000).

water project authorizations and appropriations.⁵² The federal government, however, has deferred the regulation of water rights to the states⁵³ and delegates to them key regulatory functions under the Clean Water Act.⁵⁴ Both levels of government typically share in the expense of a water project development, such as the CALFED Bay-Delta Program.⁵⁵ The state and federal roles in developing an environmental water account therefore remain an important element in an environmental water account's success.

California generally has taken aggressive steps to store, manage and protect water resources and the aquatic environment. Governors have often staked their place in history on their water resource activities, from Pat Brown's building of the State Water Project to Gray Davis' prominent role in establishing the CALFED Bay-Delta Program in concert with Secretary of the Interior Bruce Babbitt.⁵⁶ The California Legislature also has assumed leadership in drafting statutes that promote effective use of limited water resources.⁵⁷ Finally, not to be left out of the equation, the California Supreme Court has recognized the Public Trust Doctrine⁵⁸ and confirmed a broad role for state agencies that regulate water.⁵⁹ The state's many innovative approaches to water policy allowed it to play a leading role in the CALFED EWA development.

However, when California tried to set its own course in water policy without federal participation, stakeholders and government agencies alike recognized the necessary and valuable role the federal government must play if resolution of key water issues is to be achieved. A state court had rejected the SWRCB's 1978 Delta water quality standards in 1986.⁶⁰ Five years later, the federal EPA formally rejected those same state standards and encouraged the state to develop new standards.⁶¹ The following year, Governor Wilson set out the state's water policy for the Delta and appointed both a stakeholder advisory group ("Bay-Delta Oversight Council" or "BDOC") and a

52. See, e.g., Reclamation Act of 1902, 43 U.S.C. § 372 (1994); MARK REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* (1986).

53. See *California v. Arizona*, 373 U.S. 546 (1963).

54. See Federal Water Pollution Control Act, 33 U.S.C. § 1313 (1994).

55. See S. REP. NO. 107-39 (2001); CALFED BAY-DELTA PROGRAM, ANNUAL REPORT 2000, at 49-51 (2000) [hereinafter 2000 ANNUAL REPORT], available at <http://www.calfed.water.ca.gov>.

56. See generally ARTHUR L. LITTLEWORTH & ERIC L. GARNER, *CALIFORNIA WATER* (1995); CALFED BAY-DELTA PROGRAM, *CALIFORNIA'S WATER FUTURE: A FRAMEWORK FOR ACTION* (2000) [hereinafter *FRAMEWORK FOR ACTION*].

57. See, e.g., CAL. WATER CODE §§ 1725-1745 (West 2002).

58. *Nat'l Audubon Soc'y v. Superior Ct.*, 658 P.2d 709, 712 (Cal. 1983), cert. denied sub nom., *Los Angeles Dept. of Water and Power v. Nat'l Audubon Soc'y*, 464 U.S. 977 (1983).

59. *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 202 (1986), cert. denied, Supreme Ct. Minute 09-18-1986.

60. *Id.* at 196.

61. Press Release, EPA, (Sept. 3, 1991) (on file with author).

working group of his water agency leaders ("California Water Policy Council").⁶² Neither group included federal representatives.⁶³ After the SWRCB proposed a new set of aggressive Delta water quality standards, Governor Wilson urged his own SWRCB to scrap the proposal in 1993.⁶⁴ During this same period, the SWP suffered Delta pumping reductions arising out of both federal and state ESA consultations.⁶⁵ The governor's state-only groups failed to end the conflicts in the Delta. Certain stakeholders withdrew from BDOC, and environmental groups pursued their suit against the EPA to impose federal Delta water quality standards.⁶⁶ Recognizing the need to work with the federal government, the governor's Water Policy Council agreed to cooperate with federal agencies to resolve Delta issues. The Accord followed six months later.⁶⁷

California learned an important lesson about water policy development in the West: the federal government must participate with the states in the ultimate resolution of water resource conflicts. The coordination of state and federal government activities promotes broader participation in an environmental water program, and greater success in achieving common environmental and water resource goals. In addition, an environmental water account will benefit from cooperation with local governments (particularly counties) and stakeholders. Local cooperation in establishing an environmental water account will ensure ready sources of water assets and operational creativity in applying those assets. Where water conflicts develop, the watershed's water resources are generally completely allocated, or even over-allocated. When environmental water needs become apparent, the conflict over reallocating those resources ensues. The only way to resolve that conflict with an environmental water account is to engage local water right holders and users in taking action that allows water to go to environmental purposes. Those actions range from water transfers to conservation to shifting to the use of groundwater aquifers.⁶⁸ A successful account will rely on every option to build its account of available water assets. The diversity and abundance of those assets depends on broad-based cooperation and creativity among federal, state and local authorities.

62. GOVERNOR'S WATER POLICY PRINCIPLES (on file with author).

63. See Memorandum from John Amodio, Executive Officer, Bay-Delta Oversight Council, to Council Members (June 20, 1994) (on file with author).

64. See Press Release, EPA, U.S. EPA Reaches Settlement With Sierra Club on Bay/Delta Suit, (Sept. 17, 1993) [hereinafter EPA Press Release] (on file with author).

65. Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313, 315-16 (2001).

66. Golden Gate Audubon Soc'y v. Browner, No. 93-646-LKK (E.D. Cal. 1993) (on file with author). See EPA Press Release, *supra* note 64.

67. Compare FRAMEWORK AGREEMENT, *supra* note 13, and BAY-DELTA ACCORD, *supra* note 14.

68. The Department of the Interior, for example, is currently considering water acquisitions to provide instream flows in two tributaries to the Sacramento River—Butte Creek and Mill Creek. Both of those acquisitions depend on cooperation with local water right holders.

D. FUNDING

Creation of an environmental water account does not come cheap, particularly in fully appropriated watersheds where the competition for limited water resources is intense. The need for such an account is nevertheless the greatest in these watersheds. The West's established and emerging urban centers increasingly rely on water from distant watersheds. The entrance of an urban water supplier into an agricultural watershed drives up the value of water resources, particularly as the urban area grows and its water demands expand.⁶⁹ When the need arises to restore water to the environment, all those who rely on the watershed's resources will share the cost. Creators of an environmental water account will confront the substantial challenge of equitably allocating the account's financial costs among all of the existing users.

After extensive debate regarding the distribution of the CALFED EWA's costs and benefits, California chose to seek annual appropriations to fund the EWA. On one hand, many in the environmental community suggested that the water projects' contractors pay for the CALFED EWA because when EWA operations reduced deliveries, the water users benefited most from the EWA's reimbursement of water to the projects. The CALFED Bay-Delta Program considered seeking legislation to require those who divert water from the Delta to pay a use fee, which might fund the EWA.⁷⁰ The SWRCB's draft Decision 1630 also considered imposing Delta user fees.⁷¹ On the other hand, water users argued that an environmental program benefits the broader public, and therefore taxpayers should fund the program. Alternatively, there were proposals to divide the EWA's water assets among the needs to aid species recovery, to comply with biological opinions, and to avoid jeopardy.⁷² Some water users suggested they would be willing to pay for biological opinion compliance, but not recovery. Whenever anyone suggested that the CALFED EWA might help comply with the Delta water quality standards, the EPA refused to support public funding for such compliance. The EWA negotiators therefore sought annual appropriations from taxes without specifying whether it was a recovery or compliance tool.⁷³

69. When MWD began seeking water acquisitions throughout the Central Valley in the early 1990s, many water right holders refused to "sell out" to Los Angeles, and those few project water users who were interested proposed prices significantly higher than they had paid for the water.

70. See FRAMEWORK FOR ACTION, *supra* note 56.

71. State Water Resources Control Board, *Draft Decision 1630* (1992).

72. An attorney for the State Water Contractors, Clifford Shultz, proposed this concept during a 2000 meeting with the agency leaders developing the EWA.

73. See FRAMEWORK FOR ACTION, *supra* note 56.

E. STRUCTURE

Determining the most effective institutional structure for administering an environmental water account will depend on the nature and expertise of the institutions involved in the particular watershed. The analysis starts with the federal, state and local agencies that either operate or regulate water storage or conveyance facilities. Next, the non-governmental stakeholders, including organizations and individuals, who have committed the time and resources, may get involved in environmental water issues within the watershed. Finally, the elected officials who care about these issues will substantially influence the implementation of the account. Analysis of these actors' institutional authority over water use within the watershed is the foundation for structuring the institution responsible for the environmental water account.

The scope of existing agencies' legal authority will determine how best to structure the environmental water account's administration. For a federal agency to play a substantial role in the account's operations, it must have statutory authority to acquire and use water to support the fishery or other environmental needs.⁷⁴ State and local agencies that seek an institutional role will need to consider how the operation of an environmental water account will complement or compete with their existing programs and responsibilities.

Options for the governance of an environmental water account may include placement of the account within an existing federal, state or local agency; creation of a new governmental organization under elected or appointed official(s); or the appointment of a non-profit organization as an environmental account steward. In watersheds with a history of intense conflict, agencies and stakeholders often do not trust each other. Each participant in the structuring of an environmental water account, therefore, will seek support for, and perhaps bias toward, its interests. Whether it seeks representation on a governing board or direct authority over the environmental water account's operations, each participant seeks a governing structure that reflects its perspective on the problem the environmental water account addresses. Determining how best to structure institutional control over an environmental water account offers the opportunity for the many agencies and stakeholders to disclose their interests and achieve consensus on the critical challenges of the watershed and how the environmental water account should address those challenges.

The state and federal entities responsible for operating the Delta waterways and regulating the needs of listed species in the Delta agreed to cooperatively implement the CALFED EWA and assume responsibility for EWA management.⁷⁵ The CALFED EWA negotiators divided responsibility for implementing the EWA between the water

74. See, e.g., Endangered Species Act of 1973, 16 U.S.C. § 1534 (1994); Central Valley Project Improvement Act, Pub. L. No. 102-575, 106 Stat. 4706.

75. EWA Op. Prins., *supra* note 32, at 1.

project agencies (Bureau of Reclamation and the California Department of Water Resources) and the fishery agencies (FWS, NMFS and California Department of Fish and Game).⁷⁶ The water project agencies (“project agencies” or “PAs”) took responsibility for acquiring the environmental water, while the fishery agencies (“management agencies” or “MAs”) managed the use of the EWA assets.⁷⁷

Engaging existing regulatory and operational agencies in the administration of an environmental water account ensures their continued interest, involvement and commitment to its success. Ultimate success, however, depends on achieving broad stakeholder support of an environmental water account. That support provides the necessary cooperation and funding for the environmental water account and allows account operators the discretion and flexibility necessary to use the environmental water account’s assets effectively. An alliance of government agencies is best equipped to operate an environmental water account because government agencies frequently must balance the type of diverse interests that collide in the operation of an environmental water account.

Closely related to the institutional structure is the legal structure for establishing the environmental water account and building its assets. California considered a wide range of options for legal protections of the EWA assets and, ultimately, chose a mix of assets and the protections for those assets. In initial CALFED EWA discussions, the legal structures ranged from water rights to water project contracts for an environmental steward.⁷⁸ In the end, because the project agencies and management agencies were so integral to the EWA operations, those agencies chose agreements or water project contracts as the key legal tool for the EWA. Those contracts range from water acquisitions to project operations agreements.⁷⁹

The CALFED EWA’s assets and their corresponding legal protections are by no means exhaustive of all possibilities.⁸⁰ Water rights are one type of asset that is notable for its absence in the EWA’s initial endowment. However, because the EWA focuses its resources on resolving conflicts at the Delta export pumps, operational agreements with the project agencies gave the EWA an asset that has greater influence over control of the pumps—access to excess project storage or conveyance capacity.⁸¹

76. *Id.*

77. *Id.*

78. See 6/99 PHASE II REPORT, *supra* note 22, at 96-97.

79. See EWA Op. Prins., *supra* note 32.

80. *Id.*

81. *Id.*

F. REGULATORY ASSURANCES: "THE COMMITMENTS"

Water users support the CALFED EWA because it offers the hope that their water supplies will be more reliable and stable. They gained this confidence from the "ESA Commitments"⁸² and the U. S. Fish and Wildlife Service and the National Marine Fisheries Service, which indicated that the water projects will have "... no reductions, beyond existing regulatory levels, in CVP or SWP Delta exports resulting from measures to protect fish under FESA and CESA."⁸³ The ESA provides the legal framework for such regulatory assurances. When an ESA Agency lists a fish species as threatened or endangered, it gains various protections.⁸⁴ Among these, two important legal protections stand out. First, ESA section 9 makes it unlawful to take listed species.⁸⁵ Second, ESA section 7(a)(2) requires each federal agency to "insure that any action authorized, funded, or carried out by such agency... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. . . ."⁸⁶

The ESA allows take under certain conditions. ESA section 7 allows the ESA Agencies to issue, after consultation, a biological opinion with an "incidental take statement" concluding that such take does not jeopardize the species.⁸⁷ Exceeding the limits of the incidental take statement generally requires that the federal agency reinitiate consultation with the ESA Agencies, which, in turn, may lead to other changes in the terms of the biological opinion. ESA section 10 authorizes the ESA Agencies to permit some take as part of an otherwise lawful activity by non-federal entities that propose and implement a Habitat Conservation Plan ("HCP"). Such non-federal actors who receive section 10 permits can also receive "No Surprises" assurances, which assure that they will not have to take any other conservation actions beyond the HCP's requirements.⁸⁸ While federal agencies may not receive the same "No Surprises" assurances under section 7, the ESA Agencies may craft biological opinions that set the consultation requirements and other provisions high enough to provide some assurance to the federal agency and its permittees.

Due to the close coordination between the federal CVP and California's SWP,⁸⁹ the SWP participated in the CVP's consultation with the ESA Agencies pursuant to ESA section 7 with respect to Delta export pumping.⁹⁰ As a result, "No Surprises" assurances were

82. CALFED ROD, *supra* note 2, at 57.

83. *Id.*

84. See Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2000).

85. *Id.* § 1538; see also Endangered Wildlife, 50 C.F.R. § 17.21 (1999).

86. 16 U.S.C. § 1536(a)(2).

87. *Id.* § 1536(b).

88. *Id.* § 1539; see also 50 C.F.R. § 17.22 (1999); 50 C.F.R. § 17.32 (1999); 50 C.F.R. § 222.22 (1998) ("No Surprises" regulations).

89. Act of Oct. 27, 1986, Pub. L. No. 99-546, 100 Stat. 3050.

90. Memorandum from Field Supervisor, Ecological Services, Sacramento Field

unavailable to either the federal or state projects. At one point, certain contractors reportedly approached members of Congress inquiring whether California might obtain unique statutory protection similar to "No Surprises" assurances for both state and federal water contractors in conjunction with the CALFED Bay-Delta Program. Those inquiries, however, did not result in statutory changes.⁹¹

To avoid confusion with section 10 "No Surprises Assurances," the ESA Agencies and the project agencies ultimately provided "commitments" within the Record of Decision, the CALFED biological opinion, and the EWA Operating Principles Agreement.⁹² The commitments applied to the export parties, relying on the export pumps where the CALFED EWA would be most effective. The basis for the commitments is three tiers of protection for listed species: the first tier is the regulatory baseline, the second tier is the EWA, and the third tier "is based upon the commitment and ability of CALFED Agencies to make additional water available should it be needed."⁹³ The additional third tier depends on the water projects' ability to acquire water or, if absolutely necessary, draw on other project supplies. It fulfills the section 7 responsibility of the federal agencies to avoid jeopardy and ensures that listed species are not at risk.

While "No Surprises" assurances enjoy a more established regulatory structure, the Bureau of Reclamation's participation in most western watersheds suggests that the California commitments may apply more readily to watershed-wide environmental water accounts. The scope of the account, its intended effects, and the assurances sought will dictate how best to provide assurance to water users. If the account is only for a tributary watershed and assurances are sought only for non-federal diversions, then section 10 provides the strongest assurances. However, if the account covers an entire watershed, then federal diversions are more likely involved. At that point, the commitments provided in the CALFED Program still provide assurances to water users, only on a more limited basis.

IV. IMPLEMENTATION

Establishing an environmental water account only begins the challenge of managing the environment's water assets. The environmental water account is a tool for more effective water management. It will not resolve all environmental water conflicts, but it will provide a framework for responding to the environmental water needs that lead to conflict. It can therefore minimize or shorten those

Office, to Regional Director, U.S. Bureau of Reclamation, Sacramento, California (Mar. 6, 1995) (on file with author).

91. Reports of this lobbying effort reached the author in 1999 and were confirmed in an interview with Tim Quinn. Interview with Tim Quinn, Vice-President, Metropolitan Water Dist. of S. Cal. (Jan. 9, 2002).

92. See generally CALFED ROD, *supra* note 2.

93. CALFED ROD, *supra* note 2, at 54-58.

conflicts. At the same time, the account's operation may lead to new debates about how to manage environmental water supply. New debate may promote greater dialogue about water use priorities, needs for improved water infrastructure and management, and the water's value within the watershed. Successful resolution of this dialogue depends upon continued cooperation, creativity and flexibility in responding to nature's hydrological and biological challenges. To operate water facilities more precisely, and enlarge and carefully manage the account's assets, all agencies and stakeholders in the watershed need to work closely.

In 2001, California completed one year of CALFED EWA operation. The EWA worked, albeit not to the complete satisfaction of every stakeholder. Questions existed about the ESA Agencies' choices, namely, applying a substantial portion of the CALFED EWA assets to salmon protection in the winter, early in the water year.⁹⁴ As the CALFED EWA proceeds, the watershed's stakeholders must move past their contentious history and allow trust and confidence to grow as the EWA operators learn how to effectively use the CALFED EWA assets and operate the EWA within its water "budget."

A. BUILDING THE ASSETS

Circumstances surrounding the creation of the CALFED EWA shape its growth opportunities. The CALFED EWA gained assets in its first year, and it now enjoys access to more assets through defined processes, particularly project reoperation and water acquisitions. Successful development of a broad range of EWA assets, however, requires varied skills and processes, including legislation, contract negotiation, water right change applications, new storage and conveyance facility construction, and water project operational modeling. For most of these activities, the federal agencies need to complete an environmental analysis pursuant to the National Environmental Policy Act ("NEPA"),⁹⁵ while state agencies complete parallel analysis pursuant to the California Environmental Quality Act. CALFED EWA operators have already faced perhaps the most difficult, on-going challenge: obtaining annual state and federal appropriations. During the first year, the EWA relied exclusively on state funding because Congress could not agree on CALFED authorization or appropriation legislation.⁹⁶

The most significant challenge in building the CALFED EWA's assets will be reoperating the state and federal water projects to take

94. CALFED BAY-DELTA PROGRAM, 2001 ANNUAL REPORT (2001) (on file with author); EWA REVIEW PANEL, FIRST ANNUAL REVIEW OF THE ENVIRONMENTAL WATER ACCOUNT FOR THE CALFED BAY-DELTA PROGRAM (2001), available at <http://www.calfed.water.ca.gov>; THE BAY INSTITUTE, THE FIRST ANNUAL STATE OF THE ENVIRONMENTAL WATER ACCOUNT REPORT (2001) [hereinafter FIRST REPORT] (on file with author).

95. National Environmental Policy Act of 1969, 42 U.S.C. § 4321-4370e (1994)

96. See 2000 ANNUAL REPORT, *supra* note 55.

advantage of excess project storage or conveyance capacity for the EWA's benefit. Successful reoperation depends upon close cooperation between biologists and engineers. The EWA operators, including both the ESA Agencies and the water project agencies, will need to operate two large water storage and conveyance facility networks with smaller margins for error. Only through such precise water project operation will the relationship improve between water project operators and ESA Agency biologists. Not only will state project operators and biologists join the relationship, but also all EWA operators will acquire new skills. Engineers will learn more about listed fish species' sensitivities. Biologists will learn more about minimizing water project yield costs. All will need to learn how to develop the EWA through project reoperation, taking advantage of periods when the projects have minimal effect on fish and project yield can grow. This deepening relationship between the ESA Agencies and the Project Agencies offers one of the most important, yet unstated, benefits from the EWA's development.

CALFED EWA water acquisitions may assume many forms, from water rights acquisitions, to physical water conveyance agreements, to waiver of contractual rights, to water deliveries. Determining the most effective water acquisitions depends on the watershed's resources: where water is available, where environmental water is needed, and where account operations necessitate water replacement. Answering these questions demands a broad dialogue among agencies and stakeholders throughout the watershed. Acquisition targets may arise from unexpected sources.

A range of other issues will also influence the CALFED EWA operators' water acquisition choices. First, California's water law regime affects the acquisitions because of how the law allows water transfers,⁹⁷ protects water for instream uses,⁹⁸ and regulates other water project development in the watershed.⁹⁹ Second, other water management and ecosystem restoration projects' progress may affect water availability or fishery water needs. South-of-Delta storage facilities (both underground and surface), for example, may expand the availability of CALFED EWA storage options when the EWA has access to pumping capacity and needs asset storage facilities. Finally, CALFED EWA operators may receive "water deals," which are offers benefiting both EWA and the offeror. The EWA operators have already considered agreements to reoperate other projects' facilities, to shift water demands to groundwater and to finance groundwater

97. CAL. WATER CODE § 1725 (West 2002).

98. *Id.* § 1707.

99. *See, e.g.*, STATE OF CALIFORNIA, STATE WATER RESOURCES CONTROL BOARD, DECISION 1644: IN THE MATTER OF FISHERY RESOURCES AND WATER RIGHT ISSUES OF THE LOWER YUBA RIVER (2001), available at <http://www.waterrights.ca.gov/decisions/wrdec1644.pdf> (increasing Yuba River instream flows, which ultimately flow to Delta).

storage development.¹⁰⁰ The challenge facing CALFED EWA operators will be selecting among the many acquisition options and judging their value to the EWA as well as to broader water management goals.

B. ACCOUNTING/MEASUREMENT

From early in the California conflict, the parties debated how to account for water dedicated to the environment. The accounting debate arose as each stakeholder group compared each operational change to its favored baseline and thus, affected its interest. The water users, particularly project contractors, argued, and continue to assert today, that the environment was taking their water rights every time export pumping was reduced to protect listed species.¹⁰¹ Environmentalists argued that the projects had no right to destroy the environment and take listed species into their pumps.¹⁰² They also argued that the environment was not to blame for stopping such diversions.

The accounting debate's primary focus arose out of Congress' CVP "yield" allocation to certain environmental purposes pursuant to CVPIA Section 3406(b)(2). The "(b)(2)" debate has persisted for most of the last decade.¹⁰³ Initially, the Department of the Interior ("Interior") did not account for the use of each acre-foot of so-called "(b)(2) waters." Instead, Interior modeled the CVP yield impacts for various environmental actions in different hydrological years and committed water to those actions, allowing for the fluctuating water amounts required for such actions. In addition, Interior had committed CVP yield from (b)(2) for the federal share of complying with the 1994 Accord.¹⁰⁴ A 1997 legal challenge resulted in a federal court order for Interior to adopt an accounting system,¹⁰⁵ which the court then reviewed and generally accepted.¹⁰⁶ The (b)(2) accounting system provided a foundation for the EWA's accounting system

100. *See, e.g.*, SAN JOAQUIN RIVER GROUP AUTHORITY, THE SAN JOAQUIN RIVER AGREEMENT (2000); AGREEMENT BETWEEN THE SACRAMENTO GROUNDWATER AUTHORITY AND THE UNITED STATES BUREAU OF RECLAMATION FOR THE ACQUISITION OF WATER FOR THE CALFED ENVIRONMENTAL WATER ACCOUNT (draft 2002); UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION, AGREEMENT FOR THE ACQUISITION OF WATER BY THE UNITED STATES FROM THE KERN WATER BANK AUTHORITY (2000) (all on file with author).

101. *See* Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313, 314-18 (2001).

102. Dept of Fish & Game v. Anderson-Cottonwood Irrigation Dist., 8 Cal. App. 4th 1554, 224-28 (1992) (pump diversion killing listed salmon violated California ESA); People v. Glenn-Colusa Irrigation Dist., 15 P.2d 549 (1932) (diverting water in a manner that caused fish to be killed was nuisance).

103. The debate over "(b)(2)" accounting originated in Congress' instruction to "dedicate and manage annually 800,000 acre-feet of Central Valley Project yield." It defined CVP "yield," but did not define how to account for its use.

104. DEP'T OF THE INTERIOR ADMIN. PROPOSAL FOR IMPLEMENTATION OF CVPIA (Nov. 20, 1997).

105. San Luis & Delta-Mendota Water Auth. v. United States, 1999 U.S. Dist. LEXIS 22369 (E.D. Cal. May 21, 1999).

106. *Id.*

because it focused on effects on water project deliveries.

The California accounting debate led to many general questions concerning proper accounting methods, such as:

- Should the basis for accounting be hydrologic water use modeling or actual measured application of water?
- Should the CALFED EWA suffer a charge for every reservoir release, even when diverted for consumptive uses downstream?
- Should the CALFED EWA suffer a charge for every pumping reduction, even when there is no reduction in deliveries?
- Should a CALFED EWA charge occur only when water project deliveries drop?
- Should a CALFED EWA charge occur for every diversion reduction, even when the water remains in an upstream reservoir?

While there may be many ways to approach the accounting, two broad categories become apparent: accounting for water released and dedicated to environmental benefits, and tracking losses to established water users.

While the (b)(2) accounting principles generally applied to the CALFED EWA, its operators continue to develop its precise accounting rules, as the EWA Operating Principles Agreement requires.¹⁰⁷ That agreement grounded EWA accounting generally on effects on deliveries to state and federal water project contractors. Although there has not been any legal challenge to EWA accounting at this point, this accounting will continue to challenge the operators.

In assessing the best accounting method for an environmental water account in a particular watershed, start with the nature of the conflict from which the environmental water account proposal arises. The conflict often begins when environmental demands lead to reduced deliveries for consumptive uses. In that case, accounting based on the effect of account operations on those deliveries may provide the best gauge of its success. Charges would occur only when the account is required to compensate for lost deliveries, not for modifying project operations when no delivery reductions occur. As for accounting for deposits, account operators will need to assess the nature of each water acquisition or reoperation to determine how much the account benefits. At times, such accounting may require a modeling comparison between existing conditions and the changes arising out of the acquisition/reoperation. As with so many environmental water account issues, the best accounting method will depend on the watershed.

107. EWA Op. Prins., *supra* note 32, at 4.

C. COORDINATION WITH OTHER PROGRAMS/GOALS

As Californians have learned, building an environmental water account can benefit both environmentalist and traditional water user interests. It can bind together those two historically warring factions. In addition to drawing the factions into a closer working relationship, an account's operations may support other projects that require mutual support. An environmental water account gives all sides incentives to ensure there is a sufficient water supply for all needs, including agricultural, urban and environmental. However, achieving these benefits requires coordination between the environmental water account and the other programs that serve the needs of each stakeholder group. Other programs may include water storage development, particularly groundwater aquifer/conjunctive use projects, multiple use projects, including recycling, and affiliated ecosystem restoration projects.

1. Conjunctive-Use Groundwater Storage.

In analyzing how best to build the CALFED EWA assets, the EWA agencies learned that long-term storage of EWA water assets could provide the most reliable environmental supply in wet or dry years.¹⁰⁸ Developing the EWA, therefore, fostered support for new storage, particularly projects that would not cause additional substantial environmental damage. In addition to expanding existing reservoirs to meet both water supply and fishery needs, the agencies committed to expanding groundwater storage used in conjunction with existing surface storage reservoirs.¹⁰⁹ Active management of groundwater aquifers in the southern part of California's Central Valley provided a model for how to enhance water supply reliability for consumptive uses.¹¹⁰ The CALFED EWA began pursuing such groundwater storage opportunities in its first year of operation.¹¹¹

2. Multiple Use/Multiple Objectives.

Operation of an environmental water account can create benefits for other water demands, particularly water quality and water supply. Instream uses may improve water quality by dilution or pushing saltwater out of the river's estuary and back toward the ocean, as is possible in California's Delta. Instream uses also may promote natural streams as a means of conveyance to downstream consumptive uses. An account's central benefit to water supply is the certainty or

108. This conclusion arose out of the extensive modeling completed during the development and negotiation of the CALFED EWA. The modeling revealed that EWA storage rights would ensure that the EWA could store water in wetter years when it did not need all of its allocation. See 6/99 PHASE II REPORT, *supra* note 22.

109. CALFED ROD, *supra* note 2, at 46-47.

110. See 12/98 PHASE II REPORT, *supra* note 20, at 79-83.

111. UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION, AGREEMENT FOR THE ACQUISITION OF WATER BY THE UNITED STATES FROM THE KERN WATER BANK AUTHORITY (2000) (on file with author).

reliability. An account can act as a limitation on environmental demands for water and therefore enhance water supply reliability. Finally, an account may provide a reliable demand for reclaimed water from upstream consumptive users. In each case, the key is multiple uses of the same valuable water resource.

While the creators of an environmental water account can set lofty goals of fulfilling a variety of needs, such goals can create risk of missing the primary goal of restoring an ecosystem. Setting several goals for an environmental water account may create conflicts among competing demands for the account's assets, leading to conflicts among account operators as to water priorities. Such debates may recreate the conflicts from which the account developed and impede resolution of conflicts between environmental and consumptive use demands. The challenge for the creators and the operators of an environmental water account is to balance the many separate environmental needs with each other and with the watershed's established consumptive uses.

California chose a middle course in establishing the CALFED EWA. It set the needs of listed species as the first priority, without trying to resolve water quality concerns with the same supply. At the same time, however, the EWA creators committed to no degradation of water quality arising from the EWA's operation, compared to historical pre-EWA conditions. The CALFED EWA takes one more step in focusing use of its assets to address fishery needs in the vicinity of the state and federal project export pumping facilities in the southern part of the Delta, but allows for instream uses upstream from the pumps.¹¹²

A key factor in the success or failure of an environmental water account is the scope of its objectives. Defining scope requires a difficult balancing: too broad a scope will make achievement of multiple, contradictory objectives nearly impossible; too narrow a scope will allow achievement, but possibly at the cost of other closely related environmental improvements. Ultimately, focusing on a narrow set of goals while allowing account operators to use available assets to achieve other related environmental goals might provide the best option. Flexibility allows an appropriate response on those occasions when a comparatively small amount of water may contribute substantially to valuable, related ecosystem improvement.

3. Other Environmental Programs.

Linking an environmental water account to other ecosystem restoration programs can improve both programs. Other non-water ecosystem improvements may ultimately reduce the need for applying additional water to create fishery habitat. Promoting other local environmental water programs also may contribute to reduced

112. EWA Op. Prins., *supra* note 32, at 1.

demand for account water downstream within the same watershed. Coordinating diverse ecosystem restoration projects may be difficult, but often advantageous to both environmental and competing consumptive demands.

The ESA's determined focus on single-species recovery can hinder broader ecosystem recovery for multiple species. When an environmental water account is to resolve ESA-generated conflicts, it may respond to a particular species. Close coordination of the account's operations with other environmental programs that promote a diverse ecosystem recovery can provide synergistic benefits for all. Both listed and unlisted species benefit from a healthier ecosystem.

D. DECISIONS

While the creators of an environmental water account deserve credit for making many difficult decisions as to the nature of the account, other difficult decisions remain. Making an environmental water account work demands constant analysis and deliberation about how to make the most effective use of limited environmental water resources. Courageous people must make these critical decisions and face the ensuing debate as to the propriety of those choices.

If agency leaders or stakeholders assume this responsibility, account operators need clear authority to operate the account in an effective and timely manner. The purpose of an environmental account is to respond quickly to sudden or developing ecosystem changes that can threaten valuable fishery resources. Those who must react quickly need the authority to change those dangerous conditions immediately, whether the change requires releasing water from reservoirs or reducing diversions. The decision-makers must be able to respond with the confidence that affected water users will be able to recover water from the account's water assets.

Freedom and authority to make such decisions requires unequivocal objectives for operation of the environmental water account. The account cannot afford to have decisions clouded by any hint of conflict of interest on the part of the decision-makers. Account operators' first priority must necessarily be ecosystem protection and restoration. A successful operation must be free from contradictory demands, such as simultaneously improving water supply or drinking water quality. Too often, agencies face conflicting legislative direction to accomplish many purposes. The Supreme Court has said that government officials, by definition, cannot have conflicts of interest despite contradictory legislative direction. In those situations, the officials must weigh those contradictory directions and seek balance of competing objectives.¹¹³ While the legislative branch may seek to satisfy a variety of interests, success of the account will suffer.

California achieved this clarity by dividing responsibilities between the fishery agencies and the water project agencies. The fishery

113. See *Nevada v. United States*, 463 U.S. 110, 129 (1983).

agencies ("Management Agencies") enjoy the luxury of making only the biological decisions of where to use the CALFED EWA's limited resources.¹¹⁴ The water project agencies ("Project Agencies") hold the responsibility for acquiring the necessary water assets and operating the projects as necessary for the CALFED EWA.¹¹⁵ Other agencies and stakeholders still have an oversight role in the CALFED EWA operation, but at the end of the year or when the assets have been exhausted and listed species still face jeopardy in the continued operation of the water project export facilities.¹¹⁶ The CALFED EWA operators therefore do not face day-to-day interference or challenges to their decisions in times of crisis. In this way, the role of each group of CALFED EWA participants remains distinct.

1. Setting Priorities Throughout the Watershed.

The first task of environmental water account operators is setting priorities for acquisitions and for development and application of the account's assets. In a world of limited financial and water resources, identifying the account's priorities will allow the account operations staff to work on the most important projects first. Acquiring water will require time and funding to complete environmental analysis pursuant to NEPA or similar state requirements.¹¹⁷ Identifying the most important environmental needs will allow operators to choose the most valuable assets to respond to those particular needs. As the environmental water account begins operation, biological conclusions may change and lead to shifting biological priorities. When the biological priorities change, the nature of the necessary assets shifts as well. The ability to respond to these changing conditions is one of the most valuable benefits of implementing an environmental water account. An environmental water account allows flexibility that fixed regulation cannot offer.

California was fortunate in that it was required to start developing recovery priorities before the conception of the CALFED EWA. While the biologists were studying the needs of the listed fishery species to avoid jeopardy, the Central Valley Project Improvement Act ("CVPIA") set the ambitious objective of doubling anadromous fish (mostly salmon) populations within ten years.¹¹⁸ By imposing restoration fees on water deliveries and authorizing water purchases for fishery needs, the CVPIA provided funding, authority and mandates to move beyond jeopardy avoidance.¹¹⁹ Funding, limited by the amount of CVP water

114. EWA Op. Prins., *supra* note 32, at 1.

115. *Id.*

116. *See, e.g.*, FIRST REPORT, *supra* note 94, at 29.

117. *See* National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370e (1994); CAL. PUB. RES. CODE § 21000 (West 2002); Laub v. Babbitt, CV-F-00-6601 (E.D. Cal. Dec. 11, 2001) (on file with author).

118. Act of Oct. 30, 1992, § 3406, Pub. L. No. 102-575, 106 Stat. 4714.

119. *Id.* § 3406(b)(3), 106 Stat. at 4716; *id.* § 3408, 106 Stat. at 4728.

sold to contractors, obligated both the Bureau of Reclamation and the Fish and Wildlife Service to engage in determining the biological and funding priorities for the Central Valley.

Setting priorities must take precedence in the early development and implementation of an environmental water account. While fishery agencies have a statutory duty to study fishery needs and to use the best available science,¹²⁰ stakeholders can still play a role in developing those restoration priorities. A broad-based debate about the account's recovery priorities will help ensure that the ecosystem requirements of the entire watershed will receive the attention they need, and that the account's priorities are not so narrow as to consider only the recovery of listed species.

V. CONCLUSION

California's experience creating and operating an environmental water account reflects the Central Valley watershed's unique characteristics. The conflict of the early 1990s arose out of a unique estuary ecosystem and its use as a conveyance system for California water projects. The CALFED EWA addresses the watershed's unique biological and hydrological conditions, which are constantly changing. The EWA's success depends on how well its structure works despite those constantly changing conditions. Success requires continued cooperation and creativity among the agencies and stakeholders that work within the Central Valley watershed.

Those from other watersheds nevertheless may learn from California's lessons during the past decade. That knowledge may come from making choices based on their watershed's specific needs. The most important lessons, however, come from the process that California has implemented. It is possible to distill those process lessons into three principles:

- **Recognize the opportunity conflict can create.** Conflict promotes careful analysis and exposes the long-term risk of failure to resolve the environmental problems within the watershed.

- **Cooperate and coordinate openly.** The EWA depends on federal and state water projects to provide reliable deliveries to water users and for instream flows for fish. Attaining those sometimes-competing goals is possible only if all interested parties work together. When the ESA Agencies and the water project operators work together in public view, stakeholder trust and confidence in agency decisions can grow.

- **Build consensus on priorities.** Continued conflict over fundamental priorities for the watershed's future impairs the ability to work together on any common program, particularly an environmental water account. Combatants must find common ground if they hope to resolve the conflict and move forward. While consensus is a common objective in western watersheds today, it is

120. Endangered Species Act of 1973, 16 U.S.C. § 1533(b)(1)(A) (2000).

difficult to achieve. By building trust and enhancing common knowledge, the agencies and stakeholders can at least find consensus on the fundamental priorities for moving ahead.

LEGAL UNDERPINNINGS OF THE RIGHT TO FLOAT THROUGH PRIVATE PROPERTY IN COLORADO: A REPLY TO JOHN HILL

LORI POTTER, STEVEN MARLIN AND KATHY KANDA[†]

I.	Introduction.....	457
II.	Navigability	459
	A. Overview of Navigability	459
	B. The Navigational Servitude	461
	1. Traditional Federal Navigational Servitude	461
	2. Modern Federal Navigational Servitude.....	465
	3. Elements of Federal Navigational Servitude	466
III.	Statutory Basis for Right to Float in Colorado.....	475
IV.	The Equal Footing Doctrine and the Public Trust in the State's Streambeds.	479
V.	The Colorado Constitution and the Public Trust in the State's Waters.....	486
VI.	Other Sources of Authority for the Right to Float through Private Property.....	492
	A. State Navigability	492
	B. Adverse Possession.....	496
VII.	Conclusion.....	498

I. INTRODUCTION

Citizens of Colorado and tourists from around the world have enjoyed floating Colorado's world class rivers for years. They have made the rafting industry into an economic force, producing more

[†] Lori Potter practices environmental, public land, and water law as a member of the firm of Kelly | Haglund | Garnsey + Kahn LLC Denver, Colorado. Ms. Potter serves as counsel for defendants in *Gateview Ranch, Inc. v. Cannibal Outdoor Network, Inc.*, Case No. 01CV53, Gunnison County District Court, in which a rafting company and its owners are being sued for civil trespass for floating through private land. The views expressed in this article are the personal views of the authors, and do not represent and should not be construed as the positions of the defendants in the litigation. Steven Marlin practices natural resources and environmental law in Colorado as an associate with Davis Graham & Stubbs LLP. He earned a J.D. and Masters in Environmental Law with honors from Vermont Law School, and an LL.M. in Natural Resources from the University of Denver College of Law, where he served on the Water Law Review staff. Kathy Kanda is a member of the Class of 2003 at the University of Denver College of Law. She is a staff editor of the Denver University Law Review and past member of the Water Law Review staff. Ms. Kanda was Communications Director at the Colorado Department of Natural Resources from 1991-2000. She received her B.A. with distinction from the University of Colorado in 1976.

than \$125 million per year in revenue.¹ More people go whitewater rafting in Colorado than in any other state.² Recreational boating also draws countless kayakers, canoeists, and rafters to the rivers and streams of the state. Running the rivers of Colorado is part of Colorado's continuing frontier heritage—essential to the state's quality of life and vital tourism economy. Indeed, the state of Colorado is named for the mighty river that rises here and cuts rugged canyons as it traverses the state.

The Colorado Supreme Court addressed public use versus exclusive private use of Colorado's waterways as long ago as 1906, when the court held that ownership of a non-navigable streambed in Colorado included exclusive rights to fish the water flowing over the streambed.³ The rights of public boaters to float rivers through private property in Colorado came to the forefront in the state with *People v. Emmert*,⁴ decided in 1979, where the court upheld the criminal trespass conviction of a boater who stepped on the bed of a non-navigable river.⁵ The court in *Emmert* concluded the public has no right under the Colorado Constitution to use non-navigable waters overlying private lands for recreational purposes without permission from the owner of the bed.⁶

Because the holding in *Emmert* addressed *criminal* trespass from recreational use of a *non-navigable* river, what remains unresolved in Colorado is whether boaters who float through private property on *navigable* rivers without touching the beds and banks (absent emergency portage), are subject to civil liability for trespass. This issue is now wending its way through the Colorado state courts. When resolved, it will either reaffirm the public's right to float the state's navigable rivers, or provide riparian owners with control of the waters of Colorado's navigable rivers and streams simply because they own the beds or banks.

Those who argue citizens are prohibited from floating certain stretches of Colorado rivers that pass through private land do not take into account the history and law surrounding citizen access to rivers in this state and around the country. This article summarizes the historical nature of such public access over waters, and discusses the principles of federal and state constitutional, statutory, and common law that create and protect the public's right to float waters through private property in Colorado. First, the article explains how this public access exists under a doctrine known as the federal navigational servitude, which is rooted in the traditional principle that navigable waterways cannot be privately owned. Second, the article explains the

1. COLORADO RIVER OUTFITTERS ASSOCIATION (CROA), COMMERCIAL RIVER USE IN THE STATE OF COLORADO 1988-2001 (2002).

2. *Id.*

3. Hartman v. Tresise, 84 P. 685 (Colo. 1905).

4. 597 P.2d 1025 (Colo. 1979).

5. *Id.*

6. *Id.* at 1027.

bases under Colorado statutory law for the right to float navigable rivers in the state. Third, the article takes the reader on a journey through the mazes of the common law doctrines of equal footing and public trust, and describes how these doctrines provide a foundation on which public access over navigable waters is constructed where private ownership of the underlying streambed is asserted. Fourth, the article explains how the right to public access to waters flowing over privately owned beds and banks might exist, not only under the Colorado Constitution, but also pursuant to a public trust in the state's waters. Finally, the article demonstrates how citizens may have the right to boat particular navigable rivers through private property in Colorado based on other principles of real property law.

II. NAVIGABILITY

A. OVERVIEW OF NAVIGABILITY.

For waters subject to federal commerce authority, "navigability" is the "legal benchmark for defining the realm of public use."⁷ In the *Daniel Ball*,⁸ decided in 1870, the Supreme Court articulated the well established definition of navigability in the following context:

Those rivers must be regarded as *public* navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water. And they constitute navigable waters of the United States within the meaning of the acts of Congress, *in contradistinction from the navigable waters of the States*, when they form in their ordinary condition by themselves, or by uniting with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water.⁹

Public rights of passage and use may be assumed for waters designated as navigable under this definition.¹⁰ This principle is the core of the federal navigational servitude, a doctrine based on the federal Commerce Clause providing the federal government with the authority to protect and improve public navigation over such waters, regardless of who owns the beds and banks.

This oft-cited passage from the *Daniel Ball* also recognizes the

7. DAVID GETCHES, *WATER LAW IN A NUTSHELL* 217 (1997).

8. *Steamer Daniel Ball v. United States*, 77 U.S. (10 Wall.) 557 (1870).

9. *Id.* at 563 (emphasis added) (holding the English common law definition of "navigability," which was limited to waters influenced by the ebbs and flows of the tides, was inadequate for the United States in which many major water courses essential to interstate and foreign commerce were non-tidal, inland waters).

10. *See, e.g., Choctaw Nation v. Oklahoma*, 397 U.S. 620, 645 (1970) (holding navigable waterways "shall be and remain public highways . . . for the public purposes of commerce, navigation and fishery.").

second context in which navigability may shape public use rights. Specifically, states may develop (and, indeed, many have developed) their own definitions of navigability for distinguishing public from private waters for *state* purposes. In this regard, a waterway that is *non-navigable* by federal standards may nonetheless be "public" under a *state* navigability standard for determining public use rights.

Finally, a federal definition of navigability that is based on, but is significantly more expansive than, the *Daniel Ball* definition determines title to lands underlying waterways.¹¹ Lands beneath waters that are navigable under the federal test for title vested in the original colonies before nationhood¹² and, in other states, upon their entry into the Union¹³ under the equal footing doctrine.¹⁴ Because such waters are navigable under a federal definition and the lands beneath them belong to the states, logic dictates public use rights would attach.

Technically, navigability for title is a federal question.¹⁵ However, because many such waters "are not adapted to, and probably will never be used to any great extent for commercial navigation,"¹⁶ they have not invited federal regulatory attention. Therefore, state courts have had to interpret federal law in resolving questions concerning navigable-for-title and appurtenant public use rights for many water bodies, with predictably uneven results.¹⁷

Most recorded disputes have not been between federal and state claimants. Rather, they have arisen when a riparian landowner, who had assumed title to submerged lands within or adjacent to his or her property, comes into conflict with a state agency or citizens' organization claiming title in the state, often for public access and/or environmental reasons. In this regard, navigability for title is frequently the threshold question for determining public use rights to any given water body.

11. See *Alaska v. Ahtna, Inc.*, 891 F.2d 1401 (9th Cir. 1989) (holding navigability for title turns on a river's susceptibility to commerce, not whether it was actually so used); see also discussion *infra* pp. 8-10.

12. *Martin v. Waddell's Lessee*, 41 U.S. 367 (1842) (holding the Duke of York held title to tidelands in public trust for the state and, therefore, had no authority to grant title in such property to private individuals).

13. *Utah Div. of State Lands v. United States*, 482 U.S. 193, 196 (1987); *Shively v. Bowlby*, 152 U.S. 1, 49-50 (1894) ("[T]he navigable waters and the soils under them . . . shall be held by the United States in trust for the future States, and shall vest in the several States, when organized and admitted into the union."); see also *Pollard's Lessee v. Hagan*, 44 U.S. 212 (1845).

14. See, e.g., Charles F. Wilkinson, *The Headwaters of Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 444-45 (1989).

15. *United States v. Holt State Bank*, 270 U.S. 49, 55-56 (1926).

16. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893).

17. Compare *State ex rel. Meek v. Hays*, 785 P.2d 1356 (Kan. 1990) (holding Shoal Creek was non-navigable because it lacked the capacity "for valuable floatage in transportation to market of . . . products;" therefore, the state did not own creek bed and riparian landowner could fence the creek to prevent canoe passage), with *Guilliams v. Beaver Lake Club*, 175 P. 437, 442 (Or. 1918) ("[W]e do not see why boating or sailing for pleasure should not be considered navigation, as well as boating for mere pecuniary profit.").

Unfortunately, the case law and commentary have not arrived at consistent terms to distinguish the three types of navigability described above. To minimize confusion, and for the purposes of this article:

- “Navigable for federal purposes” or “federal navigability” refers to whether a water body satisfies the navigability test for federal regulation of interstate commerce, as well as the navigability test for determining title to submerged lands, unless otherwise specified for one or the other purpose.
- “Navigable for title” refers specifically to waters for which underlying lands passed from the federal government to the state at statehood.
- “Navigable for use,” “navigable for state purposes,” or “state navigability” refers to state standards of navigability for waters that are *not* navigable under any federal definition or test.

Where “navigability” stands alone, it is used in its generic sense unless otherwise defined. Note also, the term “navigable in fact” is avoided. The term has been used widely, but inconsistently, in both case law and commentary. At times, the term means “navigable for federal purposes” and, at others, it means “navigable for use,” as those terms are defined above.

B. THE NAVIGABLE SERVITUDE

1. Traditional Federal Navigational Servitude

The federal navigational servitude is a doctrine under which the federal government protects the public right of navigation on the nation’s naturally navigable waterways, including the right of free public passage. Under the navigational servitude, when federal action to improve navigation damages littoral or riparian owners’ interests in navigable waters, no compensation for a taking under the Fifth and Fourteenth Amendments of the Constitution is required.¹⁸ The servitude extends only to the ordinary high water mark of the navigable waterway, and does not cover waterways that have become navigable through private expenditures.¹⁹

The federal navigational servitude originates from English common law, which viewed navigable water as incapable of being privately owned, giving the Crown dominion over such waters to protect the public’s right to free passage.²⁰ The United States Constitution incorporates this concept in the Commerce Clause,

18. *Kaiser Aetna v. United States*, 444 U.S. 164, 177 (1979); see also *Law of Water Rights and Resources*, § 9.04[2][a] and [b].

19. *United States v. Rands*, 389 U.S. 121, 123 (1967); see also *Kaiser Aetna*, 444 U.S. at 179-80.

20. Theresa D. Taylor, *Determining the Parameters of the Navigation Servitude Doctrine*, 34 VAND. L. REV. 461, 463 (1981).

giving the federal government the power to regulate activities affecting commerce.²¹ The power to regulate commerce encompasses the authority to regulate and improve navigation.²² Moreover, the Supreme Court has ruled that the power to regulate commerce includes control of all the navigable waters of the United States for navigational purposes, and, therefore, such navigable waters are the "public property of the nation."²³ By implication, the federal navigational servitude is a component of the Commerce Clause.²⁴

Title to lands beneath navigable waters can be held by a state as a condition of its admission into the Union under the equal footing doctrine, or by Indian tribes or private parties through pre-statehood federal grants,²⁵ or post-statehood transfers by the state.²⁶ The federal government has a paramount interest in maintaining the flow of commerce over the nation's navigable waterways, and it has the authority to do so under the Commerce Clause. Therefore, interests in such waters, including title to the underlying beds and banks held by a state, an Indian tribe, or a private party, are qualified interests that remain subject to the federal government's exercise of the navigational servitude power. The Supreme Court has described the nature of the federal navigational servitude and its relationship to private interests in navigable waterways:

If the public right of navigation is the dominant right and if, as must be the case, the title of the owner of the bed of navigable waters holds subject absolutely to the public right of navigation, this dominant right must include the right to use the bed of the water for every purpose which is in aid of navigation.²⁷

In *Lewis Blue Point*, the lessee of privately owned land beneath a navigable bay located in New York state challenged a federal dredging project that would destroy an oyster plantation located on the bay bed. The purpose of the dredging project was to deepen the channel across the bay to improve navigation. The owner/lessor of the bay bed

21. U.S. CONST. art. I, § 8, cl. 3.; *United States v. Darby*, 312 U.S. 100, 118 (1941).

22. *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 7 (1824).

23. *Gilman v. Philadelphia*, 70 U.S. (3 Wall.) 713, 724-25 (1866). The Court similarly recognized that "great navigable stream[s]" are incapable of private ownership. *United States v. Twin City Power Co.*, 350 U.S. 222, 228 (1956); *United States v. Chandler-Dunbar Co.*, 229 U.S. 53, 69 (1913).

24. See *Wilkinson*, *supra* note 14.

25. States are free to transfer public trust lands, such as the beds and banks of navigable waters, if such a transfer is consistent with trust purposes. See *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 455-56 (1892).

26. Transfer of title to the states under the equal footing doctrine was subject to pre-statehood federal grants of such lands to patentees. *Goodtitle v. Kibbe*, 50 U.S. (9 How.) 471, 478 (1850); see also *Shively v. Bowlby*, 152 U.S. 1, 47-48 (1894). Federal authority to make pre-statehood grants of such lands that defeated a future state's equal footing title was affirmed by the United States Supreme Court in *Shively*, and again in *Idaho v. Coeur D'Alene Tribe of Idaho*, 521 U.S. 261 (1997). But see *State v. Bunkowski*, 503 P.2d 1231, 1236-38 (Nev. 1972).

27. *Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82, 87 (1913).

received title to the land through royal patents, issued prior to New York's statehood. The Court addressed the issue of whether the dredging project constituted a taking that required compensation.²⁸

The Court held the owner of legal title to oyster beds underlying navigable waters in New York had no private property rights entitling him, or his lessee, to compensation for the destruction of the oyster plantation by a federal dredging project.²⁹ The Court emphasized that title to the beds of navigable waters was qualified in nature and subject to the dominant servitude the federal government owned, which the government could exercise for the public's benefit. This servitude includes the right to use the privately owned beds to aid navigation.³⁰

The Court reached a similar conclusion in *United States v. Cherokee Nation of Oklahoma*.³¹ In *Cherokee*, the Court held that although the Cherokee Nation received fee simple title by treaty to certain portions of the bed of the Arkansas River in what later became the state of Oklahoma, the federal government was not required to pay compensation to the Indian Nation for damage to these beds by a navigational improvement project.³² The Court concluded the federal government has a dominant servitude over navigable waters, which extends to the entire stream and streambed below the ordinary high-water mark, and the navigational servitude "applies to *all* holders of riparian and riverbed interests."³³

In *United States v. Willow River Power Company*, the Court reiterated that riparian owners' rights in navigable streams are subject to a dominant public interest in navigation.³⁴ In *Willow River Power*, a company that owned the title to the bed of a navigable river sought compensation from the United States for impairment of the company's hydroelectric power plant, caused by a federal project that raised the water level to improve navigation on the river. The Court, citing *United States v. Chandler-Dunbar Company*, stated that private ownership of running water in a navigable river is "inconceivable," and concluded that the riparian owner has no right, as against improvements of navigation, to a constant water level below the ordinary high-water mark. Where private interests in navigable waters conflict with the function of the government in improving navigation, those private interests must bow to the federal government's superior navigational right.³⁵

In *United States v. Twin City Power*, a case based on facts similar to those in *Willow Creek*, the Court described the navigational servitude as a "dominant one which can be asserted to the exclusion of any

28. *Id.* at 85-86.

29. *Id.* at 88.

30. *Id.* at 87-88.

31. 480 U.S. 700 (1987).

32. *Id.* at 700.

33. *Id.* at 704, 706.

34. *United States v. Willow River Power Co.*, 324 U.S. 499, 507 (1945).

35. *Id.* at 509-10.

competing or conflicting one.³⁶ The Court concluded that even though the private owners of riparian land had interests in the navigable water recognized by state law, navigable water falls under federal domain; therefore, Congress can completely preempt, leaving no vested private claims that constitute private property under the Fifth Amendment.³⁷

Thus, through this series of cases, the Court established the principle that private interests held in navigable waters, including title to the underlying beds and banks, are held subject to a federal navigational servitude. In each of these cases, the Court ruled that exercise of a federal navigational servitude, which extinguished or damaged private interests, relieved the federal government of the duty to pay compensation or reduced the total amount of compensation paid to the owner of taken riparian property.

The Court has placed limits on the federal government's exercise of a navigational servitude, recognizing that the federal navigational servitude does not create a blanket exception to the takings clause of the Fifth Amendment.³⁸ *Kaiser-Aetna* does not undermine the principle that privately held interests in navigable waters are subject to a federal navigational servitude. Rather, the Court in *Kaiser-Aetna* merely limited the exercise of a navigational servitude, where private expenditures transformed a non-navigable waterway into a navigable waterway.

In this case, Kaiser Aetna leased Kuapa Pond, a privately owned pond located in Hawaii, from the private owner in 1961. For purposes of developing a marina on the pond, Kaiser-Aetna dredged a canal to link the pond to Manuala Bay, a navigable bay, and to the Pacific Ocean for boat passage. Private ownership of Kuapa Pond originated from Hawaii's pre-statehood feudal system. The United States Army Corps of Engineers ("Corps") claimed Kaiser Aetna was precluded from denying public access to Kuapa Pond, arguing it had become a navigable water of the United States subject to a navigable servitude as a result of the improvements made to the pond.³⁹

The Court held although Kuapa Pond was a navigable waterway, the owners were not required to provide free public access to the pond, and the Corps' exercise of a navigational servitude did not preclude compensation to the owners. The Court noted Kuapa Pond, which was considered private property under state law, was previously not navigable and, therefore, incapable of being used as a highway for navigation or commerce. Furthermore, the owners had invested a substantial amount of money to make the pond navigable.⁴⁰ The Court concluded that although Kuapa Pond had become a navigable waterway, therefore subject to regulation under the Corps' general

36. *United States v. Twin City Power Co.*, 350 U.S. 222, 224-25 (1956).

37. *Id.* at 227-28.

38. *Kaiser Aetna v. United States*, 444 U.S. 164, 165 (1979).

39. *Id.* at 164.

40. *Id.* at 176.

Commerce Clause powers, the Corps could not secure free public access to the pond without paying compensation to the owners.⁴¹

Notwithstanding this holding, the Court reaffirmed Congress' expansive authority over the nation's navigable waters under the Commerce Clause, indicating exercise of a federal navigational servitude to assure the public right of navigation over interstate waters used for commerce does not require compensation.⁴² Further, the Court noted, whatever the nature of the interests of a riparian owner in the submerged lands bordering on a public navigational water, title to such lands is qualified and to be held subordinate to the use of such submerged lands and overflowing waters for public navigation at all times.⁴³

Thus, under the traditional federal navigational servitude, the Supreme Court has ruled that interests held in navigable waters, especially title to beds and banks, are subordinate to the federal government's power to regulate commerce on the nation's waterways. The federal government's authority to exercise a navigational servitude to protect and improve navigation on these waters is a constitutionally based power that operates to protect the public's use of navigable rivers for navigational purposes, regardless of ownership status of the river's beds and banks.

2. Modern Federal Navigational Servitude

Under the traditional federal navigational servitude doctrine, the federal government may take necessary actions to protect the navigability of waterways and avoid paying compensation to private parties whose property interests are adversely affected as a result of federal actions. Therefore, as the Court held in *Lewis Blue Point*, *Willow River Power*, and *Chandler-Dunbar*, the federal government may destroy privately owned beds of navigable waters, reduce or extinguish water power, and flood banks of fast lands if such government actions are related to a navigational purpose.

Under a modern application of the navigational servitude, courts have recognized the federal navigational servitude serves as the basis for the federal government's protection of the public's right to access over navigable waters, even where the submerged lands of such waters are privately owned. As the Court in *Kaiser Aetna* observed, "[t]he navigational servitude, which exists by virtue of the Commerce Clause in navigable streams, gives rise to an authority in the Government to assure that such streams retain their capacity to serve as continuous highways for the purpose of navigation in interstate commerce."⁴⁴

Other courts have also applied the navigational servitude to permit or protect public use of navigable waters over privately owned

41. *Id.* at 178-79.

42. *Id.* at 175.

43. *Kaiser Aetna*, 444 U.S. at 176.

44. *Id.* at 177.

submerged lands. For example, in *Atlanta School of Kayaking, Inc. v. Douglasville-Douglas County Water & Sewer Authority*, a county water and sewer authority denied non-residents access to a public reservoir and boat ramp, thus preventing use of the Dog River.⁴⁵ The plaintiffs, a non-resident kayaking school and private canoeing instructor, asserted the federal navigational servitude existed in favor of all individuals, apparently as members of the public, and created a constitutional right of public access under the Commerce Clause.⁴⁶ The court held the plaintiffs showed a likelihood of success on the merits of their claim that the subject waterway was navigable under federal law, and that a navigational servitude existed in the waterway to create a public right of access, entitling them to a preliminary injunction.⁴⁷ The court noted that “[t]he federal navigational servitude to which the plaintiffs refer generally provides the federal government, particularly Congress, the power to regulate navigable bodies of water by allowing it to obstruct or modify the flow of waterways and by preventing others from illegally obstructing or modifying those same waterways.”⁴⁸ Other federal courts have recognized the modern federal navigational servitude doctrine to permit public access over privately owned beds and banks.⁴⁹

3. Elements of Federal Navigational Servitude

The federal navigational servitude applies only to navigable waters that are capable of carrying interstate commerce. The Court in *Kaiser Aetna* made this clear in affirming the government’s authority under the federal navigational servitude to assure that navigable waterways “retain their capacity to serve as continuous highways for the purpose of navigation in interstate commerce.”⁵⁰ The Court stated that in determining whether a federal action taken pursuant to a navigational servitude constitutes a taking, “the important public interest in the flow of interstate waters that in their natural condition are in fact capable of supporting public navigation” must be considered.⁵¹

45. *Atlanta Sch. of Kayaking, Inc. v. Douglasville-Douglas County Water & Sewer Auth.*, 981 F. Supp. 1469 (N.D. Ga. 1997).

46. *Id.* at 1472.

47. *Id.* at 1473-74.

48. *Id.* at 1472 n.6.

49. See, e.g., *Dardar v. LaFourche Realty Co.*, 985 F.2d 824, 832 (5th Cir. 1993) (“When a navigational servitude exists, it gives rise to the right of the public to use those waterways as ‘continuous highways for the purpose of navigation in interstate commerce.’”); *United States v. Harrell*, 926 F.2d 1036, 1041 (11th Cir. 1991) (“If the navigational servitude of the Tombigbee River, as a ‘navigable waterbody,’ encompasses Lewis Creek, [then] Lewis Creek is public property and appellants may, subject to state law, have a right of public access.”); *Goodman v. City of Crystal River*, 669 F. Supp. 394, 398 (M.D. Fla. 1987) (holding Three Sisters Springs is a navigable water of the United States and therefore subject to a federal navigational servitude). Consequently, the plaintiff, who owned the land surrounding the Three Sisters Springs, had no right to restrict public access by water to Three Sisters Springs except pursuant to a Corps of Engineers permit. *Id.*

50. *Kaiser Aetna*, 444 U.S. at 177.

51. *Id.* at 175.

Although the federal navigational servitude derives from the Commerce Clause, the question whether the general federal regulatory authority under the Commerce Clause, including a federal navigational servitude, extends to a particular waterway, depends on whether the waterway is deemed navigable under the basic federal navigability test articulated in the *Daniel Ball* case. Courts have extended the general authority to regulate waterways under the commerce clause to control waters that are in fact presently navigable, non-navigable tributaries, waters that were once navigable but no longer so, and waters neither formerly nor presently navigable but that can be made navigable by reasonable improvements.⁵²

The Court in *Kaiser Aetna*, however, explained that navigability of a waterway for purposes of extending: (1) the power to regulate navigation under the Commerce Clause; (2) the authority of the Corps under the Rivers and Harbors Appropriation Act of 1899;⁵³ or (3) admiralty and maritime jurisdiction, is broader than navigability for purposes of a navigational servitude. The Court acknowledged that for purposes of extending the Corps' power to regulate commerce, Kuapa Pond is navigable water. However, this conclusion does not mean the pond is subject to a navigational servitude:

It is true that Kuapa Pond may fit within definitions of "navigability" articulated in past decisions of this Court. But it must be recognized that the concept of navigability in these decisions was used for purposes other than to delimit the boundaries of the navigational servitude: for example, to define the scope of Congress' regulatory authority under the Interstate Commerce Clause [citing to *Appalachian Power* and the *Daniel Ball*], to determine the extent of authority of the Corps of Engineers under the Rivers and Harbors Appropriation Act of 1899 [citing *United States v. Republic Steel Corp.*, 362 U.S. 482 (1960)], and to establish limits of the jurisdiction of the federal courts conferred by Art. III, § 2, of the United States Constitution over admiralty and maritime cases. . . . Thus, while Kuapa Pond may be subject to regulation by the Corps of Engineers, acting under the authority delegated it by Congress in the Rivers and Harbors Appropriation Act, it does not follow that the pond is also subject to a public right of access.⁵⁴

As the Court in *Kaiser Aetna* explained, the navigational servitude

52. See, e.g., *United States v. Appalachian Power Co.*, 311 U.S. 377 (1940). The Supreme Court recently signaled the start of a possible trend towards reducing the scope of navigability for purposes of the Corps' regulatory authority in *Solid Waste Agency v. United States Army Corps of Eng'rs*, 531 U.S. 159 (2001). The Court held that isolated intrastate wetlands were not navigable waters for purposes of the Corps' regulatory authority under the Clean Water Act, narrowing this authority to waters that tend to fall more within the classical definition of "navigable" waters by having some hydrological connection to navigable waters. This case, however, is not applicable for purposes of determining whether a federal navigational servitude applies to a waterbody, as the holding turned on the agency's interpretation of a specific statutory provision.

53. 33 U.S.C. § 403 (1994).

54. *Kaiser Aetna*, 444 U.S. at 171-73.

involves “the important public interest in the flow of interstate waters that in their natural condition are in fact capable of supporting public navigation.”⁵⁵ The court in *Dardar v. LaFourche Realty* stated, “[w]aters so encumbered are subject to public use as ‘continuous highways for the purpose of navigation in interstate commerce’.”⁵⁶ Thus, waterways subject to a navigational servitude must meet the federal test of navigability and cannot become navigable for federal navigational servitude purposes through improvements, even though such waterways are subject to regulatory authority under the Commerce Clause or statute. Therefore, the scope of navigability for a servitude is narrower than the scope of navigability for regulating commerce in general.

A waterway deemed navigable for federal purposes must be capable of carrying interstate commerce, which courts have defined broadly.⁵⁷ In *Wickard v. Fillburn*, the Court addressed the regulation of commerce in general, noting:

[E]ven if appellee’s activity be local and though it may be regarded as commerce, it may still, whatever its nature, be reached by Congress if it exerts a substantial economic effect on interstate commerce, and this irrespective of whether such effect is what might at some earlier time have been defined as “direct” or “indirect.”⁵⁸

The interstate commerce element of the federal navigable servitude derives from the definition of “navigable waters of the United States” set forth in the *Daniel Ball*.⁵⁹

The Court in *Kaiser Aetna*, at least for purposes of regulation of

55. *Id.* at 175 (citing *United States v. Cress*, 243 U.S. 316 (1917)). The court in *Cress* held the servitude applies to rivers that are navigable in fact in their natural condition. In discussing the concept of navigable in fact, the court cited the reasoning in the *Montello*. *Montello*, 87 U.S. 430 (1874).

The capability of use by the public for purposes of transportation and commerce affords the true criterion of the navigability of a river, rather than the extent and manner of that use. If it be capable in its natural state of being used for purposes of commerce, no matter in what mode the commerce may be conducted, it is navigable in fact, and becomes in law a public river or highway.

Id. at 441-42.

56. *Dardar v. LaFourche Realty Co.*, 55 F.3d 1082, 1084 (5th Cir. 1995) (citing *Kaiser Aetna v. United States*, 444 U.S. 164, 178 (1979)).

57. See 4 WATERS AND WATER RIGHTS § 30.05 (Robert E. Beck ed., 1996) (“The [servitude navigability test]—presumably reflecting the historic, if puzzling, commerce clause association—demands susceptibility to use for navigation in interstate commerce.”) (citing *Kaiser Aetna v. United States*, 444 U.S. 164 (1979)).

58. *Wickard v. Fillburn*, 317 U.S. 111, 125 (1942).

59. *Steamer Daniel Ball v. United States*, 77 U.S. (10 Wall.) 557 (1870).

And they constitute navigable waters of the United States within the meaning of the acts of Congress, in contradistinction from the navigable waters of the States, when they form in their ordinary condition by themselves, or by uniting with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water.

Id. at 563.

commerce in general, noted that "a wide spectrum of economic activities 'affect' interstate commerce and thus are susceptible of congressional regulation under the Commerce Clause."⁶⁰ The Court reasoned Congress, therefore, could prescribe rules to regulate running lights on boats, to remove obstructions to navigation, and for any other reasons that further navigation or commerce. The opinion, however, suggests that to satisfy the interstate commerce element of the navigational servitude, the waterway, in its natural state, must be physically capable of transporting interstate commerce, i.e., floating vessels.⁶¹

The lower district court in *Kaiser Aetna* concluded that Kuapa Pond was used for interstate commerce because Kaiser Aetna, the lessee, used the pond to raise revenue and to transport both residents and non-residents in and out of the attached bay.⁶² The Ninth Circuit ruled Kuapa Pond was transformed into a navigable water of the United States, subject to a federal navigational servitude even though it was privately owned and had never been used for interstate commerce purposes.⁶³ The Supreme Court, however, did not address the "effect" of the pond on interstate commerce. Instead, the court seemed to focus on whether interstate commerce could, in fact, be conducted on the waters of the pond:

It is clear that prior to its improvement, Kuapa Pond was incapable of being used as a continuous highway for the purpose of navigation in interstate commerce. Its maximum depth at high tide was a mere two feet, it was separated from the adjacent bay and ocean by a natural barrier beach, and its principal commercial value was limited to fishing. It consequently is not the sort of "great navigable stream" that this Court has previously recognized as being "[incapable] of private ownership".⁶⁴

The Supreme Court noted that before the private improvements, while Kuapa Pond was still a fishpond, fishermen operated a few flat-bottomed boats on the pond, but no evidence existed that these boats could acquire access to the adjacent bay and ocean from the pond. As such, Kuapa Pond "clearly was not navigable in fact in its natural state," apparently because of the lack of physical links to other navigable waters, i.e., the open ocean.⁶⁵

In *Boone v. United States*,⁶⁶ the Ninth Circuit reached a similar conclusion based on the ruling in *Kaiser Aetna*. In *Boone*, the owner of a man-made lagoon in Hawaii, formed from a littoral fishpond and

60. *Kaiser Aetna*, 444 U.S. at 174.

61. See generally *id.*

62. *United States v. Kaiser Aetna*, 408 F. Supp. 42, 53-54 (D. Haw. 1976).

63. *United States v. Kaiser Aetna*, 584 F.2d 378, 378-79 (9th Cir. 1978).

64. *Kaiser Aetna*, 444 U.S. at 178-79 (citing *United States v. Chandler-Dunbar Co.*, 229 U.S. 53, 69 (1913)).

65. *Id.* at 179 n.10.

66. 944 F.2d 1489 (9th Cir. 1991).

separated from open ocean, brought an action against the Corps to secure the right to deny public access to the lagoon.⁶⁷ Similar to the facts in *Kaiser Aetna*, the lagoon owner expended private funds to make the lagoon navigable, and the Corps subsequently claimed the lagoon was subject to a navigational servitude; therefore, it was open to the public for free access.⁶⁸

The court drew a direct analogy to *Kaiser Aetna*, holding that although the pond was navigable for purposes of regulation by the Corps under the Commerce Clause, it was not subject to a navigational servitude because the fishpond was "incapable of use as a continuous highway for purpose of navigation in interstate commerce."⁶⁹ The court also noted that although the maximum depth of the pond was three feet, the pond was separated from open ocean by the artificial barrier, and there was little evidence in the record of any commercial use of the pond since 1957.⁷⁰

The court indicated that the possible prior navigability of the area comprising the lagoon in its natural state, although insufficient to impose a navigational servitude, was a relevant factual consideration in determining whether a navigational servitude applied. Although the pond may have been navigable prior to construction of the stonewall, the lagoon was not the sort of "great navigable stream" susceptible to a navigational servitude.⁷¹

Other courts have also struggled in determining whether a waterway meets the interstate commerce element of the federal navigational servitude doctrine. For example, in *Loving v. Alexander*, riparian owners sought a declaration that the Jackson River was non-navigable, and requested an injunction to bar public access over the river.⁷² The Corps claimed regulatory jurisdiction over the river under section 10 of the River and Harbors Act of 1899.⁷³

The Jackson River is relatively narrow, crooked, rocky, and shallow, with depths ranging from ten inches to six feet and a width of approximately forty to one hundred feet wide. Although the river is located entirely within the state of Virginia, it joins with the Cowpasture River to form the James River, which ultimately flows into the Chesapeake Bay.⁷⁴ The court held the evidence introduced at trial was sufficient to show the river was historically used as a highway for useful commerce, especially by lumber companies floating logs to sawmills. The court also noted that even though the river in its present condition could not support commercial log floating, it was

67. *Id.* at 1489.

68. *See generally id.*

69. *Id.* at 1501.

70. *Id.* at 1501-02.

71. *Id.* at 1502.

72. *Loving v. Alexander*, 548 F. Supp. 1079 (W.D. Va. 1982), *aff'd*, 745 F.2d 861 (4th Cir. 1984).

73. 33 U.S.C. § 403 (1994).

74. *Loving*, 548 F. Supp. at 1084.

susceptible to use for recreational canoeing and cold-water fishing.⁷⁵

The court concluded that although the river was navigable, therefore susceptible to regulation under the Commerce Clause, it was nonetheless exempt from the Corps' regulatory jurisdiction. The court found that under section 10 of the River and Harbors Act of 1899, pursuant to 33 U.S.C. § 59(1), bodies of water located entirely within one state, and considered navigable solely on the basis of historical use in interstate commerce, are exempt from section 10's permit requirements.⁷⁶

Notwithstanding this holding, the court proceeded to rule that the Jackson River was subject to a navigational servitude, and therefore the Corps could guarantee free public access over the river without paying compensation to the riparian owners.⁷⁷ In addressing the interstate commerce element of navigability for purposes of a navigational servitude, the court noted that as a navigable water of the United States, the Jackson River was subject to the exercise of federal authority because future recreational use by out-of-state visitors of a proposed federal fishery would affect interstate commerce.⁷⁸ The court concluded that under these circumstances, a federal navigational servitude would traditionally apply to the river.⁷⁹

The court then considered whether a navigational servitude would apply in light of the holding and reasoning in *Kaiser Aetna*.⁸⁰ In distinguishing *Kaiser Aetna*, the court concluded that although the bed of Jackson River was considered privately owned under Virginia law, unlike the pond in *Kaiser Aetna*, it was not previously a non-navigable waterway made navigable by private expenditures. Rather, the evidence showed the Jackson River was historically navigable in its natural state, as manifested by past use of the river to float railroad ties, lumber, and furs.⁸¹

In *Atlanta School of Kayaking*,⁸² the court granted a preliminary injunction to the plaintiff recreational floaters, permitting them to use a navigable reservoir and access ramp linked to the Dog River.⁸³ The court stated that when considering whether a body of water is a navigable waterway to which individuals have a right of access, a court must first ascertain whether the waterbody is navigable in fact, and

75. *Id.* at 1085.

76. *Id.* at 1090.

77. *Id.* (citing *Kaiser Aetna v. United States*, 444 U.S. 164 (1979)).

78. *Id.* at 1090-91 (citing *United States v. Byrd*, 609 F.2d 1204 (7th Cir. 1979)). In *Byrd*, the court held, based on *Wickard v. Fillburn*, that a landowner's filling of wetlands, though local, had the potential for exerting substantial economic effect on interstate commerce because out-of-state visitors used the lake affected by the filling activities for recreation. *Id.* at 1209-10. The case, however, did not involve a federal navigational servitude, and it was decided approximately two months before the *Kaiser Aetna* decision.

79. *Loving*, 548 F. Supp. at 1091.

80. *Id.*

81. *Id.* at 1089, 1091.

82. 981 F. Supp. 1469 (N.D. Ga. 1997).

83. *Id.* at 1470, 1475.

then determine whether a “navigational servitude exists creating a public right of access.”⁸⁴ A waterway is navigable in fact “if it is used or susceptible of being used in its ordinary condition to transport [interstate] commerce.”⁸⁵ The court concluded that the plaintiffs had a substantial likelihood of success on a finding that the Dog River was navigable in fact because it was susceptible of being used as a highway for commerce at statehood.⁸⁶

The court noted that while there was then little use of the Dog River as a major source of interstate commerce, “the presence of recreational craft may indicate that a water body is capable of bearing some forms of commerce, either presently, in the future, or at a past point in time,” to support a finding of navigability.⁸⁷ The court concluded that the plaintiffs could show the waterway was navigable because kayaks and canoes could travel down the Dog River, and students paid to float down the river.⁸⁸ The court addressed the interstate commerce requirement by pointing out that the fact that the Dog River was entirely within the state of Georgia did not make it incapable of carrying interstate commerce, pursuant to 33 C.F.R. § 329.7.⁸⁹

In *Dardar v. LaFourche Realty Co.*,⁹⁰ the owners of a series of canals in Louisiana constructed levees and gates limiting public access through the canals.⁹¹ Commercial fisherman and the state of Louisiana brought suit claiming a federal navigational servitude applied to the waterways, providing a right of public access.⁹² Based on the reasoning in *Kaiser Aetna*, the Fifth Circuit held that a navigational servitude did

84. *Id.* at 1472 (citing *United States v. Harrell*, 926 F.2d 1036, 1040 (11th Cir. 1991)).

85. *Id.* at 1472-73 (internal quotations omitted). 33 C.F.R. § 329.4 (2001) provides that “[n]avigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”

86. *Atlanta Sch. of Kayaking, Inc. v. Douglasville-Douglas County Water & Sewer Auth.*, 981 F. Supp. 1469, 1473 n.8 (N.D. Ga. 1997) (citing the *Daniel Ball*, 77 U.S. (10 Wall.) 557, 563 (1870)).

87. *Id.* at 1473 (citing 33 C.F.R. § 329.6(a)).

88. *Id.* at 1473-74.

89. *Id.* at 1473 n.11. 33 C.F.R. § 329.1 addresses the required interstate nature of “navigable waters of the United States” for purposes of the Corps of Engineers’ regulatory authority. 33 C.F.R. § 329.7 provides that:

[a] waterbody may be entirely within a state, yet still be capable of carrying interstate commerce. This is especially clear when it physically connects with a generally acknowledged avenue of interstate commerce, such as the ocean or one of the Great Lakes, and is yet wholly within one state. Nor is it necessary that there be a physically navigable connection across a state boundary. Where a waterbody extends through one or more states, but substantial portions, which are capable of bearing interstate commerce, are located in only one of the states, the entirety of the waterway up to the head (upper limit) of navigation is subject to Federal jurisdiction.

Id.

90. 55 F.3d 1082 (5th Cir. 1995).

91. *Id.* at 1083.

92. *Id.* at 1083-84.

not apply to the canals because evidence presented at trial showed that the waterways could not, in their natural state, serve as “highways for commerce, over which trade and travel are or may be conducted in customary modes.”⁹³ Specifically, photographic and cartographic exhibits and testimony showed that the waterways were too shallow (eighteen inches and seven inches in some places) and discontinuous in nature for passage, were isolated and/or were connected to outlying bodies of water only by man-made ditches dug with private expenditures, thus becoming passable only by private dredging.⁹⁴ The court held that the waterways were not navigable in fact.⁹⁵

The court further reasoned that even if the waterways were navigable, a federal navigational servitude would not exist because due to “the shallow depth and discontinuous nature” of the canals, they could not be considered “akin to the ‘sort of great navigable stream that . . . has [been] previously recognized as being incapable of private ownership’.”⁹⁶ Moreover, the canals could serve as highways of commerce only after private dredging efforts.⁹⁷ Thus, similar to the court in *Kaiser Aetna*, the Fifth Circuit emphasized the fact that the canals were incapable, in their natural state, of transporting interstate commerce.⁹⁸

The capability of a waterway to carry interstate commerce in its natural state, including the waterway’s unimpeded connection to open waters, which themselves are capable of carrying commerce, was one factor the Court in *Kaiser Aetna* applied to determine whether a navigational servitude existed. The expenditure of private funds to make the water susceptible of carrying commerce, as well as traditional Hawaiian law that designated the pond as private property, were the other primary factors that the Court emphasized in reaching its conclusion. The Supreme Court in *Kaiser Aetna* never explicitly rejected the lower district court’s conclusion that use of the pond by out-of-state boaters made the pond susceptible to interstate commerce. This conclusion by the lower court, and the similar reasoning by the court in *Loving*, focused on the “substantial economic effect on interstate commerce” principle from *Wickard v. Fillburn* to determine whether a waterway is susceptible to use in interstate commerce. Moreover, the court in *Atlanta School of Kayaking* made it clear that an isolated waterway is capable of carrying interstate commerce for purposes of applying a federal navigational servitude.

As the series of cases discussed above underscore, a federal navigational servitude exists on navigable waters of the United States. That is, a water that, in its ordinary condition, by itself or uniting with

93. *Id.* at 1084-86 (citing the *Daniel Ball*, 77 U.S (10 Wall.) 557, 563(1870)).

94. *Id.* at 1085-86.

95. *Id.* at 1085.

96. *Dardar*, 55 F.3d at 1086 (citing *Kaiser Aetna v. United States*, 444 U.S. 164, 178-79 (1979)).

97. *Id.*

98. *Id.* at 1085-86.

other waters, is used as a continuous highway for the purpose of navigation in interstate commerce. In many cases, the Army Corps of Engineers ("Corps") has designated a waterway a "navigable water of the United States" in accordance with the agency's definition of navigable waters of the United States contained in 33 C.F.R. § 329.4. For instance, the Corps' Sacramento District office⁹⁹ has specifically designated Navajo Reservoir and the thirty-nine mile length of the Colorado River from Grand Junction to the Utah-Colorado border as "navigable waters of the United States" within the district's regulatory boundaries.¹⁰⁰

The Corps acknowledges that "[p]recise definitions of 'navigable waters of the United States' or 'navigability' are ultimately dependent on judicial interpretation and cannot be made conclusively by administrative agencies," although the policies and criteria contained in the Corps' regulation "are in close conformance with the tests used by Federal courts."¹⁰¹ The Corps' regulations also note that "the lists [of waters determined navigable waters of the United States] represent only those waterbodies for which determinations have been made; absence from that list should not be taken as an indication that the waterbody is not navigable."¹⁰² Thus, the lower Colorado River and Navajo Reservoir are not necessarily the only "navigable waters of the United States" that exist in the state of Colorado.

In the absence of specific Corps designation, evidence of a river's ability to transport interstate commerce now and in the past will support the interstate commerce element of a navigational servitude. Such evidence could show that the river, in its natural condition, was historically used for transportation of commerce such as floating logs or other commercial products and that it is presently being used for commercial purposes, including commercial and recreational boating. As an example, one Colorado court has ruled that based on historical use by boats and rafts, the Gunnison River from Almont downstream to Cimarron is a navigable stream and the waters therein public waters.¹⁰³ In addition, evidence showing that out-of-state visitors use a river for recreational purposes also indicates that the river is used for interstate commerce purposes, as the Fourth Circuit in *Loving*, the Seventh Circuit in *Byrd*, and the district court in *Kaiser Aetna* all concluded, therefore making the river navigable for federal

99. The Corps' jurisdiction over Colorado's watersheds is divided among four different districts, with the Sacramento District overseeing the western slope watersheds, and the Albuquerque, Omaha, and Kansas City districts overseeing the state's eastern watersheds.

100. United States Army Corps of Engineers, Sacramento District, *Waterways within Sacramento District Regulatory Boundaries*, at www.spk.usace.army.mil/cespk-co/regulatory/navigable.html (last visited Mar. 29, 2002).

101. 33 C.F.R. § 329.3 (2001); see also *id.* § 329.14 ("Although conclusive determinations of navigability can be made only by federal Courts, those made by federal agencies are nevertheless accorded substantial weight by the courts.").

102. *Id.* § 329.16(b).

103. *Arnett v. Trouthaven, Inc.*, No. 5702 (Gunnison County Dist. Ct., Sept. 13, 1961) (on file Gunnison County Dist. Ct.).

navigational servitude purposes.

III. STATUTORY BASIS FOR RIGHT TO FLOAT IN COLORADO

Two statutory provisions, Colorado Revised Statutes sections 18-9-107(1)(a) and 18-4-504.5 respectively, support the concept of a public right to float the navigable rivers and streams of the state of Colorado, either independently or in conjunction with other legal principles.¹⁰⁴

Under section 18-9-107(1)(a), it is a misdemeanor to obstruct a waterway “to which the public or a substantial group of the public has access.”¹⁰⁵ This provision indicates that the legislature intended to keep Colorado’s waterways open to boaters and free of dangerous obstructions. There are no reported cases interpreting or applying this law.

Private landowners would argue that the public has no access to the segment of any Colorado waterway that flows through their land. In a typical situation, however, the public accesses a river by starting a trip at a recognized boat ramp or “put-in” on public land and ending at a similarly designated boat ramp or “take-out” spot downstream. Many such trips are made subject to permits or regulations issued by the public land management agencies that own and regulate use of the put-ins and take-outs, with the understanding that the float trip will pass through private land at some point in the floatable stretch. Under such a scenario, the public has legal access to the river, and the question remains whether, consistent with section 18-9-107(1)(a), a private landowner may deny all use of the floatable stretch. In an analogous situation, the Oklahoma Supreme Court upheld the right to float against a trespass claim:

We are of the opinion and hold that the river in question is navigable in fact and that plaintiff owns the land to the middle of the stream but that the water is in the nature of a street or highway so that people who get on the river without committing an act of trespass has [sic] the right to boat on¹⁰⁶ either side of the middle of the stream, either up or down stream.

The second statutory provision relevant to the right to float is section 18-4-504.5.¹⁰⁷ In 1977, while the *Emmert* case was pending, the General Assembly amended Article 4 of Title 18, “Offenses Against Property,” by adding section 18-4-504.5, which defined the term “premises” so that boating on a non-navigable stream was not a trespass.¹⁰⁸ More specifically, the definition of premises refers to “real property, buildings, and other improvements thereon, and the stream

104. COLO. REV. STAT. §§ 18-9-107(1)(a), 18-4-504.5 (2001).

105. *Id.* § 18-9-107 (1)(a), (3).

106. *Curry v. Hill*, 460 P.2d 933, 936 (Okla. 1969).

107. COLO. REV. STAT. § 18-4-504.5 (2001).

108. *Id.*; *Hearing on Second Reading of Senate Bill 360 Before the Senate*, 51st Gen. Assembly, First Regular Sess. (Colo. 1977) [hereinafter *Hearing on Second Reading*] (unpublished Transcript on file with Author).

banks and beds of any non-navigable fresh water streams flowing through such real property."¹⁰⁹ A review of the legislative record reveals the legislature deliberately amended the trespass statute in order to approve of floating through private property.¹¹⁰ The mention of banks and beds, but not the mention of "water" or "channel," was intentional. The result is that boating a river is not a trespass under the statute, so long as the boaters stay in their boats and do not get out onto the real property.

During the Senate Committee Hearing on Senate Bill 360, which became section 18-4-504.5, the "intent" expressed by Senator Soash was "to make sure . . . they stay on the water, don't get out and roam around and interfere with these people's property."¹¹¹ With this, the Senate addressed the problem with people getting out of their boats and causing trouble on adjacent private land, and not with people staying in their boats.¹¹² The problem perceived by many senators regarding an earlier version of the bill, however, was with the meaning of the term "channels" and whether that would result in a trespass for boaters who stayed on the water.¹¹³ Several senators expressed concern that this draft of the bill might impair long-standing kayak and raft races, and other existing boating uses.¹¹⁴ Likewise, Senator Cooper expressed the need to represent people who use streams for tubing and the like.¹¹⁵ These comments reflected the Senate's desire to maintain the existing public boating uses unhindered.

At the Second Reading of Senate Bill 360 before a full Senate on March 31, 1977, Senate sponsor, Senator Kinnie offered a floor amendment to "strike channels and substitute stream banks."¹¹⁶ He proposed this amendment to address the concern by some that "channels . . . might mean water of these streams."¹¹⁷ The Senate subsequently struck the language to ensure "no inference to the water."¹¹⁸ More importantly, Senator Kinnie stated that the bill protected landowners, but "will not stop tubing, canoeing, or boating

109. COLO. REV. STAT. § 18-4-504.5 (2001).

110. See generally *Hearing on Senate Bill 360 Before the Senate Judiciary Comm.*, 51st Gen Assembly, First Regular Sess. (Colo. 1977) [hereinafter *Senate Hearing on 360*] (unpublished Transcript on file with Author); *Hearing on Second Reading, supra* note 108.

111. *Senate Hearing on 360, supra* note 110, at 8 (statement of Sen. Soash).

112. See, e.g., *id.* at 16, 19-20, 22-25, 29. By way of examples: "when you are talking about trespass on the bank, that's one thing; and trespass certainly on the buildings and that sort of thing, you bet . . . [b]ut that's quite different than the bed and stream." *Id.* at 22 (statement of Sen. Cooper); "[I]f the guy was riding on the water and wasn't on the bed of the stream, then he wouldn't be in violation of the law." *Id.* at 25; "They wouldn't bother . . . if you stay in your boat." *Id.* at 20; "It's the . . . ones that get out and get on your land." *Id.*

113. *Id.* at 23-26.

114. *Id.* at 18-19, 21, 26.

115. *Id.* at 25.

116. *Hearing on Second Reading, supra* note 108, at 2.

117. *Id.*

118. *Id.*

on the water."¹¹⁹ In other words, the bill essentially ensured that those existing uses could continue. Senator Kinnie repeated himself later by noting "[i]f they want to canoe or tube or stay on the water, not bother the properties, why there would be no problem."¹²⁰

The revised bill then went to the House Judiciary Committee on April 15, 1977. The revision was explained as necessary because one could misconstrue the term "channels" to mean water, and "we are not talking about the water, we are talking about the stream beds, the real property."¹²¹ A representative informed the House Committee that the amended bill "is not to interfere with [a boater's] *right* to go down the creek or the river."¹²² The following testimony also supports that intent:

[P]eople said that they could use the streams in the state—I don't think there's any question about that—for people boating down, to fish in the streams, but what people were doing was running jeeps down the middle of the streams claiming that this is all public property and they had the right to use it. That's the intent behind this Bill.¹²³

The changes to the bill were further explained as necessary because the earlier version of the bill may have "prevent[ed] people from . . . floating the boats down the stream, and there was never any intent to prevent that in the Bill, and that was pointed out; that's what resulted in the change to stream banks to make that clear, that didn't include water."¹²⁴

Did the legislature act with the stated intent to ensure the long-standing right to boat a river without interference, while still intending that the very same right be impossible to exercise by allowing civil lawsuits for damages against boaters? Further, did the legislature act to ensure that boating was *possible* while at the same time make boating *impossible* by subjecting boaters to liability and injunction for civil trespass? Such an interpretation is inconsistent with the legislature's expressed intent. Transcripts of the debates in both the House and the Senate demonstrate that the legislature was consciously trying to protect the interests of floaters as well as adjacent landowners. Additionally, the transcripts show that the legislature thought it was doing so in passing subsection 504.5, the effect of which was to allow floaters to pass through private land so long as they did not touch the bed or banks as they floated through.

The definition of premises in the criminal code is both the clearest

119. *Id.* at 3.

120. *Id.* at 4.

121. *Hearing Before the House Judiciary Comm. on Senate Bill 360*, 51st Gen. Assembly, First Regular Sess. 3 (Colo. 1977) [hereinafter *House Hearing on 360*] (unpublished transcript on file with Author).

122. *Id.* (emphasis added).

123. *Id.* at 4 (statement of Mr. McLain).

124. *Id.* at 6-7.

and the only statement by the legislature on whether boating through private property is a trespass. Neither common law nor case law defines “premises” for purposes of the alleged civil trespass for floating; therefore, it is appropriate to rely upon the criminal code to provide the definition. The legislative history supports this assertion, illustrating that when the legislature defined “premises,” it intended to speak broadly to the right to boat rivers free from trespass liability.

*People v. Emmert*¹²⁵ does not alter the above conclusions. The legislature enacted subsection 504.5 prior to the *Emmert* decision. The trespass statute at issue in *Emmert* was the version in effect before the legislature acted in 1977.¹²⁶ The Supreme Court referred only in passing to the 1977 amendment and noted that the legislature had “clarified” the law.¹²⁷ Because the definition of “premises” was not at issue in *Emmert*, the Court did not interpret or apply the new statutory definition. The present statute addressing trespass contains the best and clearest statement by the legislature on whether boating is a trespass.

Colorado Attorney General Duane Woodard reached much the same conclusion in 1983, when he issued a formal opinion (“Woodard Opinion”) interpreting the impact of the statutory trespass amendment.¹²⁸ The Woodard Opinion answered two key questions: (1) are boaters subject to criminal prosecution if they float across private lands without touching the riverbed or banks? (2) Does the law of trespass, which defines “premises” to *exclude* the stream channel, authorize private property owners to prohibit boating?¹²⁹ The Attorney General concluded that the answer to both questions was “no.”¹³⁰

Consistent with the legislative statements of purpose, the Woodard Opinion indicates that the legislature modified the common law. Specifically, the Woodard Opinion notes that the *Emmert* discussion of the “ad coelum” doctrine was “arguably dictum.”¹³¹ Even assuming the “ad coelum” doctrine was not dictum, however, the Woodard Opinion noted that the legislature has authority to modify the common law and, based upon the new definition of “premises,” concluded that the “ad coelum” doctrine was necessarily repealed in the criminal trespass

125. 597 P.2d 1025 (Colo. 1979).

126. *Id.* at 1026 (applying the 1973 Colorado Revised Statutes section 18-4-504, which did not include a definition of “premises” until the General Assembly added subsection 504.5 in 1977). Subsection 18-4-504 simply stated, “A person commits the crime of third degree criminal trespass if he unlawfully enters or remains in or upon premises. Third degree criminal trespass is a class 1 petty offense.” COLO. REV. STAT. § 18-4-504 (1973).

127. *Emmert*, 597 P.2d at 1029-30.

128. Purpose and Effect of C.R.S. 1973, 18-4-504.5 (1978 repl. vol. 8), 1983 Colo. AG LEXIS 42, at 1 (1983) [hereinafter Woodard Opinion].

129. *Id.* As discussed in greater detail *supra*, Colorado law makes it a crime for any person to obstruct passage on a waterway to which the public has access. *See also* COLO. REV. STAT. § 18-9-107 (2001).

130. Woodard Opinion, *supra* note 128, at 1-2.

131. *Id.* at 4.

context.¹³² The Woodard Opinion squared this finding with the clear legislative intent and ultimately found that a private property owner cannot prohibit boating.¹³³

IV. THE EQUAL FOOTING DOCTRINE AND THE PUBLIC TRUST IN THE STATE'S STREAMBEDS

Another legal basis for the public's right to float is the state's property interest in lands underlying navigable waters as provided by the Equal Footing Doctrine. Under the Equal Footing Doctrine, when a state entered the Union, the federal government granted it title to lands beneath navigable watercourses within its boundaries.¹³⁴ The foundation for the modern Public Trust Doctrine is the well-settled principle that such lands belong to the states. The Public Trust Doctrine imposes upon the states a responsibility to manage these lands consistent with public trust interests.¹³⁵

Whether a watercourse is navigable for purposes of determining title to its streambeds is a federal question.¹³⁶ The "starting point in determining navigability for resolving title"¹³⁷ is the test the United States Supreme Court set forth in the *Daniel Ball*, and discussed in section II above.¹³⁸ In applying this test, which originally developed in the context of determining congressional authority to regulate navigation under its Commerce Clause authority,¹³⁹ the courts have interpreted its provisions expansively in the title test context.

For example, in *Alaska v. Ahtna, Inc.*, the Ninth Circuit held navigability for title turned on a river's susceptibility to commerce, not actual use.¹⁴⁰ *Ahtna, Inc.* involved a title dispute in which the state of Alaska successfully challenged the Bureau of Land Management's conveyance of lands beneath the Gulkana River to a Native American corporation under the Alaska Native Claims Settlement Act.¹⁴¹ The stream segment at issue was on average three feet deep and frozen

132. *Id.* at 5-8.

133. *Id.* at 10-14. Although the Woodard Opinion primarily addresses the criminal trespass issue, it does state, for example, "[t]hat statute [18-4-504.5] therefore, does not authorize either law enforcement officials or the owners of stream beds or of adjoining property to prohibit such activities." *Id.* at 13-14. Also, "[b]ecause section 18-4-504.5 speaks to criminal trespass and does not address civil remedies, it cannot be viewed as authorizing the owners of stream banks and beds to prohibit or otherwise control the use for floating of waters passing over their lands." *Id.* at 14.

134. *Pollard's Lessee v. Hagan*, 44 U.S. (3 How.) 212, 230 (1845); *Martin v. Waddell*, 41 U.S. (16 Pet.) 367, 410 (1842); *see also Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.*, 429 U.S. 363 (1977); *United States v. Oregon*, 295 U.S. 1 (1935). *See generally* Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 439-48 (1989).

135. *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 452 (1892).

136. *United States v. Holt State Bank*, 270 U.S. 49, 55-56 (1926).

137. *Alaska v. United States*, 563 F. Supp. 1223, 1226 (D. D. Alaska 1983).

138. *Steamer Daniel Ball v. United States*, 77 U.S. (10 Wall.) 557, 563 (1970).

139. *See discussion supra* Part II.

140. *Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1405 (9th Cir. 1989).

141. *Id.* at 1402-03.

seven months of the year.¹⁴² Most of the river's use was recreational; including guided fishing and sightseeing trips beginning in the 1970s.¹⁴³ The court observed that the aluminum powerboats and rafts customarily used for such trips exceeded the 1,000-pound capacity of watercraft used by hunters and anglers on the river during the 1940s and 1950s before statehood.¹⁴⁴ Accordingly, the court found the watercraft customarily used at statehood could have "at least supported commercial activity of the type carried on today, with minor modifications due to a more limited load capacity and rudimentary technology."¹⁴⁵ In so holding, the court rejected the argument that recreational industry activity did not constitute commerce as "too narrow a view of commercial activity."¹⁴⁶

As a result of *Ahtna* and other case law, the modern definition of navigability for title places primary emphasis on whether the "natural conditions" of a stream at statehood were "susceptible to commerce, rather than whether the stream was actually used for commerce."¹⁴⁷ Because many such waters "are not adapted to, and probably will never be used to any great extent for commercial navigation,"¹⁴⁸ they have not invited federal regulatory attention. Therefore, questions concerning navigability for title and any appurtenant public use rights for many water bodies have required state courts to interpret federal law, with predictably uneven results.¹⁴⁹

In 1912, the Colorado Supreme Court declared in dictum that "[t]he natural streams of this state are, in fact, non-navigable within its territorial limits."¹⁵⁰ This declaration, presumably, has given rise to the

142. *Id.* at 1402.

143. *Id.* at 1403.

144. *Id.* at 1403, 1405.

145. *Ahtna, Inc.*, 891 F.2d at 1405.

146. *Id.*

147. *Id.*; see also A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES § 8:12 (Supp. 2001) (citing *United States v. Oregon*, 295 U.S. 1 (1935); *United States v. Utah*, 283 U.S. 64 (1931); *United States v. Holt State Bank*, 270 U.S. 49 (1926)).

148. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893).

149. See, e.g., *State v. Bunkowski*, 503 P.2d 1231, 1236 (Nev. 1972) ("No case has been found which holds that there is exclusive federal jurisdiction to determine title navigability. . . . [T]he uniform federal 'test' . . . has been applied by both state and federal courts to determine title to submerged lands."). Compare *Kansas ex rel. Meek v. Hays*, 785 P.2d 1356, 1360 (Kan. 1990) (holding Shoal Creek was non-navigable because it lacked the capacity "for valuable floatage in transportation to market of products," therefore, the state did not own the creek bed and its riparian landowner could fence the creek to prevent canoe passage), with *Lamprey*, 53 N.W. at 1143 ("[W]e do not see why boating or sailing for pleasure should not be considered navigation, as well as boating for mere pecuniary profit."). See also *Bunkowski*, 503 P.2d at 1234 (holding that because the Carson River had historically been used for floating timber, it satisfied the federal test for navigability for title, after noting other states had "adopted varying and less stringent tests . . . in order to establish the right of public use.").

150. *Stockman v. Leddy*, 129 P. 220, 222 (Colo. 1912), overruled on other grounds by *United States v. City & County of Denver*, 656 P.2d 1, 16-17 (Colo. 1982) and *Denver Ass'n for Retarded Children, Inc. v. School Dist. No. 1*, 535 P.2d 200, 204 (Colo. 1975); accord *In re German Ditch & Reservoir Co.*, 139 P. 2, 9 (Colo. 1913) ("The natural

widespread assumption that, because Colorado's watercourses are non-navigable, the state has never acquired an ownership interest in its streambeds.¹⁵¹ Left unchallenged, this assumption suggests that unless a stream flows through public property, its streambed is presumptively privately owned.

At least one jurisdiction has declared, however, that a state has an obligation to make particularized assessments of the navigability of its watercourses before it can disclaim its equal footing interest to the beds beneath them.¹⁵² In *Defenders of Wildlife v. Hull*, the Arizona Court of Appeals held that the state could not disclaim or relinquish its putative title to streambeds without first determining their navigability under the federal test for determining streambed ownership.¹⁵³ The court based its determination, in part, on leading United States Supreme Court decisions that "made it clear that the states owe a fiduciary obligation to the general public" regarding management of "sovereign resources" including "public trust" lands underlying navigable waters.¹⁵⁴ As authority for requiring the *Daniel Ball* test to determine navigability for title, the court cited the "constitutional nature of the equal footing doctrine,"¹⁵⁵ the indisputably federal basis for the navigability for title definition¹⁵⁶ and state courts' "'constitutional obligation' . . . to uphold federal law."¹⁵⁷

At issue were legislative efforts beginning in the late 1980s to relinquish Arizona's interest in its watercourse bedlands after state officials began asserting state ownership rights to streambeds beneath navigable waters.¹⁵⁸ Arizona, like Colorado, historically had not asserted claims to such streambeds.¹⁵⁹ Until 1985, Arizona did not assert equal footing claims in any watercourse except for the Colorado

streams of the state are non-navigable within its limits.").

151. 2 GEORGE VRANESH, COLORADO WATER LAW § 6.9 n.454 (Margaret Nagel Dillon ed., 1987) ("It is generally assumed that Colorado's streams are non-navigable for purposes of bed title.").

152. See *Defenders of Wildlife v. Hull*, 18 P.3d 722, 729 (Ariz. Ct. App. 2001) (invalidating a statute that would have allowed the state to disclaim its ownership of streambeds under a definition of navigability more restrictive than the federal definition of navigability for title).

153. *Id.*

154. *Id.* (citing *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 475 (1988)).

155. *Id.* at 731 n.11; see *Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.* 429 U.S. 363, 374 (1977); see also 4 WATER AND WATER RIGHTS, *supra* note 57, § 30.01(a) (citing *Coyle v. Smith*, 221 U.S. 559, 566-67 (1911) ("[t]he equal footing doctrine is treated by the Supreme Court as a federal constitutional dimension.")).

156. *Defenders of Wildlife*, 18 P.3d at 731 (internal citation omitted).

157. *Id.* (citing *Allen v. McCurry*, 449 U.S. 90, 105 (1980)).

158. *Id.* at 727.

159. *Id.* at 726. Though the state had allowed its right of ownership to lie "dormant" for more than seventy years, the court noted such dormancy did not invalidate the state's claims, because "[n]either doctrines of laches nor statutes of limitations [could] defeat the state's sovereign title to trust lands." *Id.* at 726 n.1 (citing *State ex rel. Bd. of Univ. & Sch. Lands v. Andrus*, 506 F. Supp. 619, 625 (D. N.D. 1981) *rev'd on other grounds* by *Block v. North Dakota ex rel. Bd. of Univ. & Sch. Lands*, 461 U.S. 273 (1983) (internal quotations omitted)).

River.¹⁶⁰ Predictably, Arizona officials' state ownership claims "upset longstanding assumptions about title to riverbed lands"¹⁶¹ and "clouded the title held by political subdivisions, private individuals, and corporations that had for years exercised control over, made improvements to, and paid taxes upon these affected stretches of land."¹⁶² In 1987, the Arizona Legislature, concerned about "economic displacement," enacted a statute ("1987 Act") designed to resolve the state's claims without "lengthy, difficult and expensive fact-finding," while recognizing titleholders' "accrued equity in taxes, improvements and family and social ties."¹⁶³ The 1987 Act intended to confirm titles held by private parties and political subdivisions in the beds of waters other than the Colorado River, while compensating the state for relinquishing lands where the state's claim appeared more viable.¹⁶⁴ The act also provided for public recreational surface use of navigable waters.¹⁶⁵

The 1987 Act sought to achieve these ends by, *inter alia*, providing for: (1) "an uncompensated quitclaim of the state's equal footing interest in all watercourses" except the Colorado, Gila, Salt and Verde Rivers; (2) a \$25 per acre fee by which a record titleholder could obtain from the state a quitclaim deed for all of the state's equal footing interests in lands in or near the Gila, Salt or Verde riverbeds; (3) conveyance of the state's equal footing interest in any state land patent issued after the statute's effective date; and (4) the state's equal footing claims to be subject to statutory and equitable time bars, from which the state was previously exempt.¹⁶⁶

In *Arizona Center for Law in the Public Interest v. Hassell*, representatives of both taxpayers and recreational users of Arizona's riverbeds successfully challenged these provisions as violating both the Public Trust Doctrine and the "gift clause" of the Arizona Constitution.¹⁶⁷

The legislature responded to *Hassell* by creating a commission to investigate the navigability of the state's watercourses. This move subsequently provided the basis for legislation disclaiming the state's "right, title or interest based on navigability and the equal footing doctrine" to the beds of several streams.¹⁶⁸ The wildlife conservation organization Defenders of Wildlife challenged the statutory standards

160. *Ariz. Ctr. for Law in the Pub. Interest v. Hassell*, 837 P.2d 158, 162 (Ariz. Ct. App. 1992).

161. *Id.* at 161.

162. *Defenders of Wildlife*, 18 P.3d at 727.

163. *Hassell*, 837 P.2d at 162 (citing H.B. 2017, 1987 Leg., First Regular Sess. (Ariz. 1987)).

164. *Id.*

165. *Id.*

166. *Id.* at 162-63.

167. *Defenders of Wildlife*, 18 P.3d at 727 (citing *Hassell*, 837 P.2d at 173). ARIZ. CONST. art. IX, § 7 states in relevant part, "neither the state, nor a subdivision shall . . . make any donation to any individual, [association], or corporation. . . ."

168. *Defenders of Wildlife*, 18 P.3d at 727 (internal quotations omitted).

for determining navigability enacted in 1994 ("1994 Act"),¹⁶⁹ as contrary to the federal navigability-for-title test and "deliberately designed to defeat trust claims."¹⁷⁰

The Arizona Court of Appeals agreed and invalidated the statutory standards. The court first rejected an argument that the state's prior appropriation system was "irreconcilable with the state's equal footing claims based on navigability," which the Farm Bureau argued was impossible to separate from the riparian water rights doctrine.¹⁷¹ The court responded that, although both equal footing and riparian rights are common law doctrines and invoke "navigability" to define the scope of their respective applications, they are two distinct systems that address two different issues—water use versus land ownership.¹⁷²

The court then identified conflicts between the statutory standards and the federal *Daniel Ball* navigability-for-title test.¹⁷³ For example, the 1994 Act required "clear and convincing evidence" as proof of a stream's navigability for title.¹⁷⁴ But the court cited an Eighth Circuit case establishing a "preponderance" of the evidence as the requisite burden of proof.¹⁷⁵ In fact, the court suggested only a "scintilla" of evidence might be sufficient proof of navigability.¹⁷⁶

Additionally, in the 1994 Act, the court found several presumptions and evidentiary limitations that essentially prohibit a determination of navigability in conflict with the federal test.¹⁷⁷ The provision that if any "portion or reach of a watercourse" is found non-navigable, the entire watercourse is presumed non-navigable was among the presumptions the court found violative of federal law.¹⁷⁸ The court cited Supreme Court precedent finding navigability established in part of a waterway might be enough to support navigability for the entire watercourse.¹⁷⁹ The 1994 Act also established the presumption that a watercourse was non-navigable unless it was

169. ARIZ. REV. STAT. § 37-1128 (West Supp. 2001) (original version at 1994 Ariz. Sess. Laws, ch. 277, §§ 1-14 (effective April 25, 1994)).

170. *Defenders of Wildlife*, 18 P.3d at 728 (internal quotations omitted).

171. *Id.*

172. *Id.* at 728 n.4.

173. *Id.* at 731-37.

174. ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(B), (D), (G) (West Supp. 2001).

175. *Defenders of Wildlife*, 18 P.3d at 731 (citing *North Dakota v. United States*, 972 F.2d 235, 237-38 (8th Cir. 1992)).

176. *Id.* at 731-32 (citing *Utah v. United States*, 403 U.S. 9, 11-12 (1971) (finding susceptibility for navigation supported solely on evidence that farmers had transported livestock across a lake). *But see, e.g., North Dakota v. United States*, 972 F.2d at 238-40 (implying more than a "scintilla" of evidence is required by holding an isolated tie drive in unusually high water, the historical use of ferries for transportation across the river, present-day recreational canoe use, previous boat use by Indians and inconclusive evidence from explorers' journals combined did not support a finding of navigability)).

177. *Id.* at 732.

178. ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(B) (West Supp. 2001).

179. *Defenders of Wildlife*, 18 P.3d at 732 (citing *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 410 (1940)).

susceptible for commercial trade, as well as travel.¹⁸⁰ To the contrary, the court found the federal test did not require both trade and travel, nor did it require a commercial nexus.¹⁸¹ The court rejected the statute's presumption of nonnavigability for waters never used for profitable commercial enterprise.¹⁸² It also rejected the presumption of nonnavigability for waters not used by "[v]essels customarily used for commerce on navigable watercourses [at statehood], such as keelboats, steamboats or powered barges'.¹⁸³ Instead, the court adopted a federal district court standard that "'ordinary modes of trade and travel,'" as set forth in the *Daniel Ball* test, "are not fixed and need not be construed with reference only to the 'ordinary modes of trade and travel' in existence" at statehood.¹⁸⁴ With respect to the presumption that recreational—rather than commercial—boating and fishing rendered a watercourse non-navigable,¹⁸⁵ the court adopted the Ninth Circuit and the New York Court of Appeals' liberal construction of recreational use consistent with the federal standard.¹⁸⁶

To bolster its position, the court held "determinations regarding the title to beds of navigable watercourses in equal footing cases must begin with a strong presumption against defeat of state's title."¹⁸⁷ Additionally, "the equal footing doctrine is co-existent with a strong presumption of state ownership."¹⁸⁸ Furthermore, the court held that the conflict between state and federal law rendered the Act's navigability standards invalid under the Supremacy Clause and the preemption doctrine.¹⁸⁹

Whereas other jurisdictions have based the public trust on state ownership of navigable waters,¹⁹⁰ Arizona emphasized the state's property interest in the land beneath navigable waters. In Colorado,

180. ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(C)(1) (2001).

181. *Defenders of Wildlife*, 18 P.3d at 732 (citing *Utah v. United States*, 403 U.S. 9, 11(1971)).

182. *Id.* at 733 (citing ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(D)(2) (West Supp. 2001)).

183. *Id.* at 733-34 (citing ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(D)(3) (West Supp. 2001)).

184. *Id.* at 734 (citing *Alaska v. United States*, 662 F. Supp. 455, 463 (D. Alaska 1987)).

185. ARIZ. REV. STAT. § 37-1128 hist. & stat. n.(D)(5) (West Supp. 2001).

186. *Defenders of Wildlife*, 18 P.3d at 734-35 (citing *Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1405 (9th Cir. 1989) ("To deny that . . . use of the River is commercial because it relates to the recreation industry is to employ too narrow a view of commercial activity"); *Adirondack League Club, Inc. v. Sierra Club*, 706 N.E.2d 1192, 1194 (N.Y. 1998) ("...evidence of the river's capacity for recreational use is in line with the traditional test of navigability, that is, whether a river has a practical utility for trade or travel."). In following these recent precedents, the court noted two prior cases where federal courts declined to find navigability based solely on recreational boating and fishing activities. These cases were nineteenth century decisions, while a third was decided in 1935. *Defenders of Wildlife*, 18 P.3d at 734.

187. *Defenders of Wildlife*, 18 P.3d at 737 (citing *United States v. Alaska*, 521 U.S. 1, 34 (1997); *United States v. Oregon*, 295 U.S. 1, 14 (1935)).

188. *Id.* (citing *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 284 (1997)).

189. *Id.*

190. See Discussion *infra* Part V.

although Chief Justice Mullarkey once noted that the Colorado Supreme Court has not recognized a public trust related to *water*,¹⁹¹ the court has not addressed whether the public trust might apply to the lands beneath navigable waters in this state. Nor has Colorado established a system for making particularized determinations as to the navigability of any of its watercourses.¹⁹² If Colorado adopted Arizona's reasoning, the public's right to float on a given stream or river could not be precluded without first ascertaining whether the state retains an equal footing interest in the streambed based on a particularized assessment of its navigability under the federal standard.

Furthermore, the issuance of a federal or state patent to a private landowner for lands traversed by a navigable watercourse does not necessarily defeat state title to such lands.¹⁹³ Nor is a state estopped from claiming title to streambeds simply because it has not previously asserted its ownership.¹⁹⁴ States in their sovereign capacity may use and dispose of state owned lands as they elect.¹⁹⁵ However, the public trust doctrine dictates that the sale or conveyance of lands beneath navigable waters is "subject to a reserved easement in the state for trust purposes" unless "irrevocably conveyed in absolute private ownership" after a legislative determination that such lands may no longer serve trust purposes.¹⁹⁶

In *Nevada v. Bunkowski*, the Nevada Supreme Court determined the Carson Creek was navigable under the federal title test. The court found the state held title to the creek bed in trust for public use, notwithstanding claims of ownership by private landowners, pursuant

191. *Aspen Wilderness Workshop, Inc. v. Colorado Water Conservation Bd.*, 901 P.2d 1251, 1263 (Colo. 1995) (Mullarkey, J., dissenting) (emphasis added).

192. *See Defenders of Wildlife*, 18 P.3d at 739-41. In a separate opinion, Judge Thompson concurred with the majority in requiring a "particularized assessment" of the state's equal footing claims, consistent with federal standards for navigability for title. *Id.* at 739. However, he objected to the presumption that equal footing lands could not be alienated, arguing that in the arid west, conveyance of such lands into private ownership would "not necessarily violate the public trust doctrine." *Id.* at 740 (analogizing Arizona statutory language providing "state waters belong to the public and are subject to appropriation and beneficial use" to similar language in the Colorado Constitution, which the Colorado Supreme Court construed as "primarily intended to preserve the historical appropriation system of water rights upon which the irrigation economy in Colorado was founded, rather than to assure public access to waters for purposes other than appropriation'." (citing *People v. Emmert*, 597 P.2d 1025, 1028 (Colo. 1979) (discussed *infra* Part V)).

193. *State v. Bunkowski*, 503 P.2d 1231, 1236-38 (Nev. 1972).

194. *Id.* at 1238.

195. *Id.* at 1237 (citing *United States v. Holt State Bank*, 270 U.S. 49, 54 (1926)).

196. *Marks v. Whitney*, 491 P.2d 374, 380 (Cal. 1971); *see also Defenders of Wildlife*, 18 P.3d at 730 n.9.

Although individual states are free to pass laws that address the disposition of public trust lands, this power is subject to the obligation of the state to preserve the trust. Thus, trust land may only be used in ways that promote the trust's purposes or improve the public's use of the resource. In short, a transfer of public trust property is valid as long as the grantee's use does not impair or interfere with the public interest.

Id. (citing *Ariz. Ctr. for Law in the Pub. Interest v. Hassell*, 837 P.2d 158, 166-69 (Ariz. Ct. App. 1992)).

to pre-statehood federal and state patents.¹⁹⁷ Here, the court noted that when the United States granted patents without restriction, it “assented to . . . construction [of such patents] according to the local law.”¹⁹⁸ Thus, the court construed “unrestricted federal and state patents by the same criterion.”¹⁹⁹ Like the Arizona court in *Defenders of Wildlife*, the Nevada court established a presumption of state ownership of lands beneath navigable waters as the starting point of its analysis. The court quoted *United States v. Oregon* for the proposition that . . .

Dominion over navigable waters and property in the soil under them are so identified with the sovereign power of government that a presumption against their separation from sovereignty must be indulged, in construing either grants by the sovereign of the lands to be held in private ownership or transfer of sovereignty itself. For that reason, upon the admission of a State to the Union, the title of the United States to lands underlying navigable waters within the states passes to it, as²⁰⁰ incident to the transfer to the state of local sovereignty

Because the record did not rebut the presumption that “the federal government held the subject lands in trust for the State of Nevada [T]he federal government did not have control over the bed, and it would appear obvious that the federal patents conveyed none of the submerged lands.”²⁰¹ With respect to the state patents, the court ruled, absent an express legislative determination to the contrary, the state in its sovereign capacity “did not grant away the public land of the river bed.”²⁰²

In rejecting the landowners’ claim that the state was estopped from claiming title because Carson Creek was not included on a list of legislatively declared navigable waters, the court stated that public rights cannot “be impaired by an estoppel growing out of a mere failure to object to encroachment.”²⁰³

The *Defenders of Wildlife* and *Bunkowski* cases suggest Colorado courts should reexamine the presumption that all of Colorado’s rivers and streams that flow through private property are non-navigable for title purposes.

V. THE COLORADO CONSTITUTION AND THE PUBLIC TRUST IN THE STATE’S WATERS

At least forty-two jurisdictions have recognized that the state holds an interest in its waters²⁰⁴ or streambeds²⁰⁵ in trust for the public.²⁰⁶

197. *Bunkowski*, 503 P.2d at 1236-38.

198. *Id.* at 1236-37 (citing *Wear v. Kansas*, 245 U.S. 154 (1917)).

199. *Id.* at 1237.

200. *Id.* (quoting *United States v. Oregon*, 295 U.S. 1, 14 (1935)).

201. *Id.*

202. *Id.* at 1238.

203. *Bunkowski*, 503 P.2d at 1238 (citing *State v. Hutchins*, 105 A. 519, 523 (1919)).

204. As discussed, *infra* this section, New Mexico and Wyoming, for example, have

This trust responsibility gives rise to public use rights which preclude riparian landowners from claiming exclusive and exclusionary rights to surface waters even, in some jurisdictions, when the streambeds are privately owned.²⁰⁷ Additionally, courts have held that a state has a fiduciary obligation to the public to manage such trust assets, and this obligation limits a state's ability to dispose of or disclaim the public's

declared that all waters within their boundaries are "public waters" for the purpose of establishing public use rights notwithstanding streambed ownership.

205. See discussion *supra* Part IV. See, e.g., *Elder v. Delcour*, 269 S.W.2d 17 (Mo. 1954) (holding the title to the bed of a non-navigable stream that the federal government conveyed to a private landowner before statehood, was not absolute but burdened with a public easement that entitled the public to fish by canoe and wading); *Collins v. Gerhardt*, 211 N.W. 115, 118 (Mich. 1926) (holding lands beneath navigable streams that the federal government ceded to the state and which the state granted to private owners were impressed with a perpetual trust that secured the public's rights to float, fish and hunt water fowl).

206. See *Mobile Transp. Co. v. City of Mobile*, 44 So. 976, 977 (Ala. 1907); *Owsichek v. Alaska Guide Licensing & Control Bd.*, 763 P.2d 488, 494-95 (Alaska 1988); *Arizona Ctr. for Law in the Pub. Interest v. Hassell*, 837 P.2d 158, 162 (Ariz. Ct. App. 1992); *Anderson v. Reames*, 161 S.W.2d 957, 960 (Ark. 1942); *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 719 (Cal. 1983); *Lovejoy v. City of Norwalk*, 152 A. 210, 212 (Conn. 1930); *Coastal Petroleum Co. v. Am. Cyanamid Co.*, 492 So. 2d 339, 342 (Fla. 1986); *Robinson v. Ariyoshi*, 658 P.2d 287, 310 (Haw. 1982); *Kootenai Envtl. Alliance, Inc. v. Panhandle Yacht Club, Inc.*, 671 P.2d 1085, 1088 (Idaho 1983); *People ex rel. Scott v. Chicago Park Dist.*, 360 N.E.2d 773, 779 (Ill. 1977); *State ex rel. O'Connor v. Sorenson*, 271 N.W. 234, 238 (Iowa 1937); *Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n*, 452 So. 2d 1152, 1154 (La. 1984); *Opinion of the Justices*, 437 A.2d 597, 607 (Me. 1981); *Caine v. Cantrell*, 369 A.2d 56, 58 (Md. 1977); *Opinion of Justices to Senate*, 424 N.E.2d 1092, 1098 (Mass. 1981); *Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 860 (Mich. 1982); *Nelson v. De Long*, 7 N.W.2d 342, 346 (Minn. 1942); *Cinque Bambini P'ship v. State*, 491 So. 2d 508, 512 (Miss. 1986), *aff'd sub nom. Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469 (1988); *Elder v. Delcour*, 269 S.W.2d 17, 23 (Mo. 1954); *Galt v. Montana Dep't of Fish, Wildlife & Parks*, 731 P.2d 912, 915 (Mont. 1987); *State v. Bunkowski*, 503 P.2d 1231, 1237 (Nev. 1972); *New Hampshire Water Res. Bd. v. Lebanon Sand & Gravel Co.*, 233 A.2d 828, 829-30 (N.H. 1967); *Lusardi v. Curtis Point Prop. Owners Ass'n*, 430 A.2d 881, 886 (N.J. 1981); *New Mexico ex rel. State Game Comm'n v. Red River Valley Co.*, 182 P.2d 421, 440 (N.M. 1945); *Coxe v. State*, 39 N.E. 400 (N.Y. 1895); *State ex rel. Rohrer v. Credle*, 369 S.E.2d 825, 828 (N.C. 1988); *United Plainsmen Ass'n v. N.D. State Water Conservation Comm'n*, 247 N.W.2d 457, 461 (N.D. 1976); *Thomas v. Sanders*, 413 N.E.2d 1224, 1227 (Ohio Ct. App. 1979); *Morse v. Or. Div. of State Lands*, 590 P.2d 709, 711 (Or. 1979); *Alburger v. Philadelphia Elec. Co.*, 535 A.2d 729, 731 (Pa. Commw. Ct. 1988); *Jackvony v. Powel*, 21 A.2d 554, 557 (R.I. 1941); *Hobonny Club, Inc. v. McEachern*, 252 S.E.2d 133, 135 (S.C. 1979); *Hillebrand v. Knapp*, 274 N.W. 821, 822 (S.D. 1937); *State ex rel. Cates v. W. Tenn. Land Co.*, 158 S.W. 746, 752 (Tenn. 1913); *Cameron County v. Velasquez*, 668 S.W.2d 776, 780 (Tex. Ct. App. 1984); *Colman v. Utah State Land Bd.*, 795 P.2d 622, 635 (Utah 1990); *State v. Cent. Vt. Ry.*, 571 A.2d 1128, 1130 (Vt. 1989); *Darling v. City of Newport News*, 96 S.E. 307 (Va. 1918), *aff'd*, 249 U.S. 540 (1919); *Caminiti v. Boyle*, 732 P.2d 989, 994 (Wash. 1987); *Campbell Brown & Co. v. Elkins*, 93 S.E.2d 248, 260 (W. Va. 1956); *Wis's Envtl. Decade, Inc. v. Dept. of Natural Res.*, 271 N.W.2d 69, 72 (Wis. 1978); *Day v. Armstrong*, 362 P.2d 137, 145 (Wyo. 1961).

207. See, e.g., *S. Idaho Fish & Game Ass'n v. Picabo Livestock, Inc.*, 528 P.2d 1295, 1298 (Idaho 1974) (holding the public was entitled to boat, swim, hunt and engage in any other recreational activity on any stream which was suitable for such public uses regardless of streambed ownership). *But see Brosnan v. Gage*, 133 N.E. 622, 624 (Mass. 1921) (holding title to streambed entitled private landowner to assert exclusive fishing rights, but that his title was impressed with a public easement for business and pleasure boating).

rights to such assets.²⁰⁸

The jurisdictions that have recognized some form of public trust doctrine have relied on several different, although often interrelated, sources of authority. These include the Equal Footing Doctrine,²⁰⁹ state constitutional provisions²¹⁰ or state statutes declaring public ownership of the waters within a state.²¹¹ Although the Colorado Supreme Court has declined on more than one occasion to adopt the public trust doctrine based on any of these or other theories,²¹² a divided court in the 1979 *Emmert* case did not completely reject the concept and left the door open for the legislature to do so.²¹³ Additionally, other prior appropriation states in the West have relied on constitutional language similar to that in Article XVI, section 5 of the Colorado Constitution to create a public trust based on public ownership of the state's waters. Specifically, section 5 provides "[t]he water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the *property of the public*, and the same is *dedicated to the use of the people of the state*, subject to appropriation as hereinafter provided."²¹⁴

The *Emmert* majority construed section 5 as "primarily intended to preserve the historical appropriation system of water rights upon which the irrigation economy in Colorado was founded, rather than to assure public access to waters for purposes other than appropriation."²¹⁵ Specifically, the phrase "subject to appropriation' . . . simply and firmly establishes the right of

208. See, e.g., *Defenders of Wildlife v. Hull*, 18 P.3d 722, 729 (Ariz. Ct. App. 2001) ("[T]he leading nineteenth century Supreme Court decisions on state sovereignty made it clear that the states owe a fiduciary obligation to the general public with regard to the management of their sovereign resources,' which are . . . 'public trust' lands.") (citing *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 475 (1988)); 4 WATERS AND WATER RIGHTS, *supra* note 57, § 30.01(c).

209. See discussion *supra* Part IV.

210. See discussion of New Mexico and Wyoming Constitutions as compared with Colorado's Constitution, *infra* this Part V.

211. For example, Texas and Mississippi have statutory standards for navigability that some courts have interpreted as also defining waters to which the public has recreational access. See *Ryals v. Pigott*, 580 So. 2d 1140, 1148-49 (Miss. 1990); *Port Acres Sportsman's Club v. Mann*, 541 S.W.2d 847, 850 (Tex. Civ. App. 1976); see also *S. Idaho Fish & Game Ass'n v. Picabo Livestock, Inc.*, 528 P.2d 1295, 1297 (Idaho 1974) (relying, in part, on a statute that allows the public to fish on streams capable of floating logs of a certain dimension); *Muench v. Pub. Serv. Co.*, 53 N.W.2d 514, 519 (Wis. 1952) (applying statute that declared streams that are "navigable in fact for any purpose whatsoever").

212. *People v. Emmert*, 597 P.2d 1025, 1027 (Colo. 1979) (Groves, J., and Carrigan, J., dissenting); *Hartman v. Tresise*, 84 P. 685, 686 (Colo. 1905) (Steele, J., and Bailey, J., dissenting). More recently, in a dissenting opinion, Justice Mullarkey remarked, in *dicta*, "This court has never recognized the public trust with respect to *water*." *Aspen Wilderness Workshop, Inc. v. Colo. Water Conservation Bd.*, 901 P.2d 1251, 1263 (Colo. 1995) (Mullarkey, J., dissenting) (emphasis added).

213. *Emmert*, 597 P.2d at 1029 ("If the increasing demand for recreational space on the waters of this state is to be accommodated, the legislative process is the proper method to achieve this end.").

214. COLO. CONST., art. XVI, § 5 (emphasis added).

215. *Emmert*, 597 P.2d at 1028 (*reaffirming Hartman*, 84 P. at 686).

appropriation."²¹⁶ The court buttressed this assertion with language from Article XVI, section 6 providing that the right to divert water "shall never be denied."²¹⁷

In dissent, Justice Groves construed section 5 as establishing that the state's waters are "the property of the public and are dedicated to the use of the people of the state."²¹⁸ He interpreted "subject to appropriation" as "a caveat establishing that appropriation for a beneficial use is superior to other uses" without limiting other uses.²¹⁹ Quoting extensively from Judge Bailey's dissent in the earlier *Hartman* case, Justice Groves argued the waters of every natural stream were public, "dedicated to the use of the people . . . in such manner as they see fit," subject only to the right of appropriation for beneficial purposes.²²⁰

Until the waters are appropriated and diverted from the stream, they belong to the public. No stronger words could have been used by the people than are used in this declaration. It is idle to say that the waters of the streams are dedicated to the public for the purpose of appropriation, because those are not the words of the Constitution. It is a grant made subject to that right.²²¹

Justice Groves' interpretation is consistent with the analysis of other states' courts.²²²

For example, Article 16, section 2 of the New Mexico Constitution

216. *Id.*

217. *Id.* (quoting *Hartman*, 84 P. at 686). By contrast, the Idaho Supreme Court construed similar language as imposing no constraints on the state's park agency from appropriating water for scenic and recreational purposes. *State Dep't of Parks v. Idaho Dep't of Water Admin.*, 530 P.2d 924, 926 (Idaho 1974) (construing Article 15, section 3, of the Idaho Constitution, which states: "The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied."). Although the Idaho case involved a stream flowing over public land, it illustrates an alternate construction of constitutional language almost identical to that which the Colorado court relied upon in *Emmert* to restrict public access to unappropriated waters. Additionally, this language did not prevent the Idaho court from allowing public use rights for "all recreational purposes" on waters deemed navigable under a state definition of navigability, even where the streambed was in private ownership. *See S. Idaho Fish & Game Ass'n v. Picabo Livestock, Inc.*, 528 P.2d 1295, 1297-98 (Idaho 1974).

218. *Emmert*, 597 P.2d at 1030.

219. *Id.*

220. *Id.* (quoting Bailey, J., in *Hartman*, 84 P. at 690 (Steele, J., concurring)).

221. *Id.* (Groves, J., dissenting) (quoting *Hartman*, 84 P. at 690-91 (Bailey, J., dissenting)).

222. *See, e.g.*, *Owsichuk v. Alaska Guide Licensing & Control Bd.*, 763 P.2d 488, 491-98 (Alaska 1988) (construing ALASKA CONST. art. VIII, § 3); *Galt v. Montana Dep't of Fish, Wildlife & Parks*, 731 P.2d 912, 914-15 (Mont. 1987) (construing MONT. CONST. art. IX, § 3(3)); *State ex rel. State Game Comm'n v. Red River Valley Co.*, 182 P.2d 421, 430-31 (N.M. 1947) (construing N.M. CONST. art. 16, § 2); *Day v. Armstrong*, 362 P.2d 137, 145 (Wyo. 1961) (construing WYO. CONST. art. 8, § 1). *But see State ex rel. Meek v. Hays*, 785 P.2d 1356, 1364-65 (Kan. 1990) (analogizing KAN. STAT. ANN. § 82a-702 (1997) to MONT. CONST. art. IX, § 3, but following *Emmert*, 597 P.2d at 1030, in holding the public has no recreational use rights to non-navigable water overlying private lands without landowner consent).

provides “[t]he unappropriated water of every natural stream, perennial or torrential, within the state of New Mexico, is hereby declared to belong to the public and to be subject to appropriation for beneficial use, in accordance with the laws of the state. Priority of appropriation shall give the better right.”²²³ The wording of this provision is almost identical to that in Article XVI, section 5 of Colorado’s constitution. The New Mexico Supreme Court interpreted this language as an affirmative statement of the public’s ownership and right to use all waters in the state until they are appropriated for beneficial use.²²⁴ The New Mexico court also held that unappropriated waters are “public waters,” and riparian landowners did not have the right to claim exclusive use rights.²²⁵ Therefore, the court held the private owner of land adjacent to and beneath two non-navigable streams could not exclude the public from using the waters of a man-made lake that inundated his property.²²⁶ To deny public use of such water, the New Mexico court reasoned, “would be saying that the public must first appropriate its own property, the very waters reserved to it and which have always ‘belonged’ to it, subject, of course, to being specifically appropriated for *private* beneficial use.”²²⁷

The New Mexico court also held that the state’s authority over public water is “plenary.”²²⁸ Thus, dedicating waters for public recreational uses does not constitute a “taking” even when such water overlies private land.²²⁹ The court admonished that to hold otherwise would “confuse title to the land with that to water.”²³⁰

Like the New Mexico court, the Wyoming Supreme Court found public ownership of all waters embedded in the state constitution. In *Day v. Armstrong*,²³¹ the court held the public had a right to float on streams flowing through private property, but the public did not have an unrestricted right to walk or wade on the streambeds of such waters.²³² Instead, walking or wading on streambeds was limited to necessary incidents of recreational use.²³³ In authorizing public use of

223. N.M. CONST. art 16, § 2 (emphasis added).

224. *Red River Valley*, 182 P.2d at 430-34 (acknowledging the similarities between New Mexico and Colorado Constitutions, but rejecting the Colorado Supreme Court majority’s holding and reasoning in its *Hartman* decision).

225. *Id.* at 427-28.

226. The New Mexico court affirmed title to the submerged lands was vested in the riparian landowner, whose ownership could be traced to the Pablo Montoya Grant of 1869. *Id.* at 424-26. However, because the water belonged to the state, the court stated “justice and common sense” dictated the federal government’s confirmation of the landowner’s title to the lands did not purport to “destroy, or in any manner limit, the right of the general public to enjoy the uses of public waters.” *Id.* at 432.

227. *Id.* at 432 (emphasis in original).

228. *Id.* at 467 (plurality on second motion for rehearing).

229. *Id.*

230. *Red River Valley*, 182 P.2d at 432.

231. 362 P.2d 137 (Wyo. 1961).

232. *Id.* at 151.

233. *Id.*

any waters capable of floating watercraft of any kind,²³⁴ the court based its conclusion “solely upon Wyoming’s Constitutional declaration that all waters within the boundaries belong to the State.”²³⁵

The Wyoming court acknowledged a “clear case of divided ownership of the river as an entity” exists when the state holds title to the water and title to the bed and channel vest in the riparian landowner.²³⁶ The court analogized such divided ownership to the “horizontal division in land ownership” between surface and subsurface areas for which “the enjoyment of the rights incident to separate ownership may require easement in the property of another.”²³⁷ Therefore, concomitant with state ownership of its waters, “there must be an easement in behalf of the State for a right of way through their natural channels for such waters upon and over lands submerged by them.”²³⁸

In prohibiting riparian landowners from interfering with or curtailing public use, the court emphasized that it was not “creating a new public right nor even . . . giving initial recognition to an unused public right.”²³⁹ Rather, the court defended “a use long enjoyed by the public” which belonged to them, but which riparian owners now sought to deny them.²⁴⁰

The Montana Supreme Court examined the Montana Constitution, which has language similar to Colorado’s, to find authority for public use of the state’s waters, including those overlying private lands.²⁴¹ Like the New Mexico and Wyoming courts, the Montana Supreme Court ruled public ownership precluded riparian landowners from controlling surface uses.²⁴² Unlike Wyoming, however, Montana did not restrict public use to floating, but rather authorized recreational use even on privately owned streambeds and banks to the extent such use is “necessary for the public’s enjoyment of its water ownership.”²⁴³

The New Mexico, Wyoming and Montana models serve to illustrate

234. *Id.* at 145. (“When waters are able to float craft, they may be so used.”).

235. *Id.* at 146; *see* WYO. CONST. art. 8, § 1 (“The waters of all natural streams, springs, lakes or other collections of still water, within the boundaries of the state, are hereby declared to be the property of the state”).

236. *Day*, 362 P.2d at 145.

237. *Id.*

238. *Id.*

239. *Id.* at 151.

240. *Id.*

241. *Mont. Coalition for Stream Access, Inc. v. Curran*, 682 P.2d 163, 170 (Mont. 1984) (construing MONT. CONST. art. IX § 3(3) (“All surface, underground, flood, and atmospheric waters within the boundaries of the state are *the property of the state for the use of its people* and are *subject to appropriation* for beneficial uses as provided by law.”) (emphasis added)); *accord* *Galt v. Montana ex rel. Dep’t of Fish, Wildlife & Parks*, 731 P.2d 912, 915 (Mont. 1987); *Mont. Coalition for Stream Access, Inc. v. Hildreth*, 684 P.2d 1088, 1091 (Mont. 1984).

242. *Curran*, 682 P.2d at 170.

243. *Galt*, 731 P.2d at 915 (invalidating sections of a statute that would have allowed activities not necessary to water-based recreational activities, but affirming the constitutional basis for the state’s public trust doctrine).

that, if the Colorado legislature or courts recognized the public's right to recreate on waters overlying private property, the Colorado Constitution could serve as the foundation for this right—either standing alone or in combination with other sources of authority.

VI. OTHER SOURCES OF AUTHORITY FOR THE RIGHT TO FLOAT THROUGH PRIVATE PROPERTY

A. STATE NAVIGABILITY

As noted above, the federal government obtains its navigational servitude authority by implication from the federal powers under the Commerce Clause of the United States Constitution.²⁴⁴ State navigational servitude authority is an implicitly reserved power under the Tenth Amendment of the United States Constitution.²⁴⁵ The navigational servitude is an exercise of the state's police powers in navigable waters to regulate public health, welfare and safety.²⁴⁶ State navigational servitude authority is subordinate to the federal government's authority, but in the absence of the federal government's exercise of its navigational servitude, the state retains full authority to control ownership and use of the waterways within its boundaries.²⁴⁷

One commentator has characterized state navigational servitude, similar to the federal version, as "an easement in favor of the public to use the water for navigation."²⁴⁸ Alternatively, the privately-owned title to the bed of a navigable waterway may be conceived as a qualified title not held at the owner's absolute disposal, but subordinate to the public's use of the overflowing waters for navigation.

Many states apply their own common law interpretation of navigability to allow what is tantamount to a public easement for passage, even where a stream is not navigable under the federal tests, or where the federal tests are not applicable. Given federal preemption law, it would be futile for states to adopt a more restrictive navigability standard than the federal standards.²⁴⁹ States, however, may find additional rivers navigable under their own laws. Colorado courts have not yet set forth a state standard for navigability.²⁵⁰

Colorado allows for the development of a common law standard

244. See discussion *supra* Part II.

245. Jessie H. Briggs, *Navigational Servitude as a Method of Ecological Protection*, 75 DICK. L. REV. 256, 260 (1971).

246. *Id.* at 256.

247. Daniel J. Morgan & David G. Lewis, *The State Navigation Servitude*, 4 LAND & WATER L. REV. 521, 521-22 (1969); see also Briggs, *supra* note 245, at 256.

248. *Id.* at 522.

249. See, e.g., *People v. Rister*, 803 P.2d 483, 494 (Colo. 1990); see also, *Defenders of Wildlife v. Hull*, 18 P.3d 722 (Ariz. Ct. App. 2001); discussion *supra* Part IV.

250. See, e.g., *People v. Emmert*, 597 P.2d 1025 (Colo. 1979). One of the stipulated facts was that the stream reach was non-navigable. Thus, the navigability issue, whether under federal or state standards, was avoided in *Emmert*. *Id.* at 1026.

for navigability. Colorado adopted the common law of England “so far as the same is applicable and of a general nature.”²⁵¹ “English common law gave all subjects rights to navigate and to make other uses of waterways such as fishing and hunting.”²⁵² Under the English common law, “[t]he one clear right of the public in the use of water was for travel.”²⁵³ More importantly, the United States Supreme Court has confirmed that, under the English common law, the public had the right of passage over waterways to which a private party held the title:

American law, in some ways, enhanced and extended the public aspects of submerged lands. English law made a distinction between waterways subject to the ebb and flow of the tide and large enough to accommodate boats (royal rivers) and nontidal waterways (public highways). With respect to the royal rivers, the King was presumed to hold title to the river bed and soil while the public retained the right of passage and the right to fish. With public highways, as the name suggests, the public retained the right of passage, but title was typically held by a private party.²⁵⁴

This common law derived first from the law of the sea, then became applicable to coastal waters, and then to inland waterways.²⁵⁵ This doctrine applies to navigable inland courses in all of the states, and is not limited to tidal waters.²⁵⁶ Incorporating and following the common law of England, the common law of navigability in Colorado confirms the public’s right to use navigable waterways.

The Colorado legislature has acknowledged the existence of a common law of navigability. By providing that one does not commit a criminal trespass on any “*nonnavigable* fresh water streams” in the state unless one touches the bed or banks, the legislature distinguished between streams that are navigable and those that are not for state law purposes.²⁵⁷ The Colorado statutes do not define the terms “navigable” and “nonnavigable” leaving it to the courts to define both kinds of waterways. In *United States v. Goodrich Farms Partnership*,²⁵⁸ the court partially defined a non-navigable stream as a ditch.²⁵⁹

In two Colorado cases where navigability was not at issue and where no navigability standard was applied, the court stated in dicta

251. COLO. REV. STAT. § 2-4-211 (2001).

252. DAVID H. GETCHES, *WATER LAW IN A NUTSHELL* 218 (3d ed. 1997).

253. 4 *WATERS AND WATER RIGHTS*, *supra* note 57, § 29.02(b).

254. *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 285 (1997).

255. 4 *WATERS AND WATER RIGHTS*, *supra* note 57, § 30.01(d)(2).

256. *Id.*; *see*, *Steamer Daniel Ball v. United States*, 77 U.S. (10 Wall.) 557, 563 (1870).

257. COLO. REV. STAT. § 18-4-504.5 (2001) (emphasis added); *see also* discussion *supra* Part III. By providing that it is a misdemeanor to obstruct a “waterway” or “any other place used for the passage of persons, vehicles, or conveyances” when that waterway or place is one “to which the public or a substantial group of the public has access,” the legislature has indicated that navigable streams in this state enjoy certain protections. COLO. REV. STAT. § 18-9-107(1)(a) (2001).

258. 947 F.2d 906 (10th Cir. 1991).

259. *Id.* at 908.

that Colorado streams are not navigable. In *Stockman v. Leddy*,²⁶⁰ the Colorado Supreme Court examined the constitutionality of a statute that authorized state scrutiny of federal acts to insure they did not infringe upon the state's right to control the distribution of its own waters. . . .²⁶¹ The court stated the "property right . . . in the natural streams, and the waters flowing therein, has never been renounced or relinquished by the state."²⁶² The court also observed that the federal government knew the natural streams of the state were nonnavigable.²⁶³ In making this observation, the court likely intended to minimize the potential for federal infringement on Colorado water resources. While the court did not apply a navigability standard, its statement in *Stockman* is not a rejection of a state common law navigability standard.

One year after *Stockman*, the Colorado Supreme Court in *In re German Ditch & Reservoir Co.*²⁶⁴ had to decide whether a mostly dry stream augmented by return flows was subject to appropriation under the Colorado Constitution.²⁶⁵ The court referred to streams as non-navigable in the context of minimal stream flows, unrelated to the legal question posed in the case, and without application of any test for navigability.²⁶⁶ Thus, the court's reference is not binding on the state common law of navigability because the court did not discuss that law.

By necessary implication, Colorado should adopt the English common law standard of navigability in fact. Many other states have either adopted the English common law standard or fashioned their own hybrid common law definitions. The following cases are illustrative, not exhaustive.

In *Southern Idaho Fish & Game Ass'n v. Picabo Livestock, Inc.*,²⁶⁷ the Idaho Supreme Court affirmed the trial court's development of a common law definition of navigability.²⁶⁸ Idaho adopted a navigable-for-use test that is a blend of the traditional log-floating test and the contemporary pleasure boat test. Although the private landowner urged the court to adhere to only the federal navigability for title test, the court unequivocally separated interests in real property—which remained in the adjacent landowner—from the public's interests in access and use:

[T]he question of title to the [creek bed] is not at issue in this proceeding. This is not an action by the State of Idaho or respondent [hunting and fishing club] to quiet title to the bed of a navigable stream. . . . The federal test of navigability involving as it does

260. 129 P. 220 (Colo. 1912).

261. *Id.* at 221.

262. *Id.* at 222.

263. *Id.*

264. 139 P. 2 (Colo. 1913).

265. *Id.* at 5-9.

266. *See id.*

267. 528 P.2d 1295 (Idaho 1974).

268. *Id.* at 1297-98.

property title questions, does not preclude a less restrictive state test of navigability establishing a right of public passage. . . .²⁶⁹

California adopted the pleasure boat test and rejected commercial nexus as the test of state navigability in *People v. Mack*.²⁷⁰ California started by adopting the English common law and has refined its common law definition over time.²⁷¹ While California also legislated on the subject—designating certain rivers navigable—legislative action did not supersede the common law doctrine or undercut the general applicability of the principle set forth in *Mack*.²⁷² California's test is whether waters are "capable of being navigated by oar or motor propelled small craft."²⁷³ If so, "members of the public have the right to navigate and to exercise the incidents of navigation in a lawful manner at any point below high water mark. . . ."²⁷⁴ The court enjoined riparian landowners from obstructing the river at issue to prevent the public from using it for boating, hunting and fishing as it passed through the defendants' property.²⁷⁵

New York also derived its definition of navigability from the English common law. In *Adirondack League Club v. Sierra Club*,²⁷⁶ New York's highest court held that if "a river is navigable-in-fact, it is considered a public highway, notwithstanding the fact that its banks and bed are in private hands."²⁷⁷

Oklahoma has also adopted a state common law navigability-in-fact standard.²⁷⁸ The Oklahoma Supreme Court held:

We are of the opinion and hold that the river in question is navigable in fact and that plaintiff owns the land to the middle of the stream but that the water is in the nature of a street or highway so that people who get on the river without committing an act of trespass has [sic] the right to boat on either side of the middle of the stream, either up or down stream.²⁷⁹

Because Colorado has yet to set a state standard for navigability, it has yet to apply to Colorado waterways the state navigational servitude other states have adopted. The experience of other states illustrates that state navigation servitude may protect the right to float on Colorado's rivers and streams.

269. *Id.* at 1298.

270. 97 Cal. Rptr. 448, 454 (Cal. Ct. App. 1971).

271. *Id.* at 451.

272. *Id.* at 453.

273. *Id.* at 454.

274. *Id.*

275. *Id.* at 450.

276. 706 N.E.2d 1192 (N.Y. 1998).

277. *Id.* at 1194.

278. *Curry v. Hill*, 460 P.2d 933 (Okla. 1969).

279. *Id.* at 936.

B. ADVERSE POSSESSION

Colorado's "Public Highways" statute permits creation of "public highways" by adverse public use of any "roads" for twenty consecutive years without interruption or objection.²⁸⁰ Colorado courts have embraced a broad, flexible definition of road and highway under which many of Colorado's waterways could logically be "roads" or "highways." Western rivers historically were arteries for travel, commerce, exploration and recreation. From the Snake and Columbia Rivers providing a road west for Lewis and Clark to the Platte River for John C. Fremont to the Gunnison for Torrence and his party in Colorado, rivers have met and still do meet the practical definition of a road.

The courts have long viewed rivers as highways.²⁸¹ According to a recent edition of Black's Law Dictionary, "[i]n [a] broader sense, [highway] refers to any main route on land, *water* or the air."²⁸² In an earlier edition, Black's states that "a river is called a 'highway' . . ."²⁸³ Similarly, "highway" has been defined as "a generic term frequently used in a very broad sense . . . for all kinds of public ways, whether by land or by water."²⁸⁴ Thus, the very definition of highway includes waterways.

In *Hale v. Sullivan*, the Colorado Supreme Court construed the term "road" in the Colorado Constitution to include an airport landing strip.²⁸⁵ The court adopted a broad definition of "road" which included "ferries, canals and *navigable rivers*. . ."²⁸⁶ The court rejected the argument that the term should be limited to the common usage or to the definition of road at the time the Colorado Constitution was adopted, and reasoned that the "word has a much broader meaning and may be said to include 'overland ways of every character' . . . [and that] airports of this nation are links in the transportation system" and are thus "logically within the term 'roads' . . ."²⁸⁷ Moreover, the cases

280. COLO. REV. STAT. § 43-2-201(1)(c) (2001).

281. See, e.g., *Utah v. U.S.*, 403 U.S. 9, 11 (1971) (ranchers used river as a highway to transport cattle); *Choctaw Nation v. Oklahoma*, 397 U.S. 620, 645 (1970) (holding navigable waterways "shall be and remain public highways . . . for the public purposes of commerce, navigation and fishery. . ."); *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893) (declaring waters "public highways"); *Gaston v. Mace*, 10 S.E. 60, 63 (W. Va. 1889) (referring to the public use of streams as "highways").

282. BLACK'S LAW DICTIONARY 656 (5th ed. 1979) (emphasis added). The definition of "highway" further states, in part:

The term "highway," as generally understood, does not have a restrictive or a static meaning, but it denotes ways laid out or constructed to accommodate modes of travel and other related purposes that change as customs change and as technology develops, and the term "highway," as it is generally understood, includes areas other than and beyond the boundaries of the paved surface of a roadway.

Id.

283. BLACK'S LAW DICTIONARY 862 (rev. 4th ed. 1968).

284. 39A C.J.S. *Highways* § 1(1) (2001).

285. *Hale v. Sullivan*, 362 P.2d 402 (Colo. 1961).

286. *Id.* at 405 (emphasis added).

287. *Id.*

the court quotes and relies upon from other jurisdictions expressly compare airports to docks and wharves for boating.²⁸⁸ This suggests that Colorado courts would consider waterways to be roads.

In *Simon v. Pettit*, the Colorado Supreme Court relied upon *Hale* in interpreting "road" and "public highways" under the Public Highways statute.²⁸⁹ After discussing how airport landing strips are part of the general "transportation system," the court summarized as follows:

Hale stands for the principle that, in certain situations, a broad definition of what constitutes a road should be adopted. In other situations, however, a more restricted definition may be warranted. We reaffirm our previous statement in *Hale* that the scope to be given the word depends upon the context in which it appears.²⁹⁰

The opinion held that narrow footpaths do not constitute roads, but cautioned that "the footpaths *in question* are not 'roads' . . ." only after studying their factual context.²⁹¹ Accordingly, Colorado courts have found public "roads" under Colorado Revised Statutes § 43-2-201 for transportation ways of all character and based upon public uses that include recreation.²⁹²

The other jurisdictions that have considered the issue have treated rivers as public highways or as subject to adverse possession by public use. For example, in *Buffalo River Conservation & Recreation Council v. National Park Service*, a trial court found that under Arkansas state law, the public obtained a prescriptive easement on a river by canoeing.²⁹³ The United States Court of Appeals for the Eighth Circuit affirmed, holding that "in the same way a public highway can be obtained by prescription, a public right-of-way has been established in the River."²⁹⁴ The Court of Appeals held that the Arkansas cases finding prescriptive rights-of-way on land were directly analogous to rights-of-way over non-navigable streams and their beds.²⁹⁵

The Mississippi Supreme Court applied a similar analysis in holding that "[w]here the public has enjoyed access to waters for in

288. *Id.* at 404-05 (quoting *Dysart v. City of St. Louis*, 11 S.W.2d 1045 (Mo. 1928); *Hesse v. Rath*, 164 N.E. 342 (N.Y. 1928)).

289. *Simon v. Pettit*, 687 P.2d 1299, 1302 (Colo. 1984) (interpreting COLO. REV. STAT. § 43-2-201 (1973)).

290. *Id.* (citations omitted).

291. *Id.* (emphasis added).

292. *See, e.g.*, *Bd. of County Comm'rs v. Flickinger*, 687 P.2d 975, 981 (Colo. 1984) (unimproved dirt road adversely possessed by public recreational use); *Shively v. Bd. of County Comm'rs*, 411 P.2d 782, 782-84 (Colo. 1966) ("a rugged mountain trail" accessed by the public on foot, horseback, "traversed at least part way by jeep in modern times," and used for recreation and hauling lumber, deemed a public road).

293. *Buffalo River Conservation & Recreation Council v. Nat'l Park Serv.*, 558 F.2d 1342, 1344-45 (8th Cir. 1977).

294. *Id.* at 1345.

295. *Id.*; *see also* *State v. McIlroy*, 595 S.W.2d 659, 659-60, 663-65 (Ark. 1980) (court did not find it necessary to determine whether public had acquired prescriptive easement for use of river as the public's recreational use was adequate to find the river navigable).

excess of ten consecutive years, those waters belong to the state by adverse possession, to be held in trust for the people."²⁹⁶ As in *Buffalo River*, the court in *Dycus* explicitly noted that while the "law well recognizes that roadways may become public by prescription. . . . By analogy, waters may similarly become public."²⁹⁷

In *Elder v. Delcour*, the Missouri Supreme Court held that the river in question was non-navigable for purposes of title (i.e., the owner of the stream banks owned the stream bed), but did not rule on the broader definition of navigable used for purposes of regulation.²⁹⁸ Instead, the court examined whether the "land within the water area of the river was a public highway and so subject to an easement for public travel by boat and wading. . . ."²⁹⁹ In so doing, the court summarized various cases in which public use of the river resulted in the "right of the public to use a stream as a public highway. . . ."³⁰⁰ The court ultimately concluded there was no trespass because the river in question was public "and the submerged area of its channel . . . is a public highway for travel and passage by floating and by wading. . . ."³⁰¹

VII. CONCLUSION

Across the West, most other states have recognized the right of citizen access to float on rivers and streams under legal authorities that would also support, or arguably compel, recognition of such rights in Colorado. Opponents of public access rely primarily on two flawed assumptions: first, that all Colorado streams are non-navigable; and second, for that reason, riparian landowners possess absolute title, free from any state property interest, to the beds beneath all waters flowing through private property. At best, such declarations are premature because the Colorado courts have not had to rule on the navigability of any of the state's watercourses, which is necessarily a fact-based inquiry not subject to general pronouncements. More significantly, public access opponents ignore potential conflicts with the federal, constitutionally-based, navigational servitude and equal footing doctrines, as well as Colorado statutes and case law that also can establish public access rights.

Our neighbors in Wyoming, New Mexico and Utah, among other western states, including Montana, Idaho and California, protect the right of public access to their waterways. These states have recognized that the public use of waterways is not a new right; it dates to the days of explorers and settlers. Moreover, it is a right that existed at common law, which both predates private claims to absolute title to an

296. *Dycus v. Sillers*, 557 So. 2d 486, 501 (Miss. 1990).

297. *Id.* at 501 n.69.

298. *Elder v. Delcour*, 269 S.W.2d 17, 22-23 (Mo. 1954); see also *State ex rel. Meek v. Hays*, 785 P.2d 1356, 1362-63 (Kan. 1990) (right of passage on river subject to adverse possession; test not met under facts presented).

299. *Elder*, 269 S.W.2d at 24.

300. *Id.* at 25.

301. *Id.* at 26.

inherently public resource and precludes private interests from interfering with the public's right of access to those resources. For the Colorado courts to formally recognize such a right would place the state and its boaters right where they belong—in the mainstream.

LITIGATION UPDATE

ARIZONA SUPREME COURT REJECTS PRACTICABLY IRRIGABLE ACREAGE STANDARD FOR ALLOCATING INDIAN WATER RIGHTS

E. BRENDAN SHANE[†]

In the latest installment of the water rights adjudication for Arizona's Gila River system, the Arizona Supreme Court entered "uncharted territory" by rejecting the widely accepted legal standard for quantifying Indian water rights.¹ The court, reviewing a 1988 trial court decision that applied the practicably irrigable acreage ("PIA") standard for quantifying water rights on Arizona Indian reservations,² determined that the formulaic PIA approach was inequitable and economically unrealistic.³ In its place, the court fashioned a multi-faceted test and then remanded to the trial court for implementation.

As discussed in *Water Rights and Gila River III: The Winters Doctrine Goes Underground*, ("Gila River III")⁴ the Gila River general adjudication began in 1974 and, since 1990, has focused on the interlocutory review of six specific issues.⁵ *Gila River III* discussed Issues Four and Five concerning federal reserved water rights to groundwater and the relative protections afforded federal versus state rights to groundwater.⁶ The most recent installment of the Gila River cases, *Gila River IV*, addressed Issue Three: "[w]hat is the appropriate standard to be applied in determining the amount of water reserved for federal lands?"⁷

[†] E. Brendan Shane, *Water Rights and Gila River III: The Winters Doctrine Goes Underground*, 4 U. DENV. WATER L. REV. 397 (2001).

1. *In re Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source*, 35 P.3d 68 (Ariz. 2001) ("*Gila River IV*").

2. *Id.* at 71 (citing unpublished order of the Superior Court of Maricopa County, Sept. 9, 1988, at 17).

3. *See generally id.*

4. E. Brendan Shane, *Water Rights and Gila River III: The Winters Doctrine Goes Underground*, 4 U. DENV. WATER L. REV. 397, 405 (2001).

5. *Id.* at 404-405.

6. *Id.* at 407. The Arizona Supreme Court addressed Issue Two in *In re Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source*, 857 P.2d 1236, 1238 (Ariz. 1993) and Issue One in *In re Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source*, 830 P.2d 442, 444 (Ariz. 1992).

7. *Gila River IV*, 35 P.3d at 71. For discussion of the legal derivation of federal reserved water rights under the *Winters* Doctrine, *see id.* at 71-73; Shane, *supra* note 4, at

The trial court answered this question by applying the PIA standard used by the Supreme Court in *Arizona v. California*⁸ (“*Arizona I*”) to quantify federal reserved water rights for five reservations in Arizona, California, and Nevada.⁹ PIA defines water rights based on the amount of water necessary to irrigate “those acres susceptible to sustained irrigation at reasonable costs’.”¹⁰

While the *Gila River IV* court acknowledged the value of an objective test like PIA, it held that flaws in the approach—when applied to Indian reservations—outweighed the benefits. The court highlighted three specific flaws in the PIA standard. First, a standard based on agricultural viability is inherently inequitable—tribal water allocations vary according to a tribe’s geographic location rather than consideration of what it takes to support a viable homeland.¹¹ Second, while an irrigation-based standard was reasonable in the rural/agrarian society of a century ago, strict reliance on agriculture to support a tribal community no longer appears reasonable. As the court noted, large agricultural projects today are “risky, marginal enterprises.”¹²

Finally, use of a PIA standard undermines another long-standing legal construct of federal reserved water rights—minimal need.¹³ The concept of minimal need, where federal reserved water rights are limited to the minimum quantity necessary to achieve the purpose of the reservation, stems from the Supreme Court holding in *Cappaert v. United States*.¹⁴ *Cappaert* clarified that implied federal reserved water rights are limited to the “minimal need” to achieve the purposes of the reservation.¹⁵ The *Gila River IV* court held that a minimal need analysis may be undermined by a PIA standard that “creates a temptation for tribes to concoct inflated, unrealistic irrigation projects. . . .”¹⁶

In light of these observed flaws, the court refused to adopt the PIA standard “as the exclusive quantification measure for determining water rights on Indian lands.”¹⁷ In place of PIA, the court crafted a

400-404.

8. *Arizona v. California*, 373 U.S. 546 (1963).

9. *Id.* at 595. The Supreme Court applied the method again in a later phase of that litigation. See generally *Arizona v. California*, 460 U.S. 605 (1983).

10. *Gila River IV*, 35 P.3d at 77 (quoting *In re Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys.*, 753 P.2d 76, 101 (Wyo. 1988)).

11. *Id.* at 78. Beginning with *Winters v. United States* in 1908, the Supreme Court enunciated the concept of reservation as homeland, holding that the purpose of an Indian reservation is to create a “permanent home and abiding place” for the affected tribes. *Winters v. United States*, 207 U.S. 564, 565 (1908). However, the meaning of home or homeland is significantly different today than it was more than a century ago when many reservations were established and when, according to *Winters* and its progeny, federally reserved rights to land and water were vested.

12. *Gila River IV*, 35 P.3d at 78.

13. *Id.* at 79.

14. *Cappaert v. United States*, 426 U.S. 128 (1976).

15. *Id.* at 141.

16. *Gila River IV*, 35 P.3d at 78.

17. *Id.* at 79. While rejecting exclusive application of an irrigation-based standard for water rights allocation, the court explained that tribes could continue to include

more subjective, multi-factor test to quantify water rights on Indian reservations. The court directed the lower court, on remand, to consider the following six factors, although it noted that the list was not intended to be exclusive:¹⁸

- 1) a tribe's history with special regard for practices and rituals requiring water;
- 2) a tribe's culture and the cultural significance of water to the tribe;
- 3) the geography, topography, and natural resources available on the reservation, including groundwater availability;
- 4) a tribe's economic base and the alternatives available to optimize economic development and efficient use of water;
- 5) a tribe's past water use as an indication of need and of how the tribe values water;
- 6) a tribe's present and projected population (though this should "never be the only factor").¹⁹

In its conclusion, the *Gila River IV* court made clear that a bright line standard will not dispose of the historical, political, and economic complexities of quantifying tribal water rights. The court directed the lower court to evaluate the factors outlined above based on "actual and proposed uses, accompanied by the parties' recommendations regarding feasibility and the amount of water necessary to accomplish the homeland purpose."²⁰ The court also established the standard of review for evaluating the application of the new multi-factor Indian water rights analysis. Under this standard, lower courts have latitude to define which factors to consider and to identify appropriate uses of water.²¹ Proposed uses, upon which water rights are based, must be shown "reasonably feasible," that is, "achievable from a practical standpoint" and "economically sound."²² As noted earlier, the goal of the water rights quantification remains the satisfaction of the reservation's minimal need.

The implications of the *Gila River IV* decision will become clear over time. While a case-by-case analysis of water rights will be more complicated and time-consuming than the PIA alternative, such an approach is not unprecedented. Multi-factor analysis for quantifying water rights has been successfully applied in the context of negotiated water rights settlements between tribes and the federal government on a number of occasions.²³ Optimistically, the new mandate of *Gila River IV* may dovetail ongoing litigation and negotiation efforts and speed

agricultural/irrigation projects in economic development plans. *See id.* at 80.

18. *Id.* at 79-80.

19. *Id.* at 80.

20. *Id.* at 79.

21. *Gila River IV*, 35 P.3d at 81.

22. *Id.*

23. *Id.* at 79.

the quantification of Indian water rights in Arizona. It also remains to be seen how courts in other states and federal jurisdictions, including the Supreme Court, will view the conclusions in *Gila River IV* and its analysis of Indian water rights and the role of the PIA standard in the twenty-first century.

DO CONSERVATION EASEMENTS AND WATER MIX (IN COLORADO)?

PETER D. NICHOLS[†]

I.	Introduction.....	504
II.	Conservation Easements.....	505
	A. Water Rights are Property Rights in Colorado.....	505
	B. The Development and Requirements of Conservation Easements Generally	506
	C. Common Law Conservation Servitudes.....	509
	D. Conservation Servitudes Under Colorado Common Law.....	511
	E. Conservation Easements Under the Colorado Statute	516
	F. The Actual Use of Easements on Water in Colorado	520
III.	Recommendations for Using Conservation Easements on Water in Colorado.....	522
IV.	Conclusion.....	523

I. INTRODUCTION

In the last quarter century, conservation easements on land evolved into an established and widely used mechanism to protect the natural values of real property and historic buildings in perpetuity. Water rights often support conservation easements on open space and agricultural lands, and may be essential to maintain associated conservation values such as wildlife habitat, wetlands, and other water dependant natural values.

Conservation easements may also offer an economically attractive way to maintain irrigated lands, wetlands, and other uses of water independently, including instream flows¹ and littoral levels² in

[†] Attorney at law, Peter D. Nichols LLC, Carbondale, Colorado, Executive Director, Colorado Water Trust. Former Chair, Colorado Water Quality Control Commission. B.A., Colorado College; M.P.A., University of Colorado Graduate School of Public Affairs; J.D., University of Colorado School of Law. The author is indebted to the following for their critical review and constructive comments: Michael Browning, James Corbridge, Kelly Custer, David Getches, David Robbins, Charles B. "Barney" White, and Robert Wigington. Any errors remain, of course, solely the author's responsibility.

1. The Colorado Water Conservation Board has exclusive authority to appropriate and hold minimum stream flows to preserve "the natural environment to a reasonable degree." COLO. REV. STAT. §§ 37-92-102(3), -103(4), -305(9) (9) (2001). Colorado's minimum stream flow program is both generally understood and widely reviewed. See, e.g., Steven J. Shupe, *The Legal Evolution of Colorado's Instream Flow Program*, 17 COLO. LAW. 861 (1988); Jane E. Lein, *Protection of Instream Flows: The Aspen Wilderness Workshop Decision*, 24 COLO. LAW. 2577 (1995).

Colorado. Donors of conservation easements receive substantial tax advantages from irrevocable dedications of real property for conservation purposes. Additionally, conservation organizations benefit by obtaining property below market value. The public benefits from the protection of natural values by private and non-profit sectors.

Although Colorado courts have not addressed conservation easements on water, this article advances the premise that such easements are valid under the state's common law. A conservation easement statute does exist in Colorado, however it does not explicitly cover water rights. While the Colorado Supreme Court is likely to uphold a conservation easement on water associated with land, an amendment is probably necessary to extend the reach of the statute to include a conservation easement on water rights alone. Recommendations in this paper explain how to structure a common law conservation easement on water to enhance its legality.

II. CONSERVATION EASEMENTS

Analysis of conservation easements in Colorado invokes both the common law and state statutes, which are discussed in turn.

A. WATER RIGHTS ARE PROPERTY RIGHTS IN COLORADO

Only if water rights are property rights will conservation easements bind successors in interest to meet the goal of permanence; this is the logical starting place for the inquiry. Early on, Colorado established that water rights created by appropriation are property rights.³

"Under the Colorado Constitution, the water of every natural stream within the state is the property of the public, and is dedicated to the use of the people subject to appropriation."⁴ The Colorado Supreme Court recently elaborated: "[t]he property right we recognize as a Colorado water right is a right to use beneficially a specified amount of water, . . . that can be captured, possessed, and controlled in priority under a decree, to the exclusion of all others not then in priority under a decreed water right."⁵

2. The littoral level is the elevation of a standing body of water, such as a lake or reservoir. As used hereafter, instream flow(s) refers to both water flowing in a natural stream channel and water retained in a natural lake or artificial reservoir.

3. See *Three Bells Ranch Assocs. v. Cache La Poudre Water Users Ass'n*, 758 P.2d 164, 169 (Colo. 1988); see also *Santa Fe Trail Ranches Prop. Owners Ass'n v. Simpson*, 990 P.2d 46, 58 (Colo. 1999) (citing *Dallas Creek Water Co. v. Huey*, 933 P.2d 27, 39 (Colo. 1997)). Conditional water rights are also vested property rights. *Purgatoire River Water Conservancy Dist. v. Witte*, 859 P.2d 825, 834 (Colo. 1993).

4. *Shirola v. Turkey Cañon Ranch, L.L.C.*, 937 P.2d 739, 747-48 (Colo. 1997) (citing COLO. CONST. art. XVI, § 5). The Court went on to say, "a water right is usufructuary in nature because it gives its holder the right to use and enjoy the property of another [the public]." *Id.* at 748. Interestingly, this description of a water right sounds like a servitude because of its reference to the right "to use and enjoy" the property of another.

5. See *Santa Fe Trail Ranches Prop. Owners Ass'n*, 990 P.2d at 53; see also COLO. REV. STAT. § 37-92-103(12) (2001).

This description encompasses many of the core concepts of property rights in general, that is, the rights to possess, to use, and to exclude others. For water, the right to use and the right to possess are closely related. The owner of a water right generally takes physical possession of the water upon diversion from the stream for essentially immediate use. In contrast, a landowner may possess a parcel of land but never put it to any use. Unlike land, water rights are lost by non-user.⁶

In Colorado, a water right is a separate property interest from the land on which it is used.⁷ Water rights can be, and routinely are, conveyed independently of land. Since water rights are real property,⁸ water rights are treated as real property for purposes of conveyance.⁹ The conveyance of a water right logically should carry the same types of legal restrictions as the conveyance of land.

B. THE DEVELOPMENT AND REQUIREMENTS OF CONSERVATION EASEMENTS GENERALLY

Servitudes are a confusing and difficult area of property law for several reasons.¹⁰ First, the few reported court decisions often misname or mis-characterize the various forms of servitudes.¹¹ In addition, practicing professionals and scholars often disagree as to the characterization of servitudes and corresponding requirements for enforcement.¹² A general review of the development and requirements of traditional servitudes on land is the necessary starting

6. However, the owner of a water storage right may take possession of water for use the next year and not actually use it, if for example, natural precipitation is sufficient to meet needs.

7. *Southeastern Colo. Water Conservancy Dist. v. Twin Lakes Assocs.*, 770 P.2d 1231, 1239 (Colo. 1989).

8. *See Santa Fe Trail Ranches Prop. Owners Ass'n*, 990 P.2d at 53.

9. *See Navajo Dev. Co. v. Sanderson*, 655 P.2d 1374 (Colo. 1982); *see also* COLO. REV. STAT. § 38-30-102 (2001); *First Nat'l Bank v. Hastings*, 42 P. 691 (Colo. Ct. App. 1895).

10.

The law in this area is an unspeakable quagmire. The intrepid soul who ventures into this formidable wilderness never emerges unscarred. Some, the smarter ones, quickly turn back to take up something easier like the income taxation of trusts and estates. Others, having lost their way, plunge on and after weeks of effort emerge not far from where they began, clearly the worse for wear. On looking back they see the trail they thought they broke obscured with foul smelling waters and noxious weeds. Few willingly take up the challenge again.

Susan F. French, *Toward a Modern Law of Servitudes: Reweaving the Ancient Strands*, 55 S. CAL. L. REV. 1261, 1261 n.1 (1982).

11. "Since the first English case interpreting the first English statute on the subject, commentators have doubted that the courts understood the law, and a study of judicial opinions, from *Spencer's Case* on, is bewildering at best." *Id.*

12. For a useful and comprehensive discussion of the various characteristics and requirements applicable to easements, real covenants, and equitable servitudes, *see generally id.* Professor French was subsequently chosen as the reporter for the *Restatement (Third) of Property: Servitudes*, where her views have been extremely influential and upon the American Law Institute. *See* discussion *infra* pp. 15-16.

point for an analysis of conservation servitudes.

Servitudes (encompassing easements, real covenants, and equitable servitudes) establish private arrangements for the use of land enforceable not only between the original parties but also against successors in interest.¹³ The owner of a servitude has the right to use or restrict the use of property that she neither owns nor possesses.¹⁴ The property that is subject to a servitude is said to be burdened, or servient.¹⁵ The right granted is the benefit.¹⁶ When the benefit is associated with other property, that property is characterized as benefited, dominant, or appurtenant.¹⁷ When the servitude does not benefit other property, the benefit is held "in gross."¹⁸ A negative servitude restricts the use of the burdened property, whereas a positive servitude obligates the owner of the burdened property to perform certain acts.¹⁹

The two types of servitudes that are particularly relevant in the context of water are real covenants and equitable servitudes. Real covenants can be traced back to *Spencer's Case* in 1583, where English common law permitted enforcement at law, the granting of damages, of covenants by and against successor owners.²⁰ Real covenants are promises respecting land, often expressed in a deed, and usually involving affirmative obligations.²¹ A common example is a subdivision covenant requiring homeowners to maintain landscaping.

Generally, a real covenant must meet five requirements. First, the covenant must be in writing, as required under the Statute of Frauds.²² Second, the parties must intend that the covenant should run to successors.²³ Third, the covenant must touch and concern the land.²⁴ Fourth, privity of estate between the original parties must exist.²⁵ Fifth, the covenant must provide notice to property owners against whom the terms of the covenant might be enforced.²⁶ Real covenants are essentially a matter of contract theory, the main issue being

13. See French, *supra* note 10, at 1261-64.

14. See, e.g., *Lazy Dog Ranch v. Telluray Ranch Corp.*, 965 P.2d 1229, 1234 (Colo. 1998).

15. *Id.*

16. *Id.*

17. *Id.*

18. GERALD KORNGOLD, *PRIVATE LAND USE ARRANGEMENTS: EASEMENTS, REAL COVENANTS, AND EQUITABLE SERVITUDES* 253 (1990). See also discussion *infra* pp. 13-15 concerning the distinction between personal benefits and benefits in gross.

19. KORNGOLD, *supra* note 18, at 253.

20. *Id.* at 249 (citing *Spencer's Case*, 5 Co. 16a, 77 Eng. Rep. 72 (KB 1583)).

21. *Id.*

22. *Id.* at 250. This may not be a requirement in Colorado, however, see *Thornton v. Schobe*, 243 P. 617 (Colo. 1925) discussed *infra* note 71.

23. KORNGOLD, *supra* note 18, at 250. See also *Cloud v. Ass'n. of Owners, Satellite Apartment Bldg.*, 857 P.2d 435, 440 (Colo. Ct. App. 1992).

24. KORNGOLD, *supra* note 18, at 250. See also *Cloud*, 857 P.2d at 440.

25. KORNGOLD, *supra* note 18, at 250-51. See also *Farmers' High Line Canal & Reservoir Co. v. N.H. Real Estate Co.*, 92 P. 290, 293 (Colo. 1907).

26. KORNGOLD, *supra* note 18, at 251.

enforcement of promises against subsequent property owners.²⁷ Damages are the only remedy for breach of a real covenant.²⁸

Equitable servitudes are a creation of English common law, emanating from *Tulk v. Moxhay*.²⁹ Like real covenants, equitable servitudes are "promises respecting the use of land."³⁰ An equitable servitude usually grants a right to restrict the use of property one neither owns nor possesses,³¹ which explains why they are also known as negative easements. However, under modern American law, equitable servitudes also may impose affirmative burdens on servient properties.³²

Conservation easements on real property are equitable servitudes. Like a real covenant, an equitable servitude is enforceable not only between the original parties, but also against successors in interest.³³ Enforceability of an equitable servitude generally turns on satisfaction of three requirements:³⁴ (1) the equitable servitude must show intent to bind successors;³⁵ (2) it must touch and concern the property;³⁶ and (3) property owners must have notice that the servitude may be enforced against them.³⁷ In contrast to real covenants, equitable servitudes are enforceable in equity. Thus, an injunction is the remedy for breach of an equitable servitude, rather than damages.³⁸ Equitable servitudes are understood not as contract rights, but rather as a property interest appurtenant to the benefited land and enforceable against the burdened parcel.³⁹ Since the right exists in the land itself, privity and a writing are not required.⁴⁰

In summary, there are two principal differences between real covenants and equitable servitudes. First, real covenants are usually affirmative obligations, whereas equitable servitudes are most often negative restrictions on the use of property. Second, although real covenants are enforced through damages, equitable servitudes are enforced through injunctions.⁴¹ A "conservation" servitude is well

27. *Id.* at 250.

28. *Id.* at 249-50.

29. *Id.* (citing *Tulk v Moxhay*, 2 Phillips 774, 41 Eng. Rep. 1143 (CA 1848)).

30. Gerald Korngold, *Privately Held Conservation Servitudes: A Policy Analysis in the Context of in Gross Real Covenants and Easements*, 63 TEX. L. REV. 433, 437 (1984).

31. French, *supra* note 10, at 1276.

32. *Id.* at 1277.

33. See KORNGOLD, *supra* note 18, at 249-51.

34. *Id.* at 251.

35. *Id.* at 250-51.

36. *Id.*

37. *Id.*

38. KORNGOLD, *supra* note 18, at 250.

39. *Id.* at 251.

40. *Id.* at 251-52.

41. While the discussion emphasizes the usual distinctions between real covenants and equitable servitudes for explanation, one can find examples of either that look like the other, i.e., are called one thing but better meet the definition of the other. There are, in short, no immutable rules. See discussion *infra* notes 148, 149, 155 and accompanying text.

sued to protect conservation values because it is enforceable with an injunction. The threat of damages for violation of a real covenant, however, imposes an additional enforcement incentive due to the difficulty and substantial cost of replacing damaged conservation values.⁴²

C. COMMON LAW CONSERVATION SERVITUDES

In the few recent American "cases involving conservation [easements], . . . courts have not hesitated to enforce them."⁴³ However, a special enforcement problem exists when the benefit is in gross because the common law historically disfavored both easements in gross and negative easements.⁴⁴ Consequently, courts did not enforce negative easements in gross.⁴⁵ Since the benefit of a conservation easement is usually held in gross, doubts about legitimacy may arise. Although at least one court has upheld common law conservation easements in gross,⁴⁶ their efficacy is not entirely clear.

Judge Clark,⁴⁷ in his famous treatise on interests "running with land," observed that modern servitudes rest on the equitable doctrine of notice.⁴⁸ The two most developed theories of enforcement are through contracts concerning land and through servitudes on land.⁴⁹ These theories correspond respectively to the modern classification of real covenants and equitable servitudes.

The contract theory asserts that a restriction is specifically enforced against both the promisor and those who take from the promisor with notice.⁵⁰ The promisee and those who take from her may also

42. In a typical conservation easement, the parties inventory the conservation values at the time they create the easement. For example, an inventory might include ten acres of wetlands. If the grantor subsequently dries up the wetlands, the grantee could sue for the replacement cost of the lost conservation value, including the loss of scenic, aesthetic, and environmental values.

43. RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 8.5 rep. note (2000) [hereinafter RESTATEMENT (THIRD)] (citing *Harris v. Pease*, 66 A.2d 590 (Conn. 1949) (restrictive covenant against erection of buildings on part of land conveyed); *Sagalyn v. Found. for Historic Pres. of Georgetown*, 691 A.2d 107 (D.C. 1997) (deed of scenic, open space, and architectural façade easement); *Bagley v. Found. for the Pres. of Historic Georgetown*, 647 A.2d 1110 (D.C. 1994) (enforcement of historic preservation easement agreement held in gross by a private non-profit corporation)).

44. See Federico Cheever, *Public Good and Private Magic in the Law of Land Trusts and Conservation Easements: A Happy Present and a Troubled Future*, 73 DENV. U. L. REV. 1077, 1080-81 (1996); see also CHARLES E. CLARK, REAL COVENANTS AND OTHER INTERESTS WHICH "RUN WITH LAND:" INCLUDING LICENSES, EASEMENTS, PROFITS, EQUITABLE RESTRICTIONS AND RENTS 70, 181 (2d ed. 1947).

45. See Korngold, *supra* note 30, at 470-71. Korngold notes "[t]hese opinions are troubling for their lack of a clear rationale...." *Id.* at 471.

46. See *supra* note 43.

47. Judge Clark served as a Judge for the 2nd Circuit in 1939, and as Chief Judge on the United States Court of Appeals from 1954-59.

48. CLARK, *supra* note 44, at 170.

49. *Id.* at 171.

50. *Id.* at 172.

enforce the obligation.⁵¹ Judge Clark criticized the contract theory on several grounds. Most notably, the contract approach may fail “to benefit the persons whose interests actually should be protected” and could potentially give a right where none exists.⁵² The contract theory focuses on the personal nature of the interest, although the purpose may not actually be personal.⁵³ Such an interpretation limits the restriction to the promisor, thus negating the promisee’s benefit when the property is transferred.⁵⁴ In addition, the doctrine of changed circumstances could render a restriction unenforceable, effectively giving others the power to overturn the restriction.⁵⁵ *Thompson on Real Property* (“*Thompson*”), a leading treatise, continues to cite Judge Clark’s concern that contract remedies may not protect servitudes in gross “unless property interests are directly threatened.”⁵⁶ Still, there are recent American decisions that enforce property restrictions solely on contract theory.⁵⁷

In following the property theory, English courts historically did not allow enforcement of benefits held in gross.⁵⁸ American courts, however, departed from England with the famous 1913 Illinois case of *Van Sant v. Rose*.⁵⁹ In *Van Sant*, the deed provided for construction of a single private house only, not a flat or a tenement.⁶⁰ When the landowner began plans to build an apartment house, the sellers invoked the covenant and sued to enjoin the construction.⁶¹ The landowner argued that the restriction was unenforceable because the sellers did not own other property affected by the breach.⁶² The Illinois Supreme Court held that the right to an injunction did not depend upon whether the covenantee was damaged.⁶³ The Court also held that the sellers’ right did not depend upon owning property in the vicinity.⁶⁴ *Van Sant* is cited for the proposition that benefits held in gross are enforceable.⁶⁵ Judge Clark subsequently argued, “the benefit should be allowed to remain in gross while the burden passes with a servient estate. This is in accord with the American attitude toward

51. *Id.*

52. *Id.* at 174.

53. CLARK, *supra* note 44, at 177.

54. *Id.* at 174.

55. *Id.*

56. 7 THOMPSON ON REAL PROPERTY, THOMAS EDITION 516 (David A. Thomas ed., 1994) [hereinafter THOMPSON] (citing CLARK, *supra* note 44, at 181).

57. See, e.g., *Bagley v. Found. for the Pres. of Historic Georgetown*, 647 A.2d 1110 (D.C. 1994); see also *Sagalyn v. Found. for Historic Pres. of Georgetown*, 691 A.2d 107 (D.C. 1997).

58. See CLARK, *supra* note 44, at 181.

59. *Van Sant v. Rose*, 103 N.E. 194 (Ill. 1913).

60. *Id.* at 195.

61. *Id.*

62. *Id.*

63. *Id.* at 196.

64. *Van Sant*, 103 N.E. at 196.

65. See, e.g., KORNGOLD, *supra* note 18, at 337. *Van Sant* has not been cited in Colorado.

easements in gross and also covenants in gross.”⁶⁶

D. CONSERVATION SERVITUDES UNDER COLORADO COMMON LAW

Consistent with the traditional view of negative easements, in 1953, the Colorado Supreme Court stated, “in construing a building restriction [in a deed], all doubts must be resolved against the restriction and in favor of free and unrestricted use of property.”⁶⁷ However, the Court subsequently commented that, “[t]his rule may or may not today have the sanctity that it has possessed in the past. In any event, it has no application when the language is definite in its terms. One must follow the dictates of plain English.”⁶⁸ Thus, a carefully crafted conservation easement that benefits appurtenant land should be enforceable in Colorado in the same manner as other servitudes.⁶⁹

The enforceability of a common law servitude in gross is an unsettled question in Colorado, as in most states.⁷⁰ A servitude on a water right is enforced, if at all, on a property theory, like other servitudes.⁷¹ While no decisions addressing the enforceability of

66. CLARK, *supra* note 44, at 182 (citations omitted).

67. Flaks v. Wichman, 260 P.2d 737, 739 (Colo. 1953).

68. D.C. Burns Realty & Trust Co. v. Mack, 450 P.2d 75, 76 (Colo. 1969) (citing 20 AM. JUR. EVIDENCE § 897 (1939)).

69. See *infra* note 122.

70. See *infra* note 108.

71. The alternative is that the Colorado Supreme Court would find that restrictions on the use of water are contract rights. There is some authority for this position. In *Thornton v. Schobe*, 243 P. 617 (Colo. 1925), the issue was whether an oral promise restricting the use of land was void under the statute of frauds. The court held that an agreement not to erect certain structures “is not a transfer of an estate or interest therein nor a trust or power over it” and is not subject to the statute of frauds. *Id.* at 618. *But see* *Nelson v. Farr*, 354 P.2d 163 (Colo. 1960). The court was asked to decide whether to extend deed restrictions on the use of land to an adjacent parcel. *Id.* at 165. The parcel at issue was withheld from a plat and annexation deed that restricted the use of the land to unattached single-family dwellings. *Id.* at 164. The court noted the lack of a written instrument and contrary testimony of the subdivider regarding his intent. *Id.* at 165-66. The court held that the restrictive covenants did not apply to the disputed property. *Id.* See also *Smith v. Clifton Sanitation Dist.*, 300 P.2d 548 (Colo. 1956), where the district sought to exercise its power of eminent domain to acquire a tract of land for a sanitary disposal system. On the eve of the condemnation, the owner of the tract entered into a restrictive use agreement with thirty-seven adjacent landowners in an eleven square mile area in an attempt to defeat the district’s plans. *Id.* at 549. The issue was simply whether the covenanters should be permitted to intervene and recover damages because of the district’s condemnation. *Id.* The court opined that the scheme was contrary to public policy and “invalid as against the constitutional and statutory rights of the condemner.” *Id.* In dicta, the court stated the covenant was an attempt to enforce “what in effect are contractual rights.” *Id.* The court characterized the agreement as “in the nature of a negative easement or equitable servitude” that was probably “enforceable in equity as between the parties to the contract.” *Id.* at 550. The Court then stated “[p]arties may not by contract . . . restrict the exercise of the power of eminent domain” (citations omitted). *Id.* This case narrowly holds that, at least under these circumstances, the court will not rule that a condemner pay for mere contract rights. *Clifton* has only, and infrequently, been cited in eminent domain cases, and never by a Colorado court. See, e.g., *Direct Mail Servs., Inc. v. Best*, 729 F.2d 672, 676 (10th Cir. 1984); *Gremillion v. Rapides Parish Sch. Bd.*, 134 So. 2d 700, 702 (La. Ct. App. 1961). Secondary sources treat

servitudes in gross exist in Colorado,⁷² the Courts have a variety of authoritative sources to consult. The most persuasive authority is discussed below.

Colorado courts usually turn to *Thompson*⁷³ when confronted with questions on easements, real covenants, and servitudes.⁷⁴ *Thompson* notes that servitudes in gross present two kinds of problems:⁷⁵ (1) the benefit is held in gross while the burden purportedly binds successors;⁷⁶ and (2) attempts to assign the benefit raise further

Clifton as an eminent domain case. See, e.g., 26 AM. JUR. 2D *Eminent Domain* §§ 4, 19, 175 (1996). Others have similarly characterized *Clifton* as an eminent domain case. See, e.g., Case Note, *Eminent Domain – Compensation for Neighboring Landowners for Taking of Land for Use Inconsistent with Restrictive Covenant for Their Benefit*, 26 FORDHAM L. REV. 130 (1958). *Schobe* and *Clifton* provide the only authority for the proposition that Colorado has adopted the contract approach to the enforcement of servitudes. In contrast, there are numerous Colorado appellate decisions that apply the property theory of the enforcement to servitudes. See, e.g., *infra* note 74. The Colorado Supreme Court, however, has followed principles of contract law in determining whether a deed is ambiguous. *O'Brien v. Village Land Co.*, 794 P.2d 246, 249 (Colo. 1990) (extrinsic evidence conditionally admitted to determine ambiguity). The Court then reaffirmed that approach in the context of a servitude contained in a deed. *Lazy Dog Ranch v. Telluray Ranch Corp.*, 965 P.2d 1229 (Colo. 1998) “[B]oth the O’Brien approach and the Restatement [Third] approach allow a court to consider extrinsic evidence to arrive at the meaning of a servitude’s language.” *Id.* at 1237.

72. *But cf.* Steven M. Hoffman, Note, *Open Space Procurement Under Colorado’s Scenic Easement Law*, 60 U. COLO. L. REV. 383, 395 (1989) (citing Upper Eagle Valley Sanitation Dist. v. Carnie, 634 P.2d 1008 (Colo. Ct. App. 1981)). In *Carnie*, the Court of Appeals upheld the award in a condemnation action for an easement for a previously installed sewer line. The sanitation district argued that it had already acquired an easement. *Id.* at 1009-10. The Court estopped the district from furthering this assertion, but said in dicta that, “where the land is thus already burdened by such an easement when a purchaser acquires title, he takes that land in that condition when he acquires title.” *Id.* at 1009 (citing *Rogers v. Lower Clear Creek Ditch Co.*, 165 P. 248 (Colo. 1917)). The issue in *Rogers*, as in *Carnie*, was the subsequent landowner’s right to compensation for previously existing conditions. *Rogers*, 165 P. at 249.

73. THOMPSON, *supra* note 56.

74. A Westlaw search retrieved fourteen Colorado Supreme Court servitudes cases quoting *Thompson* twice as many as any other source. The search terms were “Thompson /2 Real /1 Property /P Easement Servitude Covenant,” searched Oct. 13, 2001. See, e.g., *Lazy Dog Ranch v. Telluray Ranch Corp.*, 965 P.2d 1229, 1236, 1238 (Colo. 1998); *Salazar v. Terry*, 911 P.2d 1086, 1091-92 (Colo. 1996). Similar Westlaw searches identified seven cases that cited the RESTATEMENT OF PROPERTY (1944) and one that cited the RESTATEMENT (THIRD), *supra* note 43. See discussion *infra* notes 99-105. Only three cases in this series failed to also cite *Thompson*. Three Colorado Supreme Court cases quoted RICHARD ROY BELDEN POWELL, POWELL ON REAL PROPERTY (2000), a majority of which also cited THOMPSON, *supra* note 56. See, e.g., *Thompson v. Whinnery*, 895 P.2d 537, 540 (Colo. 1995); *Isenberg v. Woitchek*, 356 P.2d 904, 907 (Colo. 1960). Similarly, one case cited HERBERT THORNDIKE TIFFANY, THE LAW OF REAL PROPERTY (3d ed. 1995) and THOMPSON, *supra* note 56. *Lazy Dog Ranch*, 965 P.2d at 1238. Two cases cited AMERICAN LAW OF PROPERTY: A TREATISE ON THE LAW OF PROPERTY IN THE UNITED STATES (A. James Casner ed., 1952), one of which also cited THOMPSON, *supra* note 56. See *Upper Harmony Ditch Co. v. Carwin*, 539 P.2d 1282, 1285 (Colo. 1975). The author found no cites to ROGER A. CUNNINGHAM ET AL., THE LAW OF PROPERTY (1993). Decisions of the Colorado Court of Appeals follow a similar pattern. (Search results on file with author.)

75. THOMPSON, *supra* note 56, at 516.

76. *Id.*

questions of enforcement.⁷⁷ Moreover, the creation of a servitude in gross may not meet some formulations of the requirement that a servitude "touch and concern" the property for the burden to run.⁷⁸ Servitudes in gross also may not be enforceable unless they directly threaten property interests.⁷⁹

Thompson reviews the policy reasons against servitudes in gross identified by Professor French,⁸⁰ who served as Reporter for the *Restatement (Third) of Property: Servitudes ("Restatement (Third)")*.⁸¹ One such reason is the enhanced notice provided by an appurtenance requirement when there is not a fully developed recording system.⁸² Professor French observed that effective recording systems, such as exist in the United States, allow for the discovery of a servitude in gross even though the current owner may not be on record.⁸³ Another policy argument against servitudes in gross is that the holder of a benefit in gross may obstruct a landowner seeking relief from an obsolete servitude. Conversely, an appurtenant landowner is likely to benefit from, and agree to, the change.⁸⁴

Thompson also illustrates the advantages of servitudes in gross, particularly for conservation easements.⁸⁵ Without conservation easements in gross, acquisition or retention of anchor parcels would be necessary.⁸⁶ However, *Thompson* recognizes that combining the servitude with additional interests, for example a small benefited anchor parcel,⁸⁷ can finesse the legitimacy of servitudes in gross.⁸⁸ *Thompson* concludes, "guidance may be found in the fact that 'benefits in gross are freely permitted'" by the *Restatement (Third)*.⁸⁹ Thus, Colorado courts following the advice in *Thompson* would uphold a common law conservation easement in gross.

Colorado courts have occasionally followed the *Restatement (First) of Property*⁹⁰ ("*Restatement*") when confronted with questions on

77. *Id.*

78. *Id.*

79. *Id.*

80. Professor of Law, UCLA; A.B. 1964 Stanford University; J.D. 1967, University of Washington.

81. THOMPSON, *supra* note 56, at 516 (citing RESTATEMENT (THIRD), *supra* note 43, § 2.6).

82. *Id.*

83. *Id.* (citing French, *supra* note 10, at 1287 n.142).

84. *Id.* at 516-17 (citing French, *supra* note 10, at 1287).

85. *Id.* at 517 (citing Susan F. French, *Servitudes Reform and the New Restatement of Property: Creation Doctrines and Structural Simplification*, 73 CORNELL L. REV. 928, 945-47 (1988)).

86. RESTATEMENT (THIRD), *supra* note 43, § 2.6 reporter's note (1998).

87. For example, a water right might be tied to the land on which it was historically used to preserve agricultural, wildlife habitat, wetlands, or other water-dependant natural values. One could anchor an instream flow right to a parcel of the streambed or riparian land that realized environmental benefits from the flow, such as an enhanced fishery.

88. THOMPSON, *supra* note 56, at 517.

89. *Id.*

90. RESTATEMENT (FIRST) OF PROP. (1944) [hereinafter RESTATEMENT].

easements.⁹¹ The *Restatement* speaks to the alienability of easements in gross, which are alienable if commercial.⁹² A commercial easement in gross results primarily in economic benefits rather than personal satisfaction.⁹³ Most jurisdictions allow the assignment of an easement in gross if it is created for a commercial purpose.⁹⁴

Noncommercial easements are those in which the use inures primarily to the personal satisfaction of the owner.⁹⁵ One could argue that simply because water rights have a clear economic value, an easement in gross on water should meet the *Restatement* test for alienability. Agricultural land, for example, has greater economic productivity when irrigated. Thus, a conservation easement dedicating a water right to continued agricultural use would be commercial and alienable under the *Restatement*. In contrast, an instream flow held for environmental purposes arguably provides personal satisfaction rather than economic benefit, and thus may not be alienable under the *Restatement*.

The *Restatement (Third)* sheds some further light on the crucial commercial/personal distinction. The *Restatement (Third)* distinguishes between personal and in gross benefits, but the categories are not mutually exclusive.⁹⁶ The enjoyment of personal benefits is limited to the beneficiary and the beneficiary's immediate circle of family and friends.⁹⁷ Benefits in gross "can be enjoyed without regard to the beneficiary's ownership or occupancy of any other interest."⁹⁸ Applying this distinction, if a conservation easement is structured to maintain instream flows, the benefit extends beyond the grantee's immediate circle of family and friends because others enjoy enhanced downstream environmental, recreational and/or aesthetic values. Instream flows may also benefit commercial rafting and guided fishing, resulting in an indirect economic benefit. On balance, a conservation easement on water is easily classified as non-personal, and therefore commercial. Thus, Colorado courts would find that an easement in gross on a water right is alienable under the *Restatement* if they followed the distinction of the *Restatement (Third)*. Moreover, it would be pointless to affirm alienability without also making such an easement enforceable.

Colorado courts also sometimes follow the *Restatement (Third)* with

91. See, e.g., *Salazar v. Terry*, 911 P.2d 1086, 1091 (Colo. 1996); *Thompson v. Whinnery*, 895 P.2d 537, 540-42 (Colo. 1995).

92. RESTATEMENT, *supra* note 90, § 489.

93. *Id.* § 489 cmt. c. Classification as "commercial or noncommercial depends upon whether the element of economic benefit or personal satisfaction predominates." *Id.*

94. Andrew Dana & Michael Ramsey, *Conservation Easements and the Common Law*, 8 STAN. ENVTL. L.J. 2, 14, (1989) (citing French, *supra* note 10, at 1268).

95. RESTATEMENT, *supra* note 90, § 491 cmt. a; see *id.* § 492. In *Westland Nursing Home, Inc. v. Benson*, 517 P.2d 862, 865 (Colo. Ct. App. 1974), the Court of Appeals implied in dicta that a personal easement is not enforceable against a successor.

96. RESTATEMENT (THIRD), *supra* note 43, § 2.6 cmt. c.

97. *Id.*

98. *Id.*

regard to easements.⁹⁹ The *Restatement (Third)* produced a “substantially simplified doctrinal structure that requires only intent and compliance with the Statute of Frauds to create express servitudes and treats all servitudes as valid, except those which are illegal or violate public policy.”¹⁰⁰ The essential point is, “the intent of the parties to create servitude benefits in others should be given effect,” regardless of whether they are appurtenant to a benefited estate or held in gross.¹⁰¹ The *Restatement (Third)* imposes “no limits on the kinds or combinations of servitude benefits that can be created.”¹⁰² It clearly states that one may hold the benefits of negative covenants in gross,¹⁰³ and uses a common law conservation easement to illustrate that point.¹⁰⁴ The *Restatement (Third)* Reporter concludes that governmental bodies should possess the ability to enforce conservation easements in gross imposed for their benefit.¹⁰⁵

While the common law does not resolve all doubts,¹⁰⁶ Colorado courts usually follow the authorities that uniformly support enforcement of negative servitudes in gross, such as conservation easements.¹⁰⁷ Many states, including Colorado, authorize conservation

99. See, e.g., *Lazy Dog Ranch v. Telluray Ranch Corp.*, 965 P.2d 1229, 1235, 1237-38 (Colo. 1998).

100. RESTATEMENT (THIRD) OF PROP.: SERVITUDES (Tentative Draft No. 3, 1993). One possible public policy concern is implicit in the doctrine of maximum utilization of water announced in *Fellhauer v. People*, 447 P.2d 986, 994 (Colo. 1968). See also COLO. REV. STAT. § 37-92-102(1)(a) (2001). The Colorado Supreme Court, however, has only applied the doctrine within the state’s water law, i.e., the appropriation, diversion, and use of water rights. See *Application for Water Rights of Hines Highlands Ltd. P’ship*, 929 P.2d 718, 724 (Colo. 1996); *City of Thornton v. Bijou Irrigation Co.*, 926 P.2d 1, 43 (Colo. 1996); *Bd. of County Comm’rs v. United States*, 891 P.2d 952, 962 (Colo. 1995) (the “can and will” doctrine); *Consol. Home Supply Ditch & Reservoir Co. v. Town of Berthoud*, 896 P.2d 260, 271 (Colo. 1995) (abandonment); *Simpson v. Yale Investments, Inc.*, 886 P.2d 689, 696 (Colo. 1994); *R.J.A., Inc. v. Water Users Ass’n of Dist. No. 6*, 690 P.2d 823 (Colo. 1984); *Colo. River Water Conservation Dist. v. Colo. Water Conservation Bd.*, 594 P.2d 570, 574 (Colo. 1979) (in-stream appropriation without diversion); *A-B Cattle Co. v. United States*, 589 P.2d 57, 69 (Colo. 1978) (reasonable means of diversion); *Kelly Ranch v. Southeastern Colo. Water Conservancy Dist.*, 550 P.2d 297, 304 (Colo. 1976) (plans of augmentation); *Kuiper v. Lundvall*, 529 P.2d 1328, 1331 (Colo. 1974); *Southeastern Colo. Water Conservancy Dist. v. Shelton Farms, Inc.*, 529 P.2d 1321, 1325 (Colo. 1974) (saved water); *Hall v. Kuiper*, 510 P.2d 329, 332 (Colo. 1973) (tributary groundwater).

101. RESTATEMENT (THIRD), *supra* note 43, § 2.6 cmt. b.

102. *Id.* cmt. c.

103. *Id.* cmt. d.

104. *Id.* cmt. d, illus. 2.

105. *Id.* reporter’s note. The Reporter did not comment on enforcement by non-governmental parties.

106. See RESTATEMENT (THIRD), *supra* note 43, § 2.6, reporter’s note.

107. In 1976, Glenn Tiedt advanced a statutory construction argument for conservation easements in gross. He reasoned that statutory references to easements as interests in land and water implied a general recognition of conservation easements as fully enforceable interests in land and water in Colorado, but that this was insufficient for estate and tax planning purposes. Glenn F. Tiedt, *Conservation Easements in Colorado*, 5 COLO. LAW 1265, 1265-66 (1976). For example, the Board of Parks and Recreation was authorized to:

[a]cquire by gift, transfer, lease, purchase, or long-term operating agreement such land and water, or interest in land and water, as the director . . . deems

easements in gross by statute to remove any question about their enforceability.¹⁰⁸

E. CONSERVATION EASEMENTS UNDER THE COLORADO STATUTE

Colorado has enacted a statute specifically authorizing conservation easements in gross.¹⁰⁹ The legislation created a powerful and effective tax and estate planning tool for Colorado landowners.¹¹⁰ Before the legislation was enacted, few people were willing to take the risk that the Internal Revenue Service would disallow a charitable contribution of a conservation easement for federal income tax purposes, or ignore it when valuing property for federal estate taxes.¹¹¹

The Colorado statute provides:

“Conservation easement in gross,” for the purposes of this article, means a right in the owner of the easement to prohibit or require a limitation upon or an obligation to perform acts on or with respect to a land or *water area* or airspace above the land or water owned by the grantor appropriate to the retaining or maintaining of such land, *water*, or airspace, including improvements, predominantly in a natural, scenic, or open condition, or for wildlife habitat, or for agricultural, horticultural, recreational, forest, or other use or condition consistent with the protection of open land having wholesome environmental quality or life-sustaining ecological diversity, or appropriate to the conservation and preservation of buildings, sites, or structures having historical, architectural, or cultural interest or value (emphasis added).¹¹²

The statute expressly authorizes “a limitation upon or an obligation to perform acts on or with respect to a land . . . or water owned by the grantor appropriate to the retaining or maintaining of such land . . . for agricultural, horticultural, recreational, forest, or other use. . . .”¹¹³ The language strongly supports the notion that the statute authorizes limitations or obligations on water rights designed to ensure the continued use of those rights under a conservation easement on land for irrigation or other purposes. The typical language in a conservation easement that requires the grantor to retain water rights necessary for agricultural production¹¹⁴ and to continue irrigation falls

necessary, suitable, or proper for parks or outdoor recreation purposes or for the preservation or conservation of sites, scenes, open space, and vistas of public interest.

COLO. REV. STAT. § 33-30-105(1)(a) (1973). The term “interest in land and water” is defined to include easements. COLO. REV. STAT. § 33-10-107(1)(a) (2001).

108. RESTATEMENT (THIRD), *supra* note 43, § 8.5 cmt. a.

109. Act of May 13, 1976, ch. 153, 1976 Colo. Sess. Laws 750 (codified at COLO. REV. STAT. §§ 38-30.5-101 to 111 (2001)).

110. Tiedt, *supra* note 107, at 1267.

111. *Id.* at 1267.

112. COLO. REV. STAT. § 38-30.5-102 (2001).

113. *Id.*

114. Deed of Conservation Easement (Mesa Ranch) at 4, (appears of record in the office of the Delta County Clerk and Recorder under Reception No. 501406).

within this authority. Whether the statute authorizes limitations or obligations on water rights in any other context is a more difficult issue, that Colorado courts have yet to address.

The definition of "conservation easement in gross" uses the terms "water area" and "water," but does not refer to the term "water right."¹¹⁵ The question thus arises as to whether the statute is independently applicable to water rights. No reported Colorado case on this issue exists.

When construing a statute, the Colorado Supreme Court first looks to its plain language.¹¹⁶ At first blush, the Court would probably conclude that the Colorado General Assembly understood the term "water right" very well, and if the legislature intended to include water rights it would have used that term. It is possible, however, that the Court would find the terms "water area" and "water" ambiguous. If a statute is ambiguous, the Supreme Court considers indicia of legislative intent, such as the "object sought to be attained," the "legislative history," and the "consequences of a particular construction".¹¹⁷

The question of legislative intent is problematic. The legislation began as an open space bill,¹¹⁸ and grew to include the "conservation and preservation of buildings, sites, or structures having historical, architectural or cultural interest or value."¹¹⁹ The legislative goal was apparently limited to validating conservation easements in gross¹²⁰ on open space land and historic structures, since the General Assembly believed appurtenant servitudes were valid under the common law.¹²¹ The express legislative intent provides:

The general assembly finds and declares that it is in the public interest to define conservation easements in gross, since such easements have not been defined by the judiciary. Further, the

115. COLO. REV. STAT. § 38-30.5-102 (2001).

116. *City of Westminster v. Dogan Constr. Co.*, 930 P.2d 585, 590 (Colo. 1997).

117. *Id.* (citing COLO. REV. STAT. § 2-4-203(1)(a), (c), (e) (1980)). The current statute is unchanged. See COLO. REV. STAT. § 2-4-203(1)(a), (c), (e) (2001).

118. *Hearing on S.B. 59 Before the House Judiciary Comm.*, 50th Legis., 2d Reg. Sess. (Colo. Mar. 23, 1976) (statement of Lucius E. Woods, Esq., Holme, Roberts & Owen, drafter of the original legislation for Senator Schieffelin).

119. COLO. HOUSE JOURNAL 857 (Mar. 25, 1976).

120. The legislative view that conservation easements in gross were not valid appears traceable to a widely circulated and discussed article citing the AMERICAN LAW OF PROPERTY. See TRUST DEPARTMENT, THE BANK OF CALIFORNIA (San Francisco, Cal.), *Tax Planning for Everyman's Future: The Conservation Easement*, ESTATE PLANNING STUDIES, 3 (Spring 1972) (citing 2 AMERICAN LAW OF PROPERTY § 8.12 (1952) ("a negative easement is always an appurtenant easement") (attached to Legislative Council, *Staff Summary of Meeting, House Committee on Judiciary* (Mar. 16, 1976))). Notably, the Colorado Supreme Court has rarely relied on the AMERICAN LAW OF PROPERTY, preferring instead other treatises that, in contrast, endorse the enforcement of negative easements in gross. See generally THOMPSON, *supra* note 56.

121. *Hearing on S.B. 59 Before the House Judiciary Comm.*, 50th Legis., 2d Reg. Sess. (Colo. Mar. 23, 1976) (statement of Chairman Jerry Kopel). Rep. Kopel, an attorney, stated that a conservation easement that is appurtenant is permissible under existing case law. *Id.*

general assembly finds and declares that it is in the public interest to determine who may receive such easements and for what purposes such easements may be received.¹²²

The legislature did not discuss conservation easements on water rights not associated with land, although some conflicting and ambiguous expressions regarding water rights in the legislative history do exist.¹²³ The statute, however, expressly provides that “[n]o provision of this article shall be construed to mean that conservation easements in gross were not lawful estates *in land* prior to July 1, 1976.” (emphasis added)¹²⁴ This implies that the statute addressed only land and not other property interests, such as water rights, raising another complication. The legislature was aware of existing conservation easements on historic properties,¹²⁵ and expanded the legislation to cover them.¹²⁶ Surely, the legislature did not intend to simultaneously nullify existing conservation easements on historic property. This conclusion is consistent with other statutory language in the savings clause that “[n]o interest in real property cognizable under the statutes, common law, or custom in effect in [Colorado] prior to July 1, 1976 . . . shall be impaired, invalidated or in any way adversely affected” by enactment of the statute.¹²⁷

Additional confusion stems from language that excludes the transfer or change in a point of diversion of a water right.¹²⁸ This language was added to clarify that the statute did not impair the transfer or change in the point of diversion of a water right.¹²⁹ The amendment implies that the legislature did not want to preclude changes in water rights, whether authorized before or after the passage of the conservation easement statute. It is unclear whether this is a case of extra caution, or a suggestion that the legislature thought the

122. COLO. REV. STAT. § 38-30.5-101 (2001).

123. See, e.g., *Hearing on S.B. 59 Before the Senate State Affairs Comm.*, 50th Legis., 2d Reg. Sess. (Colo. Feb. 4, 1976). The following exchange took place at 10:50:26 a.m.:

Senator Schieffelin (principal sponsor): “I do have a statement here, two documents for your file if you care to look at them. One is the effect of this bill on water rights, which I think one of you, somebody, asked, I don’t know if it was Senator Kinney or Senator Noble, or who, and you can see the last statement on that: ‘In short, S.B. 59 could not be used to lock up the state’s valuable resources.’” (The statement is attributed to Glenn Porzak, a water attorney then practicing with Holme, Roberts & Owen).

Senator Noble (Committee Chairman): “Just one man’s opinion, not sure I agree with it.”

124. COLO. REV. STAT. § 38-30.5-110 (2001).

125. *Hearing on S.B. 59 Before Senate State Affairs Comm.*, 50th Legis., 2d Reg. Sess. (Colo. Feb. 4, 1976) (statement of James Bull, Esq., attorney for Historic Denver). Mr. Bull testified that there were seven historic preservation conservation easements in gross created in Denver in the preceding three years. *Id.*

126. COLO. REV. STAT. § 38-30.5-104(4) (2001).

127. *Id.* § 38-30.5-110.

128. “[N]or any transfer of a water right or any change of a point of diversion at any time. . .” *Id.* § 38-30.5-110.

129. *Debate on S.B. 59 in the Senate*, 50th Legis., 2d Reg. Sess. (Colo. Mar. 8, 1976) (statement of Senator Fred Anderson).

bill encompassed water rights. In this context, the former is more likely.

Absent a clear expression of legislative intent,¹³⁰ the consequences of a particular construction become especially important. Most Colorado attorneys practicing in the area of conservation easements believe that Colorado's statute covers water rights used on land covered by a statutory conservation easement.¹³¹ There are probably \$50 million worth of water rights included in such easements in the state.¹³² The Internal Revenue Service recognizes these encumbrances,¹³³ as does the State of Colorado.¹³⁴ IRS recognition is crucial, since income and inheritance tax benefits provide the financial incentive to donate conservation easements. An additional incentive, the Colorado income tax credit, became available on January 1, 2000.¹³⁵ Few donors would create conservation easements without such monetary benefits. In order to meet deduction requirements prescribed by the Internal Revenue Code, it may be necessary to include the valuation of water rights in a conservation easement on land.¹³⁶ For example, irrigated land without water rights is essentially dry land, and thus entitled to a deduction only for the lesser value of dry land.

Another aspect producing conflicting interpretations of the issue at hand is the effect of the Colorado statute on common law conservation easements. Some believe that while "it may have been possible to create valid conservation easements under the common law prior to enactment of article 30.5, Colorado's conservation easement

130. Although not admissible in court, the bill's sponsor, (former) Senator Joe Schieffelin, and the legislature's reigning water expert at the time and bill co-sponsor, (former) Senate President Fred Anderson, told the author that there was no intention to allow conservation easements on water alone and that was the reason for using indefinite terms. Telephone Interview with (former) Senator Joe Schieffelin and (former) Senate President Fred Anderson (Sept. 19, 1999).

131. Interview with David L. Kuosman, Esq., Conservation Practice Group, Isaacson, Rosenbaum, Woods & Levy, P.C., Denver, Colo. (Jan. 4, 2000). Denver University Law Professor Federico Cheever has identified this firm as Colorado's preeminent land trust firm. Cheever, *supra* note 44, at 1077; *see also* letter from William M. Silberstein, Esq., Chair, Conservation Practice Group, Isaacson, Rosenbaum, Woods & Levy, P.C., to Robert F. Wigington, Esq., The Nature Conservancy (Sept. 19, 1990) (on file with author).

132. Telephone Interview with William M. Silberstein, Esq., Chair, Conservation Practice Group, Isaacson, Rosenbaum, Woods & Levy, P.C. (Oct. 12, 2001). The total value of the water exceeds \$50 million if just 10 percent of the land in Colorado covered by a conservation easement is irrigated, assuming an average water value of \$500 per acre-foot and the statewide average delivery of 3.46 acre-feet per acre. For acres under easement, *see* Land Trust Alliance, *Summary Data from the National Land Trust*, http://lta.org/newsroom/census_summary_data.htm (posted Sept. 12, 2001). For water deliveries *see* COLORADO DIVISION OF WATER RESOURCES, CUMULATIVE YEARLY STATISTICS OF THE COLORADO DIVISION OF WATER RESOURCES (2000).

133. *See, e.g.*, *Strasburg v. Comm'r*, 79 T.C.M. (CCH) 1697, 1699 (2000).

134. COLO. REV. STAT. § 39-22-522(2) (2001).

135. *See* Patricia Templar Dow, *The Unique Benefits of Conservation Easements in Colorado*, 30 COLO. LAW. 49, 50-1 (Dec. 2001) (citing COLO. REV. STAT. § 39-22-522(2) (2001)).

136. Telephone Interview with Silberstein, *supra* note 132.

law now seems to preclude this option.¹³⁷ However, the statutory language is susceptible to another analytic approach. Servitudes coming within the statutory definition of "conservation easement in gross"¹³⁸ are valid only if created in conformance with statutory requirements;¹³⁹ common law governs those servitudes not within the statutory definition. This interpretation is consistent with the legislature's decision to address only conservation easements in gross and not appurtenant servitudes, which are presumptively valid under common law.¹⁴⁰

As discussed above, landowners may create enforceable limitations and obligations on water rights used to maintain land for agricultural or other recognized uses.¹⁴¹ A statutory conservation easement is perpetual unless the instrument creating it states otherwise.¹⁴² A conservation easement on water rights not granted by the owners of the land to which the water rights are appurtenant, apparently is impermissible under the statute because such easements "may only be created by the record owners of the surface of the land."¹⁴³ Thus, such easements must take their chances under the common law.

Due to the number of conservation easements in existence and tax benefits received, calamitous consequences for donors and their attorneys would follow a Supreme Court decision excluding water rights from conservation easements on land. Thus, it is unlikely the Supreme Court would jeopardize existing conservation easements on water rights associated with land. To avoid that result, the Court could narrowly hold the statute to cover water rights contained in a conservation easement on land where the grantor of the easement owns the water rights, (which is common), and the easement simply seeks continued historic use of the water rights on that land.

F. THE ACTUAL USE OF EASEMENTS ON WATER IN COLORADO

Conservation easements in Colorado routinely include provisions restricting the use of water rights on land included in a conservation easement.¹⁴⁴ Groups such as Great Outdoors Colorado, the Colorado

137. Hoffman, *supra* note 72, at 386 (citation omitted).

138. COLO. REV. STAT. § 38-30.5-102 (2001).

139. *Id.* § 38-30.5-104.

140. *Hearing on S.B. 59 Before the House Judiciary Comm.*, 50th Legis., 2d Reg. Sess. (Colo. Mar. 23, 1976) (statement of Chairman Jerry Kopel). Rep. Kopel, an attorney, stated that an appurtenant conservation easement was permissible under existing case law. *Id.*

141. See discussion *supra* note 113.

142. COLO. REV. STAT. § 38-30.5-103(3) (2001).

143. *Id.* § 38-30.5-104(1).

144. Interview with Kuosman, *supra* note 131. In a recent example, the Three Rivers Land Trust received a conservation easement covering a ranch in Delta County. The deed also contains a provision explicitly providing that the grantors shall retain and reserve the water rights to maintain agricultural production and shall not transfer, encumber, lease, sell or otherwise separate the water rights from the ranch property. See Deed of Conservation Easement (Mesa Ranch) 4 (appears of record in the office of the Delta County Clerk and Recorder under Reception No. 501406). The language in

Cattlemen's Agricultural Land Trust, the Yampa Valley Land Trust, and The Nature Conservancy, among others, use form conservation easements that include water rights.¹⁴⁵

There is one particularly notorious example of a "covenant" effectively restricting future development of conditional water rights associated with a donation to the Colorado Water Conservation Board ("CWCB"). Only water rights were involved in the transaction; no land was included. In 1987, the Pittsburgh & Midway Coal and Mining Company ("P&M") donated certain conditional water rights on the Gunnison River to The Nature Conservancy ("TNC"), who subsequently donated the same to the CWCB. However, P&M did not donate all of their Gunnison River conditional rights to TNC. P&M also entered into a covenant with TNC not to develop any of its retained water rights over a thirteen-mile stretch of the Gunnison River,¹⁴⁶ which was proposed for federal designation as a Wild and Scenic River. The agreement between P&M and TNC appears to meet all legal requirements of either an enforceable real covenant or an equitable servitude,¹⁴⁷ except that the benefit is in gross. The agreement looks like a negative easement, that is, an equitable servitude in gross, thus its enforceability under the common law is not clear.¹⁴⁸ A creative alternate analysis is that the restricted water rights

this deed closely tracks the sample conservation easement in Krendl's Colorado practice manual. *See* 2 COLORADO PRACTICE, METHODS OF PRACTICE 314 (4th ed. 1998). These examples, of course, are servitudes that are appurtenant to land and not held in gross, thus avoiding questions of enforceability.

145. Interview with Kuosman, *supra* note 131.

146. AGREEMENT FOR DONATION AND COVENANT OF WATER RIGHTS: BETWEEN PITTSBURGH & MIDWAY COAL MINING CO. AND THE NATURE CONSERVANCY 7 (Dec. 31, 1987) (appears of record in the office of the Delta County Clerk and Recorder under Reception No. 546353).

147. The agreement is written and therefore complies with the statute of frauds. *See id.* The covenant touches and concerns the water rights because it prevents their physical diversion or impoundment in the specified reach of the Gunnison River. *Id.* at 7. The parties were in privity. The covenant was recorded; recording gives notice to successors and assigns. *Id.* at 11. Both parties intended to bind their successors and assigns. *Id.* at 10. However, another provision states that the covenant is "for the benefit of TNC [The Nature Conservancy] only." *Id.* at 7. This provision might not have allowed a successor to TNC's interest to enforce the covenant, although it would still be enforceable by TNC. Memorandum from Robert Wigington, Esq., Attorney, The Nature Conservancy, to Michael Dennis, The Nature Conservancy (Aug. 29, 1986) (on file with author). The covenant was later amended and re-conveyed to clarify that P&M intended it to run to TNC's successor, the CWCB. (TNC subsequently conveyed the covenant with the water rights to the CWCB). E-mail from Robert Wigington, Esq., Attorney, The Nature Conservancy (June 23, 2001) (on file with author).

148. There are other significant legal problems with a covenant restricting future development of a conditional water right. A threshold issue is whether a conditional water right restricted by a covenant against development "can and will" be perfected. Where "circumstances regarding the continuing intent and capability to put the water to beneficial use under the decreed appropriation may change, [a]ll or part of the conditional water right may not survive." *Dallas Creek Water Co. v. Huey*, 933 P.2d 27, 42 (Colo. 1997). The restriction probably changes the original intent of the appropriation and would kill the right if the restriction clearly frustrated the original intent and the right could not be changed to another use that complied with the restriction. Another issue is whether a covenant not to develop a conditional water

are appurtenant to the water rights donated to TNC.¹⁴⁹

In another transaction, the city of Boulder entered into an "equitable servitude" on Barker Meadow Reservoir with Public Service Company of Colorado to share the use of the reservoir and transmission facilities.¹⁵⁰ The servitude covered a water storage right and associated transmission facilities.¹⁵¹ In addition to using the reservoir's storage capacity, the company retained the right to take stored water owned by the city in an emergency.¹⁵² The agreement between Boulder and Public Service Company meets the legal requirements of an equitable servitude, but not a real covenant because privity did not exist.¹⁵³ The agreement is appurtenant because both parties have benefited property. Thus, it is not strictly analogous to the classic form of a conservation easement in gross.

III. RECOMMENDATIONS FOR USING CONSERVATION EASEMENTS ON WATER IN COLORADO

It is eminently possible to structure some conservation easements mandating particular water rights uses as affirmative obligations as well as negative restrictions. For example, a servitude tying water rights to the land and requiring the continuation of their historic agricultural use implies an affirmative obligation to maintain the means of diversion and the place of water use. Similarly, a servitude obligating the use of a water right to maintain a wetland, or other water-dependent natural area, benefits appurtenant land.

Where the only resulting beneficial use is purely instream, the conservation benefit and water right will lack security unless the grantor or grantee negotiates with the CWCB to obtain a water court

right implies that the appropriator does not have a use for the water. If so, the water right could violate Colorado's anti-speculation doctrine. See *Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co.*, 594 P.2d 566, 568 (Colo. 1979). The court extended the anti-speculation doctrine to hexennial diligence proceedings in *Municipal Subdistrict, N. Colo. Water Conservancy Dist. v. Oxy USA, Inc.*, 990 P.2d 701, 709 (Colo. 1999). Invalidating the right would have the same effect as the covenant from the beneficiary's perspective; it would prevent development of the conditional water right. The IRS might deny a charitable deduction on the ground that the restriction abandons the water right, and thus there was no value to donate. While an attractive argument to the IRS, it is specious; a water right exists until a court declares it abandoned. For illustration, a building that burns down after donation had value at the time of its bequest. Similarly, a water right is capable of donation and has value until declared abandoned.

149. Memorandum from Wigington, *supra* note 147, at 2.

150. AGREEMENT BETWEEN PUBLIC SERVICE COMPANY OF COLORADO AND CITY OF BOULDER 7-9 (May 7, 1984) (on file with author). The city of Boulder purchased the reservoir in 2001, thus the servitude is no longer in force.

151. *Id.* at 6.

152. *Id.* at 9-10.

153. The agreement is written and therefore complies with the statute of frauds. See *id.* Both parties intended to bind their successors and assigns. *Id.* at 28. The covenant touches and concerns the water rights because it prescribes the conditions of their use by both parties. *Id.* at 8-12. The covenant was recorded giving notice to successors and assigns. *Id.* at 30.

decree changing the water right to instream use.¹⁵⁴ Clearly, a servitude calling for the release of stored water for instream purposes is an affirmative obligation. It is also possible to structure a restriction on the release of stored water as an affirmative obligation to maintain a littoral level. To the extent any of these instream flow strategies comprise positive obligations, the common law's avoidance of negative servitudes in gross is circumvented. Structuring a servitude as an affirmative obligation should improve its probability of surviving judicial scrutiny.

All of the approaches using servitudes to maintain irrigation, wetlands and riparian areas, and to increase instream flows can also benefit appurtenant property.¹⁵⁵ For example, water used to irrigate agricultural land, and to maintain wetlands and other water-dependent natural areas benefits appurtenant land. Analogously, water decreed and released or held by the CWCB for instream use benefits riparian land. The servitude for an instream flow could be attached to a riparian and benefited anchor parcel, including one acquired for this purpose. On public lands, a servitude could benefit adjacent federal land under the care of the Forest Service,¹⁵⁶ or the Bureau of Land Management. The use of a benefited anchor parcel avoids the common law problems associated with servitudes in gross.¹⁵⁷

Taken together, these two strategies—creating affirmative obligations and benefiting appurtenant land—provide an approach that avoids the few legal uncertainties surrounding conservation easements on water rights. In order to maximize the enforceability of the servitude against successors in interest (to control the use of water in perpetuity), it is prudent to adopt both proposed strategies.

IV. CONCLUSION

Because the typical conservation easement in gross on irrigated agricultural or open space land does not follow the recommended approach, it is time to revise this practice. Many members of the water and land trust organizations recognize the problem and are working to address it.

University of Denver Law Professor Federico Cheever argues “[t]he limited, novel, and statutory nature of conservation easements suggests that any purported conservation restriction that fails to meet the

154. Absent such a decree, the water right would be subject to abandonment for failure to divert it for its decreed beneficial use. Thus, a water right holder desiring to convert a water right to instream flow must work with the CWCB to obtain a change of water right to such a purpose.

155. *See id.*, regarding other legal requirements to secure the conservation benefit and water right.

156. This appears to be the situation in a conservation servitude granted by the city of Fort Collins to the Forest Service on Joe Wright Creek. E-mail from Kelly Custer, Esq., Attorney, Western Water Project, Trout Unlimited, to author (Oct. 17, 2001).

157. To secure an instream flow right also requires a water court decree for instream flow purposes. The CWCB has exclusive statutory authority to hold instream flows. *See supra* note 1.

requirements of the state statute that authorizes it is invalid, supported by neither legislative action nor common law tradition."¹⁵⁸ While a well-crafted conservation easement should stand up under Colorado common law, Professor Cheever's admonition suggests a safer course of action. Assuming the Colorado General Assembly can be convinced, legislative clarification of the state's conservation easement statute on water rights is the most direct approach to resolving the issue regarding the enforcement of conservation easements on water.

158. Cheever, *supra* note 44, at 1096.

“HERE IS A LAND WHERE LIFE IS WRITTEN IN WATER”¹: RE-WRITING WESTERN WATER LAW IN THE 21ST CENTURY

JEFFREY J. CLAYTON[†]

I.	Introduction.....	526
II.	The Role of Government in Western Water Law.....	527
	A. Historical Overview.....	527
	B. Market Structure and the Goals of Water Law.....	530
III.	Problems with the Present System	532
	A. Bureaucratic Supply	532
	B. Water Right Uncertainty	533
	C. High Transaction Costs, Uncertainty: Third-Party Effects	535
	D. Critique of Value Integration.....	537
IV.	The Transition to a Market System: Solutions	539
	A. Defining Consumptive Use	539
	B. Allow Diversion Improvements.....	540
	C. Water Auctions.....	541
	D. The Governments Must Get Out of the Water Business....	542
V.	Conclusion.....	543

There must come a time when water must be apportioned with justice to all, and a century or more hence we will have it distributed not upon priority rights, but upon technical rights. We cannot have a farmer getting more water than he is entitled to, because his great-grandfather or somebody else happened to secure the water right two months ahead of somebody else. Water must ultimately be conserved in the most just manner for the general welfare of all citizens.²

—Frederick Haynes Newell, first Director of United States Reclamation Service, 1902³

1. The quotation of the language in the Colorado Capitol building was first utilized by another research work. See Ernest T. Smerdon, *Water Conservation in Irrigated Agriculture*, in *THE ROLE OF SOCIAL AND BEHAVIORAL SCIENCES IN WATER RESOURCES PLANNING AND MANAGEMENT* 160, 163 (Duane D. Baumann & Yacov Y. Haimes eds., 1988).

[†] B.B.A., Baylor University, Texas (1997), M.S., Public Policy Analysis, University of Rochester, New York (1999), J.D. Candidate, University of Denver, Colorado (2003).

2. See DONALD J. PISANI, *WATER, LAND, AND LAW IN THE WEST: THE LIMITS OF PUBLIC POLICY, 1850-1920*, at 23 (1996).

3. *Id.*

I. INTRODUCTION

A century ago, Frederick Newell believed the prior appropriation system was in need of change. He suggested conservation of water in the most just manner for the welfare of all citizens.⁴ More than a century later, water lawyers and policy analysts sit on the precipice of a new era, one where conservation in the most just manner no longer includes increasing available water supply by building large water storage projects. As other micro-economies illustrate, the most just manner for the distribution of resources is for users of a resource to bear the social cost of increasing use, or the marginal social cost. The goals of water law and policy—that all citizens have access to water—have not changed in this new era. What has changed is the notion that humanity's dominance over earth perpetuates an inexhaustible flow of cheap natural resources.

The title of this analysis, borrowed from the Colorado Capitol's rotunda, most aptly reflects water law's significance in the West.⁵ The rotunda wall reads: "here is a land where life is written in water." This analysis suggests that the conditions present in the West at the founding of the prior appropriation system are different from those humankind faces today. As such, the assumptions underpinning the prior appropriation system have changed, while the law has essentially stagnated. The result is an antiquated system, guarded more with historical reverence than any argument beyond the protection of owners' expectations. This analysis, therefore, suggests updating the prior appropriation doctrine to allow for an economy better able to achieve Pareto optimality, "a state in which no reallocation of resources can make anyone better off without making at least one other person worse off."⁶

Traditional legal analyses typically proceed by defining the present system and identifying gray areas where creativity could advance a client's interest. Here, I refer to this concept as the "is" of water law. Robert E. Beck writes, "too much legal research merely explains the law as it is, identifies ambiguities and gaps, and suggests solutions based on some theoretical construct not necessarily related in any way to reality."⁷ This analysis agrees with Professor Beck. It begins with a detailed discussion of what water law "is" as a starting place to introduce economic principles that show how people behave in the face of legal restrictions or legal rights. That there are gaps in the legal analysis of this article is a criticism of the present system: the transaction costs created by an elite group (lawyers) force a new

4. *Id.*

5. See Smerdon, *supra* note 1, at 163.

6. RUBEN P. MENDEZ, INTERNATIONAL PUBLIC FINANCE: A NEW PERSPECTIVE ON GLOBAL RELATIONS 13 (1992).

7. Robert E. Beck, *Assessment of the Role of the Social Sciences in Water Planning and Management: Legal Systems and Their Impediments to Change*, in THE ROLE OF SOCIAL AND BEHAVIORAL SCIENCES IN WATER RESOURCES PLANNING AND MANAGEMENT 238, 244 (Duane D. Baumann & Yacov Y. Haimas eds., 1988).

generation of water lawyers to spend a lifetime intellectually wrangling with the “is” instead of becoming forces for change.

This analysis takes the perspective of what “ought” to occur. What principles underpin the codification of legal systems? How can micro-economic principles aid in understanding how individuals will behave in a new system of water law? How might the law be changed to reduce the amount of water wasted? The answer to these and other questions raised in this article are not based on the exposition of the status quo to minds that crave “understanding.” Rather, the answers to these questions are discovered by venturing beyond the last tick of the clock.

This analysis is divided into three sections. The first section explores the role of governments, particularly state governments, in western water law. It begins with a brief historical look at government involvement and the development of the prior appropriation system. It then examines the structure of water markets and government involvement in water allocation from a micro-economic perspective. Section two, “Problems with the Present System,” covers bureaucratic supply issues, water rights uncertainty, high-transaction costs, and offers a brief critique of “value integration” (building public interest criteria into the present system). Section three suggests some solutions to the problems identified in section two. Specifically, section three considers a water auction system, allowing users to perfect water rights through conservation, and the need for state systems to precisely define the rights to be transferred in terms of measurement.

Changing an entrenched system of property law is a daunting task. Therefore, I encourage readers to “dream” of what “could be.” Law is merely a system of words that tries to contemplate and replicate human experiences. When it fails to change with the times, the times must change it.

II. THE ROLE OF GOVERNMENT IN WESTERN WATER LAW

A. HISTORICAL OVERVIEW

Western water allocation began long before European settlement of the West.⁸ Spanish settlers and Native Americans populated the western states and founded systems of water law long before settlement from the eastern United States began.⁹ This section examines some of the historical aspects of water law in the western United States with respect to the founding of the prior appropriation system. This historical overview does not purport to be exhaustive, but rather is a starting place to examine some fundamental assumptions of the prior appropriation system and the governmental regimes that implement

8. See NORRIS HUNDLEY, JR., *THE GREAT THIRST: CALIFORNIANS AND WATER*, A HISTORY 4 (rev. ed. 2001).

9. See *id.*

and support the system.

During the nineteenth century the federal government supported settlement of the West as a means to bring stability to the region. Under the spirit of manifest destiny, and in what is often referred to as the largest wealth transfer in the history of the world, the federal government literally gave land to anyone willing to move west and work the land.¹⁰ Also, the mining booms of the mid- to late nineteenth century brought many to the West from the eastern United States.

The new settlers soon realized the West was particularly arid. The availability of water was critical to the miners—considered the architects of the prior appropriation system by many—and to farmers.¹¹ What was also apparent was the individualism of the settlers and the fear of water speculation from large corporate conglomerates. A rule of capture regarding water began to emerge. Therefore, one who diverted water and put it to a beneficial use acquired a “use” right.¹²

Many commentators seem to ignore the assumptions regarding the role of government when explaining the history of the West. Most western state constitutions plainly suggest that the water resources within the state’s borders belong to the people of the state and are therefore publicly held.¹³ That private property rights exist is simply an incomplete view of water law in the West. The institutional evolution of state and federal support for the prior appropriation system is a critical component in the operation of the system.

The progressive era of the late nineteenth and early twentieth century appears to be the most important philosophical movement in the history of western water law. The progressives of a century ago attempted to accomplish their goals via “the transformation of a decentralized, nontechnical, loosely organized society, where waste and inefficiency ran rampant, into a highly organized, technical, and centrally planned and directed social organization which could meet a complex world with efficiency and purpose.”¹⁴ Water management policy consisted of state funded reclamation projects. Hiram H.

10. The Desert Lands Act of 1877, ch. 107, 19 Stat. 377.

11. A. DAN TARLOCK ET AL., *WATER RESOURCE MANAGEMENT* 150 (4th ed. 1993).

12. *See id.* at 151-54.

13. *See generally* CAL. CONST. art. X, § 5 (“The use of all water now appropriated, for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the State, in the manner to be prescribed by law.”); COLO. CONST. art. XVI, § 5 (“The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.”); MONT. CONST. art. IX, § 3, cl. 3 (“All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.”); WYO. CONST. art. I, § 31 (“Water being essential to industrial prosperity, of limited amount, and easy of diversion from its natural channels, its control must be in the state, which, in providing for its use, shall equally guard all the various interests involved.”).

14. SAMUEL P. HAYS, *CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920*, at 265 (1959).

Chittenden, an engineer for the U.S. Army Corps of Engineers, in an 1897 report to Congress, argued "only 'through the agency of the General Government' would it be 'possible to secure the best development'."¹⁵ It was a common belief that the government's purpose was to develop and manage water resources in the interest of the public.¹⁶ The progressives believed the involvement of the government, particularly the federal government, was critical to the development of water resources.

While the federal government's role in subsidizing water development projects has largely waned, the assumptions regarding the proper role of governments in water management persist. State and local government institutions continue to manage and own water rights and distribution networks in the western United States.¹⁷ The settlement of the West achieved marks that the architects of manifest destiny probably could not have foreseen. Nearly all of the water in the West is appropriated. This raises new questions regarding the future evolution of western water law.

State institutions "originally evolved to support new appropriations of water and to protect those appropriations once achieved."¹⁸ Now, the same institutions created for the purpose of administering the prior appropriation system are facing new institutional demands, namely transferring water rights while continuing to protect vested water use rights. Whether these institutions are properly equipped to handle the transfer of water rights is a central component of this analysis. Evaluating potential changes in the law, must therefore include the notion that change must consider state and local administration of the process.

State involvement in water use and management extends beyond the administration of the prior appropriation system. One commentator suggests governmental water delivery organizations provide "a vertical chain of services, including water supply, sewerage services, and sewage and effluent treatment and disposal, as well as provision of the local pipeline networks."¹⁹ Most commentators believe local water districts' costs, including "expenses for local networks of pipes and sewers, a major capital expenditure, [are] an inseparable cost of the water supply."²⁰ It is also argued that since a "district's water supply is viewed as common property, no one can claim a legal or even expectational right to a specific share of the proceeds."²¹ The

15. HUNDLEY, *supra* note 8, at 117.

16. *Id.* at 117-18.

17. Liza Grandia, *Public Water Systems Need Commitment*, ATLANTA J. & CONST., Feb. 4, 2002, at 12A.

18. Lee Brown et al., *Water Reallocation, Market Proficiency, and Conflicting Social Values*, in WATER AND AGRICULTURE IN THE WESTERN U.S.: CONSERVATION, REALLOCATION, AND MARKETS 193 (Gary D. Weatherford ed., 1982).

19. NICOLAS SPULBER & ASGHAR SABBAGHI, *ECONOMICS OF WATER RESOURCES: FROM REGULATION TO PRIVATIZATION* 209 (2d ed. 1998).

20. *Id.* at 208.

21. Barton H. Thompson, Jr., *Institutional Perspectives on Water Policy and Markets*, 81

assumptions about the government's role in water delivery after appropriation are critical to the proper functioning of a market for water resources.

Thus, the history of the government's role in western water law reveals two key assumptions: (1) state institutions are deemed necessary to the functioning and capable administration of the prior appropriation system in an age of full appropriation; and (2) governmental water districts are the appropriate institutions to control the delivery of the water supply. Both of these assumptions receive thorough examination in this analysis.

B. MARKET STRUCTURE AND THE GOALS OF WATER LAW

This analysis discards the status quo of water law and instead considers new methods for water allocation. The idea is to create a system more responsive to the social opportunity cost of water use. Because the law enunciates general human assumption, it is critical to start from the assumptions of the "ought" of the law. While economists appear to use a scientific method of study, this analysis assumes economics is really the study of human behavior. Studying the manner in which individuals respond to incentives allows economists to structure economies that maximize social efficiency. To that end, this section rests on scholarly literature to define the principles of an effective system of water law.

The first assumption future water law ought to consider is the government's role in defining property rights. Property is commonly viewed as a bundle of sticks, each stick being a right associated with property.²² Rights restrict individuals' and institutions' behavior. From a behavioral-economic viewpoint, the purpose of government is to define precisely the quantity of water a holder is entitled to use. Diversion, return flow, and other aspects of water use may complicate a water law scholar's definition.

The second assumption is that the transfer of well-defined property rights ought to proceed with a minimum of transaction costs. "The goal for policymakers interested in promoting water markets should be to eliminate the obstacles that institutions pose to long-distance transfers while encouraging institutions to continue to play a role in the promotion and facilitation of water markets."²³ The idea is that "[t]he transaction costs for negotiation and execution of a sale should be no greater than for an ordinary sale of a parcel of real property."²⁴ Some transaction costs come from the difficulty in defining a water right. This second assumption rests more squarely on the costs of the externalities involved in water transfers, such as third party rights and ecological concerns.

CAL. L. REV. 671, 732 (1993).

22. *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979).

23. Thompson, *supra* note 21, at 701.

24. Stephen F. Williams, *The Requirement of Beneficial Use as a Cause of Waste in Water Resource Development*, 23 NAT. RESOURCES J. 7, 15 (1983).

A new system should take into account externalities that may not be part of the private cost. Through administrative proceedings, the present system protects third parties, the environment, and waste. "A social measure of value, however, also takes into account impacts on parties affected by the transaction who were not part of the price negotiation process."²⁵ The current system protects others whom a right transfer may damage. Theoretically, state policy should find an optimal balance between "unrestricted markets which can result in high third party costs and market restrictions which reduce third party impacts. . ."²⁶ In short, prices in a water market ought to reflect the social value of water, and therefore, state policies ought to facilitate incorporating external costs and benefits into the price of water resources.

Third, the legal alteration of appropriation mechanisms is simply not enough to facilitate the transition to a market system where users face the marginal social cost of water use. The government must divest itself of ownership and delivery of water systems and resources. The government does not have the proper day-to-day financial incentives to effectively manage delivery. Economic literature includes many examples of ineffective delivery of services by bureaucratic agencies, which have no more than a modicum of political incentive to deliver services efficiently. One commentator remarked:

The fundamental problem with public ownership—government intervention in developing and managing water resources and supply-oriented policies—has been that government never has been able to establish effective incentives for relevant agencies and customers alike in order to globally optimize production and distribution of water services and place a value on these services representing opportunity cost.²⁷

Angus Duncan elaborated by describing governmental involvement: "[b]oth the benefits to human communities and the costs to other biota are products of conscious government policies to encourage development that relies on direct and indirect subsidies and public investments."²⁸ A system which is founded on the premise that governments ought to be involved in the delivery of water resources may be the antithesis of potential Pareto optimality.

These goals theorize the purpose of the government in the area of water law. Simply put, the governmental role in maximizing efficiency is to define property rights, facilitate and remove barriers to the exchange of property, divest itself of operating like a private firm in

25. Bonnie Colby Saliba et al., *Do Water Market Prices Appropriately Measure Water Values?*, 27 NAT. RESOURCES J. 617, 620-21 (1987).

26. Bonnie G. Colby, *Economic Impacts of Water Law—State Law and Water Market Development in the Southwest*, 28 NAT. RESOURCES J. 721, 749 (1988).

27. SPULBER & SABBAGHI, *supra* note 19, at 192.

28. Angus Duncan, *Of Time and the River*, 16 F. FOR APPLIED RES. AND PUB. POL'Y 88, 91 (2001).

the market-place, and internalize externalities into the market for water rights. These goals will underpin the remainder of this analysis. The most fertile ground for change lies where goals derived from the assumptions of the present system conflict.

III. PROBLEMS WITH THE PRESENT SYSTEM

A. BUREAUCRATIC SUPPLY

Government agencies deliver water to residential users.²⁹ Those agencies and operations that should continue in water delivery include city water boards, water districts, and operations involving large out-of-basin water transfers. The present system cannot guarantee water use efficiency because institutions lack the economic incentives found in the private sector. This section examines the incentive problems drowning bureaucratic water supply organizations.

Discretionary budgets provide an example of why bureaucratic supply is inefficient. Agencies typically have a budget allocation, which relies on executive discretion.³⁰ One can assume that economic efficiency would encourage executives to produce at minimum cost with the intent to return the discretionary budget to their sponsors.³¹ Despite this goal, bureaucratic supply agencies seldom neglect to spend their budgets.³² This example demonstrates how agencies delivering water services do not face the same economic pressure as private, corporate-owned agencies.

Second, bureaucratic agencies do not face competition in the delivery of water services. In a competitive market, those firms that fail to use their resources most efficiently are squeezed out of the market by firms that do.³³ The lack of competition creates a negative economic result. The profit motive on the other hand, provides strong incentive for private firms to research and develop technological innovation in water delivery, an incentive public agencies do not face.³⁴

Third, bureaucratic agencies cannot value the benefits of new technologies. A private firm can value the addition of new technology via the addition to the bottom line. In a public firm, however, since there is no profit from the sale of resources, there is no way to decide whether new technologies will decrease or increase costs. Though public firms may look at similar agencies in other jurisdictions, they still must deal with valuation problems in order to determine whether

29. Grandia, *supra* note 17, at 12A.

30. DAVID L. WEIMER & AIDAN R. VINING, *POLICY ANALYSIS: CONCEPTS AND PRACTICE* 184-85 (3d. ed. 1999).

31. *Id.* at 185.

32. *Id.*

33. *Id.* at 186.

34. *Id.* at 187.

new technologies have actually proven beneficial elsewhere.³⁵

Finally, the inflexibility in civil service protections renders bureaucratic agencies unresponsive to consumers.³⁶ The problem is that human resource procedures within bureaucratic agencies ensure continuity and insulation from political pressure and therefore inhibit releasing employees that are performing inefficiently in an economic sense. This problem is further complicated by fixed pay schedules that drive the overqualified to leave the agency and those under-qualified to remain.³⁷ Private firms have more control over their human resources policy and therefore avoid that problem.³⁸ Thus the separation of politics and administration arguably limits public agencies' ability to effectively serve consumers.³⁹

These bureaucratic supply problems serve as an impetus for privatization of water delivery to secure potential Pareto optimality. One cannot ignore the role of institutions in the transition to a market system because water institutions are not strictly economic entities representing the pooled interests of their constituents.⁴⁰ That a market system could be successful without solving the problems of bureaucratic supply is much ignored in the literature on the reform of western water law and is critical to the transition to a water market system. The issue is not the inclusion of institutions in the solution, but rather reformation of the water delivery system to exclude government market participation as part of a comprehensive privatization and reform process.

B. WATER RIGHT UNCERTAINTY

A water right is a right to use a certain amount of water.⁴¹ Several requirements inherent in the prior appropriation system hinder the definition of rights. Among these requirements are: a diversion,⁴² the prohibition of waste,⁴³ and application to beneficial use.⁴⁴ "In order for market participants to estimate the value of a water right they must be able to form expectations about the benefits associated with owning the right and the degree to which the right is protected from impairment by others."⁴⁵ Uncertainty of rights dissuades individuals to pay for that right when it is unclear what legal implications and

35. WEIMER & VINING, *supra* note 30, at 187.

36. *Id.* at 187-88.

37. *Id.* at 188.

38. *Id.*

39. *Id.*

40. Thompson, *supra* note 21, at 678.

41. See Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use*, 28 ENVTL. L. 919 (1998).

42. See *Idaho Dep't of Parks v. Idaho Dep't of Water Admin.*, 530 P.2d 924, 928 (Idaho 1974).

43. Neuman, *supra* note 41, at 920.

44. *Id.*

45. Colby, *supra* note 26, at 726.

restrictions may accompany the purchase.⁴⁶

This section examines some of the uncertainties caused by the prior appropriation system that impede the transfer of water rights. First, waste causes uncertainty as to how much water a person actually uses beneficially. Waste is not an objectively defined concept, and case law reveals a general uncertainty over what constitutes waste.⁴⁷ When a potential transfer is pending, determining whether the current user is wasting water complicates valuation. Courts are supposed to rely on only actual, historic, beneficial use when confirming or decreeing a water right amount.⁴⁸ A general lack of clarity with regard to waste predominates, and as a result “[i]f the behavior does not shock the conscience, it is allowed.”⁴⁹ Since wasteful practices go clearly beyond uses encompassed under acceptable water use—often in effect for many years and in the modern era inefficient—they are difficult to challenge under case law.⁵⁰

Second, “beneficial use” in western water law looks to the courts to decide whether a use is efficient.⁵¹ This scenario eliminates the role of the market system, arguably the best means of allocating scarce resources. The market ought to decide which uses are beneficial, and the law should allow all uses.

There are several reasons why the beneficial use requirement causes uncertainty in terms of the right a user actually holds. Beneficial use is a dynamic concept and varies with the conditions.⁵² It therefore can be said that beneficial use is a fact-specific and circumstantial concept.⁵³ It is this dynamism that creates uncertainty. Since the definition of beneficial use is constantly evolving in an attempt to “keep with the times,” present beneficial use is not necessarily future beneficial use. Thus, a potential transferee may have difficulty ascertaining whether the continuation of the water right constitutes the present “beneficial use.”

This fact-specific determination therefore means that at any particular point in time, an individual’s water rights may be uncertain and condemned merely because a fact-finder—using a non-static definition of beneficial use—determines that the use is not beneficial. Thus, defining a beneficial use is not the enumeration and understanding of any particular set of principles. Rather, it is the whim of the not-yet-convened jury who determines “beneficial” based on subjective perspectives. Leaving valuation of a property right to fact-finder discretion is problematic.

46. Saliba, *supra* note 25, at 621.

47. See Nueman, *supra* note 41, at 933-46.

48. *Id.* at 929.

49. *Id.* at 959.

50. *Id.* at 947.

51. *Id.* at 925.

52. United States v. Alpine Land & Reservoir Co., 697 F.2d 851, 855 (9th Cir. 1983).

53. See, e.g., Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 45 P.2d 972 (Cal. 1935).

Third, the requirement of a diversion also complicates the definition of a water right. Prior appropriation doctrines almost universally demand that water be diverted for a right to be perfected. Water lost via diversion is a highly adjudicated issue. Water loss caused by the proverbial "leaky ditch" problem or evaporation is not part of the amount of water a user is actually *using*. As a result, it is difficult to ascertain which part of the total quantity of water diverted is applied to a beneficial use. This measurement problem makes it difficult for parties to a transfer to ascertain what quantity of historic beneficial use is actually being transferred. This problem is compounded by a system that creates disincentives for water conservation in diversion methods by not allowing the innovator to capture economic benefits associated with innovation or requiring users to divert efficiently. Courts and agencies disfavor decreasing the amount of water a particular user diverts or requiring innovative conservation improvements (i.e. lining ditches or microsprinklers) due to the expense of improving water efficiency, unless the users' practices are not within the community norm.⁵⁴

This section briefly describes some of the uncertainty regarding the valuation of a water right, which may cause problems to both the transferee and transferor of a water right in a contractual sale. In order to facilitate, or at least accommodate water rights transfers, the law must overcome the barriers to defining a right; this is critical to the functioning of a market for water rights. Put simply, "[t]he doctrine of beneficial use, with its implications of judicial determination of need and non-use, in effect increases the uncertainty of title to rights in water, and therefore reduces their marketability."⁵⁵ The next section of this analysis focuses on third-party barriers to water transfers as another set of legal doctrines that creates right uncertainty and transfer barriers.

C. HIGH TRANSACTION COSTS, UNCERTAINTY: THIRD-PARTY EFFECTS

The right to use water contains a duty not to injure other appropriators.⁵⁶ When a transfer occurs, a third-party has a right to challenge the transfer on grounds that it will injure the third-party's water right.⁵⁷ A water right, therefore, is uncertain in the sense that litigation may or may not occur as the result of a transfer from an unknown and potentially large number of water users. There is no doubt that third-party effects, which economists refer to as "externalities,"⁵⁸ must play a role in the future of water law. In the present system, however, protection of third-party rights serves as a significant barrier to water right transfers.

54. Thompson, *supra* note 21, at 683.

55. Timothy D. Tregarthen, *The Market for Property Rights in Water*, 6 DENV. J. INT'L L. & POL'Y 363, 369 (1976).

56. Thompson, *supra* note 21, at 703.

57. *Id.* at 704.

58. See R.H. COASE, *THE FIRM, THE MARKET, AND THE LAW* 23-24 (1998).

A market system that fails to take third-party effects into account may not produce a socially efficient mechanism in the delivery of water resources. A recent movement in economics questions proposed market systems where the economic architects presumed "frictionless markets."⁵⁹ A frictionless market is one where the costs of trading property are essentially zero.⁶⁰ In the market for water resources, that assumption completely overlooks reality. Water right transfers encompass substantial transaction costs, largely in the legal proceedings, to determine third-party effects. To that end, this section examines the nature of these third-party costs.

An informed economic viewpoint would suggest the "proper" functioning of a market system demands removal of transaction costs. This viewpoint ignores social efficiency and argues for a system that protects the rights of those who want to transfer their rights at the expense of those who wish to retain them. Each water transaction *has* third-party effects. Reducing transaction costs and failing to consider third-party effects means the price of water will not reflect the true social cost of the water right. "If state policies do not cause buyers and sellers to account for external values that may be affected by a transfer, then a proposed transfer may be beneficial to the buyer and seller even though it is actually inefficient from an overall social perspective."⁶¹ Thus, the goal for future water law reformers ought to be not just the exclusion of third-party effects from transaction costs to transfers, but the inclusion of third-party effects into the price of water rights.

The cost of the legal and administrative proceedings for transferring water rights, and the length of the process, can be substantial.⁶² The expense of statutory transfer proceedings deters many small or short-term trades.⁶³ In Colorado and New Mexico, various-sized transfers have cost from a few hundred dollars to as much as \$50,000.⁶⁴ In fact, "the statutory transfer process can in a typical case add twenty percent or more onto the cost of small purchases."⁶⁵ The average processing time for a transfer ranges from approximately six months to a year and a half.⁶⁶ As a result, these delays often deter short-term transfers and thereby prevent some local regions from adapting to droughts and immediate water needs.⁶⁷

Restrictions on third-party rights are governed by return flow rules. Specifically, an appropriator may not transfer water rights if doing so would disadvantage a return flow appropriator.⁶⁸ Barton Thompson

59. *See id.* at 7-10.

60. *See id.*

61. Colby, *supra* note 26, at 729.

62. Thompson, *supra* note 21, at 704-05.

63. *Id.* at 704.

64. *Id.* at 704-05.

65. *Id.* at 705.

66. *Id.*

67. Thompson, *supra* note 21, at 705.

68. *See Weibert v. Rothe Bros.*, 618 P.2d 1367, 1371 (Colo. 1980).

explains:

Appropriators generally have no right to their return flow; water that returns to a stream is available for appropriation by downstream users exactly as if it had never been diverted. To protect those downstream users, all western states have "no injury" rules. These "no injury" rules prohibit changes in water use that would harm downstream users by altering the amount, timing, or quality of the return flow."⁶⁹

These rules exist to protect the vested rights of appropriators downstream. Third-party effects represent substantial costs to those wishing to transfer water rights, and as suggested above, may deter many transactions.

This section represents both a justification for, and an indictment of the present system. As a justification, this section argues it is important in terms of social efficiency to include third-party effects in the market for water rights. The present system does this via a costly judicial proceeding. As an indictment, this section argues the present system imposes the cost of third-party effects on the party transferring a property right, and thereby substantially affects the significance of market activity in water rights transfers. Removing the uncertainty of third-party effects in defining a water right, theoretically, seems to be the answer to removing transaction costs while preserving third-party's vested rights.

D. CRITIQUE OF VALUE INTEGRATION

This section considers the integration of non-monetary values into the present system of prior appropriation as a means to achieve environmental goals. Public interest not only adds to the complexity of the present system, but also may harm vested water use rights, a concept antithetical to the development of the market system. Since bureaucratic agencies face only political, and not financial impacts from public interest decisions, they may force more conservation than is socially demanded in the face of social cost. In a market system, agencies and non-profits could raise money and purchase rights to maintain instream flows and lakes. Since these agencies would confront the social cost of water in a competitive market, the resultant amount of conservation would be socially efficient.

The addition of public interest criteria fails to achieve the structural conditions for optimum efficiency for several reasons. First, inclusion of public interest criteria is contrary to the development of a market system where agencies and individuals face the marginal social cost of water use rights when making a purchase decision. Expanding the substantive issues administrative agencies and courts must consider with regard to the transfer of water rights—including the environment, the local community, and the public interest—will

69. Thompson, *supra* note 21, at 703.

complicate matters and raise costs.⁷⁰ An increase in transaction costs would decrease the incentive to shift to a better use, and encourage maintenance of the status quo. One author agreed:

One of the primary economic effects of public interest criteria can be to create substantial uncertainty and additional risk for water market participants. This is particularly likely when public interest language is included in state statutes regarding water transfers but no definition of what constitutes the public interest is provided. The lack of specific public interest criteria makes transfer applicants vulnerable to unpredictable difficulties and costs in implementing a transfer.⁷¹

"[W]hen government allocates rights on the basis of vague notions of merit or public interest," the result seems to be that "applicants invest enormous resources in hiring high-priced lawyers to put on a largely meaningless show—meaningless because the criteria for the public interest are necessarily so elusive. Interminable and unmanageable procedures, inconsistent results, and corruption are also likely."⁷² Thus, in an attempt to protect the environment, these new criteria reinforce the status quo by heightening transfer costs, all at the expense of the water right holder.

Second, adding public interest criteria calls into question all previous vested rights and therefore adds greater uncertainty to the transfer process. Arguably, the result is a constitutional taking. And although in its purest form the public trust doctrine could serve to rescind or modify a vested right, it would be non-compensable, similar to takings under navigation servitude.⁷³ Nonetheless, this would call current rights into question. Thus, those parties involved in a transfer would have difficulty ascertaining the existence of the rights in question. Because what constitutes a public interest is relatively indefinable, it could include any number of special interests.⁷⁴ The uncertainty new bureaucratic micromanagement could create would lock in the status quo and then define away vested rights holders' current rights under uncertain definitions of what is in the public interest. The true public interest ought to be a competitive market for water rights transfers, where use is defined by willingness-to-pay.

Adding public interest criteria increases what Coase would call the "friction" in market transactions. At the same time, the pool of vested rights theoretically would shrink without compensation. Because of antiquated views of the market economy, many environmentalists assume that a properly operating market excludes considerations of

70. *Id.* at 708.

71. Colby, *supra* note 26, at 744.

72. Williams, *supra* note 24, at 12.

73. Norman K. Johnson & Charles T. DuMars, *A Survey of the Evolution of Western Water Law in Response to Changing Economic and Public Interest Demands*, 29 NAT. RESOURCES J. 347, 371 (1989).

74. TERRY L. ANDERSON & PAMELA SNYDER, *WATER MARKETS: PRIMING THE INVISIBLE PUMP* 86 (1997).

conservation and environmental protection. This assumption, however, is patently false. A properly operating market without friction and with billions of wasted tax dollars of bureaucratic supply of water via tax dollars partially regained, would allow for the socially efficient amount of conservation. The effect of public interest criteria is to introduce greater *inefficiency* into the system. As such, codification of further substantive criteria in the prior appropriation system should be rejected as it reifies the status quo and prevents change. The true path of environmental conservation is to make water *users* face the true social cost of water use, which includes the future value of environmental problems.

IV. THE TRANSITION TO A MARKET SYSTEM: SOLUTIONS

A. DEFINING CONSUMPTIVE USE

Defining what rights a transferee will actually gain in purchasing a water right is critical. From diversion to return flow, much water is lost either by use or escape from the system. The amount of water diverted does not equal the amount of water used, which does not equal the amount of water returned. From the time water is diverted, each step in the process (*i.e.*, diversion, use, return) involves loss from the system. To correct this system of loss, state governments must define the actual quantity of each water right outside of the transfer process such that the price of the water right is not affected by the cost of determining the right itself.

Economists have long believed that the key to altering behavior is market creation and definition. To that end, a new system of water law ought to distinguish the elements that constitute a water right. In the present system, a water right holder must divert the water, use it, and at least in the early days, decide whether to return it (to perhaps allow downstream appropriation).⁷⁵ The first step in the process is to define the historical *use* of each water right. The size of this project is particularly daunting but critical.

The only reasonably effective cure for the problems presented by the no-injury rule is to requantify appropriative rights according to the amount of water that each appropriator can *consume* rather than the amount each can *divert*, thereby eliminating⁷⁶ the need to determine return flow each time a right is transferred.

The problem may be that "states would need to calculate the return flows of *all* water rights *immediately* in order to quantify the consumptive rights—a tremendous administrative chore that no state would want to undertake without a compelling reason."⁷⁷ While this

75. See Thompson, *supra* note 21, at 703-04.

76. *Id.* at 707.

77. *Id.*

undertaking may seem especially large, it is relatively small compared to the prospect of constructing the physical water infrastructure of a generation ago. With the same type of "can-do" attitude, a legislature could order state agencies to define the historical use of water rights.

The purpose of this new quantification is to determine what each party has to transfer, which involves three critical amounts: quantity diverted, quantity used, and quantity returned. A potential purchaser of rights would then understand the duties owed to surrounding water right holders, diminishing transaction costs necessary to satisfy any third-party challenges.

B. ALLOW DIVERSION IMPROVEMENTS

The diversion represents a separate part of a water right required to perfect a right. The quantity of water diverted, minus the quantity of water used represents the "delivery" portion of a water right. The present system encourages water users to either "use it or lose it." Thus, modifications to delivery that increase efficient diversion do not reward the appropriator because, as the logic goes, it was never his to begin with. Legislatures ought to allow for efficiency improvements to become distinct water rights. This could take place either by dividing the rights into two rights—delivery rights and use rights—or simply recognizing improvements as water rights. The right holder responsible for increasing efficiency would have the burden of quantifying the amount of water saved. A state agency could certify private engineering companies capable of measuring water using recognized scientific techniques and equipment as water accounting firms.

The principle that market creation arises via market definition is critical in situations where no market exists. Recognizing diversion as an independent right would open up a market for water diversion. Private firms would likely contract with farmers who would rush to install pipelines. All of the seepage and evaporation could be turned into income. Private firms could charge for construction, monitoring, and metering the quantity of water saved through new diversion technologies.

Facilitating market transaction of these savings from diversion is more difficult than one may think. Questions about specific priority dates and diversions would arise. The new set of regulations could allow for transfers between parties without the necessity of a diversion. The party who is purchasing the right, probably a municipality (or new water company, *see below*) would already have a means to divert upstream. The portion of water purchased would retain its priority date. This would turn water saved from diversion into a commodity that could be sold. To add to this solution, return flows could follow the same procedure. If an appropriator can show a more efficient means of returning the water to the stream, then she ought to be able to capture the savings.

This option would not work in concert with the first option,

defining historic use. The concept of historic use is the reason savings in diversion and return flows cannot become water rights. The idea is that an appropriator is taking water from a stream and returning a certain amount to the stream in the present system, the present system encourages this to maintain a water right. Allowing for diverters to capture the economic profits associated with less waste is an incentive that would allow for transfers. These transfers would be better than new appropriations because they would retain the original priority date.

C. WATER AUCTIONS

A water auction would require condemnation of all present uses before an auction could take place. Assume the state condemns all water rights and pays an estimated market value to each water right holder. The state could then return a pro rata percentage of the auction proceeds minus the cost of condemning rights to each water right holder. Once the state estimates the total volume of water available, it would hold a closed-seal bidding process where each water user bids on the amount of water he or she wants to use. Since no user would be aware of another user's bid, each bid would presumably move toward the actual value of the use to the bidder. The sale would convey right to *use* water, not the right to divert it. Any return flows would have to be measured and could be re-auctioned during regular auction cycles. Each new water user could divert, as he had in years past. But the amount of water diverted, not the amount beneficially used, would be the measure of rights.

A water auction under this proposal presumably would require the abolition of the prior appropriation system. The right to use water would be separated from the outdated rule of "capture," a logical alternative for a resource difficult to "capture" in the traditional sense. Large and wealthy municipalities would obviously have greater ability to place large bids, and numerous transfers would put water rights into many new hands. Consequently, the family farmer could potentially lose out. Perhaps other areas of the country are better able to produce agricultural commodities. The best way to find out where products in a national economy ought to be produced is to have each user face the *actual social cost* of water resources. The "next-best-use" is the one which successfully bid for the water right.

This option would function well with the privatization of water resource delivery. If private companies distributed water (particularly municipal water), they could buy water rights via auction. The company that best estimates its profitability, as reflected in its bid, would succeed. Water prices would reflect the cost of purchasing the water against the next best use and the delivery of the water to a user; consumers would face the actual social cost of providing water; third-party effects, such as environmental concerns, would be included in the auction system. Those wishing to protect an instream flow could purchase it. Those who wanted drought protection could purchase it,

by over-buying water rights.

Finally, taking the element of priority date and damage to other users out of the system would turn water into a commodity and would facilitate transfer. Each user would have an incentive to conserve water because that which is conserved could be sold. Return flows would offer a secondary market for water, which could be purchased on an on-going basis. Ignoring the role that institutions play would be catastrophic to a market system. Since government owned delivery agencies have few incentives, the bureaucratic agencies would distort the true price of water, and thus could damage the system. Implicit in an auction system is that bids will reflect the actual social value of each individual water user's contemplated use. State run institutions cannot accurately measure the value of the actual contemplated use, since their cost-benefit ratios often depend on the tax base and a host of other considerations unrelated to the actual marginal social cost of water. If state institutions for water delivery were privatized, then the auction system would function nicely.

D. THE GOVERNMENTS MUST GET OUT OF THE WATER BUSINESS

Government delivery of water resources must end. Government agencies are incapable of efficiently delivering water services. If governments continue to use tax dollars to subsidize water services, individual consumers will not face the social cost of water and will tend to over-consume. Since government organizations respond to political pressure and are responsible only to their constituency, their central purpose becomes to provide services at the lowest cost. As a result, pricing mechanisms do not reflect the true social cost of providing such services.

The barriers to the transition from government to private ownership are entrenched in western thinking and stem mostly from fear of larger corporations. "[M]ost water users believe that water is of sufficient importance and complexity that its delivery cannot be trusted to commercial institutions even when they are regulated."⁷⁸ This fear, which founded the prior appropriation system, developed in an age when the anti-trust laws had not even been contemplated, much less codified. In the present system, the question of distributing power between individuals and corporations is a question appropriate for an anti-trust forum. Any implicit doctrinal assumptions in water law that seek to influence the outcome of this distributive rights question ought to be rejected.

One view of what would happen if the government were to sell off its resources is the following:

In order to promote effective competition in the water industry along with privatization, the ownership, modernization, and development of the *transmission main systems* needs to be severed from the

78. Thompson, *supra* note 21, at 694.

integrated water supply and wastewater services provided by other private and competitive firms. Put differently, the unified water supply and wastewater companies would provide water of various qualities in a competitive market, but the pipeline systems would be owned by separate, private water transmission companies. In this context, we could view the separately controlled water transmission systems as new options in the organization of water supply and use. The separation could involve the creation of one or more pipeline companies that would invest in pipeline networks and then rent the distribution installations to water supply and wastewater treatment companies, or directly charge the customer, depending on the quantity and quality of water services and the area. Such a separation of services would promote effective competition in the supply of quality-graded water services and efficiency in managing the distribution networks. While multiple firms may compete in treatment and the supply of water of various qualities and provide sewage services, *other regulated firms* would invest in the transmission-main systems and rent them to the water supply companies.⁷⁹

This would allow for the functioning and operation of systems that could deliver water in various qualities to users independent of political boundaries, and thus better reflect the social cost of water. State governments, obviously, would need to regulate the industry to a varying degree.

The nuances of water privatization, such as those arising in Britain, are beyond the scope of this document. It is important to realize that the transition to a market system involves more than the transferring of rights within the prior appropriation system. A true "market" system is one where each user faces the marginal social cost of each additional unit of use. Allowing governments to continue to deliver water services that shield users from the actual marginal social costs of staying in the shower five minutes longer, or of planting an acre of high-water use landscaping, prevents the transition to a market system, which could better determine efficiency than a group of planners in a government office building.

V. CONCLUSION

The West has changed radically since the creation of the prior appropriation doctrine. The prior appropriation doctrine guaranteed survival to the original settlers cut off from food, information, and other staples of life of which their geographic isolation deprived them. In the modern day, the best water law is that which facilitates the privatization of the water system so each individual user, both irrigator and municipal customer, feels the price impacts of each additional unit of water used. In this system, one can evaluate for himself how much water is best used in the face of social cost.

This analysis identified three main changes that could better allocate water resources. Two of them, clarifying vested rights and allowing for the perfection of conserved water into use rights, are

79. SPULBER & SABBAGHI, *supra* note 19, at 209.

probably the most politically acceptable solutions. The auction system would require the overthrow of the prior appropriation doctrine, and therefore would be less palatable politically at present. It is fairly clear that the price of water in the West, where water is becoming more and more scarce, is probably too low for the average user. It seems demand is fairly inelastic at such low prices; otherwise, the average consumptive use per user would probably be falling. That it is increasing demonstrates that the actual social cost of water is greater than the private cost of providing it.

When each consumer of water faces the actual social cost of water brought about by the negotiation of competing uses, water use will decrease. Only when the water law of the West is rewritten to include the new reality will the saying in the rotunda of the Colorado Capitol ring true, for a whole new generation of westerners.

POETRY

SELECTIONS OF POETRY BY JUSTICE GREG HOBBS

In Volume 3 / Issue 2 of the *Water Law Review*, we published a selection of poems by Justice Hobbs. In the tradition of updates to previous publications, we hope you enjoy this additional selection we have made.

THE DIFFERENCE BETWEEN A DUCK

A duck don't know the difference
Between jurisdictional waters
And a pothole, if there's water
He'll land. Sometimes the law
Don't know the difference
Between a duck.

THAT THRONG OF SONGS

That throng of songs
Every New Year
You pack away,
With the fragrant well-
Spent tree and silver
Tray of greetings,
Tuck a song where
You belong, then go on
Remembering its tune
In the waning and
The waxing moon,
In every thought that
Verges on a "No!"
"Yes!" aglow,
Alights.

TO A FRIEND WHO WOULD BE SECRETARY OF INTERIOR

Lewis and Clark didn't really know where
They were going, they had a vacant
Map and reports of wondrous geography.
They said to each other at the outset
"Let's go on together, there is no other
I'd rather share the journey with!"
They got prepared for what they didn't
Know, how to keep their eyes open
And loved the land they were passing
Through and every living thing they saw.
They took what they needed to survive
And left the rest untouched, knowing
Others would stop where they had pushed
On. They had a needless fight with a bear.

YESTERDAY THE DENVER POST REPORTED

Yesterday the Denver Post reported
In its Sunday edition, "Intelligence
Found among many animals, New
Studies uncover their skills." I
Was grunting and scratching my
Ribcage, reading this. Apparently,
The brainiest share 99 percent of
Our DNA, can compute enough
To know that one and one is
More than one, can talk to each
Other, teach how tools can crack
A nut or make a cutting edge,
Recognize themselves in the mirror.
I read in Saturday's edition how
The missing 1 percent also learns
From the other chumps who aim rockets
At us, and we at them.

SPLIT ROCK

Just when you think the country
 Desolate, a sweet creek bubbles up,
 Grasses sprout, what you left behind
 Can stay there, air is snappier here,
 Light hurts you can see by.

GROUCHES

I've got a case full of grouches,
 They like to scratch and shout,
 Parade around the table picking
 Fights, spitting spite in everybody's
 Coffee cup. These grouches
 Have heavy gobs of hair in their
 Ears to filter all incoming thought.
 Only the word or idea that registers
 Maximum Irritability to the grouch
 Gets through for revving all them fellow
 Grouches up. Grouches pour vinegar
 On conversations, shrivel buds
 Before they bloom. But I get no relief
 In letting my load of grouches out,
 The more I do the more they breed
 Their smelly deposits, and I'm running
 Out of Ajax cleaning up. Next time
 They try to snatch my tongue and
 Hang more hair on my listening devices,
 I'm stringing my fiddle for mountain tunes.
 I'm fixing to make them grouches dance.

RAINBOWS

Rainbows fade the closer we get to them,
 Greens and reds move into violets, mist
 Pervades, the slanting sun cuts
 In and out, our faces drip dew,
 We feel treasured.

WELCOME, RAIN!

Drip the gutters and the brick,
Drip the benches and the deck,
Drip the sidewalks and the street,
Drip the pathways and the park,
Drip the blossoms and the leaf,
Drip the grasses and the root,
Drip the pages and the book.

MANY RIVERS

Many rivers flow from the mountains,
All would head for the sea, I hear
Your tributary bubbling. Mine
Takes joy in knowing your
Flow also takes shape in the
Struggle that shapes making
Its own way off the mountain.

STORM

A terrible
Terrific storm rolls through
Our bedroom, breaking and flashing
Through the curtain we respectfully
Maintain.
Sparks fly about the sheets,
Boom punctuates boom,
Fear interrupts our felicity
As we separate, one staying, one going.
For how long?

THE DAY THE MOUNTAINS SCREAM

An ordinary day half a continent away,
Oakbrush and aspen burn gold and scarlet,
Streams are lower and clearer, native trout
Settle below rocks to catch a nymph or
Hellgrammite. But bears are desperate,
They roam for food and scratch for dreams,
The day the mountains scream.

An ordinary day half a continent away,
Breakfast coffee and conversation,
Goodbye to family, the morning newspaper,
A subway ride, another cup of coffee,
Hello to colleagues, booting up, checking
Messages, making plans for client lunch,
The day the mountains scream.

An ordinary day half a continent away,
Lewis writes in his journal, marks fresh charts,
Hunters set out, other men point the tips
Of their long poles West and push upstream,
A native woman, her French husband guide them,
Pilgrims follow, churches, schools, the Grange,
The day the mountains scream.

An ordinary day half a continent away,
Moses, Muhammed, Christ, Siddartha,
Confucius, take up their walking staffs,
Into the hills, into the valleys, into the
Poisoned wells of the most hardened
Hearts, the peoples walk with them,
The day the mountains scream.

An ordinary day half a continent away,
The eagle and the raven land on peaks
And city streets, Daedalus and Icarus
Strap on their wings and launch, they
Do not know if air shall carry them,
They only dare to feel it will some day,
The day the mountains scream.

The day the mountains scream
 Is just an ordinary day, we wake,
 We sleep, we work, we play, we
 Dance, we scheme, we fight, we
 Blame, we weep, we pray, we ask
 Forgiveness, we forgive, we bless
 An ordinary day half a continent away.

FISHERMAN'S KNOT

Lord, my hands tremble,
 I must take off my glasses,
 Hold the line to my eye
 And twist three or four
 Times. This space between
 The loop, Lord, help me
 Hold it here, grant me
 Just a little more light
 To thread the gap between
 My thumb and forefinger,
 Let me cinch my filament
 To your swivel. Lord, I am
 Complete, I hear the stream
 Behind me continuing.

PTERODACTYL WINGS

Grandson wants you to make pterodactyl
 Wings, so he can fly through blue bright waters,
 Flouncing and gurgling, his digitals
 Flaying the flanks of your would be wingspan.
 Imported rivers, aren't they all? Through some
 Aqueduct cut from the Colorado
 Or the Rhone—3 ½ to 5 feet,
 Depth of this enraptured precious desert
 Perrier, \$2. 89 per liter. We drink
 And swim and watch Shrek
 In this San Diego motel room, wondering
 What American westerners can learn
 Re-inventing old world ogres into their
 Own image and likeness and what's for lunch?

BOOK REVIEW

GREGORY M. SILKENSEN, THE FARMERS' HIGHLINE CANAL AND RESERVOIR COMPANY: A CENTURY OF CHANGE ON CLEAR CREEK, North Suburban Printing, Denver, Colorado (2000); 164pp; softcover.

REVIEWED BY JOHN M. DINGESS

To borrow a cliché from the popular press, this is a “must read” for any water rights attorneys, engineers, and other professionals whose practice deals in any way with Clear Creek.

The author was commissioned by the Farmers' High Line Canal and Reservoir Company Board of Directors to write a history of the company. Mr. Silkensen worked on the project simultaneously while pursuing a Doctorate in History at the University of Colorado. However, from the text, the hundreds of footnotes, the lengthy appendix, the numerous photographs and the half dozen useful maps, the reader quite quickly deduces this composition certainly became a labor of love for the author.

The book is subdivided into five chapters. They provide a history and understanding of not only the Farmers' High Line Canal system, but also the interrelationship between that complex system, and other mutual ditches and water rights located on Clear Creek.

Chapter One, The Origins of the Farmers' High Line Canal, begins with the details of a May 1885 meeting between approximately twenty men on a remote farm owned by Detrick Schrader in what was then northern Arapahoe County. The group, composed of farmers like Schrader and a few businessmen, wished to supply additional water to their irrigated agricultural lands. It is truly astounding to note that by the following January of 1886, this group had surveyed several existing and proposed alternate canal routes, incorporated their mutual ditch company, obtained funding and acquired what was theretofore known as the Golden Canal, these accomplishments put them in the position to deliver water during the following irrigation season. One wonders if a group of investors and professionals today could accomplish such an undertaking so as to have a major canal system up and running in approximately six months.

The initial chapter goes on to detail the history of the region leading up to the incorporation of the Farmers' High Line Canal. The text recites a wonderful lineage of both the physical system and owners and operators of the system. Parts of this chapter are reminiscent of *Genesis 5:1-32* or *Luke 4:24-38* with the details of who was a predecessor in interest to whom. However, with the aid of an excellent illustration,

the lineage of the physical facilities and the various owners thereof clarifies what could easily be a hazy understanding of the interaction of water rights on Clear Creek. The first chapter concludes with a discussion of the Company's priorities and an excellent explanation of the so-called "schedule," "statutory," and "stock water." Anyone who has practiced on Clear Creek or who has dealt with Farmers' High Line Canal shares knows the different types of water have different characteristics and different values. This explanation is quite useful for anyone who wishes to better understand these different classes of Farmers' High Line Canal water rights.

The second chapter, entitled Fiscal Challenges, provides insight not only to the early fiscal challenges facing the Farmers' High Line Company, but also the financing challenges that any of the many ditch companies of the state faced in the late nineteenth and early twentieth centuries. An interesting discussion is presented regarding the development of roads, and the often-heated debates between county commissioners (those who in this era were most often responsible for road building) and ditch companies regarding the bridging of ditches and the allocation of costs therefor. The chapter also includes the history of the first enlargement of the Farmers' High Line Canal Company and how the company and its shareholders dealt with its first stock assessment, something that did not occur until nine years after the company was incorporated. While the annual assessment of the shareholders in a mutual ditch company is common today, the text explains that such was not common in the late nineteenth century. Understanding this history gives one a new appreciation for the accomplishments of this and other ditch companies while working under such tight budgetary constraints.

Chapter Three discusses water scarcity. This discussion serves to remind all readers that not only were 1950-1954 and other more recent years lacking in precipitation, but also drought events have consistently occurred throughout the modern history of this state and will no doubt persist. A particularly intriguing element of this chapter is a section dealing with the attempt to obtain administration of water users in former Water District 23 during the first decade of the twentieth century. Apparently, water rights users in the Upper South Platte Basin would routinely ignore lawful administration and it was not until after representatives of the Farmers' High Line Canal Company and others formed a watchdog group known as Clear Creek Valley Water Protective Association, that enough pressure was put on the state water administrative officials that they took action. However, District 23 administration, or lack thereof, continued to be a problem for five decades. It was somewhat humorous to note that administration in District 23 was still lacking after the 1940s, and that it was not until the Metro area cities of Denver, Thornton and Aurora purchased a significant number of District 23 water rights before legitimate administration occurred.

Chapter Four deals with the canal operation and water quality. In the same way as the Internet and gauging stations that report using

satellite telemetry have revolutionized water rights operations in the last two decades, it is interesting to note that a similar impact was felt with the development of Portland Cement (used to construct concrete facilities to replaced wooden flumes and diversion works), the automobile and the telephone in the reliability and cost effectiveness of delivering the water.

The fourth chapter also details and provides a greater understanding of the impact of the mining industry and the stress between mineral extraction and agricultural production in Colorado. One can scarcely imagine a better crucible to examine the stress between these two occupations than Clear Creek with its mining interests in Gilpin County and agricultural production occurring in what was originally Arapahoe County and now Jefferson and Adams Counties. Today, hardly any brief dealing with water quality issues submitted to either the State Water Courts, the Water Quality Control Division, or the Colorado Supreme Court fails to mention the seminal case of *Wilmore v. Chain O'Mines*, 44 P.2d 1024 (Colo. 1934). Even those who have read and cited *Chain O'Mines* on multiple occasions will find the book's detail concerning the history of the case and the interaction of the participants very interesting and informative.

The final chapter deals with the Farmers' Company's operations and activities during modern times. The chapter titled Suburban Growth in the Post War Era, details the effects of World War II and the Post War period upon both agriculture and growth in the Metro Denver area. The chapter also provides a fine history of the attempt to condemn mutual ditch company water rights by the City of Thornton. Finally, a candid discussion is made regarding the sale of Farmers' High Line stock to various municipalities and the cities' use of the water. Also mentioned is the modern problem of balancing the maintenance of water quality in the canal, important to its use as a municipal supply, with the competing demand for the canal to serve as a drainage facility.

The book is fascinating and can be easily read within a few hours. However, once read for the first time any practitioner who wishes to better understand water rights in Clear Creek, will certainly keep this book on his shelf as a reference and source of information for the future.

BOOK NOTES

MARQ DE VILLIERS, WATER: THE FATE OF OUR MOST PRECIOUS

RESOURCE, Houghton Mifflin Company, New York, N.Y. (2000); 313pp; \$15.00; ISBN 0-618-03009-3, softcover.

Marq De Villiers' book, *Water: The Fate of Our Most Precious Resource*, guides the reader through the realities of the status of water on the planet. The book combines science, theory and personal experience to provide a telling look at the fate of water and everything that depends on it.

The book is divided into four sections, each with a theme that carries through the chapters contained within. Part I, titled *The Where, What and How Much of the Water World*, introduces the concept that the planet's water is in peril. It begins with the debate between Botswana and Namibia in Africa, chosen because the problems of the small area of Africa represent the status of water troubles around the world. Aquifers diminishing, dropping water tables and alarm about sustainability concern countries the world over, as well as increasing population and increasing interstate tension about the fate of water. Through stories of personal experience from different places around the world, the imminent destruction of the ecosystem becomes apparent. The supply of water is in peril everywhere; but it is not merely supply, but management, allocation and distribution problems that plague the world.

The first section continues with the science of water, discussing where it came from and how much really exists. The solar system, hydrologic cycle and the estimation of water on earth are discussed. Problems such as aquifer depletion, groundwater over drafting and water mining are introduced. The section concludes with a chapter on the history of water, chronicling stories of the importance and the significance of water from history, mythology, folklore, ancient Roman times and the Bible.

Part II discusses the world of water from its natural existence to the change and destruction of it caused by humans. Climate, weather and water are all interrelated. Climate changes alter the hydrologic systems. Some climate changes are natural, but anthropogenic processes have caused and continue to cause desertification and global warming. Humans are changing the natural relationships between climate, weather and water for the worse.

Changes are brought about by population growth and industrialization. In the past couple of centuries, growth and industrialization have led to "gross pollution" and a dangerous threat

to human health and the water supply. Examples from Russia, Europe, North America, Africa, China, South America and Australia demonstrate that countries and cultures across the world are all to blame; destruction of natural water resources is common to all societies. Different situations that contribute to the poisoning of the water supply, from termite killing chemicals to ocean bound sewage pipes are discussed, along with their consequences: waterborne diseases, modified chemistry of ground water, contaminated rivers and consequences in the oceans.

The next chapter presents stories of dams. Rationales in favor of dams are discussed, followed by the "true economics of dams." Dams affect wildlife, the environment and agriculture; they alter the flow and temperature of rivers, the sediment loads, saline concentrations of the rivers, cause silt build up and delta destruction. They also collapse.

Dams modernized irrigation, an ancient technique. The increased saline levels dams create can poison crops. Concentrated salt accumulates, and a cycle begins that is difficult to break. The chapter concludes with suggestions of how to cure this problem.

Shrinking aquifers are an area of great concern worldwide. Several aquifers, including ones in Libya and the American West are discussed in detail. Decreasing aquifers have "human, political and geopolitical consequences" that must be dealt with before it is too late. Water mining has become widespread and contributes to the depletion of the aquifers.

Part III addresses *The Politics of Water*. Five chapters detail the histories, politics and near wars over water, as well as the problems with the natural water systems in different countries. The Middle East, The Tigris-Euphrates System, and The Nile are discussed. The Colorado River Basin is addressed, as well as the Rio Grande. Mexico has experienced a great deal of problems because of the United States' policies over water usage and allocation. Tension also exists between the United States and Canada over the Great Lakes and other water bodies. The disputes over the North American lakes and rivers has left "Mexicans . . . hoping for more water, the Canadians . . . determined on no less and Americans in the middle. Problems in China of allocation, supply, water quality and management are also presented.

The final section of the book is dedicated to *Solutions and Manifestos*. Four ways of coping with the water crisis are proposed. The first is to get more water. Suggestions include piping water, both by land and by sea, melting icebergs, shipping water and desalinization. Different methods of desalinization are introduced, with discussion of the benefits (for example, it is cheaper than funding a war over water). Desalinization has its detriments, however, such as increasing greenhouse gases and cost.

The second strategy for coping with the crisis is to use less water and decrease the demand. Human ingenuities from rainmakers to dew, and fog collectors to fog drip irrigation have existed for a long time. Agricultural industries can contribute by using controlled water

stress like some wineries use. Wastewater recycling helps. But technology is not enough to solve the crisis. Removing water subsidies could lead to decreased demand by reflecting the true cost of water. It could be priced so that waste hurts. But this too comes with a detriment: the urban poor would not be able to afford water.

Controlling and reducing the world population would help because fewer people would mean less demand. Some population projections actually estimate that the population increase of India and China will slow by the middle of this century. The surveys are hopeful, but a population decrease would likely not be enough to save the fate of the dwindling water supply.

The final strategy in dealing with the water crisis is to steal it from others. "The solution to the problems of water is ultimately political." Violence and war over water, which have been part of the history of humankind, may decide who gets access to water. "Water wars might be caused by human folly, but they might still be prevented by human inventiveness.... We are not without weapons in these wars we are waging against our own worst nature."

Water is very well written and easily readable. The combination of science, trivia and personal stories present an enjoyable but important look at the fate of the world's water resources.

Rachel M. Sobrero

G. EMLEN HALL, HIGH AND DRY: THE TEXAS-NEW MEXICO STRUGGLE FOR THE PECOS RIVER, University of New Mexico Press, Albuquerque, N.M. (2002); 304pp; \$39.95; ISBN 0-8263-2429-0, hardcover.

This book tells the story of the battle between Texas and New Mexico over the water provided by the Pecos River. The river begins in the Sangre de Cristo mountains, running through New Mexico then Texas before it joins the Rio Grande.

The story deals with the politics and personalities involved in the court case, *Texas v. New Mexico*. The book describes the original irrigators in the region, their attempts to harness the flows of the Pecos River, and the effect of the case on the people involved. It personalizes the people who rely on the river, as well as those involved in the courtroom fight over apportionment of the river's flows.

Chapter One, *Flying Court*, introduces and sets the context for the case, *Texas v. New Mexico*. The two states entered into a compact to apportion flows from the Pecos River in 1948. In 1974 Texas claimed that New Mexico had deprived Texas of 1,000,000 acre-feet of water since the date of the compact. The Supreme Court allowed the suit to proceed in 1976, appointing Judge Jean Breitenstein as Special Master.

Chapter Two, *The Tracys' Dream of Carlsbad*, discusses the Carlsbad Irrigation District, which is the New Mexico agency closest to the Texas state line with control over Pecos water use. The chapter discusses the

efforts of early settler Francis G. Tracy, and later his family, to harness and utilize the water in the Pecos River. The history puts a human face on the apportionment battle, and allows the reader to empathize with the people that a water decision impacts.

Chapter Three, *Royce J. Tipton Mismeasures the Pecos*, deals with one of the central figures in the 1948 compact between the states. Royce Tipton was a water engineer from Denver who first applied existing science (surface water hydrology) to the flows in the Pecos River. He used this scientific basis to hammer out the Pecos River Compact of 1948, and then spent the rest of his career trying to get the river to follow the formula and scientific standards he had created. The Pecos did not cooperate with the scientific formula, and this contributed to the conflict between the states.

Chapter Four, *Morgan Nelson's Pecos River World*, introduces the Nelson family and the Roswell artesian basin in New Mexico. The Nelsons rely on groundwater wells to irrigate their farmland, and have been a presence in the area since the 1910s. However, the groundwater intercepted by the wells in the basin would run into the Pecos River, but for the Nelson's and others interceptions. Once Texas and New Mexico began to litigate, the water used by Roswell farmers became an issue.

Chapter Five, *Leave it to Steve*, focuses on New Mexico State Engineer Steve Reynolds. Reynolds was the state engineer from 1955 until his death in 1990. An expert in water use and the water laws in New Mexico, he championed the state's cause in *Texas v. New Mexico*.

Chapter Six, *Jean Breitenstein Tackles the 1947 Condition*, discusses the approach Judge Breitenstein used in determining whether New Mexico had violated the 1948 compact. He repeatedly emphasized that it would be up to Texas to show that New Mexico had caused, through human activities, negative departures from the 1947 condition of the river's flow. Judge Breitenstein put the burden on Texas to show that any flow departures were caused by the activities of man; otherwise, New Mexico was not responsible.

Chapter Seven, *The Presumption of Charles J. Meyers*, introduces Judge Breitenstein's successor. Judge Breitenstein resigned his position as Special Master in 1984 and was replaced by Charles Meyers. Meyers almost immediately reversed Breitenstein's approach that the burden was on Texas in the case, and went with the presumption that New Mexico owed Texas water; the question was simply how much.

Chapter Eight, *New Mexico Stumbles*, discusses New Mexico's attempts beginning in 1990 to meet their obligations to Texas under a new water manual. The case settled for \$14 million in damages, paid to Texas by New Mexico, and required a new method of determining how much water needed to be delivered to the Texas state line.

Chapter Nine, *The Value of Water*, wraps up the book, discussing the impact that *Texas v. New Mexico* had on the people and communities that rely on the Pecos River.

John P. Wood

CHAR MILLER, ED., FLUID ARGUMENTS: FIVE CENTURIES OF WESTERN WATER CONFLICT, The University of Arizona Press, Tucson, Ariz. (2001); 354pp; \$45.00; ISBN 0-8165-2061-5, hardcover.

Fluid Arguments examines western water use from a variety of historical perspectives, using ethnography, geography and political science to explore development and distribution of water in the desert southwest, and suggesting legal and political trends for the future. This publication developed out of a 1998 conference on water in the American West, sponsored by the American Society for Environmental History. The conference brought together scholars, citizens and water managers to discuss past water policies, present problems and possible future solutions. Editor Char Miller divides the book into five parts, beginning with land and water conflicts created by arrival of Spanish and Mexican settlers in New Mexico and Arizona around 1530. Subsequent parts discuss Native American reserved rights, the influence of agricultural interests on water law and policy, western water projects from the 1920s to the present, and implications for future water uses in a western service economy.

Part One, *Land and Water on New Spain's Frontiers*, begins with an article by Jesus F. de la Teja, an associate professor of history at Southwest Texas State University. The article details efforts of sixteenth century Spanish colonists to develop agricultural settlements on the borderland between Mexico and what is now Texas. Shelly C. Dudley, a former senior historical analyst for the Salt River Project in Arizona, looks at early irrigation development in south-central Arizona, examining the interaction between Spanish missionaries and the Pima Indians. Dudley suggests that the result was application of existing irrigation technologies to new crops, like wheat and legumes, which increased productivity of Pima lands. However, by the 1860s, the influx of settlers was too great to adequately sustain demands of the Euro-Americans and the Pimas on the area's limited water resources, and the Pimas eventually lost control of their water supplies. Dudley argues without water, the Pimas also lost control over their future. In her article on water rights in the Chamas region of New Mexico, Sandra K. Mathews-Lamb analyzes judicial records from the late twentieth century, concluding many early adjudications of property rights were keyed to water rights. However, many of these records have been inconsistently translated or destroyed, complicating modern determinations of water rights under New Mexico's appropriative system.

Part Two, *The Native American Struggle for Water*, details conflicts between indigenous tribes and non-native settlers for control of limited water resources in the desert southwest and along the Pacific Coast. An article by Bonnie Lynn-Sherow chronicles changing Kiowa perceptions of water from early views of the resource as a supernatural, malevolent force to a contemporary understanding of water as a tool in modern ranching operations. Donald J. Pisani's article on the

federal government's Indian water policy details the largely unsuccessful attempt to assimilate Native Americans into the mainstream capitalist economy. Pisani points out most irrigation projects in the West used Indian labor for construction, but the projects mainly benefited white farmers. Further, Indian uses of water were inconsistent with the prior appropriation doctrine. Thus, Native Americans were unable to perfect either new or existing rights in court. Alan S. Newell, a cofounder and principal of Historical Research Associates, surveys tribal reserved rights and general adjudications in New Mexico under the *Winters* doctrine. This doctrine gave the federal government responsibility for securing water supplies on federal reservations. Newell details the twenty-year court battle of the Mescalero Apache Tribe in New Mexico to resolve contemporary questions involving reserved rights on federal Indian lands. Newell argues that reserved rights under *Winters* implicitly included supplies adequate to maintain existing and future agricultural and stock uses by Indian communities. Daniel McCool, a professor of political science and director of the American West Center at the University of Utah, provides an overview of late twentieth century water right negotiations between tribes, western states and the federal government. McCool suggests that tribes might use their federal reserved rights as a means of regaining control over land and water rights lost in the early twentieth century.

Part Three, *Agricultural Conundrums*, begins with an article by James E. Sherow, an associate history professor at Kansas State University. Sherow discusses western cattle drives of the 1860s to 1880s from an ecological perspective, and argues that the Chisholm Trail can be viewed as a short-lived ecosystem, bridging the gap between early Indian uses of land and water and the present western agricultural landscape. An article by Brad F. Raley, a doctoral student at the University of Oklahoma, details early efforts of private ditch companies to provide water to farmers and ranchers in Colorado's Grand Valley. Raley concludes the engineering and financial complexities of these early irrigation projects led state and federal governments to assist local entities in arid land reclamation. John P. Tiefenbacher, an associate professor of geography at Southwest Texas State University looks at similar efforts in the Lower Rio Grand Valley in the late nineteenth century. Tiefenbacher examines historical land irrigation and fertilization techniques as providing an historical framework for understanding present water contamination problems in the Lower Rio Grande Valley. Thomas C. Schafer, an assistant professor of Geography at Fort Hays University, provides a county-by-county study of cropping practices in southwestern Kansas, linking advances in irrigation technologies to development of more diverse farming practices. John Opie, a founder of the American Society for Environmental History, looks at the transformation of the Dust Bowl regions of Kansas and the Texas-Oklahoma panhandle from a cartographic perspective. Expanding on an argument originally advanced by John Wesley Powell in the late nineteenth century, Opie

suggests that it is time to re-map the American West, designating new boundaries based on the extent and quality of natural resources available to support human needs. Opie concludes accurate representations of existing ecosystems would allow communities to plan more accurately for future development.

Part Four, *Dam those Waters*, focuses on the effects of New Deal Era public works projects on water development in the West. Donald C. Jackson, a teacher at Lafayette College, emphasizes viability of local dam-building projects as alternatives to federally dominated systems of water development. Jackson argues that these projects are not only more cost-effective than their federal counterparts, but are also more responsive to regional water concerns. Mark Harvey, an associate professor of history at North Dakota State University, looks at the continuing environmental and social effects of large-scale western water projects. Harvey points out that these projects provided employment and cheap energy to fuel western development, while at the same time degrading ecosystems, uprooting established communities and changing flows of existing watercourses. Thus, Harvey argues development of western water came at a high social and environmental price. Raul M. Sanchez, Special Assistant to the President for Diversity and Human Rights at the University of Idaho, Moscow, concludes this part of *Fluid Arguments* with an article on Mexico's El Cuchillo Dam project. Sanchez notes the willingness of both Mexico and the United States to tolerate transboundary harms caused by dam projects in the hope of increasing economic and industrial growth. Sanchez contends the harms to individuals and communities on both sides of the border can only be remedied by enforceable, international claims connected with environmental human rights.

Part Five, *The Coming Fight*, consists of a single article by Hal K. Rothman, a professor of history at the University of Nevada-Las Vegas. Rothman suggests that the western economy is shifting away from agriculture and towards service-based industries. Rothman argues that the future of the west lies in water-based tourism, requiring new regional water allocation strategies.

Fluid Arguments brings together a diversity of viewpoints on both past and future sources of conflict in western water law. The content provides a framework for understanding the interplay of social, political and environmental forces shaping water allocation policies in the American West. The content provides invaluable historical perspective to many of the issues facing practicing water lawyers.

Alan Curtis

OREGON TROUT, ED., OREGON SALMON: ESSAYS ON THE STATE OF FISH AT THE TURN OF THE MILLENNIUM, (with an Afterword by Governor John Kitzhaber) Oregon Trout, Portland, Or. (2001); 175pp; \$15.00; ISBN 0-9709798-0-0, softcover.

There are four species of Pacific salmon in the waters of Oregon today along with two species of Pacific trout. Pictured on the cover of Oregon Salmon, and described before the Table of Contents, is the Chinook salmon, Oregon's state fish. The book is divided into five sections, each beginning with a picture and information regarding the five other species of Pacific salmon and trout in Oregon. The species included are the Chum salmon, the Coho salmon, the Sockeye salmon, the Sea-Run Cutthroat trout and the Steelhead.

Section One, *Looking Backward*, contains four essays that examine the past and the influence the Pacific salmon have had on the spirit and culture of Oregon.

The first essay, "Swimming among the Ruins" by John Daniel, discusses the history and probable evolution of salmonids. Daniels goes on to discuss how flooding has effected salmon evolution and how human involvement has, in recent eras, changed flooding patterns and damaged salmonid habitat.

The following essay by Rick Rubin, entitled "The Chinook People and the Salmon," turns to the cultural impact that salmon have had on one particular population. The Chinooken speaking people of the Columbia River basin was a population almost entirely dependent on salmon and the other forms of wildlife that followed the salmon up river. Salmon thus took on a meaningful role in the mythology and spirituality of these people.

"The Historical and Cultural Meaning of Salmon," by William G. Robbins, examines the economic and industrial changes that metamorphosed salmon fishing and habitat in the Pacific Northwest. The growth of the agriculture, mining and lumber industries, along with a growing salmon market, had a profound effect on the habitat of salmon in the Pacific Northwest. Robbins presents the questions regarding the development of the Columbia River and its possible effect on salmon populations as they were presented in 1941.

Section One closes with a call to action by Elizabeth Woody in "Why I Love With Admiration Every Salmon I See." Woody lends a personal and historical interpretation to the depletion of Pacific Northwest salmon populations. She addresses her ancestral reliance on salmon, and contrasts this directly to the current status of the Columbia River as the most polluted and radioactive waterway in the world. The options for action are simple, explains Woody: we can allow current trends to continue, though we have already recognized a problem, which will surely lead to more salmon species extinction, or we can take drastic action to replenish salmon populations and repair their habitat.

Section Two, *Caught Between the Old West and the New*, looks at how the settling of the west set a tone for development, resource management and use that clashes with current attempts to protect salmon.

In "The Politics of Saving Salmon In the New American West," Angus Duncan presents the conflict between industry and environmentalists. Duncan traces the way resource management in the West has changed through the years, but suggests that in spite of changes in goals, the conflict is still created by the clash between the protection of natural systems and the need for economic activity. Duncan proposes that older western management institutions are finally being replaced by new systems that are more inclined to protect natural ecosystems.

Reed R. Benson next provides a brief summary of the prior appropriation system and Oregon state water regulation in "First in Time, Last in Right: How Oregon Water Law Fails Salmon." Benson acknowledges the groundbreaking efforts Oregon law has used to protect salmon, although these efforts have accomplished little so far. Benson offers three suggestions. First, create a state water agency that has the necessary resources and political will to solve the problem. Second, incorporate a program to acquire senior water rights and convert them to in-stream uses. Third, improve public awareness and citizen participation.

In "Dangerous Passage: Oregon's Salmon and the Hydroelectric System," Phillip R. Mundy lays out the background of hydroelectric dam development in Oregon, and how it has effected salmon populations. He gives a salmon's eye view of the obstacle course that a hydroelectric dam creates. Mundy also discusses mitigation techniques that have been incorporated in some dams to aid anadromous fish in their passages past the dam.

Section Three, *The Salmon's Journey*, outlines the complex nature of the salmon life cycle and the biological needs for species success.

In "Pacific Salmon Life Histories," Jim Lichatowich explains the correlation between the historical genetic diversity of salmon and their ability to adapt to environmental stresses. Hatchery or domesticated salmon runs lack genetic diversity, and Lichatowich believes that no matter how many hatcheries are utilized, the recovery of salmon will fail until some natural pathways through the Oregon riverscape are restored.

Gordon H. Reeves and James R. Sedell address the importance of forests to quality habitat in their essay "The Role of Oregon Forests in Restoring and Maintaining Salmon Populations." Forests provide the raw materials that make streams and rivers productive habitats. Though lower portions of the watershed are often prime agricultural or urban areas, salmonid riparian habitat can be recaptured only through re-connection to forests throughout the watershed.

The final essay in Section Three is "Ocean Conditions and Salmon Runs" by William Percy. Percy introduces the seasonal and cyclical

changes of ocean climate that can drastically effect the population of anadromous fishes. From upwelling to El Niños, the effects can be great, but little scientific data is actually known. New studies are underway to learn more about the effects of oceanic climate changes on Oregon's salmon.

Section Four, *No Simple Answers*, examines management issues for both the immediate and long-term futures, while recognizing that the vast alterations to salmonid habitat that have already occurred are in many ways irreversible.

In "The Enigma of Salmon Hatcheries," Earnest L. Brannon discusses salmon hatcheries in the Pacific Northwest and how they have failed to restore salmon. Brannon suggests that the unique nature of salmon allows them to develop behavior patterns consistent with their specific environment. Hatcheries must therefore be more like natural habitat for artificially propagated salmon to have a successful introduction to natural runs.

In "Bottlenecks, Barges, and Super Fish: Rethinking Conservation of Estuaries and Salmon," Daniel L. Bottom and Charles A. Simenstad evaluate estuarine experimentation and its flaws. The amount of time that a salmon spends in an estuary environment varies by species and life-history pattern. Hatchery stock introduction has diluted the natural populations, and instead of solving genetic bottlenecking, has further simplified the gene pool. The authors suggest that the only answer is to re-establish natural estuaries and hydrologic connections to estuarine wetlands.

Dixon H. Landers discusses the importance of the fresh water system in his essay "Willamette River Main Corridor Restoration: What is Important to Salmon?" Landers believes that the major conflict between a natural river ecosystem and human development is a differing aspect of time. A river system is full of change, but it has been a gradual change that salmon have evolved with and can flourish through. Landers further discusses how man-made alterations to the river often simplify it by removing precious sediment and reducing connectivity between the river and the surrounding watershed. The author presents suggestions for how restoration may be achieved, but emphasizes that a social will to restore the river is necessary first.

Patricia Snow offers a look at Oregon's land use planning system in "Oregon's Land-Use Planning: Does it Protect Salmon and Water Resources?" Oregon has one of the most extensive land use planning programs in the nation, but Snow suggests that it must become even more aggressive in protecting habitat through use of protective zoning to corridors, wetlands and water bodies. Snow also emphasizes the need for habitat enhancement, landowner initiatives and public education.

Melissa Madenski presents her experience with a local Oregon creek in "Who Do You Represent?" The surrounding community expected her to pick a side and represent someone involved as a party. This expectation made Madenski recognize that there is not just one

party responsible for the decline of wild salmon populations in Oregon, and that salmon will not be restored until opponents can stop pointing the finger and work together.

Section Five, *Seeking the Balance*, looks to leveling human needs with the qualitative and quantitative needs for salmon habitat.

In "Life as a Watershed Leader," Robert Stubblefield introduces us to the many passionate, informed Oregonians that comprise ninety-two watershed councils in Oregon. The North Fork Council, for example, brings together tribal, timber, ranching and environmental interests for monthly meetings. Though watershed councils are relatively new, the meeting of such various interests represents one of Oregon's best chances at improving watershed management and restoring salmon.

Through "Of Salmon, Jobs and Equity," Bob Van Dyk and Phil Ruder address the disproportionate cost of salmon restoration that rural areas will have to bear. They suggest, among other things, the use of economic trade offs for hard hit rural areas so that the proper balance between economy and salmon habitat can be found.

"Can Law Save Salmon?" is the question that Daniel J. Rohlf attempts to answer in his brief summary of how law has impacted salmon. Rohlf begins with the earliest legal treatment of salmon, which is found in American Indian treaties, and ranges to current legal efforts. He concludes that law alone will not be enough; people must adjust their lives to allow for salmon recovery before the law will have the ability to protect or restore salmon.

Richard N. Williams is the next author featured with "Refugia-Based Conservation Strategies: Providing Safe Havens in Managed River Systems." This essay traces the acceptance of scientific analysis in the early 1990s and the new approach to recovery that focused on the interaction between fish and their habitat. Williams lays out a practical approach wherein wildlife reserves or salmon refuges serve as a hub in the preservation and restoration of remaining viable salmon stock.

Authors Bruce Taylor and Sara Vickerman address "The Role of Private Lands in Salmon Restoration Efforts." They conclude that conservation mechanisms relying solely on public land will probably not be enough. Options for management and regulation of private lands are presented, and admittedly, political will and financial means for any selected effort will be expensive, difficult, and must occur soon.

Mary Scurlock shifts the restoration effort back to public lands in "Where the Wild Things Are: Federal Lands in the New Millennium." Though natural lands are incredibly valuable, they too have become environmentally degraded. She suggests that federal lands are the natural anchor for wild salmon, and calls for the increased use of policy for habitat protection on federal lands.

"The Importance for Anadromous Salmonids of Low-Gradient, Unconstrained Stream Reaches" by Thomas Nickelson, Jeffrey Rodgers, and Kelly Moore, suggests that the focus of salmon habitat restoration should be the low-gradient unconstrained stream reaches.

Low elevation stream valleys were often the first areas developed, and development has constrained the streams. The answer again is suggested to be a reconnection of the stream to its flood plain.

The final essay concluding Section Five is "So What's the Deal With Community – Based Salmon Restoration?" by Jay Nicholas, the principal author and leader of the Oregon Plan for Salmon and Watersheds. Nicholas admits that volunteerism alone will not be enough to solve the salmon problem in Oregon. Regulation alone will also be insufficient. Together however, volunteerism and regulation are greater than the sum of their parts, but all Oregonians must be personally, spiritually and economically committed to the challenge.

Oregon Salmon concludes with an Afterword by Oregon Governor John Kitzhaber entitled "The Oregon Ethic in a Global Context." Governor Kitzhaber appeals to evolution and the place of man in the chain of life when he charges us all to step up and fulfill our preservation and restoration obligations to future generations.

Erika Delaney Lew

JEFFERY ROTHFEDER, EVERY DROP FOR SALE: OUR DESPERATE BATTLE OVER WATER IN A WORLD ABOUT TO RUN OUT, Penguin Putman Inc., New York, N.Y. (2001); 205pp; \$24.95; ISBN 1-58542-114-6, hardcover.

Water is the one thing on earth that nearly all living creatures cannot survive without. However, as population increases and more developing countries emerge, water is becoming scarce in many parts of the world. In *Every Drop For Sale*, Jeffery Rothfeder addresses the issue of the growing scarcity of water, and the need for all countries of the world to make significant changes in the way they consume water. Population increases occurring in many areas of the world will make providing clean water to all people extremely difficult. Rothfeder believes that water is becoming the oil of the twenty-first century. The value of water has become so significant that conflict and war have already broken out in countries where there is not enough clean water for people to drink. *Every Drop For Sale* offers an informative look into the impending crisis, and offers the reader a basis to begin thinking about how they may support positive change.

In Chapter One, Rothfeder focuses on dams and their impact on water throughout the world. Although dams are created to control water and create power, they can create devastating problems.

In Chapter Two, Rothfeder tells a story of a trip into the desert where a project is planned to extract water to supply Southern California. Rothfeder finds it ironic that in their scramble to find a future water supply, California is resorting to locations in the desert.

Chapter Three focuses on the implication of considering water a right compared to a need. If water is a "right," then all governments

have the responsibility to ensure that every citizen has access to clean water. Rothfeder gives examples of current situations where tension exists between countries over water. The examples illustrate a growing concern that without a universal right, people will go to war over water.

Chapter Four describes the growing trend of private companies taking over water supplies in developing nations. Privatization of water carries both supporters and dissenters. Rothfeder develops both sides of the argument, and shows the struggles that each side has in the face of a diminishing water supply.

In Chapter Five, Rothfeder introduces a new trend of shipping water by bag to areas of the world in need. Shipping water allows desperate areas to be supplied with water, however conflicts are now arising regarding the sources of the shipped water.

Chapter Six touches upon some of the environmental concerns surrounding the water dilemma. Specifically, Rothfeder focuses on the detrimental impact development and growth has had on Florida's water supply, and the damage done to Florida's Everglades. Efforts are now being made to correct the problems caused by past development, however new projects will continue to present difficulties. To illustrate, Rothfeder describes impending problems caused by the Three Gorges Dam in China, which is currently under construction. This chapter stresses the importance of correcting old problems and ensuring that mistakes are not repeated.

In Chapter Seven, Rothfeder goes deeper into the water conflict, and stresses that many of these conflicts involve actors on a local level. Rothfeder examines a local example of the effect dams have on salmon populations throughout the United States.

Chapter Eight reinforces the importance of water for all life on earth, and the need to research and work on the growing water problem. Rothfeder emphasizes that funds need to be used more efficiently on water projects in order to deal with the impending crisis.

Every Drop For Sale provides excellent insight and establishes an understandable guide to water issues involving the entire world. Rothfeder not only explains the problems, but also poses possible solutions, leaving the reader feeling as though corrections can be made to avoid a worldwide crisis.

Colleen M. Cooley

PAUL F. SCODARI, WETLANDS PROTECTION: THE ROLE OF ECONOMICS,
Environmental Law Institute, Washington, D.C. (1990); 89pp.;
\$28.00; ISBN 0-911937-32-3, soft cover.

One problem environmental policy makers routinely face is how to protect wetlands from being exploited by unwise development. Even though their value is widely recognized, wetlands continue to be lost at alarming rates to agriculture, urban development and other

development projects. In his report, *Wetlands Protection: The Role of Economics*, Paul F. Scodari looks at the science of wetland valuation and the principles and methods for valuing wetlands, and then makes conclusions and recommendations for the future.

Chapter One begins by giving the reader a background of the federal government's role in wetlands regulation, focusing on the role of the United States Army Corps of Engineers ("Corps"), which is responsible for evaluating and constructing projects such as dams, levees and canals. The author then discusses the Corps' current cost/benefit framework, and its flaws. He briefly identifies problems with the current framework related to economic, scientific and political issues. Scodari concludes the chapter with a discussion about the theme of his report, which is, "[to explore] the use of modern economics to improve wetland development decision making, focusing on the barriers to adequate economic valuation of wetlands."

Chapter Two deals with the science of valuing wetlands. It begins by giving the definition of wetlands, and then moves on to discuss the major causes and trends concerning the loss of wetlands. The author points out that the major reason for wetland loss is the expansion of agricultural activities, and that the recent trends show the rate of wetland loss is decreasing. Next, the author discusses the major goods wetlands provide that benefit human beings, specifically: (1) intermediate goods, such as water supply and storage; (2) final wetland goods, such as fishing, hunting, or scenic values; and (3) future wetland goods, which might include flora and fauna that could provide new medical cures. The chapter also discusses the ecological factors that produce those goods, such as groundwater recharge and discharge, nutrient retention and removal, and wildlife habitat support. Scodari ends the chapter with a brief discussion of the scientific barriers that prevent accurate valuation of wetlands.

Next, Chapter Three, discusses the principles and values used to value non-market wetland goods. Scodari begins by asserting that because owners of wetlands cannot recoup the value of the benefits that wetlands provide to society, the market system is not able to allocate wetlands efficiently and therefore owners find it more profitable to develop their land. The author defines the term "economic value," and discusses the need to value wetlands in both their pre and post development stages. Scodari then takes an in-depth look at the different methodologies currently used to value wetlands, such as the Net Factor Income Method, the Travel Cost Method and the Contingent Valuation Method. The chapter concludes by identifying barriers to wetland valuation, such as the extensive data requirements, complexity and costs.

Chapter Four discusses the implementation of wetland valuation, focusing on federal laws and guidelines. The chapter begins by identifying the types of federal projects that can have negative effects on wetlands and describes some of their impacts. The author moves on to discuss how the government, and, in particular, how the Corps uses the guidelines promulgated by the Water Resource Council

("WRC") to conduct a cost/benefit analysis for individual projects. Scodari looks in detail at the four accounts the WRC guidelines suggest setting up to help with the cost/benefit analysis, which include the National Economic Development Account, the Environmental Quality Account, the Regional Economic Development Account, and the Other Social Effects Account. Scodari ends the chapter with a discussion of the political and institutional barriers to wetland valuation, which include the fact that the guidelines are structured to value market goods over non-market environmental goods, and the fact that there has been a longstanding, nationwide preference for economic growth at the expense of environmental protection.

Chapter Five deals with the federal system for assessing damage to public resources. The chapter begins with a discussion about how public natural resources are allocated. It then moves on to discuss the damage assessment provisions of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). In analyzing the damage assessment provisions in CERCLA, the author engages in a detailed review of type A regulations, designed to calculate damages for wildlife mortality and closure of recreational areas, and type B regulations, which set out guidelines to be used when the type A model does not apply. The chapter ends with an assessment of the CERCLA framework, and a comparison between the WRC guidelines and the damage assessment provisions in CERCLA.

In the final chapter, Chapter Six, the author gives his recommendations for the future. Scodari contends that what is needed is better science and reform of the administrative framework for valuing wetland outputs, not radical new economics. Regarding methodological improvements, Scodari suggests improving biological and economic databases, and improving communication among wetland scientists, economists, and decision makers. As for administrative reforms, Scodari suggests that the WRC guidelines should be amended and made mandatory.

David M. Jacob

GREG SHAPLAND, RIVERS OF DISCORD, St. Martin's Press, N.Y. (1997); 183pp; \$59.95; ISBN 0-312-16522-6, hardcover.

The Middle East and North Africa comprise one of the driest regions in the world. In a region already inundated with ethnic and religious conflicts, the issue of water is yet one more factor that has the potential to plunge the region into wide-scale conflict. In *Rivers of Discord*, Greg Shapland provides his readers with an in-depth view of the region's water resources and potential for conflicts, while also exploring ways to resolve those conflicts.

Chapter One is an introduction to the region's water sources and politics. The author begins by pointing out that the Middle East is the most arid of the world's major regions, and because of that, when it

comes to water, the nations in the region are highly suspicious of each other. He then discusses the fact that most countries in the region depend on water from outside their borders, and points out that there are currently no effective regional structures that deal with water. The chapter moves on to discuss the issue of water resources, pointing out that the region's resources are coming under ever increasing pressure from population growth, urbanization and increased expectations for higher standards of living. Shapland then states the purpose of his book, which is to consider the present state of disputes between Middle Eastern states over water, and to consider how those disputes may develop. The chapter concludes with a brief discussion of the difficulty of finding precise, reliable data on the region's water resources.

Chapter Two deals with water in the Arab-Israeli dispute. It begins by providing a background of the dispute, beginning with the Zionist movement and ending with the division of lands and the founding of Israel. Next, Shapland surveys the resources in question, which are: (1) the headwaters of the Jordan River (the Dan, the Baniyas, and the Hasbani); (2) Lake Tiberias; (3) the Yarmouk River; (4) the lower Jordan River; (5) the Litani River; and (6) the groundwater contained in both a mountain aquifer and the aquifer under the Mediterranean coast. The chapter then moves on to survey the period of time from the founding of Israel until the 1967 War. Shapland points out that during this time, it was Israel's intention to "make the desert bloom." During this period, the countries in the region tried to cooperate on a regional scale, but even the Johnston Plan, which was an equitably designed plan devised by the United States, could not be agreed upon. According to the author, it was this failure to work on a regional scale that led Israel and the Arab countries to take unilateral actions that directly led to the 1967 War. The chapter then looks at the time period of 1967 until the Madrid Peace Conference in 1991. The crux of this section focuses on Israel's territorial gains in the 1967 War, and how those gains enabled Israel to monopolize the waters it had control over in the West Bank, Gaza and the Golan Heights. Moving on, the author next discusses the time period of Madrid to the present. Shapland touches on the peace treaty between Jordan and Israel, which was signed in 1994 and contains a detailed apportionment of shared water resources, and an agreement to work cooperatively to find new water resources. He also discusses the 1995 Interim Agreement between Israel and the Palestinian Authority, which contains a recognition by Israel of Palestinian water rights, and establishes a joint water committee. The author then discusses the role of the Syrians and the Lebanese, who have not engaged in any meaningful discussions with Israel pertaining to water. The chapter closes with a discussion of future challenges pertaining to the Arab-Israeli dispute. Shapland discusses the need to respond to expanding populations by increasing water supply through both conventional and unconventional methods, and through conservation.

Chapter Three deals with the Nile. Shapland begins by pointing

out that ten countries share the Nile basin, and although the Nile is one of the world's longest rivers, it carries seven times less water than the Mississippi. The chapter discusses how the Nile has been regulated in the past, and goes through a chronology of major works on the Nile. Shapland then moves on to discuss the quality of the Nile's water, which at most points on the Nile is very high, excepting for the stretch that runs through Egypt. The next issue presented is that of treaties and disputes. The author begins in the late 1800s with Britain's agreements with Italy and Ethiopia, and progresses in time up to the agreements made in the early 1990s between Egypt, Ethiopia, Sudan and Uganda. Next, the chapter discusses the new demands facing the countries in the Nile basin that will lead to increased pressure on water resources, such as population growth, increased agriculture, an expansion of industry to create new jobs, and climate change. Shapland suggests several options to deal with the new demands, such as increased use of groundwater, lowering Lake Nasser, and re-using water.

The next chapter, Chapter Four, surveys the situation in the Tigris-Euphrates basin. This chapter begins, much like the others, with a brief geo-political background of the basin, which is shared by Turkey, Syria, Iran and Iraq. The author points out that the Tigris and Euphrates did not become international rivers until the breakup of the Ottoman Empire after World War I. Shapland then traces the history of agreements among the riparian states, beginning with a 1920 agreement between Britain and France, who were acting on behalf of Iraq and Syria. Next, the chapter deals with Syria and Iraq's fears that their plans to use the waters of the Tigris and Euphrates will be dashed by upstream Turkey's plans to make use of the waters to develop the economic infrastructure of south-eastern Anatolia (known as the "GAP project"). The chapter then moves on to discuss the impact of the GAP project, and evaluates the needs of Iraq and Syria. Shapland concludes that Iraq and Syria both probably have less to fear from the GAP project than they believe. The author ends the chapter by predicting that until a trilateral agreement is reached, Iraq and Syria will try to put financial, and in some rare instances military, pressure on Turkey to keep Turkey from developing the GAP project as planned.

Chapter Five is extremely short. It covers the Orontes River, also known as the Asi River. The author begins by stating that the Orontes is a small river in comparison to the Tigris and the Euphrates, but it is still very important. Turkey, Syria and Lebanon share the river. The chapter begins by surveying the situation with regard to Syria and Lebanon, who in 1994 signed an agreement to divide the waters of the Orontes between them. The author goes on to discuss the situation between Turkey and Syria, which is intriguing because it is the exact opposite of the situation on the Tigris and the Euphrates (there, Turkey is upstream, while on the Orontes, Syria is upstream).

Chapter Six deals with disputes that involve groundwater only. Shapland points out that because surface water resources are so scarce,

countries in the region are turning to groundwater to help alleviate the stress on water supplies. The chapter begins with a discussion about the Qa Disi aquifer, shared by Jordan and Saudi Arabia. The author discusses the pros and cons of transporting the water in this aquifer for use in Jordan, and concludes that the only hope for Jordan to make efficient use of this water would be to cooperate with the Saudis, who have been uncooperative up to this point. The chapter briefly discusses the situation surrounding the Azraq aquifer, located in Jordan and Syria, and the Nubian aquifer, located in Libya, Egypt and Sudan.

Chapter Seven seeks to identify common themes present throughout all the disputes in the region that could help those working on water disputes in other parts of the world predict where their situations might be headed. The chapter begins by looking at the position of states in relation to a water resource. In particular, Shapland identifies the likely position a country would take if it were an upstream country, downstream country, or if it was both upstream and downstream, such as in Syria and Sudan. The chapter then moves on to discuss other geographical and hydrologic factors common to all the disputes in the region, such as the degree of dependence a state has on a particular shared resource, the variability of flow, and the proportion of flow derived from each state. Next, the author addresses common economic factors in the region's disputes. Shapland explores factors such as the extent to which the source of water is already utilized, which will have a bearing on whether or not new projects will lead to disputes, and then discusses opportunities for obtaining new sources of water, which would make it easier for countries to deal with increased use of shared water resources. Next, Shapland considers common political and legal factors. He examines the International Law Commission Draft Articles on the Law of Non-Navigational Uses of International Watercourses, the political relationship between states, and the domestic political situations within states. The chapter closes with a brief consideration of the changing picture for the future, in which the author predicts that factors such as pollution, technological advances, and changes in political regimes will make it hard to predict the outcome of future disputes.

Finally, in Chapter Eight, the author provides his outlook for the future. Shapland states his opinion that although pressure is increasing on the region's water resources, the risk of armed conflicts breaking out over those resources is minimal. He points out that the experience of the last several decades has shown that armed conflict over water sources is very rare when compared to the use of economic and diplomatic means. Shapland writes that there is more slack in Middle Eastern water budgets than appears, and he believes states in the region will be able to make technological advancements that will enable them to deal with increased pressures on their water sources. Though he is optimistic that enough water exists for all countries to adequately fulfill their needs, Shapland does end on a positive note.

He states that particularly in regards to the Arab-Israeli dispute, the existence of political disputes in the region will continue to complicate attempts to solve the region's water disputes.

David M. Jacob

COURT REPORTS

FEDERAL COURTS

UNITED STATES CIRCUIT COURTS

FIRST CIRCUIT

Dubois v. United States Dep't of Agric., 270 F.3d 77 (1st Cir. 2001)

(holding the United States Forest Service did not act in bad faith when it authorized an increase in the amount of water that Loon Mountain may draw from Loon Pond each year for snowmaking purposes).

Roland Dubois filed this suit against the United States Forest Service ("Forest Service") alleging violations of the National Environmental Policy Act ("NEPA") and the Clean Water Act ("CWA"). On appeal, the court entered a summary judgment in Dubois' favor. On remand, Dubois sought to compel the Forest Service to reimburse him for attorney's fees and costs.

Loon Mountain Recreation Corporation ("Loon Corp.") operates a ski resort in Lincoln, New Hampshire. Because part of its resort lies within the White Mountain National Forest, Loon Corp. was required to have a special-use permit issued by the Forest Service. In 1986, Loon Corp. applied for an amendment to its permit which would allow it to increase the amount of water it used for snowmaking, from 67 million gallons per year to 138 million gallons. Loon Pond, a rare high-altitude pond within the White Mountain National Forest, is where the Loon Corp. planned to draw the majority of water.

Dubois alleged that the Forest Service violated NEPA by failing to adequately explore reasonable alternatives to using Loon Pond as a primary source of snowmaking water. The Forest Service contended that it did not seriously consider other types of storage ponds because "the sheer enormity of constructing comparable water storage facilities . . . was a practical impossibility." The court of appeals held that the Forest Service violated NEPA because it had failed to adequately consider the possibility of building on-site storage ponds as an alternative to using Loon Pond as a water source for snowmaking.

The rule on fee shifting generally prohibits the prevailing party from collecting attorney's fees from the losing party. One exception, however, allows a district court to award attorney's fees to a prevailing party when the losing party has "acted in bad faith, vexatiously,

wantonly, or for oppressive reasons.” Dubois argued that the Forest Service’s litigation position in this case was vexatious. Specifically, Dubois noted that the Forest Service claimed artificial storage ponds at Loon Mountain were a “practical impossibility,” while at the same time it authorized construction of a similar storage pond nearby.

Dubois claimed the district court erred in its analysis by requiring a finding of subjective bad faith as a necessary precondition to an award of sanctions. The appellate court rejected this argument and concluded that the Forest Service’s conduct was not unreasonable. Dubois raised further justifications for attorney’s fees that the appellate court refused to hear because Dubois failed to present those same arguments to the trial court. The appellate court therefore denied Dubois motion for attorney’s fees, as it could not find any bad faith conduct by the Forest Service.

Michael Barry

United States v. Mass. Water Res. Auth., 256 F.3d 36 (1st Cir. 2001)
(holding the district court had discretion to decline injunctive relief to force the Massachusetts Water Resources Authority to install a water filtration system, despite its violation of the Surface Water Treatment Rule promulgated by the United States Environmental Protection Agency under the Safe Drinking Water Act, so long as the court’s judgment provided maximum feasible protection of the public health).

The United States Environmental Protection Agency (“EPA”) brought an enforcement action against the Massachusetts Water Resources Authority (“MWRA”) alleging violations of the Safe Drinking Water Act (“SDWA”) and the Surface Water Treatment Rule (“SWTR”). The United States District Court for the District of Massachusetts declined to require installation of a filtration system for past violations, and the EPA appealed. On appeal, the EPA argued that under the SDWA, courts have no discretion to withhold indefinitely a provided-for remedy, such as filtration, if a public water system has violated a substantive requirement of the SDWA.

In 1974, Congress passed the SDWA to protect the purity of the drinking water provided by the nation’s public water systems. In 1986, Congress amended the SDWA to require the EPA to develop treatment regimes, and to require that either the states or the EPA prosecute violations of the SDWA and the SWTR. Through these amendments, Congress required that all public water systems, except for systems specifically eligible to receive a variance from the EPA, use disinfection techniques to reduce the live quantities of pathogens in the water supply. Congress also changed the SDWA to provide for filtration of public water systems. Unlike the disinfection mandate, however, Congress did not require all public water systems to employ filtration.

Congress instead provided that the EPA “shall propose and promulgate ... criteria under which filtration ... is required as a treatment technique for public water systems supplied by surface water sources.”

In response to the amendments, the EPA promulgated the SWTR, which applied the filtration requirement to public water systems that draw some of their water from aboveground sources. The SWTR set out eleven “avoidance criteria” for levels of certain waterborne contaminants that all public water systems hoping to avoid installing a filtration system must satisfy. The SWTR required that public water systems not meeting all of the avoidance criteria by December 30, 1991, “must provide treatment consisting of both disinfection . . . and filtration” by June 29, 1993, or, if the violation occurs after December 30, 1991, within eighteen months of the violation. The EPA, however, cannot compel a violator to comply with the SWTR through the issuance of its own enforcement order. Rather, it must sue in federal district court to request a remedy, such as the construction of a filtration facility. The SDWA provides that in deciding such suits, courts “may enter ... such judgment as protection of public health may require, taking into consideration the time necessary to comply and the availability of alternative water supplies.” Once a district court finds that a public water system has violated one of the avoidance criteria, it forever remains subject to an enforcement suit requiring installation of a filtration system.

Established in 1984, the MWRA owns and operates the public water system that provides most of the drinking water for the city of Boston and surrounding communities. Once the SWTR was promulgated, the MWRA determined that it would not be able to fulfill all of the avoidance criteria by the December 30, 1991 deadline. On January 24, 1992, the Massachusetts Department of Environmental Protection (“DEP”) notified the MWRA that it would have to install a filtration system by June 30, 1993. After it became clear that the MWRA could not design and install a filtration system before June 1993, the MWRA and the DEP entered into negotiations, whereby rather than requiring the immediate installation of a filtration system, the MWRA could treat its water supply with disinfection, ozonation, covered water storage facilities, and a watershed protection plan for one of its reservoirs. On November 13, 1998, the DEP decided the MWRA had adequately complied with the SWTR’s avoidance criteria, and concluded that the MWRA had developed satisfactory plans for improving the quality of its water. The DEP’s decision excused the MWRA from installing a filtration system as long as the MWRA did not violate any of the avoidance criteria, which could result in a reimposition of the filtration requirement.

On February 12, 1998, the United States filed a lawsuit on behalf of the EPA, which sought an injunction ordering the MWRA to comply with the filtration requirement set out in the SDWA and the SWTR. The EPA subsequently asked the DEP to revoke the MWRA’s filtration waiver based on this violation, but the DEP declined. The district

court held that, based on the principle that only a “clear legislative command” will circumvent the discretion of courts to fashion equitable remedies, it retained discretion to determine appropriate relief. The district court found no clear legislative command limiting courts to mechanical enforcement of EPA compliance orders. Having determined that it possessed the equitable discretion to withhold the filtration remedy, the district court held that, given the lack of an actual health issue in light of the MWRA’s compliance with the avoidance criteria at the time of trial, “any risk to public health entailed by selection of the ‘ozone-only’ option is within acceptable levels.” The district court found that the MWRA’s proposed treatment plan was a “sound alternative to ... filtration when competing demands for limited resources and the level of risk from all potential threats to the safety of MWRA water are considered.”

In its appeal, the United States argued that the district court did not have discretion to withhold an SDWA provided remedy, namely filtration. The United States Court of Appeals for the First Circuit relied on the general principle that courts called upon to issue an injunction must determine whether the equities of the case favor, and whether the public interest would be served by, the granting of injunctive relief. The Supreme Court has held there is a presumption that a court has discretion whether to issue an injunction, and only a proper showing of congressional intent will overcome this presumption. In determining congressional intent, courts must consider the language, history, structure, and the underlying substantive policy of the legislation. Under this analysis, the court noted that the language and structure of the SWTR regarding the need for filtration reflect policy judgments of the EPA, not Congress, and as such, did not demonstrate legislative intent. The court disagreed with the United States and stated that a district court is not required to order the substantive remedies available under the SDWA whenever a regulation promulgated under the SDWA has been violated. The court believed that as long as the district court issued a judgment that ensures the public water system provides water that is safe according to standards identified by the EPA, the court has achieved the goal of the SDWA. Examining the language of the SDWA’s judicial-enforcement subsection, the court noted that, following a violation of the SDWA’s substantive provisions, a court “may enter ... such judgment as protection of public health may require....” The court focused on Congress’s use of the permissive “may” rather than language that would have required a specific judgment to comply with the SDWA. Instead, the court found the SDWA grants district courts the discretion to issue “judgments as protection of public health may require.”

Furthermore, the court noted that while filtration is a requirement under the SDWA/SWTR regime for water systems that fail to meet the avoidance criteria, filtration is primarily a function of the SWTR, not the SDWA. The purpose of the SDWA is to “assure that water supply systems serving the public meet minimum national standards for

protection of public health.” Thus, the objective of the SDWA is safe drinking water; filtration is merely one way to achieve that goal. So long as a district court’s judgment meets that SDWA goal of providing safe drinking water, that judgment is properly within the scope of the SDWA. The court was also satisfied with the district court’s judgment because the district court agreed to oversee the MWRA’s compliance with the filtration avoidance-criteria, thus ensuring that the MWRA’s water supply will remain safe according to the EPA’s standards.

Despite the district court’s finding that the SDWA contains a “presumption expressed by Congress ... that filtration will almost always be the preferred remedy for an SWTR violation,” the court was satisfied with the district court’s decision not to issue an injunction. The court reached this holding because the district court properly exercised the flexibility Congress it in the statute, and assumed the responsibility of monitoring the MWRA’s compliance in the event that future violations require a reexamination of the decision not to order filtration. In sum, the court affirmed because the district court acted within the scope of its authority under the SDWA and used its equitable discretion to further the substantive purposes of the SDWA.

Kevin R. Rohnstock

SECOND CIRCUIT

Catskill Mtns. Chapter of Trout Unlimited v. City of New York, 273 F.3d 481 (2nd Cir. 2001) (holding artificial transfers of water from one watershed to another could constitute an actionable violation of the Clean Water Act).

The Catskill Mountains Chapter of Trout Unlimited and other recreational users of Esopus Creek (collectively “Catskill”) filed suit against the City of New York (“City”) for alleged violations of the Clean Water Act (“CWA”). Catskill claimed the City’s release of water from Schoharie Reservoir (“Reservoir”) introduced “suspended solids,” “turbidity” and “thermal discharges,” into the naturally clearer and cooler waters of the creek, all of which constituted “addition” of pollutants under the CWA.

The Reservoir supplied drinking water to the citizens of the City by discharging water through the Shandaken Tunnel (“the Tunnel”) into the creek, where it subsequently entered the Hudson River and flowed south to the City. Without the Tunnel, water leaving the Reservoir would naturally flow into the Mohawk River and would never flow into the Creek.

The circuit court focused on the question of whether artificial transfers of water from one watershed to another could constitute an “addition” of pollutants actionable under the CWA. The CWA

requires polluters to obtain a National Pollutant Discharge Elimination System ("NPDES") permit. Catskill claimed the City's transfer system constituted a violation of the CWA since the City had no NPDES permit to discharge water from the Reservoir via the Tunnel. The City countered first, by citing authority from other federal circuits, which, relying on EPA policy statements, stated that NPDES permit requirements did not apply to discharges from dams, and second, by arguing its discharges did not amount to "additions" of pollutants.

The Second Circuit admitted such statements could be persuasive and deserved qualified deference from the court. However, it found they in no way bound it to follow the holdings of other Circuits. Furthermore, the court distinguished the two cited cases because they involved the recirculation of water within a given system, whereas Catskill's claim involved an artificial "inter-basin transfer" of water made possible by a tunnel.

As to whether such a transfer could be considered an "addition" of pollutants, the court appealed to logic and policy. Though the CWA does not define "addition," the court held, "[n]o one can reasonably argue that the water in the Reservoir and the Esopus [Creek] are in any sense the same, such that the 'addition' of one to the other is a logical impossibility." Moreover, the court felt the CWA's "uncompromising policy of 'restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters'," should guide its interpretation of the debated term. Therefore, since the water from the Reservoir might have been more polluted than the water in the Creek, and because that would upset the Creek's environmental integrity, the court held such a transfer could constitute an "addition." A different finding, the court opined, could lead to a potentially hazardous precedent allowing transfers from extremely polluted watersheds into clean ones. Accordingly, the court reversed the lower court's ruling.

Daniel C. Wennogle

Natural Res. Def. Council, Inc. v. Muszynski, 268 F.3d 91 (2d Cir. 2001) (holding that the Environmental Protection Agency did not violate the Administrative Procedure Act by approving the State of New York's total maximum daily load standards for phosphorus in eight drinking water supply reservoirs because: (1) the Clean Water Act did not require that all TMDLs be expressed in daily terms; (2) formulating the TMDLs based on an aesthetic water quality standard was sufficient for drinking water supply purposes; and (3) given the limited data and methodology available, EPA used its best professional judgment in determining the margin of safety for the TMDLs).

In recent years, nineteen reservoirs located in upstate New York, which supply New York City with its drinking water, have suffered

increased phosphorus pollution due to sewage and nonpoint source discharges. Phosphorus pollution can cause excessive growth of algae and aquatic macrophytes, which may harm the aesthetics of the reservoir and its drinking water supply.

In 1994, Natural Resources Defense Council, Inc. ("NRDC") filed suit in the United States District Court for the Southern District of New York claiming that the State of New York ("State") had a duty under the Clean Water Act ("CWA") to promulgate total maximum daily load ("TMDL") pollution standards for the reservoirs and that its failure to do so left the Environmental Protection Agency ("EPA") with a duty to promulgate such standards. The district court denied NRDC's summary judgment motion on this claim, holding that a genuine issue of fact existed as to whether the State had submitted TMDLs for the reservoirs.

In January 1995, the State placed the reservoirs on a list given to EPA for priority in developing TMDLs. In 1996, the State published a report of its methodology for developing phosphorus TMDLs for the reservoirs and explained that the TMDLs would be phased in over time. On January 31, 1997, the first set of TMDLs was submitted to EPA for eighteen of the nineteen reservoirs. On April 2, 1997, EPA approved TMDLs for eight of the reservoirs. EPA declined to approve TMDLs for the remaining ten reservoirs, concluding that pollution levels in those reservoirs did not exceed the level that required TMDLs under the CWA.

NRDC amended its complaint claiming the TMDLs the State submitted were inadequate under the CWA and EPA's approval of TMDLs for eight of the reservoirs violated its duty under the CWA as well as the Administrative Procedure Act ("APA"). EPA moved for summary judgment on both claims. The district court granted EPA's motion on the CWA claim, stating that EPA's approval of TMDLs under the CWA was within its discretion. However, the district court rejected EPA's motion on the APA claim stating that genuine issues of fact existed as to whether EPA should have approved some of the TMDLs. On May 2, 2000, the district court found that EPA's approval of the eight TMDLs was supported by the administrative record and therefore, did not violate the APA.

On July 28, 2000, NRDC appealed this ruling to the United States Court of Appeals for the Second Circuit. In its appeal, NRDC renewed its argument that the EPA violated the APA by approving TMDLs that were deficient because the standards: (1) were expressed in terms of annual, not daily, loads; (2) failed to implement the applicable water standard for the situation—water supply; and (3) failed to incorporate an adequate margin of safety.

The court stated that although a strict reading of the CWA suggested that TMDLs had to be expressed in daily terms, permitting alternative periods of measurement would best serve the purpose of effectively regulating the broad range of pollutants covered under the CWA. However, the court noted that the record showed that seasonal changes in temperature, density, and wind affected phosphorus

concentrations. As such, the court suggested that a seasonal measurement would be more appropriate for establishing phosphorus TMDLs for the reservoirs. Therefore, the court remanded this issue to require EPA to justify how its annual period of measurement would account for these seasonal variations.

Second, the court expressed concern with EPA's use of a less stringent aesthetic water quality standard, instead of the more stringent water supply standard, for formulating its phosphorus TMDLs. It noted, however, that the current aesthetic water quality standard was driven by the need to control excessive algal and aquatic plant growth, the same problems phosphorus creates for drinking water supplies. Moreover, the scientific knowledge regarding phosphorus pollution in the reservoirs was not complete. As such, the record adequately supported the court's holding that EPA's use of an aesthetic water quality standard was appropriate for formulating the reservoirs' phosphorus TMDLs.

Third, the court found that if EPA were disregarding a widely used and reliable scientific methodology in determining a margin of safety for its phosphorus TMDLs, their action would be easily open to challenge. However, it noted that in determining the TMDL margin of safety for the reservoirs, EPA used a model applied to several New York City reservoirs in the past. Moreover, information available on the reservoirs was limited. As such, the appellate court felt that EPA had used its best professional judgment in formulating the margin of safety for the TMDLs.

Matthew J. Costinett

FOURTH CIRCUIT

Piney Run Pres. Ass'n v. Cty. Comm'rs, 268 F.3d 255 (4th Cir. 2001) (holding National Pollutant Discharge Elimination System ("NPDES") permit holder was shielded from Clean Water Act ("CWA") liability for discharges of pollutants not listed in the permit, provided such discharges were disclosed to the permitting authority and reasonably contemplated in the permitting process).

Piney Run Preservation Association ("Association") brought suit in United States District Court for the District of Maryland against Commissioners of Carroll County, Maryland ("County"), alleging a county-operated waste treatment plant discharged warm water into Piney Run Stream ("Piney Run") in violation of the CWA.

The NPDES permit issued to Carroll County did not expressly allow discharge of heated water. During the NPDES permitting process, however, Carroll County disclosed the fact that the plant would emit such water. The district court found the County liable under the CWA for discharges from the Plant exceeding state water

temperature standards. Both the Association and the County appealed. The Association argued the NPDES permit did not allow heated effluent discharges; therefore, the plant violated the CWA by discharging any level of heat into Piney Run.

The County contended it issued NPDES permits based on compliance with state water quality standards. Because the Maryland Department of the Environment ("MDE") enforced state water quality standards, the district court should have deferred to MDE in determining whether the Plant's discharges adversely influenced Piney Run's ambient temperature. Furthermore, the County claimed the Association lacked Article III standing to sue in federal court, as individual members of the group could not prove requisite injury-in-fact, traceable to the Plant's releases of heated effluent into Piney Run. Finally, the County argued a "permit shield" barred suit against NPDES permit holders for discharge of pollutants not expressly considered under those permits.

The Court of Appeals for the Fourth Circuit found the ambient temperature of Piney Run had no bearing on its ultimate disposition. Further, Association member Dorothy Rowland ("Rowland") could show injury-in-fact required for Article III standing. Piney Run flowed through Rowland's property, and was in a pristine state when she purchased the tract in 1967. However, a high concentration of green algae had recently formed in Piney Run, limiting Rowland's use of the stream for livestock watering and recreational purposes. The Association presented evidence that the Plant discharged heat into Piney Run. It also offered expert testimony showing a causal relationship between green algae proliferation and an increase in ambient stream temperatures. The court found the Plant's discharges could cause or contribute to the kinds of injuries the Association alleged. Thus, the Association demonstrated injury-in-fact traceable to the actions of the County, thus bringing the action within purview of Article III.

The appellate court disagreed with the County's interpretation of the "permit shield" defense, finding that the CWA created strict liability for all point-source discharges, unless exempted by an NPDES permit. The permitting authority, in this case MDE, considered discharge information from all relevant parties, calibrating permissible releases under individual permits in accord with state water quality standards. The effectiveness of the NPDES permitting process turns on a permit holder's compliance with CWA reporting and monitoring requirements. The court held that the CWA required the County to disclose the nature of its effluent discharges to MDE. MDE could limit pollutant releases if it reasonably anticipated resulting environmental harms. Because the County disclosed the Plant's release of heated effluent during the permitting process, the court held MDE reasonably contemplated that the Plant would discharge heat pursuant to the NPDES permit. Although the NPDES permit did not list heat as a permitted pollutant, MDE considered the likely effects of such heat releases in Piney Run during the permitting process. Thus, the CWA's

“permit shield” defense barred the Association’s suit against the County.

Alan Curtis

SIXTH CIRCUIT

United States v. White, 270 F.3d 356 (6th Cir. 2001) (holding that turbidity cannot be considered a pollutant under the Safe Drinking Water Act for sentencing purposes).

An Ohio district court convicted John White and Carolyn Taylor, employees of the Ohio County Water District, of making materially false statements by submitting reports containing falsified turbidity measurements to the Kentucky Division of Water (“DOW”). The government filed this appeal to challenge the court’s interpretation of the United States Sentencing Guidelines in determining White and Taylor’s sentences.

John White was the general superintendent at the Ohio County Water District’s drinking water treatment plant at Cromwell, Kentucky. Carolyn Taylor was a Water District employee assisting White in managing plant operations. One of their responsibilities was to submit monthly operations reports to the DOW.

During a surprise inspection of the plant in January 1997, an agent from the Division noted that daily logbooks recording the measure of turbidity had been left blank for each of four four-hour shifts. The plant employee responsible for recording these measurements told the Division agent that she had purposefully left the log sheets blank because the turbidity measurements were all above 0.5 which might put the plant at risk of noncompliance.

Review of this evidence and subsequent interviews with plant staff, including White and Taylor, revealed several instances of similar falsifications of turbidity measurements and submissions of inaccurate monthly reports. This suggested that the water plant had been out of compliance with the federal and state turbidity regulations during most of the months in question.

The trial court sentenced both White and Taylor without using sentence enhancements available under 18 U.S.C. § 1001. The government sought application of the Safe Drinking Water Act’s definition of turbidity as a contaminant in order to apply stricter sentencing guidelines. To that end, the government argued that the sentence enhancement should have been used because White and Taylor discharged pollutants into the environment.

The court of appeals ruled that the language of the Safe Drinking Water Act read as a whole, precluded the use of the sentencing guidelines the government sought. The court stated, “even if turbidity is considered a ‘pollutant’ . . . the district court did not err in refusing

to enhance White's and Taylor's sentences pursuant to this guideline provision because their "record-keeping offense" cannot be said to reflect an effort to conceal a "substantive environmental offense" under the Safe Drinking Water Act or any other federal statute.

Michael Barry

SEVENTH CIRCUIT

Wisconsin v. United States EPA, 266 F.3d 741 (7th Cir. 2001) (holding the Environmental Protection Agency had authority to grant Indian tribe "treatment-as-state" status; Indian tribe thus had authority to regulate water quality on the reservation, even though that authority may entail the power to regulate off-reservation activities).

The Mole Lake Band of Lake Superior Chippewa Indians ("Tribe") applied to the Environmental Protection Agency ("EPA") for treatment-as-state ("TAS") status in August 1994. TAS status would allow the Tribe to establish water quality standards for waters within its reservation, and require permits for any action that may create a discharge into those waters. The State of Wisconsin opposed the application, claiming it was sovereign over all navigable waters within the state. Wisconsin also feared the decision would threaten its plan to build a zinc-copper sulfide mine upstream from Rice Lake ("Lake"), located on the reservation. Despite Wisconsin's objection, the EPA granted the Tribe's application for TAS status. Wisconsin filed suit in district court seeking to revoke the EPA's grant of TAS status to the Tribe. The district court upheld the EPA decision, Wisconsin appealed, and the Seventh Circuit, reviewing the judgment *de novo*, affirmed.

In 1991, the EPA issued a final rule that established four requirements a tribe must meet to be granted TAS status. Wisconsin argued the Tribe had not met the third requirement, which states, "the functions to be exercised by the tribe must pertain to the management and protection of water resources which are held by the tribe, held by the United States in trust for the tribe, or otherwise within the borders of the reservation." The final rule specified a tribe seeking to satisfy this requirement must show it possesses inherent authority over the waters. The EPA presumed inherent authority if a tribe showed impairment of its waters would have a serious and substantial effect on the health and welfare of the tribe.

Wisconsin advanced three reasons the Tribe had not established inherent authority over its waters. First, the Lake was not within the borders of the reservation. Second, Wisconsin owned the underlying lakebeds; the tribe therefore did not have authority over those waters. Third, the Tribe had not shown its authority to regulate off-reservation

activities that would be affected by the Tribe's imposition of water quality standards.

The court first addressed Wisconsin's argument that the Lake was not within the reservation's borders. The court ruled that Wisconsin waived this argument on appeal because the state did not raise it to the EPA in the original proceeding.

In reaching its decision as to the second argument, the court assumed Wisconsin had title to the lakebed. It ruled, however, that Congress has ultimate authority to regulate the navigable waters of the United States. Further, the Constitution vests the federal government with exclusive authority over relations with Indian tribes. Because Wisconsin's ownership of the lakebeds would not preclude the federal government from regulating those waters, the court ruled Wisconsin could not complain about the federal government allowing a tribe to do so.

As to Wisconsin's final argument, the court held upstream, off-reservation dischargers conducting economically valuable activities to the state must ensure those activities do not result in contamination of the downstream on-reservation waters. This is true even if compliance effectively prohibited the activity altogether. The court stated once a tribe is given TAS status, it has the same right as that given to states to object to permits issued for upstream off-reservation activities. Since Illinois, for example, would have the right to regulate upstream dischargers in Wisconsin, so too did the Tribe. The court thus affirmed the district court's ruling, holding the EPA's grant of TAS status to the tribe was appropriate.

Brian L. Martin

United States v. Alshabkhoun, 277 F.3d 930 (7th Cir. 2002) (affirming the district court's finding of A&A farms liable for violating the Clean Water Act, and upholding the penalties assessed as reasonable).

A&A Farms ("A&A") owned 1,000 acres of farmland adjacent to the Wisconsin River. The farm constructed a drainage ditch to collect water and soil from the land, which was then conveyed to the river. A&A did not obtain a permit from the United States prior to constructing the ditch. Consequently, the Environmental Protection Agency ("EPA") issued an administrative compliance order stating that construction of the ditch, absent a permit, violated the Clean Water Act ("CWA"). The CWA prohibits the discharge of any pollutant, including dredged or fill material, into navigable waters of the United States, except in accordance with a permit. Thus, the United States filed this suit against A&A under section 309 of the CWA. The district court entered partial summary judgment in favor of the government, and the parties entered into a Consent Decree ("Decree") to restore the wetlands.

The Decree was negotiated by both parties and approved by the

district court. The Decree required A&A to pay \$225,000 in penalties and to restore the wetlands according to an agreed upon schedule. It also allowed for deadline extensions if a Force Majeure prevented or delayed performance. Furthermore, A&A was required to give written notification of any alleged Force Majeure to invoke the provision. The decree also included a dispute resolution provision providing for the accrual of penalties during the proceedings unless A&A successfully filed a petition to stay its obligation to pay any penalty regarding the disputed matters.

A&A began restoration of the wetlands in November of 1999, subsequently filing a notice of dispute with the EPA in February of 2000. A&A requested relief from the decree, asserting that compliance was impossible. The EPA denied relief to A&A. Thereafter, A&A filed a Petition to Modify the decree with the district court. The court denied the petition and ordered A&A to pay fines amounting to \$507,850.40. A&A appealed.

A&A conceded that its construction of the ditch violated the CWA, however, it contended that the district court's enforcement of the Decree violated public policy on two grounds. A&A first asserted that the Decree's penalty provision violated public policy because it allowed penalties to accrue while the parties engaged in dispute resolution proceedings. Second, A&A asserted that the district court erred in penalizing A&A for non-compliance of the Decree because a flood in June of 2002 constituted a Force Majeure event under the Decree.

First, the appellate court noted that a Decree is a court order that embodies the terms agreed upon by the parties as a compromise to litigation. Further, for purposes of construction, a judicially approved decree is essentially a contract. The court observed, however, that a provision within a decree that fixes a stipulated penalty is unenforceable if it constitutes an unreasonable penalty or is void as a matter of public policy. A&A asserted that based on *United States v. Witco*, the stipulated penalty provision in the decree forced it to surrender its rights to invoke dispute resolution because penalties would accrue while the dispute was pending. The court stated that *Witco*, a Delaware federal court decision, was not "controlling authority" and was distinguishable from A&A's case. The court remarked that in *Witco*, the required clean-up was completed before the dispute resolution clause was invoked and the accrued penalties at issue were unrelated to any continuing environmental violation. In contrast, A&A invoked the dispute resolution procedures before the required clean-up was completed. Thus, A&A's penalties accrued because of its unwarranted delay in restoring the wetlands, as required by the decree. The court reasoned that the Decree was drafted and negotiated by both parties and entered into voluntarily.

Thus, the courts held A&A liable for the penalties that accrued during the dispute resolution proceedings because excusing A&A from the stipulated penalties would undermine the clear terms of the Decree and allow the parties to delay performance by invoking the dispute resolution clause with meritless claims. Further, the court held

that the stipulated penalties imposed under the Decree were reasonable because the penalties directly related to the environmental harm caused by A&A, and the amount assessed was less than 10 percent of the statutory authorized penalty.

The court addressed A&A's second argument, noting that, although the Decree provided for the extension of deadlines in the event of a Force Majeure, the provision required A&A to notify the EPA in writing if it intended to invoke the provision. Therefore, because A&A did not comply with the Decree's procedural requirements, it could not claim impossibility. Moreover, because the flood occurred seven months after the Decree's deadline, the court reasoned that the flooding did not warrant an excuse for the delay and, therefore was irrelevant. Thus, the court affirmed the district court's judgment.

Christopher A. Griffin

United States v. Chemetco, Inc., 274 F.3d 1154 (7th Cir. 2001)

(holding: (1) section 309(c)(2) of the Clean Water Act ("CWA") was unambiguous; (2) Congress intended the number of violation days to be a sentencing factor and not an element of a CWA offense; and (3) the fine imposed by the district court did not exceed the prescribed statutory maximum penalty).

Chemetco plead guilty to violating section 301 of the CWA. The district court ordered Chemetco to pay a fine based on the number of days it violated the CWA. Chemetco appealed its sentence, arguing that the district court misinterpreted the CWA and that the court's findings violated the rule set forth in *Apprendi v. New Jersey*.

Chemetco obtained a permit from the Illinois Environmental Protection Agency ("EPA") allowing construction and operation of a storm-water runoff control system. Chemetco also installed, without a permit, a secret pipe running from its property to a ditch tributary. For a period of ten years, Chemetco used the secret pipe to illegally release water containing toxic metals, until United States and Illinois EPA agents discovered it.

Chemetco was indicted for conspiring to violate the CWA and knowingly violating section 301 of the CWA. After conducting an investigation, the government recommended fining Chemetco for 949 days of violation. According to its calculations, Chemetco argued it was only liable for 71 days of violation. Chemetco also objected to the government's findings, citing the Supreme Court's recent decision in *Apprendi*. Chemetco further claimed that the government had to prove the number of days of violation beyond a reasonable doubt, and it had to be charged in the indictment with each day of violation.

The district court found that the indictment was sufficient because it informed Chemetco of the charges and put it on notice of the potential maximum penalty. Further, the district court found that

Apprendi did not apply; therefore, the number of days of violation under the CWA was a sentencing factor the court could find by a preponderance of the evidence. Accordingly, the district court found there were 676 days of violation and sentenced Chemetco to a fine of \$33,275,000. Chemetco appealed that sentence.

The issue in this case was whether the number of days Chemetco violated the CWA is an element of a CWA offense or a sentencing factor. Due process requires the government to prove each element of an offense beyond a reasonable doubt. After the government has met this burden and an offender is found guilty of a crime, however, courts can apply sentencing factors based on a preponderance of the evidence to increase the offender's punishment. The court of appeals held that it was important to determine whether the number of days Chemetco violated the CWA was an element of a crime or a sentencing factor. If the number of violation days belonged in the former category, then it was reversible error for the district court to calculate the number of violation days based on a preponderance of the evidence.

The Supreme Court has ruled that, within certain constitutional limits, Congress can identify which factors are elements of a crime and which are sentencing factors. Therefore, the court of appeals had to first determine Congress' intent. The court determined that if the number of days of violation was a sentencing factor, then the next inquiry became whether such a determination comported with the constitutional limits elucidated in *Apprendi*.

To determine whether Congress intended the number of violation days to be a sentencing factor or an element of a crime, the court of appeals considered the language of the statute. When the language of a statute is clear and unambiguous, courts must give effect to its plain meaning unless doing so would "thwart the purpose of the overall statutory scheme."

The court of appeals concluded that the language of section 309(c)(2) was unambiguous. Thus, the court held it had to give effect to the statute unless doing so was inconsistent with the overall statutory scheme of the CWA. The court found CWA's statutory scheme was clear, as section 301 and other sections define what constitutes a violation and section 309 establishes penalties for these violations. Thus, because the clear and unambiguous language of section 309(c)(2) comported with the overall statutory scheme of the CWA, the court concluded Congress intended the number of violation days to be a sentencing factor and not an element of a CWA offense.

Moreover, the court of appeals held the plain language of the CWA contradicted Chemetco's argument that each day of violation was a separate offense. Section 309(c)(2) allows district courts to impose fines "per day of violation," thereby implying that violations may span more than one day. Given that generally a court should not construe a statute in a way that makes words or phrases meaningless or superfluous, the court found Chemetco's argument unavailing.

Chemetco further argued that its sentence violated the rule announced by the Supreme Court in *Apprendi*. In that case, the Supreme Court held any fact that increased the penalty for a crime *beyond the prescribed statutory maximum* had to be proven beyond a reasonable doubt. Chemetco claimed the CWA had a statutory maximum penalty: \$50,000 per day of violation. The court held that even if Chemetco's argument was taken as true, it would not mandate a reversal because an *Apprendi* violation only occurred when the imposed sentence *exceeded* the prescribed statutory maximum. Chemetco had urged the district court to find seventy-one days of violation, which would yield a fine range of \$342,500 to \$3,425,000. The court's fine of \$3,327,500 was less than what Chemetco contended was appropriate. The court of appeals concluded, therefore, even if the CWA had a statutory maximum penalty, the district court's fine did not exceed the limit (\$3,425,000) in the present case. Accordingly, the court of appeals affirmed Chemetco's sentence.

Gloria M. Soto

NINTH CIRCUIT

Sierra Club v. Whitman, 268 F.3d 898, (9th Cir. 2001) (holding Environmental Protection Agency's refusal to take action against alleged violations of the Clean Water Act was discretionary and not subject to judicial review).

The Sierra Club and an individual citizen (collectively "Sierra Club") sued the Administrator of the Environmental Protection Agency ("EPA"), Christine Todd Whitman ("Whitman"), and others for failing to take action against the operators of a wastewater treatment plant allegedly polluting the Santa Cruz River in violation of the Clean Water Act ("CWA"). The CWA authorizes any citizen to sue the Administrator of the EPA for failure to perform any act or duty deemed "not discretionary" under the act.

The treatment plant ("Plant"), located in Southern Arizona, served a relatively small population of Americans and Mexicans, and had a National Pollution Discharge Elimination System ("NPDES") permit that expired in 1996. The Plant continued to operate and discharge pollutants thereafter while a new NPDES permit was on appeal. According to the lower court's findings from January 1995 to 2000, the facility violated its permit limitations 128 times.

The Sierra Club based its suit on the theory that the CWA required Whitman to find a violation and file suit against the Plant. It focused on language in the CWA that provides, whenever "the Administrator finds that any person is in violation" of permit conditions, the Administrator "shall issue an order requiring such person to comply. . . or . . . shall bring a civil action." The court pointed out the language

did not compel Whitman to find a violation, and Congress likely used the word *shall* as instructive rather than compulsory language.

The court criticized the Sierra Club's argument on three fronts. First, the court upheld the presumption that an agency's refusal to investigate or enforce statutory violations lies within that agency's discretion. Next, it reasoned the agency's limited resources, and the high number of potential investigations it could face, forced the Administrator to balance priorities and act only on serious violations. Finally, the court determined Whitman's decision not to take enforcement measure was of the type "typically committed to the agency's absolute discretion." Therefore, the court held "[when] used in a statute that prospectively affects government action" such as the CWA, the word *shall* sometimes carried only the connotations of the word "may," and did not mandate action.

In further justification of its ruling, the court noted the CWA's provision allowing citizens to file their own suits against polluters suggested no congressional intention to mandate government action for every alleged violation. The court also scrutinized the legislative history of the CWA for any indicia of a congressional intent to mandate EPA action via the act, but found no compelling evidence to suggest this. Accordingly, the court deemed the Sierra Club's claim outside the scope of judicial review and dismissed for lack of jurisdiction.

Daniel C. Wennogle

Natural Res. Def. Council v. United States EPA, 279 F.3d 1180 (9th Cir. 2002) (holding that the Environmental Protection Agency erred by not providing the public with notice of or the opportunity to comment on changes included in final permits to release bark and woody debris into marine waters when those changes were not a logical outgrowth of the draft permits).

The Natural Resources Defense Council ("NRDC") brought this action against the Environmental Protection Agency ("EPA") for failing to provide the public with notice of and the opportunity to comment on changes the EPA approved in two final National Pollutant Discharge Elimination System permits. The permits authorized Alaskan logging transfer facilities ("LTFs") to discharge bark and woody debris into marine waters. NRDC asserted that interested parties could not have reasonably anticipated the changes EPA approved in the final permits. The EPA claimed references within the draft permits were sufficient to put interested parties on notice of the changes.

The Alaskan timber industry transports most of its logs to markets through marine waters. During transportation, friction between logs, water, and the bottom of the water body causes the discharge of bark and woody debris. The debris, which can accumulate in significant

concentrations, deteriorates water quality, creates problems for marine life and decays slowly.

In the mid-1990s, the EPA proposed a new, general permit that would apply to all LTFs in the state. Final approval of the proposed permit was conditioned upon the Alaska Department of Environmental Conservation's ("ADEC") certification of the permit. In its final draft certification, ADEC made substantive changes to the permit that had not appeared in its first or second draft certifications, but ADEC did not provide the public with notice or an opportunity to comment on the changes. Although the EPA expressed concern with the modifications, the Agency not only accepted ADEC's certification, but also finalized the rule without providing an opportunity for interested parties to comment. As a result, NRDC sued the EPA for failing to provide adequate notice and opportunity for comment as required by the Administrative Procedure Act.

This court decided the adequacy of the notice and comment procedure by noting the differences between the draft and final permits and analyzing whether interested parties would have reasonably anticipated the changes in the final rule as logical outgrowths of the draft permit.

Several differences between the draft and final permits led the court to determine that the EPA's notice was inadequate. First, the EPA's draft permit limited LTFs to a one-acre zone of discharge. ADEC's final draft certification, however, imposed no specific limit on the size of the zones into which LTFs could discharge bark and woody debris. Despite an express concern that ADEC's changes to its draft permit were substantive and might not comply with antidegradation laws, the EPA accepted the changes without public notice or comment.

Second, the EPA originally proposed a general permit that applied to nearly all LTFs but later adopted ADEC's proposal, which created a more lax permitting scheme for LTFs in existence prior to October 22, 1985. ADEC's final draft certification exempted pre-1985 LTFs from applying for a permit to discharge. Instead of applying for a permit, LTFs only had to notify the EPA they were conducting activities that resulted in the release of bark and woody debris. This decision was ironic; the EPA initiated the permitting process because the permits of pre-1985 LTFs did not comply with the Clean Water Act.

Third, there were considerable differences between the comments made in reference to the draft permit and those NRDC later raised in its petition. The court found these differences were a result of the inadequacy of EPA's notice and comment procedures.

In analyzing each of these factors, the court found that the public could not have reasonably anticipated the differences between the draft and final permits. That is, the final permit was not a logical outgrowth of the draft permit. As a result, the court remanded the permits to the EPA for further proceedings.

Merc Pittinos

City of Portland v. The Boeing Co. & Cascade Corp., 2002 U.S. Dist. LEXIS 2209 (denying summary judgment because plaintiff presented sufficient evidence to create a genuine issue of material fact as to whether groundwater contamination by defendants had any effect on the district's decision to seek alternative sources of water).

In 1999, the city of Portland, Oregon ("City") filed suit against the Boeing Company and Cascade Corporation (collectively "Boeing") in the United States District Court for the District of Oregon seeking damages of over six million dollars resulting from Boeing's contamination of part of the City's water supply. Less than a year later, the City added a claim of fifteen million dollars in lost revenues that was caused when the Tualatin Valley Water District ("District") and the Powell Valley Road Water District ("Powell") decided to obtain a majority of their water from sources other than the City. In response to the new claim, Boeing filed a motion for summary judgment, alleging that the City failed to establish a causal relationship between the pollution and the water districts' decisions to seek water elsewhere. Defendants subsequently withdrew their motion for summary judgment with regards to Powell, and therefore the only issue before the court was whether the City provided enough evidence to create a genuine issue of material fact as to whether the contamination caused by Boeing had any effect on the District's decision to seek alternative water supplies.

The City owns a field of wells located near Boeing's property, which are used as emergency backup supplies to the Bull Run River. In the mid-1980's, groundwater contamination was discovered on Boeing's property. The wells themselves were not contaminated, but the existence of groundwater contamination so close to the wells prevented the City from using the wells to capacity. As a result, the City was forced to obtain alternate water supplies and impose restrictions on water use.

In 1991, The Wolf Creek Highway Water District ("Wolf") and the Metzger Water District ("Metzger") merged to form the District. Prior to the merger, both Wolf and Metzger entered into contracts with the City under which the City would sell them its surplus water. The contracts had a provision requiring Wolf and Metzger to buy minimum amounts of water from the City or pay a penalty based on how much water was obtained by other sources. When Wolf and Metzger merged, the District inherited the contracts.

In 1992, the onset of drought in the region, in addition to the inability to fully utilize the wells due to contamination, led the City to ease its minimum purchase requirements contained in the contracts. As a result, the District was able to purchase large amounts of water from other sources. The City's additional fifteen million dollar claim represented the revenue lost when the District decided to purchase a majority of its water from other sources during the post drought period, even though the City had adequate amounts of water to supply

the district during that time.

Boeing argued that the City failed to show that the reason the District decided to obtain water from other sources after the drought was not due to the restrictions imposed during the drought. Boeing contended that the District decided to seek alternative sources before the drought: (1) due to concerns that the pipeline from the City could not handle increased capacity due to population growth; and (2) because the District wanted a source to the west of the Willamette River that had better quality water. The City responded by arguing that although the District may have had many reasons for obtaining alternate sources, the inability to use the wells, coupled with the elimination of minimum purchase requirements due to the drought, played a significant part in the District's decision to use other sources after the drought.

Boeing presented testimony from the District's directors that the contamination was not a factor in the District's decision to obtain water from sources other than the City after the drought had ended. One director stated that the main motivation was to develop a source independent from the City. Another director stated that the primary reason for finding other sources of water was the need to get water to Washington County. The City countered with testimony that the District did not invest any money in other expansion projects until after the drought in 1992, and that the final agreement between the District and new suppliers was not approved until 1994.

In order to prevail on a motion for summary judgment, a movant must establish that there is no genuine issue of material fact. Once the movant has met its burden, the onus is on the opposing party to establish that there is a genuine issue of material fact. In this case, the court found the City's evidence very thin on the issue of whether the contamination together with the drought caused the District to buy a majority of its water from sources other than the City. However, the court was required to look at the evidence in a light most favorable to the City, and in doing so, the court found the City had met its burden. As a result, Boeing's motion for summary judgment was denied.

David M. Jacob

United States v. Alpine Land & Reservoir Co., 279 F.3d 1189 (9th Cir. 2002) (holding that while equity was inappropriate in the abandonment context, equity may be appropriate in the forfeiture context, if the landowners can show on a case-by-case basis that they were prevented from complying with transfer requirements).

In the mid-1980s, a number of landowners in the Newlands Reclamation Project in Nevada submitted applications to transfer water rights between different parcels of property. The Pyramid Lake Paiute Tribe of Indians ("Tribe") protested the applications under the

Nevada law of forfeiture and abandonment, arguing that the transfers would decrease the water flow into Pyramid Lake, situated on the Tribe's homeland. The federal government and the Tribe appealed from an order of the Nevada district court, which affirmed a determination of the Nevada State Engineer ("Engineer") granting the landowners' applications to transfer water rights.

First, the Tribe argued that the district court erred in affirming the Engineer's determination that a prolonged period of non-use of water rights does not create a rebuttable presumption that a landowner intended to abandon those rights. The Ninth Circuit rejected this argument in a past case, *United States v. Orr Water Ditch Co.* In that case, this court held that although a prolonged period of non-use may raise an inference of intent to abandon, it does not create a rebuttable presumption. Thus, the court affirmed the evidentiary standard that the district court applied in making its parcel-specific rulings on abandonment.

Second, the Engineer asked the court to reconsider their 1993 ruling in *United States v. Alpine Land & Reservoir Co.* ("*Alpine III*") to the extent it held that 1902 was not the relevant priority date for determining the application of the Nevada forfeiture statute. Yet, *Orr Water Ditch* affirmed *Alpine III*, holding that landowners cannot claim 1902 as the date their water rights were initiated. Thus, the court rejected the request to reconsider *Alpine III* and upheld the district court to the extent it affirmed the Engineer's parcel-specific application of the state forfeiture statute.

Therefore, the only issue outstanding on appeal was whether the district court's broad application of an intrafarm exemption constituted reversible error. The Tribe contended that the district court erred in exempting intrafarm transfers of water rights from the operation of Nevada's forfeiture and abandonment laws based on equitable considerations. Further, the Tribe contended that the district court erred in granting equitable relief to intrafarm transfers based upon the assumption that the government and the Truckee-Carson Irrigation District ("TCID") had either explicitly or tacitly approved these transfers prior to the landowner's submission of formal transfer applications.

However, in the 1989 case *United States v. Alpine Land & Reservoir Co.* ("*Alpine II*"), this court rejected these arguments. If the transfer applicants moved water within their farm without complying with state transfer requirements, they did so "at their own risk" under *Alpine II*, since the Reclamation Act made it clear that state law applied to these actions. The United States never had the authority under the Reclamation Act to approve such transfers; the fact that they occurred had no bearing on whether state law principles of forfeiture and abandonment should not be applied.

The Ninth Circuit agreed with the Tribe that, with respect to abandonment, rather than supporting equitable relief, the factors noted by the district court more appropriately bear on whether the landowners formed the requisite intent to abandon their rights. The

district court's factors include: evidence in the record that the procedures to transfer water changed at least three times over the years; an applicant was told that transfers were not allowed; and no evidence existed that any of the landowners making intrafarm transfers used more water than the amount granted by contract with the government.

The court noted that if the landowners attempted to transfer rights prior to filing their applications in this case and were thwarted by the government or TCID, which would most likely demonstrate their lack of intent to abandon. Yet, the court stated that the fact that a landowner might have been prevented from filing a transfer application would do nothing to alter a finding of non-use for the statutory period. To completely remove the possibility of equitable relief for those landowners who would otherwise technically forfeit their properties through non-use, but who made efforts to comply with the transfer requirements during the moratorium period, would be inconsistent with equitable principles. The law abhors forfeiture; thus equity should operate in these limited situations to protect landowners.

In conclusion, the Ninth Circuit reversed the district court's order to the extent that it provided blanket equitable relief for intrafarm transfers without requiring an individualized factual showing with respect to each transfer applicant. More specifically, the court held that the district court erred in granting equitable relief to those landowners facing abandonment because the landowners may demonstrate that they did not abandon their water rights as a matter of law. On remand, the district court was instructed to make factual findings in order to determine whether each individual landowner had the requisite intent to abandon in light of the factors noted in the district court's opinion. With respect to forfeiture, the Ninth Circuit reversed the district court's application of a blanket equitable exemption. However, the court concluded that equity may be appropriate on a case-by-case basis in the forfeiture context if a landowner can show steps were taken to transfer water rights during the period of non-use, but that those steps were thwarted by the government or TCID.

Nicole A. Ressue

TENTH CIRCUIT

Elephant Butte Irrigation Dist. v. United States Dept. of Interior, 269 F.3d 1158 (10th Cir. 2001) (holding the Hayden-O'Mahoney Amendment did not repeal Section 4-1 of the Reclamation Act of 1902 in its entirety and thus did not terminate the water districts' rights to certain revenues arising under Section 4-1; further holding Section 4-1 and the Omnibus Adjustment Act of 1926 did not impose upon the Secretary of the Interior an obligation to generate profits for the water

districts by way of grazing leases).

This appeal involved the Rio Grande Valley irrigation project, a national plan adopted in the late nineteenth and early twentieth centuries designed to irrigate arid western lands. The Elephant Butte Irrigation District of New Mexico and the El Paso County Water Improvement District No. 1 of Texas (collectively "Water Districts") filed a complaint against the federal government asserting, *inter alia*, that they were entitled to revenues under section 4-1, an amendment to the Reclamation Act of 1902. The government contended the Hayden-O'Mahoney Amendment enacted in 1939 ("Amendment") repealed Section 4-1 and, thus, such revenues were not owed to the Water Districts.

In 1902, Congress approved the Reclamation Act and established a general reclamation fund to finance major irrigation projects in the West. At its outset, the reclamation fund consisted solely of monies generated from the sale of public lands. However, the agricultural depression and the severe decrease in the sale of public lands during the 1920s quickly rendered the fund insolvent. In response to this financial crisis, Congress amended the Reclamation Act in 1924 and added section 4-1 requiring water districts to take over the operation and maintenance of the irrigation projects from the federal government. In return for taking on this responsibility, the water districts could retain some of the profits the irrigation projects acquired instead of having to contribute all profits to the reclamation fund.

Despite Congress' efforts to replenish the reclamation fund, the fund continued to struggle as the economic depression persisted through the 1920s and 1930s. In 1939, Congress enacted the Hayden-O'Mahoney Amendment. The Amendment provided for deposit of monies generated by federal power facilities into the reclamation fund. Therefore, it repealed Section 4-1 to the extent this section granted the water districts the right to profits produced by any power facilities.

In 1979 and 1980, the Water Districts took control of the operation and maintenance of their irrigation projects as required by section 4-1. In 1990, the Water Districts filed a complaint and contended, pursuant to section 4-1, they were entitled to revenues generated from such projects. However, the government asserted the Hayden-O'Mahoney Amendment repealed section 4-1 in its entirety, and, thus, terminated the Water Districts' rights to revenues under the section. The government challenged the district court's ruling that as a matter of law, the Amendment did not repeal section 4-1 in its entirety.

The appellate court emphasized that a repeal by implication demands that "the intention of the legislature to repeal be clear and manifest" and that "repeal of a statute by implication is not favored." After studying the text of section 4-1 and the Hayden-O'Mahoney Amendment, the district court found two apparent conflicts between

the statutes and held that the Amendment repealed section 4-1 only to the extent the statutes conflicted with one another.

The district court had also reviewed the legislative intent behind the enactment of the Amendment, and concluded that the purpose of the Amendment was to deposit power revenues into the fund and subsequently into the general treasury. The court found Congress did not intend to regain all of the profits granted to the Water Districts under section 4-1. The Amendment only discussed power revenues while omitting any discussion concerning profits earned from the leasing of project grazing and farmland, and the sale or use of town sites, the two other sources of revenue explicitly provided for in section 4-1. The court held the Water Districts were entitled to those revenues arising under section 4-1, which were not explicitly repealed or modified by the Amendment, *i.e.* profits earned from the leasing of project grazing and farm land as well as the sale or use of town sites.

The second issue on appeal was the Water Districts' claim that under section 4-1 and the Omnibus Adjustment Act of 1926 ("OAA"), the federal government and specifically the Secretary of the Interior owed a fiduciary duty to the Water Districts to generate revenue through grazing leases. The Water Districts contended the agreement between the Bureau of Reclamation ("Bureau") and the Bureau of Land Management ("BLM") was "not in the best interests of the Project beneficiaries" due to the fact that the lease agreement provided "no consideration" to them. In response to this claim, the court concluded the federal government did not owe a fiduciary duty to the Water Districts, nor was the government obligated to manage the water project lands in such a manner as to produce profits for the Water Districts. The court distinguished the creation of an entitlement, which the court described as an "honorary" obligation, and the creation of a fiduciary duty. It held section 4-1 and the OAA did not impose a fiduciary duty upon the Department of the Interior but rather created an entitlement in the Water Districts by the federal government. Relying on Article IV, § 3 of the United States Constitution, the court further held that by delegation from Congress the Department of the Interior had plenary power over the management and administration of public federal lands.

In conclusion, the Tenth Circuit Court of Appeals affirmed the district court's conclusion that the Hayden-O'Mahoney Amendment did not repeal section 4-1 in its entirety, and thus, the Water Districts were entitled to those revenues arising under section 4-1, which were not explicitly repealed or modified by the Amendment. The court also held that section 4-1 and the OAA did not impose an obligation upon the federal government to generate profits for the Water Districts by way of grazing leases. Therefore, the court reasoned, the lease agreement the Bureau and BLM entered into was valid with respect to management of grazing lands within the water districts.

Lucia Padilla

Hayes v. Whitman, 264 F.3d 1017 (10th Cir. 2001) (holding the district court correctly granted the Environmental Protection Agency's motion for summary judgment because the constructive submission theory did not apply, citizens lacked viable claims under the Administrative Procedure Act, citizens' motion to amend was untimely, and citizens' denied affidavit covered waived issues).

Individuals who used Oklahoma's waters and groups that advocated protecting water quality in Oklahoma ("Citizens") sued the Environmental Protection Agency ("EPA"). Citizens alleged Oklahoma failed to develop total maximum daily loads ("TMDLs") for the state's impaired waters, which constituted a constructive submittal of no TMDLs and triggered EPA's mandatory duty under the Clean Water Act to develop these TMDLs. The United States District Court for the Northern District of Oklahoma granted the EPA's motion for summary judgment, and denied the Citizens' motion to amend. Citizens appealed to the United States Court of Appeals for the Tenth Circuit, which affirmed the district court's decision.

Citizens raised four issues on review. First, Citizens claimed the district court erred when they granted summary judgment on their constructive submission claim. The court reviewed constructive submission and explained the theory turned on whether the state determined not to submit a required TMDL to the EPA. The state's decision did not trigger EPA's non-discretionary duty to develop TMDLs itself unless the state's inaction clearly and unambiguously demonstrated their decision not to submit required TMDLs. If a state submitted a TMDL or planned to submit a TMDL in the future, then constructive submission analysis was factually inapplicable. The court explained summary judgment was appropriate because Oklahoma submitted TMDLs to the EPA, thus rendering the constructive submission theory inapplicable and destroying Citizens' suit based on EPA's non-discretionary duty.

Second, Citizens asserted the district court erroneously dismissed three Administrative Procedure Act ("APA") claims. The court disagreed and affirmed summary judgment on all claims. Citizens had premised their first APA claim on the constructive submission theory and EPA's non-discretionary duty. Because Citizens' constructive submission theory failed, the court affirmed summary judgment on this issue. Further, Citizens asserted the district court should have allowed Citizens to challenge the adequacy of Oklahoma's TMDLs under the APA. The court affirmed summary judgment on this issue because citizens failed to assert this claim before they submitted their response to the EPA's motion to dismiss. The court said they sometimes consider additional facts or legal theories asserted in a response brief to a motion to dismiss, yet they do not consider allegations and theories inconsistent with those pleaded in the complaint. Thus, because Citizens' pleaded that Oklahoma failed to submit TMDLs, they could not also challenge, in their response to the

motion to dismiss, EPA's approval of Oklahoma's TMDLs. Furthermore, the court disagreed with the assertion that Citizens lacked the knowledge necessary to fully plead this APA claim. In so holding, it noted that because EPA's actions regarding Oklahoma's TMDLs were a matter of public record and part of EPA's motion to dismiss.

Third, Citizens challenged the district court's denial of a motion to amend their complaint. The court said the district court did not abuse its discretion in so doing. The court explained, saying untimeliness alone was a sufficient reason to deny leave to amend. Citizen's request to amend was untimely because they knew EPA approved some of Oklahoma TMDLs in April 1998, and did not file their application for leave to amend until February 2000.

Finally, Citizens asserted the district court erred when they struck Citizens' affidavit from a TMDL expert. The court affirmed the district court's decision because the expert's opinion regarded the substantive inadequacy of Oklahoma's TMDLs. Thus, the affidavit exceeded the scope of legal issues and was consequently waived, unless the ends of justice dictated otherwise. The court held justice supported the waiver because Citizens were informed of the waiver and chose to proceed. Thus, the court affirmed the district court's grant of summary judgment on all issues.

Kirstin E. McMillan

FEDERAL CLAIMS COURT

Brace v. United States, 51 Fed. Cl. 649 (2002) (Denying summary judgment because genuine issues of material facts existed as to: (1) whether or not a sufficient nexus existed between plaintiffs land and interstate water; and (2) the size of the "parcel as a whole" for purposes of the *Penn Central* test).

Plaintiff, Robert Brace, brought suit against the federal government ("United States") in the United States Court of Federal Claims, alleging that the United States took his land without just compensation when he was ordered to cease operation of a drainage system located on his property, and to restore parts of his land to its prior condition, which resembled wetlands. Brace argued that because the Clean Water Act ("CWA") did not apply until 1977, the United State's action interfered with the reasonable, investment-backed expectations he had when he bought the property in 1975.

This case concerned the United States' second motion for summary judgment. The court denied the first motion because the court did not have the information it needed to determine the economic impact, if any, on Brace. In its denial of the United States' first motion for summary judgment, the court ruled that Brace failed to meet factors (1) and (3) of the three factors used to determine

whether or not a regulatory taking has occurred (known as the *Penn Central* test). Those three factors are: (1) the character of the governmental action or regulation; (2) the economic impact of the regulation on the claimant; and (3) the extent to which the regulation has interfered with reasonable investment-backed expectations. The Supreme Court has recognized that the third prong of the *Penn Central* test alone may be determinative over a takings claim.

In this case, the court made note of the fact that it had already found there was no taking under the third prong of the *Penn Central* test, and therefore the court would be within its prerogative to grant summary judgment to the United States. However, the court declined to do so, stating “the absence of a factual record combined with recent developments in takings jurisprudence ... does not support allowing defendant’s motion for summary judgment.”

Brace’s opposition to the United States’ second motion for summary judgment centered on the scope of the CWA. Brace argued that because his land was not connected to navigable waters, the CWA did not apply. In determining this question, the court turned to the Supreme Court case, *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* (“SWANCC”). There, a consortium of Chicago cities banded together to develop a disposal site for non-hazardous solid waste. The group purchased an abandoned gravel site that had filled with water and become a habitat for migratory birds, and then filed permits with the Corps of Engineers to refill some of the ponds in which the birds were living. The Corps of Engineers denied the permits, and the consortium challenged the decision under the Administrative Procedure Act. The Seventh Circuit ruled for the Corps of Engineers, and on appeal, the Supreme Court reversed the Seventh Circuit’s ruling. The Supreme Court recognized that under § 404(a) of the CWA, the Corps had jurisdiction over wetlands adjacent to navigable water because there is a significant nexus between the wetlands and the navigable waters. However, the Court refused to extend that jurisdiction to ponds that are not adjacent to open water because, “the text of the statute would not allow this.” As a result, the Court held that isolated ponds wholly located in two counties (of Illinois) do not fall under § 404(a)’s definition of navigable waters solely because they are a habitat for migratory birds.

The court in this case found the record unclear as to whether or not a nexus existed between Brace’s land and interstate water. The court stated that if the facts were to indicate that Brace’s land is not connected to interstate water, then the issue of whether or not there was a taking would be moot, because under SWANCC, the United States does not have authority to regulate isolated ponds or wetlands that are not connected to interstate commerce. On the other hand, if a sufficient nexus were proved between Brace’s land and interstate water, then the court could grant the motion for summary judgment. In addition, the court found that there was still a factual dispute about what the “parcel as a whole” was for purposes of the second prong of

the *Penn Central* test (the size of the “parcel as a whole” is needed to determine the economic impact on the plaintiff).

Thus, the court denied the United States’ second motion for summary judgment because genuine issues of material facts existed as to (1) whether or not a sufficient nexus existed between Brace’s land and interstate water; and (2) the size of the “parcel as a whole” for purposes of the *Penn Central* test. In denying the motion, the court ordered both parties to file a joint status report within forty-five days that would include “precise information regarding the size of the parcel as a whole, and location of the parcel in relationship to any ditch, canal, or channel that could lead to an interstate water. The court then urged the parties to try settling this matter.

David M. Jacob

UNITED STATES DISTRICT COURTS

Altamaha Riverkeepers v. City of Cochran, 162 F. Supp. 2d 1368 (M. D. Ga. 2001) (holding Altamaha Riverkeeper, a non-profit environmental organization, had Article III standing to sue the City of Cochran for multiple NPDES violations; the citizen suit was not barred by actions taken by the Environmental Protection Division against the City in response to such permit violations).

Altamaha Riverkeeper (“ARK”) is a non-profit organization formed to protect and maintain the habitat, water quality, and flow of the Altamaha River. The City of Cochran (“City”) obtained a National Pollutant Discharge Elimination System (“NPDES”) permit from the Georgia Department of Natural Resources, Environmental Protection Division (“EPD”). The permit would allow the City to operate a wastewater facility that discharged treated wastewater into Jordan Creek, a tributary of the Ocmulgee River located in the Altamaha River Basin. ARK brought this citizen suit under the Clean Water Act (“CWA”), which requires that all “point sources” obtain an NPDES permit and operate in conformity therewith. Through delegation by the Environmental Protection Agency (“EPA”), the EPD issues and enforces all NPDES permits in Georgia.

ARK alleged the City violated its NPDES permit on numerous occasions spanning from July 1995 to April 2001. ARK based its argument on Discharge Monitoring Reports the City submitted to the EPD, which revealed violations of the discharge limits allowed under the City’s NPDES permit. The City asserted ARK’s individual members lack Article III standing to bring this suit. The City further contended since the EPD was currently enforcing the City’s NPDES permit, the citizen suit was “duplicative” and “intrusive,” and, thus, ARK was barred from bringing this suit.

The court emphasized individual members of an organization must have standing to sue in their own right and the interest at issue

must be related to the organization's purpose in order for an organization to have standing to bring suit on behalf of its members. Furthermore, individual members have standing if they can show: (1) they have suffered an injury in fact; (2) the injury is traceable to the defendant; and (3) a favorable decision is likely to redress the injury.

Applying this test to the current case, the court concluded ARK had standing to bring this citizen suit against the City. In reaching its conclusion, the court relied on the affidavits of ARK members who testified they all used the area in question, and their recreational use and aesthetic enjoyment dramatically decreased because of the wastewater facility's discharges. In response to the City's argument that another NPDES permittee was directly responsible for the pollution in Jordan Creek and Ocmulgee River, the court recognized that for standing purposes, it is not necessary for the moving party to identify which polluter caused the specific harm. With respect to redressability, the court pointed out that the focus must be on the injury to ARK and its members, and not on the injury to the environment. In other words, the court's remedy must insure the City's compliance with its NPDES permit so ARK members and others can use and enjoy the Jordan Creek and Ocmulgee River without fear of pollution. The redressability component required for standing does not require that the Court's remedy restock the fish population. The Court concluded that ARK presented sufficient evidence to establish Article III standing to bring this citizen suit against the City for violating its NPDES permit.

The City also contended the CWA barred the present citizen suit since the EPD formally sought action against the City for its NPDES violations. The court rejected this argument pointing out that, even if the EPD had taken action before ARK filed its suit, since ARK filed its Complaint more than sixty days after giving notice of their intent to sue but within 120 days of giving notice, ARK complied with the procedures set out in the CWA for bringing a private citizen suit against a permit violator.

In summary, the court held ARK and its members had Article III standing to proceed with their suit against the City for violations of its NPDES permit. The court further held that under the CWA, EPA or EPD formal action does not bar citizen suits as long as the citizens give sixty days' notice of their intent to sue and file their suit within 120 days of the date in which they gave notice. Finding sufficient evidence of ninety-seven NPDES permit violations by the City from July 1995 to April 2001, the court granted ARK's Motion for Partial Summary Judgment.

Lucia Padilla

Save Our Wetlands v. United States Army Corps of Eng'rs, No. 01-3472, 2002 U.S. Dist. LEXIS 1294 (E.D. La. January 15, 2002) (holding that Army Corps of Engineers finding that a proposed development project would cause no significant impact to the environment was not arbitrary and capricious).

Save Our Wetlands brought a Motion for Preliminary Injunction to enjoin construction of a development project approved by the Army Corps of Engineers ("Corps"). Save Our Wetlands contended the Corps' finding that the project would have no significant impact on the environment was arbitrary and capricious, and sought an injunction.

On November 9, 2001, the Corps approved Stirling Slidell's permit to construct a development project on thirty-eight acres in the Bayou Liberty Basin of St. Tammany Parish, Louisiana. Prior to approving the project, the Corps prepared an environmental assessment ("EA") in compliance with the statutory requirements of the National Environmental Policy Act. In the EA, the Corps analyzed the project's direct and cumulative effects, alternatives to the development site, and mitigating measures that would decrease the project's negative effects. At the conclusion of its analysis, the Corps issued a finding of no significant impact ("FONSI") and approved Stirling's application.

Save Our Wetlands contended the FONSI was arbitrary and capricious because the Corps did not consider the direct, secondary and cumulative effects of the development on area flooding in the Bayou Liberty Basin. The court rejected Save Our Wetland's contention for four reasons. First, the Corps based its analysis of the project's effects on a study conducted by Duplantis Engineering, which the court found both comprehensive and conclusive. Second, none of the federal or state agencies that analyzed the project voiced any concern over its potential for increased flooding in the Bayou Liberty Basin. Third, the Corps' approval mandated the construction of a detention pond to control flooding. Fourth, the project was expected to provide economic benefits to the surrounding community, including funding for municipal improvements that would alleviate existing flooding in the area.

In the Fifth Circuit, a plaintiff must establish several requirements to prevail on a Motion for Preliminary Injunction. The plaintiff must prove a substantial likelihood of success in a trial on the merits of the case, a substantial threat of suffering irreparable injury if the injunction is denied, that the threatened injury outweighs the harm to the defendant, and that granting the injunction would serve the public interest.

The court held that because the FONSI was not arbitrary and capricious, Save Our Wetlands was unlikely to succeed on the merits of the case at trial. The court held that because the project did not create a significant chance of increased flooding, the project would not cause irreparable harm to Save Our Wetlands. Additionally, the

court held that an injunction would not serve the public interest. As a result, the court denied the Motion for Preliminary Injunction.

Merc Pittinos

United States Pub. Interest Research Group v. Heritage Salmon, Inc., No. 00-150-B-C, 2001 U.S. Dist. LEXIS 13283 (D. Me. Aug. 28, 2001) (holding associations asserting rights on behalf of members may establish standing where the individual members meet basic elements of standing).

In 2000, United States Public Interest Group (“USPIRG”) filed a citizen’s suit accusing Heritage Salmon, Inc. (“Heritage”), a salmon farm located in the vicinity of Cobscook Bay (“Bay”), Maine, of violating the Clean Water Act (“CWA”), and failing to obtain an NPDES permit. USPIRG sought a declaratory judgment that Heritage was in violation of an effluent standard or limitation under Chapter 26, Title 33 U.S.C. In addition, they sought civil penalties and an order enjoining Heritage from continuing to violate the applicable standard or limitation. In response to USPIRG’s accusations, Heritage filed a motion to dismiss under the theory that USPIRG had failed to establish standing.

When the plaintiff is an association asserting rights on behalf of its members: (1) some members must have standing to sue in their own right; (2) the members’ interest in the suit must be germane to the organization’s purpose; and (3) the claim asserted and the relief requested must not require the individual participation of those members in the suit. Heritage conceded that USPIRG satisfied the second and third requirements, but argued USPIRG was unable to satisfy the first requirement. USPIRG claimed standing based on the experiences of three members who stated they were adversely affected by Heritage’s pollution of the Bay and its tributaries. The members each claimed they reduced or eliminated the amount of fish they consumed from the Bay or its tributaries because they were fearful of the effects of the pollution on the fish. Two of the members stated they stopped fishing in the area because of the pollutants in the water from Heritage, and feared the further depletion of wild salmon, which were already suffering from Heritage’s pollution.

The United States District Court for the District of Maine held USPIRG had established standing because the members had suffered injuries in fact traceable to the defendant’s activities, which were redressable through court action. Injury in fact was established, *inter alia*, because the members were not taking advantage of a “local food source that they would otherwise enjoy due, in large measure, to Heritage’s discharges.” The court also emphasized that environmental plaintiffs adequately allege injury in fact “when they aver that they use the affected area and are persons for whom the aesthetic and

recreational values of the area will be lessened by the challenged activity.”

For an injury to be “fairly traceable” to the defendant, the court analyzed whether Heritage’s pollutants caused or contributed to the kinds of injuries alleged by USPIRG. The court asserted Heritage could not defeat the plaintiffs’ claims of standing “simply by arguing other causative agents may be operating to bring about the decline of wild salmon stocks.”

Finally, the court stated that to satisfy the redressability requirement, the plaintiffs’ attestations must reveal a “substantial likelihood” the requested relief will remedy the alleged injury. The court decided that an order enjoining unlicensed discharges from Heritage’s operations and/or penalizing Heritage for ongoing violation of the CWA would provide a meaningful remedy for the injuries. Therefore, the District Court decided USPIRG had standing to bring a citizen’s suit against Heritage for violations of the CWA.

Sarah A. Hubbard

Le-Ax Water Dist. v. City of Athens, 174 F. Supp. 2d 696 (S.D. Ohio 2001) (granting Le-Ax Water District’s motions for summary judgment and declaratory judgment, and holding that City of Athens’ agreement to provide water service to proposed development violated Le-Ax’s protection under 7 U.S.C. § 1926(b)).

Le-Ax Water District (“Le-Ax”) sued the City of Athens (“City”) for arranging to supply water to a new development by University Estates, Inc. (“UE”), asserting such an arrangement violated 7 U.S.C. § 1926(b), which serves to protect the rights of rural water districts in an effort to promote rural expansion. The City claimed, since the new development did not fall within Le-Ax’s current boundaries as defined by the state, Le-Ax could not assert a right to service the development. The parties filed cross-motions for summary judgment.

Le-Ax developed as a regional, rural water district with the help of loans from the Rural Economic and Community Development Service (“RECDs”). Le-Ax pledged all its water service revenues to secure the debt. According to a surveyor hired by the City, Le-Ax’s boundaries fell approximately 1400 feet short of the proposed UE development site, a point the City emphasized at trial. Nonetheless, Le-Ax’s water lines ran close to the site, while the City would have had to create additional water access in order to serve UE. These facts allowed both parties to make arguments that § 1926(b) spoke in their favor.

The portion of § 1926(b) upon which Le-Ax relied stated, “the service provided or made available” by a regional water district shall not be limited by any “municipal corporation or other public body” within which the regional district lies. The court allowed protection under § 1926(b) upon the satisfaction of three elements: (1) the

organization in question is a rural water association; (2) that association is indebted to the RECDs; and (3) the association “provides or makes service available” to the area in question. Since Le-Ax satisfied the first two elements, the court focused its examination on the third qualification.

The court used the “pipes in the ground” test from a Tenth Circuit decision holding, wherein an association “makes service available” if it has “proximate and adequate” pipes in the ground to provide service within a reasonable time. Because of the relative proximity of Le-Ax’s current pipes to the UE site, the court held that Le-Ax would be able to provide or make service available.

The City claimed that Congress never intended for § 1926(b) to “grant water districts an exclusive right to service a site that: (a) is outside of the district’s state-law defined area; (b) is wholly unrelated to any federal indebtedness the water district has incurred; (c) the water district has no legal obligation to serve; and (d) has never been served by the water district before.” The court noted, as a regional water district, Le-Ax had a legal right to provide water service to any unincorporated areas “within *and without* the district,” regardless of prior service to the area or any direct relationship to its federal indebtedness.

Finally, the City argued construing § 1926(b) so broadly violated Ohio’s Tenth Amendment rights by infringing on powers reserved for the state. Because Ohio voluntarily subjected itself to § 1926(b), and because “Ohio retains the general authority to control water service within the state,” the court held the statutory provision “[did] not improperly interfere with state or municipal sovereignty because the limits it impose[d] [were] restricted in scope.”

Thus, the court granted Le-Ax’s motion for summary judgment, enjoined the City from providing water service to UE, and granted a declaratory judgment asserting that the City’s arrangement violated 7 U.S.C. § 1926(b).

Katharine J. Ellison

STATE COURTS

ALABAMA

Water Works & Sewer Bd. v. Randolph, No. 1002182, 2002 Ala. LEXIS 34 (Ala. Feb. 1, 2002) (finding that a public corporation organized under section 11-50-310 of the Alabama Code is not subject to the reporting requirements of the Sunshine Law).

Members of the Water Works & Sewer Board of the City of Selma (“Board”) held a private meeting, excluding Samuel Randolph, a member of the Board. During the private meeting, the mayor of

Selma was dismissed as superintendent of the Board. Thereafter, the Board members filed a declaratory judgment as to their authority to dismiss the mayor. Samuel Randolph brought this action against the Board and its remaining members for violating the Sunshine Law by conducting a secret meeting of the Board without notice to the public. Randolph sought a judgment declaring the actions of the Board void, and requested an award of attorney fees.

The trial court issued an *ex parte* temporary restraining order that blocked the Board from enforcing its decision to terminate the mayor. The Board challenged the trial court's jurisdiction on the ground that the Board members had a pending declaratory judgment, and on the ground that the Sunshine Law did not apply to the Board. The trial court held that the Board was subject to the Sunshine Law and that its private meeting was illegal. Consequently, the trial court found the Board's actions taken at the private meeting were void and it permanently enjoined the Board from engaging in any future secret or illegal meetings. The Board appealed.

The Alabama Sunshine Law, section 13A-14-2 of the Alabama Code, expressly prohibits secret, executive meetings of enumerated state boards, commissions or courts. On appeal, the Alabama Supreme Court acknowledged that the Sunshine Law did not expressly list public corporations or water boards as subject to the statute. Therefore, the court noted that whether the statute applied to water boards incorporated as public corporations was a question of first impression. In interpreting the statute, the court noted that it must ascertain and effectuate the intent of the legislature as expressed by the statute. In doing so, a court may explain the language, but it may not detract from or add to the statute. Further, when the language of the statute is clear, there is no room for judicial construction.

The court then determined that it must interpret the meaning of the "catchall phrases" listed in the Sunshine Law. Further, the court concluded that Randolph had the burden of proving that public funds, or grants received or disbursed by the Board were funds belonging to the state, county or municipality. Randolph asserted that the Board was a utility that received and disbursed public grants because it provided water, sewer and garbage services, and it collected fees from the public for performing these services.

The court interpreted section 11-50-314 of the Alabama Code, the statutory basis for the Board's creation, as contemplating that monies used by a public corporation in operating its business would come from revenues it generated and from borrowing money. The court reasoned that although the Board's customers were also residents of the municipality, this did not convert the revenue received by the Board into municipal funds. Thus, the court held that the Board did not receive or distribute municipal funds, and that Randolph failed to meet his burden. The court further reasoned that because no statutory authority existed to confer "any legislative or judicial function" to the Board, and because the Board did not exercise any legislative or judicial function, it was not subject to the Sunshine Law.

The court held that the Sunshine Law did not apply to the Board, a public corporation organized under section 11-50-310, and reversed the judgment of the trial court, including the award of attorney fees, and rendered judgment in favor of the Board.

Christopher A. Griffin

ARIZONA

In re Gen. Adjudication of All Rights to Use Water in the Gila River Sys., 35 P.3d 68 (Ariz. 2001) (vacating portion of Superior Court's earlier order upon interlocutory review and holding the "practicably irrigable acreage" standard insufficient as the exclusive quantification method for determining water rights on Indian lands).

In September 1988, the Superior Court held Indian reservations were entitled to "such water as is necessary to effectuate the purpose of that reservation," and applied the "practicably irrigable acreage" ("PIA") method for quantifying the amount of water necessary for each reservation. This method calculated the minimal amount of water necessary to supply "those acres susceptible to sustained irrigation at reasonable costs." Granting an interlocutory review, the court held the PIA method insufficient, ruling each reservation's water needs be determined on a case-by-case basis.

Water users in Arizona acquire water rights through an appropriation and seniority system wherein rights are lost if the appropriator does not make use of them for a period of five years. Indian reservations, as federal lands, acquire water rights upon creation of the reservation, and are not required to maintain the use of the water. In establishing federal lands, whether Indian reservations or national parks, the government "impliedly reserves enough water to fulfill the [primary] purpose of each such reservation." Thus, federal water rights entail only a reservation's minimal need. If a secondary purpose arises, rights for that purpose are subject to the prior appropriation doctrine.

The trial court assumed the primary use of water on Indian reservations would be for agricultural irrigation. To determine the amount of water allotted to a reservation, the trial court applied the PIA standard. The Arizona Supreme Court found PIA to be inherently flawed for failing to take into account the different geographical topographies, cultures, and skills of the various reservations. The location of many reservations does not allow agricultural pursuits, nor are many tribes able to sustain themselves solely from growing crops.

The Arizona Supreme Court held the primary purpose in establishing Indian reservations was to provide a "permanent homeland" for the Native Americans, a homeland inherently entailing various uses of water. The court intended for lower courts to grant water rights to reservations on a subjective basis, considering "parties'

recommendations regarding feasibility and the amount of water necessary to accomplish the homeland purpose.” Rather than set forth a clear test to quantify water rights, the court provided a list of factors, consistent with the idea of a reservation serving as a permanent homeland, with which to determine the minimal amount of water necessary for an Indian reservation. These factors include a tribe’s history and cultural practices, geography and topography of the reservation, groundwater availability, and past water use.

The state litigants argued their water rights would decrease due to the proposed system of allocation to Indian reservations. The Arizona Supreme Court rejected their argument, holding, “such a minimalist approach demonstrates appropriate sensitivity and consideration of existing users’ water rights, and at the same time provides a realistic basis for measuring tribal entitlements.”

Thus, the Arizona Supreme Court vacated that part of the September 1988 order that established PIA as the standard for reserving federal water rights on Indian reservations, instead requiring courts to grant water rights to Indian reservations based on a case-by-case basis. The court affirmed the remainder of the order.

Katharine J. Ellison

CALIFORNIA

Deltakeeper v. Oakdale Irrigation Dist., No. C035745, 2001 Cal. App. LEXIS 3687 (Cal. App. Dec. 26, 2001) (when certain unnamed parties to litigation are protected by the interests of named parties, dismissal of a case is not necessary under the rules of indispensable parties and necessary parties).

Oakdale Irrigation District (“Oakdale”), South San Joaquin Irrigation District (“South San Joaquin”) and Stockton East Water District (“Stockton East”), entered into the Joint District Water Purchase Agreement (“Agreement”) with the City of Stockton, Lincoln Village Maintenance District, Colonial Heights Maintenance District, and Central San Joaquin Water Conservation District, for the sale of water by Oakdale and South San Joaquin to the other parties to the Agreement. Oakdale and South San Joaquin prepared an Environmental Impact Report (“EIR”), which Deltakeeper challenged by a petition for a writ of mandate. On August 26, 1999, Deltakeeper filed a petition for writ of mandamus alleging the EIR failed to address adequately the environmental impacts of the project proposed in the Agreement. They requested the setting aside of the certification of the EIR and a permanent injunction enjoining respondents from engaging in any activity connected with the project until the project approvals fully complied with the California Environmental Quality Act (“CEQA”). The Oakdale, South San Joaquin, and Stockton East

Districts filed a motion to dismiss the petition on December 13, 1999 for failure to join indispensable parties.

The court determined whether the unnamed parties are necessary parties or indispensable parties to the litigation, under section 389 of the Public Resources Code of California. Section 389 mandates that whenever feasible, the person materially interested in the subject of an action should be joined as a necessary party so they may be heard. This section insures that complete, not hollow, relief will be had by all interested parties, the protection of parties whose joinder is in question, and a party is not subject, after the adjudication, to double or otherwise inconsistent liability. The court here found that the EIR ensured complete relief for all the interested parties. Secondly, the court found the unnamed parties did not lose protection of their interests when the joined parties had the same interest in the litigation. All parties have voting rights under the Agreement before any action is taken which binds the named parties to the outcome of the vote. Finally, the parties will not be threatened with double or inconsistent liability because any of them may cancel the Agreement if the EIR is determined to be inadequate.

The next issue was whether a necessary party to the action is indispensable. A party is indispensable only in the conclusory sense that in its absence, the court has decided the action should be dismissed. Ordinarily courts refuse to adjudicate a contract case when all parties to the action are not present. The fact that the action may affect the interests of the non-joined parties in the underlying contract in this case does not dictate the conclusion they are indispensable parties. The rights asserted in this litigation are independent of the contractual rights to water established by the Agreement. An indispensable party is determined by four factors: (1) whether the judgment is prejudicial to parties or non-parties; (2) whether any prejudice be lessened or avoided, (3) whether the judgment will be adequate; and (4) whether the plaintiff will have an adequate remedy if the action is dismissed. First, the court decided the non-joined parties had interests in the litigation but the parties to the action adequately protected the interests. Second, the unnamed parties could make no new arguments since a determination of an EIR's adequacy was based on the existence of substantial evidence and any party could make this argument. Third, any judgment rendered will adequately adjudicate the rights of all parties. Fourth, if the action was dismissed Deltakeeper would have no recourse because the statute of limitations had run for joining more parties.

Finally, the court found that if the action were dismissed, the evaluation of the EIR would escape scrutiny, the main recourse the public has to ensure projects comply with CEQA. Therefore, the court did not dismiss the case.

Shandra Dobrowolny

Hartwell Corp. v. Superior Court, 38 P.3d 1098 (Cal. 2002) (holding that California's Public Utilities Commission had authority under the state constitution to adopt drinking water quality standards; that judicial challenge to the adequacy of those standards was barred by statute; that the statute also prohibited injunctions against water utilities for violating those standards; that the statute would allow damage claims should a utility fail to meet the Public Utilities Commission's standards; and that there was no bar to action against defendants who were not subject to Public Utility Commission regulation).

Several hundred California residents ("Residents") brought four separate actions in Los Angeles Superior Court against various groups of corporate parties ("Industrial Defendants") and public water utilities. These actions were consolidated into the instant case. The Residents charged that they had been provided unsafe drinking water and sought damages and injunctive relief. California's Public Utilities Commission ("PUC") had authority to regulate some of the utilities ("Regulated Utilities"). Other utilities were not subject to PUC regulation ("Unregulated Utilities").

The California Legislature gave the PUC authority to develop and apply standards for the quality of drinking water, provided those standards were not inconsistent with those of the California Department of Health Services ("DHS"). The legislature also explicitly limited the jurisdiction of judicial review of the PUC's decisions. Specifically, the judiciary may not take action that would hinder or interfere with the PUC's legitimate exercise of regulatory authority.

The legislature expressly described a baseline for water quality: the PUC's standards had to be at least those of the DHS. The court held that as long as DHS's standards are met, PUC has total authority to set water quality standards, and that judicial review of the adequacy of those standards is barred by statute. Accordingly, the court held that the Residents were barred from seeking damages based on the supposed inadequacy of the PUC's water quality standards.

The court also considered the Resident's available remedies for violation of PUC's water quality standards. The court held that even if those standards are being violated, injunctive relief against the utility in question is inappropriate if that utility is under PUC regulation because such an injunction would interfere with PUC's efforts to correct the violation, which is a legitimate exercise of their regulatory authority. Thus, the court held that the Residents were barred from seeking injunctive relief for a violation of PUC standards by the Regulated Utilities.

However, the court also held that holding the Regulated Utilities liable for damages caused by violations of PUC standards would not interfere with the PUC's exercise of authority, and consequently the Residents could make claims for damages based on the Regulated Utilities' violations of PUC standards. Furthermore, the court held

that since the unregulated utilities and industrial defendants were not subject to PUC regulation, court action against the unregulated utilities would not interfere with the PUC's regulatory authority. Hence the Residents' claims against the Unregulated Utilities were allowable.

Thus, the Residents were limited in their recovery against the Regulated Utilities to damages from violations of the PUC's water standards, if such violations did exist. The Residents recovery the Industrial Defendants and Unregulated Utilities were not limited. The court remanded the case for further proceedings.

James Siegesmund

COLORADO

Empire Lodge Homeowners' Assoc. v. Moyer, 39 P.3d 1139 (Colo. 2002) (holding that a party does not have standing to challenge another's water right on the basis of injury if it does not have an adjudicated water right, and that water users diverting out-of-priority water need augmentation plans decreed by water courts).

Empire Lodge Homeowners' Association ("Empire Lodge") filed suit against Anne and Russell Moyer ("Moyers") in District Court for Water Division No. 2 ("Water Court") claiming unlawful use enlargement and invocation of the futile call doctrine. Empire Lodge alleged that the Moyers unlawfully expanded their irrigated acreage to include land outside their decreed use area, used water for undecreed purposes, violated the "duty of water" limitation expressed in their decree, and irrigated land that the Parkville Water District "dry up" covenant required to be removed from irrigation. The Moyers counterclaimed to enjoin Empire Lodge from illegally diverting water, due to failure to obtain an augmentation plan decree, from Empire Creek into Beaver Lakes. The Water Court dismissed Empire Lodge's claims and enjoined Empire Lodge from its out-of-priority diversions pending adjudication of an augmentation plan. The Colorado Supreme Court affirmed the Water Court's judgment.

Empire Lodge was a homeowners' association connected with Beaver Lakes Subdivision, a 261-lot development situated on Empire Creek, a tributary to the Arkansas River. The Moyers operated a ranch downstream from Empire Lodge. Empire Lodge diverted water out-of-priority to fill two ponds, known as Beaver Lakes, used for recreational purposes. In order to divert out-of-priority, Empire Lodge relied upon the State Engineer's approval. The State Engineer conditioned approvals upon Empire Lodge providing substitute supply water to the Arkansas River; however, the replacement point was below the Moyer's ranch. As early as 1986, the State Engineer informed Empire Lodge that it needed to obtain an adjudicated augmentation plan.

In order to determine whether Empire Lodge had standing, the

Supreme Court first evaluated Colorado's prior appropriation system, adjudication, and administration system of natural stream use rights. Prior appropriation promoted multiple use of a finite resource, thus fostering optimum use, efficient management, and priority administration. Colorado premised this appropriation system upon three principles: (1) waters are a public resource where property rights can attach to unappropriated waters for beneficial use; (2) courts adjudicate water rights and priorities; and (3) state engineers, division engineers and water commissioners administer the waters in accordance with judicial decrees and statutory provisions. In order to obtain benefits of the priority system, such as value and priority, a party must adjudicate its water right. During dry years, the State Engineer administers the priority system by favoring decreed senior users and curtailing decreed junior uses and undecreed water use. Thus, a party cannot make an enforceable call on the river without having a decreed right.

Next, the court evaluated out-of-priority diversions, augmentation plans, and exchanges through the court and the legislative responses to Colorado's increased water needs. These responses centered on reinforcing the adjudication and administration process and use maximization of Colorado's limited water supply. The Water Right Determination and Administration Act established the ability to divert out-of-priority through a "decreed augmentation plan." Augmentation plans allowed out-of-priority diversions while ensuring protection to senior rights via a replacement water supply. State Engineers enjoyed short-lived authority to approve temporary augmentation plans. However, in 1977, the legislature repealed this authority in response to concern about the constitutionality due to lack of notice to potentially injured water rights holders. Thus, the authority to approve an augmentation plan lay with the courts.

Empire Lodge asserted that the State Engineer had broad authority to approve substitute supply plans, but the court disagreed. When utilizing the term substitute supply throughout the Colorado Revised Statutes, the court determined the provisions' common nexus was quantity and quality requirements applicable to replacement water. The State Engineer had authority to approve augmentation plans in a very narrow context. For instance, he may issue approval in connection with sand and gravel open mine extraction situations or with upstream reservoir storage so long as the user releases the water upon senior user need due to insufficient supply.

In addition to authority, the court evaluated substitute supply in the context of exchanges. The court identified four critical elements to an exchange: (1) the substitute supply source must be above a calling water right; (2) the supply must be the same quantity and quality for the downstream water user; (3) natural flow must be available at the upstream diversion point; and (4) the exchange cannot injure other users. Exchanges are distinct from augmentation plans because it merely substitutes water with a priority date, whereas augmentation plans address depletion of the resource with no priority

resulting.

The court found that Empire Lodge's out-of-priority diversion, required, but did not have a decreed water right. Empire Lodge relied on a right to divert via a State Engineer approved temporary augmentation plan. However, the court determined that water courts, not the State Engineer, have the sole authority to approve augmentation plans. With no water right, Empire Lodge lacked standing to assert either its futile call argument or its enlargement claim. On the other hand, since the Moyers possessed a decreed water right, they had standing to assert their counter claim.

In Empire Lodge's appeal to the Water Court's injunction, it argued that the Moyers did not prove injury by Empire Lodge's diversion. The court stated, first, there was a presumption of injury and second, the Moyers provided actual proof of injury. The court further found that Empire Lodge's substitute supply plan was not an exchange because the replacement source entered the river system below the Moyer's diversion point. The court clarified that the injunction had the effect of directing Empire Lodge to obtain a court approval for the out-of-priority diversion. Additionally, the court stated that the injunction did not inhibit Empire Lodge's ability to store water under "free river" conditions, and it could appropriate unappropriated water. Thus, the court held the injunction enjoined Empire Lodge's out-of-priority diversions that required a decreed augmentation plan authorizing them to do so. The court affirmed the Water Court's judgment.

Holly Kirsner

Strole v. Guymon, 37 P.3d 529 (Colo. Ct. App. 2001) (holding an oral water rotation scheme unenforceable; a court may limit the use of a pre-existing ditch to resolve an equitable dispute).

The Stroles owned property directly north of the Guymon's. Each party held water rights from the Uncompaghre Valley Water Users Association; the Stroles maintained an interest of .17 cfs for their 8.6 shares of irrigation water, and the Guymon's maintained an interest of .22 cfs or 2.8 shares at 100 percent. There were two ditches involved, the eastern ditch, and the western ditch. Each party's water entered the Guymon's property through the eastern ditch on the southeastern corner of their property. Starting in 1979, when the Stroles purchased their property, they retained an agreement with the Guymon's predecessor (the Guymon's purchased their property in 1995). As such, the parties had rotated their water shares; the Guymon's used the party's combined water one half of the time, and the Stroles used the combined water the other half of the time. Because of the contour of the land and the middle ditch, the Price ditch, it was imperative the Stroles received the combined water for their hay crop. However, in 1999, the Guymons decided to discontinue the water rotation arrangement.

As a result, the Stroles filed suit alleging the Guymons interfered with their water rights, and obtained a preliminary injunction that allowed for their continued use of the water rotation agreement. The trial court held the Stroles maintained an easement over the Guymon's property, but the Stroles had no right to impose a water rotation system over the Guymons. Thus, the trial court ordered the Stroles receive all of their water through the eastern ditch; a diversion splitter box be installed on the Guymon's property to ensure each party received the proper allocation of water; a flume system be installed on the Strole's property easing the water flow from the eastern ditch to the western portion of the Strole's property; and, finally, all parties share the cost based on their water allocation.

The Stroles appealed claiming the trial court erred in concluding there lacks a contractual basis to impose a water rotation system. The appellate court concluded a water rotation agreement does not defeat a claim of continuous and exclusive possession with respect to the adverse possession of water rights, and thus the trial court did not err. The Stroles further claimed the trial court erred by severely limiting their right to use the western ditch based on a balancing of equities approach to easements, and their long existing use of the ditch should have allowed them its continued use. The trial court determined the Stroles maintained only an easement over the eastern ditch, however the Guymons submitted two easements existed, ones over the eastern and western ditches. The appellate court concluded the trial court adequately weighed all the evidence and provided an adequate remedy, and thus did not abuse its discretion. Furthermore, the appellate court concluded a court may limit the use of a pre-existing ditch in order to resolve a dispute equitably. Lastly, the Stroles claimed the Guymons must bear the financial burden of building the new irrigation system, and the Guymons appealed claiming they should not bear any of the financial burden. However, the appellate court held the trial court fashioned an equitable and fair remedy, it did not abuse its discretion, and each party must share the cost. Finally, the Guymons maintained the preliminary injunction allowing the Stroles continued use of the rotation scheme should be dissolved. The appellate court held that the injunction remained in effect until the new irrigation system was completely installed.

Staci A. McComb

Mount Emmons Mining Co. v. Crested Butte, 40 P.3d 1255 (Colo. 2002) (reversing the water court's denial of Mount Emmons Mining Company's application for a conditional water right by determining that a beneficiary of a subordination agreement is not required to satisfy the water availability test).

Mount Emmons Mining Company ("Mount Emmons") filed an application for a conditional water right in 1988. Mount Emmons planned to use water from the tributaries of the Gunnison River above

the Aspinall Unit ("Unit") for mining purposes. The water court held that since the Bureau of Reclamation ("BUREC") held the water rights to the Unit, Mount Emmons needed a contract with BUREC to benefit from the subordination policy. The policy essentially stated that in-basin projects on the Gunnison and its tributaries above the Unit could deplete at least 60,000 acre-feet of water. The Colorado Supreme Court rejected this decision.

The Court previously held that based on the subordination agreement, BUREC must allow upstream, junior, in-basin depletions of at least 60,000 acre-feet water. The Court stated that this depletion allowance trumped BUREC's senior rights to appropriate water. Because Mount Emmons was an in-basin and upstream appropriator, the Court determined that Mount Emmons was an intended beneficiary of this depletion allowance.

Furthermore, the Court disapproved of the water court's reliance on *Board of County Comm'rs v. Crystal Creek Homeowners' Ass'n* to determine the case. In *Crystal Creek*, the water court determined that potential appropriators needed a contract with BUREC for access to the 60,000 acre-foot depletion allowance. Based on the facts in *Crystal Creek*, the water court similarly decided that Mount Emmons also needed a contract with BUREC to access the depletion allowance. The Supreme Court disagreed with this analysis because in *Crystal Creek*, the appropriator was a trans-basin diverter, unlike Mount Emmons, which was an in basin appropriator.

Finally, the Court determined that Mount Emmons was an intended beneficiary of the subordination agreement, and that Mount Emmons and BUREC did not need a contract for the issuance of a conditional water decree. According to the Court, Mount Emmons must show that water was available as a prerequisite to receiving a conditional water right. Therefore, the Court reversed the water court's denial and remanded the case to determine if a sufficient amount of water was available to satisfy Mount Emmons' application for a conditional water right.

Stefania Niro

Roaring Fork Club, L.P. v. St. Jude's Co., 36 P.3d 1229 (Colo. 2001)
(holding that the owner of property burdened by a ditch easement who cannot secure the consent of the benefited owner to move or alter the easement may make alterations only after obtaining a court declaration that such alterations will not damage the benefited owner).

The Roaring Fork Club ("Club") acquired neighboring, upgradient property adjoining St. Jude's Company ("Ranch"). The Club and the Ranch shared an interest in three irrigation ditches that traversed the Club's property. The Club intended to develop its property for recreational use by building a private fishing and golf

club. In order to accommodate its development plans, the Club attempted to purchase a portion of the Ranch's easements, or to formalize a ditch maintenance agreement. However, when the parties were unable to reach an agreement, the Club moved forward with construction in and around the ditches.

The Ranch initiated a trespass action against the Club, seeking a mandatory and permanent injunction requiring the Club to restore the ditches to their original condition. The trial court, acting in equity, concluded that the Club had committed trespass on the Ranch's easements. However, because the Ranch sought an equitable remedy, the trial court concluded that the Ranch was entitled to injunctive relief in one of two forms. The Club must either restore the ditches to their original condition or assume all responsibility for and expense of operation and maintenance of the ditches on its property, and be permanently obligated to deliver water to the Ranch in the amount, quality and time consistent with the Ranch's adjudicated rights. The court gave the right to choose between the alternative remedies to the Club, which chose the maintenance and delivery option.

The Ranch appealed, and the court of appeals reversed, holding that the maintenance and delivery option did not comply with Colorado law. Further, the court of appeals held the trial court order unjustifiably rewarded the Club for deliberate and conscious trespass. The Colorado Supreme Court granted certiorari to determine whether the court of appeals was correct in preempting the trial court's exercise of equitable discretion, and whether the court of appeals erred by requiring an award of injunctive relief.

The majority rule in the United States, which prohibits burdened estate owners from unilaterally relocating easements, has historically governed ditch easements as well. Nevertheless, competing land uses and unclear common-law precedent have led to conflicts. Although the supreme court found that the Club had trespassed upon the Ranch's easement, they recognized that competing uses should be accommodated, if possible, and that inflexible notions of dominant and servient estates did little to advance that accommodation.

The supreme court looked to the Restatement (Third) of Property (Servitudes) § 4.8(3) (2000) ("Restatement") to articulate a balanced approach between burdened and benefited estate holders. Thus, the supreme court found the Restatement allowed a burdened property owner, such as the Club, to unilaterally move or alter a ditch easement in order to maximize the use of its own property (unless it is specified in deed or otherwise to have a certain location), subject both to a reasonableness test and to the constraints delimited in the Restatement rule.

The supreme court then explained how it reconciled the notion that interference with a ditch easement without consent, which constitutes trespass, with the Restatement doctrine. If a burdened owner seeks to move or alter a ditch easement and the benefited owner refuses consent, the burdened owner may seek a declaratory judgment from a court that the alteration does not damage the

benefited owner(s) in accordance with the Restatement test. In such a proceeding, a judge would apply the Restatement rule to determine whether the planned changes pass the three-prong test.

The three-prong test requires the burdened owner to present a prima facie case that the alteration would cause no damage under the Restatement rule. A successful showing would shift the burden to the benefited owner to establish damage. If the burdened owner made a showing of no damage and the benefited owner's evidence was insufficient to rebut, the court would enter a declaration for the burdened owner. However, if the benefited owner successfully demonstrated damage, the court should decline to permit the alteration.

In evaluating damage, or the absence of damage, the trial court must not only look at the operation of the ditch for the benefited owner, but also at the maintenance rights associated with the ditch. In addition, the water provided to the ditch easement owner must be of the same quantity, quality and timing as provided under the ditch owner's water rights and easement rights in the ditch.

Returning to the case at hand and recognizing that their opinion identified a remedy previously not clear in law, the supreme court remanded the case to the trial court to determine whether the Club's alteration of the easement was reasonable and otherwise satisfied the Restatement criteria. If the alterations did not meet the test, the court must order restoration. Further, the Ranch was entitled to an order allowing it to inspect, maintain, operate and repair the ditch easement and water structure, irrespective of allocation of costs and burdens of maintenance that might form part of equitable relief.

John A. Helfrich

CONNECTICUT

Wood v. Zoning Bd. of Appeals., 784 A.2d 354 (Conn. 2001) (holding spring water collection, storage, and transportation is not a permitted agricultural use within Somers Town Code 214-4).

Hillside and co-plaintiffs ("Hillside") appealed the trial court's decision to uphold a cease and desist order the zoning Board of Appeals in the Town of Somers ("Board") issued following judgment that collecting, storing, and transporting spring water for human consumption is not a permitted agricultural use within A-1 zoning districts, pursuant to Somers Town Code provision 214-4. The court concluded Hillside failed to prove the Board's statutory interpretation was illegal, arbitrary, or an abuse of its discretion. Hillside also claimed the court should not have decided whether the use was legally nonconforming, because the Board failed to address such issue initially, and, thus, the court should have remanded it to the Board.

Applying Somers zoning regulations, the appellate court's

determination of the Board's "reasonable and rational intent" utilized to interpret the statute, is plenary. Though Somers Town Code provision 214-98 permitted farms on A-1 zoned property, Hillside's use was not included within provision 214-4's "agriculture," or "cultivation of the land" definitions. The court distinguished spring water collection because it does not require soil preparation "for the purpose of seeding the land or growing crops," and further, because spring water cannot be planted, grown, or harvested, but only collected, requiring no soil to "grow or nurture some living thing."

The court further rejected Hillside's contention that collecting spring water qualified as an "agricultural" or "farming" use because it entailed "harvesting any agricultural . . . commodity," under General Statutes § 1-1(q). Unpersuaded, the court was bound by Somers Town Code 214-4's express "agriculture" definition and could not defer to this statutory definition. Hillside further argued the legislature amended General Statutes § 19a-341 to classify spring water collection as an agricultural activity. However, the court maintained the statute bore no relevance to "agriculture" in provision 214-4, or to applicable zoning regulations. Rather, the statute simply states spring water cannot be collected in a manner constituting a nuisance. Furthermore, the court found unacceptable Hillside's contention that the use was permitted because it took place on a farm, because it is not an "accessory use" incident to a permitted agricultural use within 214-4, but rather activity "having no relation to the farm itself."

However, the court deemed the Board failed to initially address whether the activity was legally nonconforming. Thus, the trial court's determination of such issue was improper, as the factual record is insufficient for the appellate court to make its own determination. Therefore, the case was remanded to the trial court with directions to remand this issue to the Board. The judgment was otherwise affirmed.

Robert Lykos

FLORIDA

Quiles v. Boynton Beach, 802 So. 2d 397 (Fla. App. 2001) (holding the city of Boynton Beach's decision to add fluoride to the city's potable water supply did not violate a citizen's right to refuse medical treatment under Article I, section 23 of the Florida Constitution).

The Boynton Beach City Commission voted to add fluoride to the city's potable water supply. Jesus F. Quiles ("Quiles"), a citizen, filed a suit against the City alleging the fluoridation measure violated his right to refuse medical treatment under Article I, Section 23 of the Florida Constitution. The circuit court granted the city of Boynton Beach's ("Boynton") motion to dismiss with prejudice. Quiles appealed to the Court of Appeals of Florida, Fourth District, which affirmed the circuit

court, and held the fluoridation measure was a valid exercise of Boynton's police power and was not an arbitrary or unreasonable imposition on Quiles' constitutional rights.

The court examined the power vested in a municipality under the Florida Constitution and found a municipality had broad governmental, corporate, and proprietary powers to perform municipal functions and services. Furthermore, the court found a public authority, in a municipality, must protect the health, safety, and general welfare of its citizens. The court said this duty included sanitary and health regulations for the municipality's waterworks, as evidenced by a Florida case that specifically upheld adding fluoride to the city water supply as a valid exercise of a municipality's police power.

Quiles asserted that the fluoridation was not within Boynton's police power because fluoride had no real health benefits and was not necessary to fight disease or make the water potable, but was a prophylactic measure to fight tooth decay. Thus, Quiles claimed he was forced to consume fluoride through Boynton's water, which amounted to compulsory medication in violation of his right to privacy under Article 1, Section 23 of the Florida Constitution. The court distinguished Boynton's fluoridation measure from the prohibited compulsory medication cases because Boynton fluoridated the water before it entered Quiles' household and never sought to introduce fluoride directly into Quiles' bloodstream. Thus, the court held Boynton's fluoridation measure was not prohibited compulsory medication because Quiles was free to choose not to ingest Boynton's fluoridated water.

Quiles also argued that Boynton's power was limited to protecting citizen health and did not extend to improving health by preventing certain conditions. The court realized Quiles made a valid distinction, but dismissed this contention saying it was not the duty of the court to judge the wisdom of a municipality when adopting health measures. The court's role was only to determine if Boynton acted within their legal and constitutional limitations. Thus, the court held Boynton's decision to fluoridate their potable water supply was within the municipality's police power.

Kirstin E. McMillan

IDAHO

N. Snake Ground Water Dist. v. Gisler (*In re* SRBA Case No. 39576, Subcase No. 36-00077D), 40 P.3d 105 (Idaho 2002) (holding objections to decrees must be raised at the objection and response phase of an adjudication, not in a motion to alter or amend).

The North Snake Groundwater District ("District") brought this appeal contesting the decree of a water right to Bradley and Linda

Gisler ("Gislens") and maintaining that it properly and timely raised the issue before the SRBA district court. This court found that the District did not raise its objections at the appropriate phase of the adjudication.

The Gislens claimed a water right in July 1988 for 4.0 cfs for stock water and irrigation for sixty-nine irrigated acres. In 1993, the Idaho Department of Water Resources ("IDWR") submitted a recommendation for 1.5 cfs on a total of forty-eight irrigated acres. The Gislens filed an objection to the report, however, in October 1997 the Gislens and IDWR reached an agreement and stipulated to 2.34 cfs on sixty-one irrigated acres. The Special Master recommended a decree in accordance with the stipulation.

In November 1997, the District filed a motion to alter or amend the decree; this was the District's first involvement with the subcase. The District alleged that the diversion rate in the stipulation was based upon gravity or flood irrigation, but the Gislens were actually using sprinkler irrigation, which allegedly requires less water. Three IDWR affidavits supported the District's contentions that: (1) the Gislens were using sprinkler irrigation; (2) the decree was made on the assumption that the Gislens would use gravity irrigation; and (3) gravity irrigation generally requires more water than sprinkler irrigation. In 1998, the Special Master denied the District's motion.

The District appealed to the SRBA district court and condensed several issues into one underlying issue: IDWR's recommendation based on gravity irrigation violated Idaho statutory mandates. The SRBA district court denied the District's challenge, stating that because the District had not followed proper procedure it had lost its opportunity to object.

The District appealed to the Idaho Supreme Court. The main issue on appeal was whether the District had properly and timely filed its objections in the SRBA district court. The District argued that a party in the SRBA district court may challenge a special master's legal conclusions, and, since the recommendation based on the Gislens using a gravity system rather than a sprinkler system violated Idaho law, this was a question of law. The District asserted that it was not attempting to obtain an advisory opinion, rather, it was concerned that the decree could result in non-beneficial use of water.

The Idaho Supreme Court found that an administrative order governs the procedures of the SRBA district court and that statute specifically states that all objections must be filed before the issuance of a stipulation. In this case, the District filed its objections one-month after the Gislens and IDWR reached agreement. This court held that the District's claims were not legal in nature and the District is bound by Idaho law; objections must be filed before issuance of a stipulation. The District should have raised its challenges during the objection and response period of the adjudication, not in a motion to alter or amend.

Rebekah King

ILLINOIS

Roketa v. Hoyer, 763 N.E.2d 417 (Ill. 2002) (holding the right to the recreational use of a lake is essential to the beneficial enjoyment of its bordering tracts of land; it is possible to permit concurrent uses of the lake without hindering individual landowner interests).

Alice and Delphin Roketa (“Roketas”), owners of June Lake, sought a court order to permanently enjoin Ralph Hoyer from using the lake for recreational purposes. The Roketas alleged Hoyer had no property right or interest in the lake and no right to use the lake. Hoyer contended he had title to real estate along the shoreline of June Lake, and an easement to access and use the lake for recreational purposes. The circuit court found a use easement for recreational purposes was imposed on June Lake for the benefit of the adjoining real estate, and thus Hoyer had a right to use June Lake for recreational purposes. The court granted summary judgment in favor of Hoyer. The Roketas appealed.

The appellate court turned to basic principles of property law to resolve the case. When the owner of a tract of land divides it into different parts in such a manner that one part derives from another an advantage of a permanent, open and physical character, and afterwards sells a part of the property, the purchaser takes the part sold with all the benefits and burdens that appear at the time of the sale. Furthermore, when a grant is made for valuable consideration, it shall be presumed the grantor intended to convey, and the grantee expected to receive, the full benefit of the land conveyed. This includes all other things necessary to the enjoyment of the land granted, and those things shall pass with the land by the grant of the land itself, without requiring specific mention of the benefits or appurtenances. An appurtenant easement is an incorporeal right or privilege incidental to the land conveyed. It runs with the land and passes by conveyance of the land even without being mentioned in the instrument of transfer.

Joseph and Joyce Bohn (“Bohns”) originally owned a private manmade lake, including the body of water and underlying ground, known as June Lake, and the real estate surrounding the lake. In order to sell the property, the Bohns divided the estate into several tracts of land that each bordered the lake. First, the Bohns and Hoyer entered into a warranty deed conveying a 1.52-acre tract of land bounded on the west by the shoreline of June Lake to Hoyer. However, no portion of June Lake was given to Hoyer; the deed was silent as to Hoyers’ right to use June Lake. Next, the Bohns executed a warranty deed passing on a separate tract bordering June Lake, not any portion of the lake, to the Roketas. This deed included a provision granting the Roketas the right to use the lake for recreational purposes.

The Bohns subsequently executed a quitclaim deed conveying legal title to June Lake and its surrounding land to the Bank in lieu of foreclosure. The Bank then executed a corporate quitclaim deed conveying title to the lake and certain tracts of bordering land to Robert and Josephine Arnold, and expressly reserving access to and use of June Lake for recreational purposes for the benefit of specifically described real estate to the Bank and its successors, grantees and assigns. Later in time, the Arnolds conveyed title to June Lake and some adjoining tracts of land to the Roketas. The deed expressly provided the conveyance was subject to the "rights of other owners of land bordering on June Lake with respect to land lying within June Lake and in respect to the water and use of the surface of said lake."

The court believed it evident that June Lake was created to benefit the land surrounding it. Thus, those tracts of land bordering the lake derived open and visible benefits from the lake. The court held the right to the recreational use of the lake is essential to the beneficial enjoyment of the tracts that border it. Thus, the purchase of the property is as much for the right to use the lake as for the land itself. Accordingly, the court found the Roketas' property was subject to an easement for the benefit of the Hoyer tract, and that beneficial right to the use of the lake for recreational purposes passed with the conveyance of that tract to Hoyer.

With regard to the use of easements, there is a principle of concurrent use, rather than exclusive use. The owner of the servient estate must not interfere with the use of the easement by the dominant estate, and the owner of the dominant estate cannot materially alter the easement to place a greater burden on the servient estate or otherwise interfere with the use or enjoyment of the servient estate by its owner. The use of an easement by both landowners must be permitted in accordance with their individual interests. The Roketas set up a catfish farm at one end of the lake. The court found no evidence this use interfered with Hoyer's right to use the lake for recreational purposes. Accordingly, the court determined it possible to permit the parties to concurrently use the lake without hindering their individual interests.

Kimberley E. Montanaro

MINNESOTA

Zaluckyj v. Rice Creek Watershed Dist., 639 N.W.2d 70 (Minn. Ct. App. 2000) (affirming the district court's ruling that appellants failed to exhaust their administrative remedies and failed to show that to do so would be futile, thus appellants are not entitled to judicial relief).

Washington County Judicial Ditch No. 2 is a thirteen-mile public drainage system that was originally established in 1909 pursuant to a

court order. Land along the ditch is comprised of both private and public interests. Appellants in this action are individuals who own land along or near the ditch "Citizens"). Respondent Rice Creek Watershed District is the drainage authority, respondents Department of Natural Resources and the Board of Water and Soil Resources are the state agencies that administer public water and wetlands protection, and respondent Minnesota Center for Environmental Advocacy, a nonprofit environmental group, intervened (collectively "Respondents").

Citizens contended that overflowing water from the ditch flooded their land. Thus, in 1995, the City of Hugo, which was a plaintiff in the district court action, but did not file a notice of appeal, applied to the watershed district for a permit to adjust the ditch by lowering three culverts. This application was denied, but following a joint study and other proceedings, the watershed district issued a permit in 1998 allowing one culvert to be lowered. In November of 1998, the City petitioned the watershed district for a hearing pursuant to Minn. Stat. § 103E.075 (1998) to determine whether the other two culverts were obstructing the flow of the ditch and thus should be lowered.

The watershed district denied the petition, determining that lowering the culverts would not improve the hydraulic capacity of the ditch unless other ditch repairs were made as well. The watershed district noted that under Minn. Stat. § 103E.715 (1998), any interested party may petition the watershed district to repair the ditch. However, the City did not petition for repair; instead, the City and Citizens landowners filed a declaratory judgment complaint and a petition for a writ of mandamus in district court, seeking an order for the removal of the obstructions and repair of the ditch, or, in the alternative, for inverse condemnation proceedings and a determination that they were exempt from certain rules and regulations. Before ever reaching the merits of the case, the court determined that appellants failed to exhaust their administrative remedies pursuant to section 103E.715 and dismissed the action.

On appeal, the Minnesota Court of Appeals addressed two issues using a clearly erroneous standard of review. First, the court asked whether Citizens were entitled to a jury trial on the issue of exhaustion of administrative remedies. Citizens argued that in mandamus and declaratory judgment proceedings, parties are entitled to have issues of fact tried by a jury, and since the issue of exhaustion of remedies involved disputed questions of fact, Citizens were entitled to a jury trial. The court disagreed, however, and held that issues of exhaustion and futility of administrative remedies are generally legal questions for the court. Thus the district court did not err in ruling that Citizens were not entitled to a jury trial regarding exhaustion of remedies.

Next, the court considered whether Citizens failed to exhaust their administrative remedies or failed to show that exhaustion would have been futile. Citizens contended that the administrative remedies for ditch repair were not available to them as a matter of law and that it would have been futile for them to try. In particular, Citizens rely on

Minn. Stat. § 103E.715(4)(a) for the proposition that repairs should not be made if the cost of repair exceeds the total benefits the landowners received. Citizens estimated present day repair costs at \$400,000 to \$500,000, which greatly exceeds the 1909 determination that the benefits to the landowners were \$34,053. Citizens acknowledge that if the benefits were redetermined to reflect modern day values, the repairs would probably be a feasible remedy. The court determined, however, that Citizens were erroneous in their reliance on § 103E.715(4)(a) because the cap on the price of the repair project only applies when 26 percent of the landowners affected sign a petition for repairs. An alternative provision authorizes repair regardless of cost when the drainage authority determines that the repairs are necessary for the best interests of the affected property owners, thus the remedy is available to Citizens.

Citizens further contend that it would be futile for them to petition for repair of the ditch because respondents will not issue the necessary wetlands replacement and public water permits. However, the court disagreed, noting that respondents have not made a final decision on the matter. Additionally, Citizens sought a determination that the ditch repair was exempt from certain wetlands replacement requirements and public water mitigation costs, and sought determination of the applicability of various other water management related rules. Citizens argued that the district court erred in declining to address the issue, but the court ruled that issues of this type should be determined through the administrative process of a petition for repair. Thus Citizens failed to exhaust their administrative remedies, or show that doing so would be futile.

Makayla A. Shannon

MISSOURI

In re Application of Osage Water Co., 51 S.W.3d 58 (Mo. App. 2001)
(holding because the city failed to give notice to Osage Water Company of its petition for judicial review of Public Service Commission's decision to permit water company to provide water to subdivision, the trial court lacked jurisdiction to hear the cause).

This appeal arose out of a dispute over Osage Water Company ("Water Company") supplying water to the Parkview Bay Subdivision ("Parkview") in the city of Osage Beach, Missouri ("Osage"). Osage had earlier approved a plan allowing the Water Company to supply water to Parkview providing that the Water Company met certain design standards set forth in the Code of Ordinances. A few months later, Osage withdrew its approval stating that the water company had failed to meet the design standards for the water franchise ordinance.

In response, the water company filed an application for a "certificate of public convenience and necessity" with the Public

Service Commission (“Commission”) to provide public utility water service to Parkview. The commission decided the water company was not required to obtain the city’s franchise or consent to provide water to Parkview because the water company was not going to use public rights of way to provide its service. Osage had chosen not to intervene in the Commission hearings but later filed an application for rehearing with the Commission. That application was denied and Osage then filed a petition for writ of review in the circuit court. Osage served a summons and copy of the petition to the Commission, but not to the Water Company.

The circuit court awarded judgment to Osage. Thereafter, the Water Company filed an application to intervene in the proceeding, a motion to set aside the judgment, a motion to dismiss the petition for review, or in the alternative, a motion for rehearing, based on the fact they were not given notice of the action as an interested and effected party under Rule 100.01, Mo. Ann. Stat. § 386.510 (West 2000).

The Court of Appeals of Missouri, Western District held the statutory provision governing judicial review of the Public Service Commission’s orders or decisions was inadequate and constitutionally defective as to the notice requirement, and had to be supplemented by statute requiring notice to be served on all parties. The court therefore quashed the order of the circuit court for lack of jurisdiction.

Sarah A. Hubbard

MONTANA

Collins v. Swinger, No. 01-157, 2001 MT 265N (Mont. Dec. 17, 2001) (affirming district court’s decision that an easement by implication was created where there was (1) separation of title; (2) a long-standing, obvious use before the separation, which shows that the use was meant to be permanent; and (3) necessity of the easement for the beneficial enjoyment of the land granted or retained).

Keith and Marie Swinger (“Swingers”) appealed a decision of the district court for the Fourth Judicial District in Missoula County, Montana, granting Gary Collins’ (“Collins”) request for injunctive relief, damages, and attorney’s fees. The district court had ordered injunctive relief to allow Collins access to his water rights to Hayes Creek on the Swingers’ property, by right of easement by implication. The Supreme Court of Montana affirmed that decision.

In the appeal, the Swingers and Collins disputed two issues. First, the parties disagreed over who owned water rights from Hayes Creek, a tributary of the Bitterroot River in Missoula County. The second dispute hinged on whether the Swingers interfered with Collins’ ditch easement from Hayes Creek and his secondary easement to reach the ditch diversion point on the Swingers’ property. The Montana

Supreme Court immediately dismissed the water rights issue, as the matter had already been litigated in *In re Adjudication of Existing Water Rights (Swinger v. Collins)*.

The court then moved to the central issue in this appeal. Collins claimed he had a ditch easement across the Swingers' property and the Swingers wrongfully interfered with that easement. The district court found for Collins and the Swingers appealed. In affirming the district court's judgment, the court first considered whether an easement by implication actually existed over the Swingers' property. It then reviewed whether § 70-17-112, MCA included easements by implication. The court finally looked briefly at whether the district court erred in adopting Collins' proposed findings of fact.

Collins' water right diverted from Hayes Creek by way of a ditch located just within the Swingers' property. Until the early 1990s, Collins accessed his diversion point through a gate in the Swingers' fence at the north boundary of the Swingers' land. The Swingers removed the gate in 1993 and told Collins he could no longer access his diversion point. Since 1996, Collins has not been able to access his diversion point and therefore has had no control over water flow to his property. Before any dispute over water rights, the Swingers never challenged Collins' easement claim. It had also already been established that Collins water right was senior to the Swingers' right.

Therefore, the court turned to whether an easement by implication had arisen. An easement by implication arises where there has been: (1) separation of title; (2) a long-standing, obvious use before the separation, which shows that the use was meant to be permanent; and (3) necessity of the easement for the beneficial enjoyment of the land granted or retained. The court ultimately found Collins satisfied each element.

Collins' and the Swingers' properties had been common ownership from the 1920s until 1948. Collins' ditch was visible and obviously in use when the property was severed in 1948; it has been in continuous use since 1948. Since 1948, no deed in either parties' chain of title evidences a desire to terminate or restrict the ditch use rights of either Collins or his predecessors. These facts satisfied the first two elements of an implied easement. The fact that Collins could not access water for irrigation of his land satisfied the third element in that it deprived him of the beneficial enjoyment of his land. Therefore, the court found an easement by implication.

The court then turned to the Swingers' claim that § 70-17-112(4), MCA's scope was limited to easements acquired by prescription or conveyance. The court again agreed with the district court's holding that the statute was not an exclusive list of the easements to which the statute applied and was not limited to easements by prescription or conveyance. Finally, the court held that where the district court's findings of fact were based on substantial evidence and were not clearly erroneous, the district court did not err in adopting Collins' proposed findings of fact. The court affirmed the judgment of the district court, awarded costs and attorney's fees to Collins and

remanded to the district court for further proceedings.

Christine Ellison

Gaudreau v. Clinton Irrigation Dist., 30 P.3d 1070 (Mont. 2001)

(affirming the district court's holding that: (1) the Clinton Irrigation District ("CID") had no duty to prevent flood waters caused by ice jams on the Clark Fork River from overflowing their irrigation system and damaging Gaudreau's property; (2) CID exercised reasonable care in the maintenance of its system; and (3) CID had no duty to warn Gaudreau of flooding conditions so that they could protect their property).

Appellants, Jeanne Gaudreau ("Gaudreau") and Jerry Montelius ("Montelius") operate a horse riding and boarding facility near Clinton, Montana near the Clark Fork River. Upstream from the Gaudreau facility, the Clinton Irrigation District ("CID") owns and operates an irrigation ditch. A headgate on the CID system diverts water from the Clark Fork River into a canal. Once waters enter the canal, they are directed through a series of culverts under an interstate highway and into a channel that runs adjacent to the Gaudreau facility. On the evening of February 7, 1996, an ice jam formed on the Clark Fork River downstream from the headgate, causing river water to back up and flood the channel upstream from the Gaudreau facility. Another ice jam formed on the channel, which caused overland flooding of the area adjacent to the channel, including the Gaudreau facility. After the flooding receded, significant damage was revealed to real and personal property at the Gaudreau facility.

Gaudreau and Montelius sued CID in the District Court, Fourth Judicial District, Missoula County, for negligence, trespass, and nuisance. At trial, Gaudreau and Montelius abandoned the trespass and nuisance claims and proceeded on the negligence claims. The district court ruled in favor of CID. Gaudreau and Montelius appealed to the Supreme Court of Montana asserting that the district court erred in: (1) determining that CID had no duty to prevent flood waters caused by ice jams on the Clark Fork River from overflowing the CID system and damaging their property; (2) determining that CID exercised reasonable care in the maintenance of its system; and (3) concluding that CID had no duty to warn them of the flooding conditions so that they could protect their property.

First, the supreme court noted that Gaudreau and Montelius' reliance on a Montana statute governing the liability of water user associations for damages stemming from improper maintenance was misplaced because: (1) the statute did not apply to irrigation districts, like CID; (2) it did not impose liability, but disclaimed liability by the state; and (3) only applied to damages "occurring on the works," and not property damages such as those Gaudreau and Montelius alleged. As such, the statute did not support the existence of a duty by CID to prevent flooding due to ice jams.

Second, the Supreme Court noted that the primary factor in determining whether an irrigation district owes a duty to a damaged plaintiff is whether it was foreseeable that a district's acts or omissions would pose a risk of injury to the plaintiff. According to the court, testimony at trial clearly demonstrated that overland flooding from the Clark Fork River generally and due to ice jams was uncommon. As such, the risk of damage to the Gaudreau facility from overland flooding from the Clark Fork River was not foreseeable. Therefore, the Supreme Court held that CID had no duty to erect or maintain flood control measures on their system to protect the Gaudreau facility.

Third, the Supreme Court agreed with the findings of the district court that no evidence existed to suggest that CID failed to exercise reasonable care in the maintenance of their system. According to the Supreme Court, Gaudreau and Montelius were relying in their appeal of this issue on evidence that was clearly controverted at trial. As such, the Supreme Court held that CID exercised reasonable care in the maintenance of its system.

Fourth, the Supreme Court noted that the precedent on which Gaudreau and Montelius were relying to impose a duty to warn on CID required CID to have foreknowledge of the hazard or to have created the hazard. According to the Supreme Court, overland flooding due to ice jams was already established as unforeseeable and was created by a mix of circumstances out of the control of CID. As such, CID did not have a duty to warn Gaudreau and Montelius of the overland flooding due to the ice jams.

Matthew J. Costinett

In re Deadman's Basin Water Users Ass'n, 40 P.3d 387 (Mont. 2002)
(holding that the district court erred as a matter of law when it prohibited irrigation from Deadman's Basin Reservoir in a manner contrary to the water purchase contract).

In 2000, Wiley Micks contracted with Deadman's Basin Water Users Association to purchase the right to 775 acre-feet of water from the Deadman's Basin Reservoir ("Reservoir"). Micks depended on the water to irrigate his hay crop. The hay crop was important to sustaining the animals at the genetic materials facility he operated. The water purchase contract provided for a pro rata reduction in water distribution in the event an inadequate amount of water existed to satisfy the outstanding water purchase contracts.

On its own motion, the Fourteenth Judicial District Court, Musselshell County, found that the water level in Deadman's Basin Reservoir had reached "a critically low level." The district court decided that the reservoir water should be used to maintain the Musselshell River flow, which supplied domestic, municipal, stock and wildlife water usage. On August 2, 2000, the district court issued an

order effective August 12, 2000, through September 30, 2000, which prohibited the irrigation of crops from the Deadman's Basin Reservoir.

The district court's order contradicted the pro rata reduction in water distribution set forth in section one of the Deadman's Basin water purchase contract, and prevented Micks from irrigating his hay crop. Micks continued to irrigate his hay crop with the reservoir water, and the district court found Micks to be in violation of the order. Micks moved the court to reconsider its August 2, 2000 order, issue a temporary restraining order, and issue a preliminary injunction. The district court denied the motion, and Micks appealed to the Supreme Court of Montana. On appeal, the decision was reversed and remanded.

Micks set forth two arguments to show why the August 2, 2000 order did not apply to him. First, he maintained that the water he used to irrigate his crop came from a system that was not connected to the Musselshell River. Second, Micks argued that the right to the Reservoir water should not be appropriated to the municipality to his detriment.

The district court's order contravened the terms in section one of the water purchase contract. The Supreme Court of Montana found that the district court erred when it made the determination that domestic appropriation of the Reservoir water was a higher priority than Micks' use for irrigation purposes. Because language of contractual provisions should be interpreted according to its plain, ordinary meaning, and because the language in section one of the water purchase contract is unambiguous regarding the outstanding distribution of water in the event there is an insufficient supply in the Reservoir, the district court was bound to those terms as written.

Melissa L. Gordon

NEBRASKA

Jurgensmier Farms, Inc. v. Kearney Cty., No. A-00-564, 2001 WL 968062 (Neb. App. Aug. 28, 2001) (granting injunctive relief and damages resulting from Kearney County wrongfully blocking a natural drainageway by raising a county road).

Jurgensmier Farms, Inc. ("Jurgensmier") brought this case on appeal from a district court decision denying injunctive relief and damages against Kearney County ("County"). Jurgensmier purchased land ("property") for farming in 1967. In 1979, the county decided to raise the county road that bordered the Jurgensmier Farm to the east. At that time, Jurgensmier expressed concern that the raising of the road would impede the natural drainage from the property.

After the county raised the road, Jurgensmier experienced water

backing up in the Southeast corner of the property. Jurgensmier attempted to have the county install a culvert to drain the excess water, but the county refused. Jurgensmier then attempted to remove the excess water by pumping the water through an irrigation line placed over the road to adjacent lands. The county informed Jurgensmier to cease this pumping and remove the line. Jurgensmier then asked the County to bury the line, which the County refused to do.

Jurgensmier once again appealed to the County to install the culvert before filing its complaint on November 20, 1997. The complaint sought injunctive relief and damages from the county for wrongfully blocking the drainageway from the Jurgensmier property, which created a nuisance, loss of land use, and damage to crops. The district court of Kearney Country held trial on December 1, 1999 and entered a judgment for the county by finding Jurgensmier did not meet its burden of proof by a preponderance of the evidence that a drainageway transversed the road before the road was altered, that a drainageway formed and exited the property in a natural way, that the drainageway carried water from a higher to a lower estate, and that the County obstructed this drainageway.

Jurgensmier appealed this decision to the Nebraska Court of Appeals claiming the district court erred in finding Jurgensmier was not entitled to injunctive relief and damages as a result of the County's interference with a natural drainageway, and by overruling its rehearing request.

The court of appeals determined Jurgensmier had the burden to establish every controverted fact necessary to entitle them to relief. Additionally, the court of appeals determined an action for injunction sounds in equity, and equity actions are *de novo* proceedings in front of the court of appeals.

The court of appeals relied on *Gruber v. County of Dawson* in their analysis of the district court's ruling. The analysis consisted of a test through which it must be established that: (1) a natural drainageway exists; (2) the natural drainageway traversed the road before the alteration; and (3) the natural drainageway was obstructed because of the road alteration. The court of appeals determined a natural drainageway occurred in the present case as defined as diffused water that concentrates and gathers in volume thereby losing its diffused character and then flowing into a well-defined course. Undisputed evidence determined the water was diffused water (defined as water that appears on the surface with no permanent source or supply, typically resulting from rainfall or snow melting) that flowed off the property to the southeast. Additionally, the court of appeals determined Jurgensmier, through preponderance of the evidence, established this natural drainageway existed before the alteration of the road. Finally, the court determined the county has a duty to keep a natural drainageway open, and, due to the road alteration, failed this duty, causing obstructing to the Jurgensmier's detriment.

The court of appeals concluded the district court erred in denying the injunctive relief Jurgensmier sought, and remanded the case back

to the district court with directions. As a result, the court of appeals did not address Jurgensmier's second issue regarding the district court's alleged error in overruling Jurgensmier motion for a new trial.

William H. Fronczak

City of Lincoln v. Cent. Platte Natural Res. Dist., 638 N.W.2d 839 (Neb. 2002) (holding that the Department of Natural Resources' decision to deny Saunders County the right to become a party to the City of Lincoln's application to appropriate flows of the Platte River was proper based upon the Department's factual determinations, and that those factual determinations were not arbitrary, capricious or unreasonable).

The City of Lincoln sought to appropriate flows from the Platte River for groundwater recharge. An application for such appropriation was made to the Department of Natural Resources in September of 1993. Notice was published, which specified a deadline of August of 1994 for filing objections. Several timely objections were filed. These resulted in two compromises, which amended the application by reducing the amount of stream flow requested. In 1999, more than five years after the deadline had passed, Saunders County filed an objection. This action necessitated a hearing to determine whether Saunders County could still become a party to the application.

The Department of Natural Resources held that Saunders County had failed to prove: (1) that it had a sufficient interest in the subject matter to become a party; (2) that its participation would be helpful in rendering a decision; and (3) that its participation at the time of filing would not unduly disrupt or delay the proceedings. Noting that any one of these failures alone would be a sufficient reason to deny Saunders County's request, the Department of Natural Resources refused to allow Saunders County to become a party to the action. Saunders County appealed.

Appellate review of the factual determinations of the Department of Natural Resources is limited to situations where those determinations are arbitrary, capricious or unreasonable. The court held that this high standard of review had not been met in the instant case. Ample evidence had been presented for the Department to reasonably reach the conclusions it did, and the absence of certain evidence (including drafts of the hearing officer's findings) was not sufficient to make the Department's findings of fact arbitrary, capricious or unreasonable. The court then held that given these findings of fact, denying Saunders County's request was an appropriate application of the law. Accordingly, the court affirmed the holding of the Department of Natural Resources.

James Siegesmund

NEW HAMPSHIRE

KSC Realty Trust v. Town of Freedom, 772 A.2d 321 (N.H. 2001)
(holding spring water transport and sale are accessory to permitted Rural Residential water storage use).

William and Carol Foord appealed the superior court's order affirming the Town of Freedom Zoning Board of Adjustment's ("ZBA") decision to prohibit them from using their land to sell water. The Foord's land contained spring canals releasing underground water, which they first used residentially, but in 1987, when Mr. Foord entered into a contract to sell water, they collected it in tanker trucks and transported it from the property. The Town of Freedom zoned the property as Rural Residential ("RR"), and thus, permitted its use for "Water Recreation and Storage Facilities" under Zoning Ordinance § 304. In 1996, the town's Board of Selectmen ("Board") informed the Foords that selling water was not a permitted use in RR districts. The Foords appealed the decision to the ZBA, which held water sales were not permitted within the Foords' zoning district, and the use was neither nonconforming commercial, nor residential accessory. On appeal, the superior court held water storage was a permitted use, but its sale and removal were not.

The supreme court treated the ZBA's factual findings and ordinance interpretation on these questions of law as *prima facie* reasonable, noting its decision would be upheld unless evidentially or legally unsupported. Zoning Ordinance § 304 is "permissive" in structure, prohibiting land uses unless expressly permitted, or accessory to a permitted principal use, and "subordinate to it." As such, the town claimed sale and transportation were not accessory to the statutorily permitted storage use, and therefore not allowed. However, Zoning Ordinance § 901 permits some commercial uses for water "storage facilities," within its definition as a place for "commodities" and "merchandise." This definition contemplates the water's later transport off the property and sale, evidencing the storage facility's commercial purpose. Therefore, the court reasoned the Foord's transportation and sale were incidental and subordinate to water storage, and, thus, accessory to the permitted use.

Robert Lykos

NEW JERSEY

East Cape May Assoc. v. N.J. Dept. of Env'tl. Prot., 777 A.2d 1015 (N.J. 2001) (holding there is no taking claim when a state agency deems private property a protected wetland).

East Cape May Associates ("ECM") filed suit seeking damages after

the New Jersey Department of Environmental Protection (“NJDEP”) declared ECM land was a designated protected wetland. The trial court found that ECM’s taking claim was moot. As a result, ECM and NJDEP appealed.

ECM owned a 100-acre undeveloped plot of land in the City of Cape May. In accordance with the Coastal Area Facility Review Act (“CAFRA”), ECM applied for a permit in order to develop the tract. NJDEP denied the permit based on the protected status of the land as a wetland and as having an “exceptional resource value.” ECM subsequently filed suit against the State, claiming a taking had occurred. The court sided with ECM, but remanded with direction to address the State’s denominator argument.

The court noted that the denominator is a tool “to determine whether a taking has occurred. The court is charged with comparing the ratio of the land subject to the regulation with the property owner’s entire property of ‘the parcel as a whole’.” After an extensive fact investigation, this court found the property in question was not one whole, but rather separate development of resources, therefore the tract did not qualify as a “parcel as a whole” to be calculated in the denominator equation.

The court also addressed whether the NJDEP had any authority to make pre-permit deals without duly promulgated regulations. It found that while an agency has broad discretion in its actions, the NJDEP should act in accordance with the Administrative Procedure Act.

The court also found the provisions of CAFRA should not in any way “be regarded as to be in derogation of any powers now existing and shall be regarded as supplemental.” Therefore, because the primary issue in this case was freshwater, the NJDEP had state regulatory power to “bargain” with ECM concerning allowed development.

The court remanded the case to allow NJDEP to promulgate regulations concerning amelioration issues, and to decide whether a regulation will excessively burden private property interests. It found there had been no taking in this case, temporary or otherwise, mainly because the NJDEP was still optioning the owners to develop the site. Though there was a delay in the application process, the court did not find this “extraordinary,” warranting a finding of taking.

ECM also brought a claim of breach of contract and damages, arising out of a predecessor-in-title argument. The state originally had title to the property. It transferred title to private parties in 1903 and 1907. The court found the Legislature, in enacting such programs as CAFRA and the FWPA, made clear its intentions to solve generalized environmental problems. As such, the court found the riparian rights sold, “did not forever grant the landowners the right to fill the wetlands on the eastern tract, free of all government regulation.”

Anne Francis

Lake Lookover Prop. Owner's Ass'n v. Olsen, 791 A.2d 270 (N.J. Super. Ct. App. Div. 2002) (affirming the lower court's decision to allow the property owners' association to assess costs to property owners for repair to the lake's dam, since the property owners have easement rights to the lake).

Olsen and other property owners (collectively, "Property Owners") appealed from an order by the Superior Court of New Jersey that required them to share in the cost of repairing a dam on Lake Lookover in which the Property Owners have easement rights by virtue of the fact that their property surrounds the lake. Lake Lookover came into existence in the 1920s when developers dammed a watercourse and subdivided property around the lake into more than 100 home sites. With the conveyances of these properties came easement rights to the lake.

In 1994, New Jersey's Department of Environmental Protection ("DEP") filed suit against the development company of the Lake Lookover properties and the property owners' association ("Association") after attempting, since 1980, to direct the development company and the Association to repair the dam. After several years of negotiations between the DEP, the development company and the Association, all three parties executed an agreement, which the Superior Court of New Jersey approved on March 11, 1998. This agreement, in which the development company conveyed the Lake Lookover property to the Association, required all Property Owners to contribute to the costs of repairing the dam. The agreement directed the Association to inform all Property Owners of the agreement, which the Association did on June 22, 1998.

After reaching the agreement, the Property Owners failed to pay their apportioned cost of repair, and the Association filed suit. The court held that the Association had the authority to make the assessments in order to pay for the dam repair. The Property Owners appealed, making two primary arguments.

First, the Property Owners wanted to abandon their easement rights, which they argued, would eliminate their liability for assessed repair costs. The appellate court determined that since the Property Owners had enjoyed the rights of the easement, they could not simply terminate those rights now. The court reasoned that allowing the Property Owners to abandon their easement rights, and thus their payment obligations, would harm other property owners and the lake itself.

Second, the Property Owners claimed that the Association did not have the right to assume the role of assessing repair costs. Again, the court ruled in favor of the Association, and found that the Association had the right to make assessments against the Property Owners. The court stated that the Association maintained and repaired the lake facility since the beginning of the Lake Lookover community. Additionally, the Association took the lead role in the prior litigation

with the DEP and the development company without the disagreement of the Property Owners. These facts entitled the Association to assume the role of assessing repair costs.

Stefania Niro

OREGON

Becker v. Pieper, 32 P.3d 912 (Ore. App. 2001) (holding the trial court erred when it relieved respondents of a default judgment against them in suit for reformation of contract, declaration of water rights ownership, and money judgment for unjust enrichment).

Becker owned a ninety-acre parcel of land and the water rights to that land. He intended to transfer the water rights from that land to another parcel of land he owned before subdividing and selling the ninety-acre parcel. He initiated a water rights transfer with the Oregon Water Resources Department, and then sold the subdivided parcels. Becker's initiation of the water rights transfer did not suffice to sever the rights from the subdivided property. Unbeknownst to Becker at the time, he conveyed the property's water rights to Pieper and the other defendants (collectively "Pieper") because the contracts for the sale of the land did not contain any language reserving the water rights to Becker. When Becker learned of the unintentional transfer of water rights to Pieper, he asked all the new property owners for permission to complete the transfer of water rights as he intended. All refused.

Becker filed suit for reformation of his sale contracts to Pieper, declaration he was rightful owner of the water rights, and a money judgment against Pieper on the theory of unjust enrichment. Becker and Pieper entered into binding arbitration pursuant to the sale documents. The arbitrator found in Pieper's favor and entered judgment with the trial court accordingly. The trial court granted the non-defaulting defendants' motion to dismiss Becker's suit for reformation and declaratory judgment, and entered judgment in their favor.

Seven defendants, respondents in the appeal ("Pieper et. al"), failed to appear which resulted in Becker obtaining default judgments against them. In addition to the default judgment, Becker obtained an "Acknowledgement of Reservation of Water Right," ("Acknowledgement") from four of the defaulting defendants, which declared defendants "recognized and acknowledged that the conveyance by which they purchased their lots reserved the appurtenant water right to plaintiff."

Pieper et. al., upon learning of the favorable outcome of the non-defaulting defendants, including those who signed the Acknowledgement, attempted to re-enter the case by moving for relief from default judgments. The trial court granted that motion,

concluding Pieper et. al. were “in the same legal and factual situation as the non-defaulting defendants.” Becker appealed judgment in their favor.

Becker contended on appeal the trial court’s ruling placing Pieper et. al. in the same position as non-defaulting defendants was error. He asserted each defendant occupied a different and distinct legal position with respect to the sales agreement for his or her lot, because Becker negotiated each sale on different terms. Pieper et. al. argued the trial court correctly concluded they were in the same position as non-defaulting defendants, therefore they were entitled to be acknowledged in the judgment.

The court determined, “in the same legal position” means that the grounds “on which a successful defendant prevails will necessarily apply to a defaulting defendant with the same force and effect,” meaning the same legal grounds would absolve defaulting defendants of liability as a matter of law. The court concluded Pieper et. al. were not in the same legal position as the co-defendants who “appeared and prevailed in the arbitration.” Becker alleged he or his agent notified each defendant of Becker’s intent to retain the water rights to the land when the land transferred ownership. Further, Becker asserted the non-defaulting parties who answered his complaint denied that allegation, but Pieper et. al. admitted the allegation. The court agreed with Becker. Therefore, the court concluded, all defendants were not so similarly situated as to be in the same legal position as to their defense against Becker’s reformation and declaratory judgments, and ordered reinstatement of the default judgments against Pieper et. al.

Rachel Sobrero

PENNSYLVANIA

Redstone Water Co. v. PUC, No. 531 C.D. 2001, 2001 Pa. Commw. LEXIS 789 (Penn. Oct. 30, 2001) (holding the Pennsylvania Public Utility Commission (“PUC”) lacks jurisdiction to issue orders based on water quality disputes, and a lack in adequate water pressure is not sufficient to uphold PUC orders).

Customers of Redstone Water Company (“Redstone”) brought a complaint citing their dissatisfaction with both water quality, and water pressure. The customers testified before an administrative law judge (“ALJ”) that the hardness of Redstone’s water caused considerable damage to hot water heaters and bathroom fixtures. Additionally, customers testified the water had both an unpleasant smell and taste, and had particles floating in it. Many refrained from washing clothing in Redstone’s water based on the fear the water would leave stains. Finally, customers testified as to their dissatisfaction with Redstone’s water pressure.

At the request of the Office of Consumer Advocate (“OCA”), an expert gave testimony tending to support the customers’ claims. The expert explained the concerns regarding water quality were valid. In order to reduce the hardness of Redstone’s water, the expert recommended either construction of a water treatment plant, or mixing softer water from a nearby municipal authority with Redstone’s water in order to dilute it. With regard to water pressure, the expert testified that Redstone did not comply with Pennsylvania Public Utility Commission (“PUC”) water pressure regulations. On cross examination, the expert admitted that in some ways his recommendations were not practical, his analysis was based on potentially inaccurate methods, and his water pressure calculations were based on his “best guess.”

Redstone’s expert testified that water hardness is common in western Pennsylvania, and stated that treating Redstone’s water with softer water might increase sodium levels potentially causing harm to customers with circulatory problems. This expert also testified that based on his findings, Redstone’s pressure was within acceptable limits.

After weighing the expert testimony from both sides, the ALJ determined Redstone failed to provide adequate water service in violation of PUC code. Thus, the court ordered Redstone to conduct a study to find the most practical method for bringing their water within federal and state water drinking standards, as well as compliance with water pressure standards. Redstone appealed to the PUC, which affirmed the ALJ’s holding. The PUC additionally required Redstone to submit reports to the OCA every three months outlining its progress regarding the engineering study, and apply for funding from the Small Drinking Water Engineering Services program. Ultimately, Redstone appealed.

Redstone argued regulation of water quality was outside the jurisdiction of PUC, and, therefore, they should not be bound by PUC’s orders. Redstone further maintained jurisdiction over water quality belongs to the Department of Environmental Protection (“DEP”). PUC argued an exception existed allowing for certification of some water quality issues. However, this procedure was only applicable where water quality was at issue in a case originally before the PUC. Thus, the court held developing and implementing procedures regarding drinking water standards is specifically vested in the DEP.

Finally, the court deemed water pressure as a service, rather than a quality problem. Redstone did not argue the PUC lacked jurisdiction but rather was short of evidence to support its position that the water pressure was inadequate. The court held PUC’s position was based on a “best guess,” thus, there was a lack of substantial evidence, and PUC’s order with regard to water pressure must therefore be reversed.

Michael Sheehan

TENNESSEE

City of Murfreesboro v. Pierce Hardy Real Estate, Inc., No. M2000-00562-COA-R9-CV, 2001 Tenn. App. LEXIS 767 (Tenn. App., Oct. 12, 2001) (holding determination of navigability is an issue for the trier of fact; if a waterway is determined navigable, the riparian landowner is not entitled to compensation for the portion of condemned land below the low water mark because no private ownership rights in a navigable waterway can exist).

The City of Murfreesboro ("City") condemned 2.36 acres of a 10.5-acre commercial tract of land Pierce Hardy Real Estate, Inc. ("Hardy") owned along the West Fork of the Stone's River. The condemned land consisted of .61 acres in the riverbed and 1.75 acres along the riverbank. Hardy's deed described the property as extending to the center of the river. The condemned property included land at the bottom of the river from the centerline to the riverbank, the riverbank, and a strip across the top of the riverbank.

The City filed a motion to have the West Fork of the Stone's River declared a navigable waterway, contending navigable waterways were not entitled to private ownership; therefore Hardy was not entitled to compensation for the condemned land. The City supported its contention by asserting the United States Army Corps of Engineers ("Corps") determined the waterway was navigable and gave public notice of that determination. In addition, the City argued, due to the federal government's asserted jurisdiction over the river, it was navigable. The trial court held in favor of the City, and stated the river could neither be privately owned nor owned by the state. Hardy appealed.

The court examined the Corps' determination that the West Fork of the Stones River was a navigable waterway, and stated the determination bound Corps activities, but not federal courts, and therefore did not bind Tennessee courts. While the Corps' determination may be accorded "substantial weight," the court stated, Hardy was entitled to introduce contrary proof.

No federal court had determined the West Fork of the Stones River a navigable waterway. The court stated a determination of navigability by the Corps for federal purposes did not equate to the same finding for state regulatory purposes. "The federal government has ... dominant control over navigable waters used in interstate commerce for purposes and to the extent necessary to protect interstate commerce." However, that control applies to the waterway, not to ownership of the underlying soil. The court stated ownership of the bed and banks of navigable waters is generally a matter for state determination, subject to the United States' interest that they remain accessible for interstate commerce and foreign commerce.

Navigable waters in the United States are public. Neither the state

nor riparian owners can interfere with their use. When the United States does not hold title to land upon which navigable waters lie, ownership determination of the navigable waters and the soil beneath them lies with states.

The court stated that the district court correctly identified the elements of the test for navigability: "a navigable waterway of the United States must (1) be or have been; (2) used to susceptible of use; (3) in the customary modes of trade and travel on water; (4) as a highway for interstate commerce."

Due to the lack of evidence on the navigability of the West Fork of the Stones River, aside from the notice by the Corps, the court reversed the ruling of the trial court and remanded for determination by the trier of fact based on evidence relevant to that determination.

The court stated if the West Fork of the Stones River was determined navigable, the riverbed was not subject to private ownership. As a result, Hardy would not be entitled to compensation of the condemned land below the low-water mark. In Tennessee, grants of land along navigable streams extend to the low-water mark only, and title to the streambed remains with the state. If the waterway is navigable, the soil covered by water and the use of the stream belongs to the public. Therefore, any deed Hardy had only conveyed property extending to the low-water mark.

Rachel M. Sobrero

TEXAS

Bragg v. Edwards Aquifer Auth., No. 00-0436, 2002 Tex. LEXIS 13 (Tex. February 14, 2002) (holding that the Edwards Aquifer Authority's adoption of well-permitting rules falls within the exception to the Property Rights Act for actions taken under a political subdivision's statutory authority to prevent waste or protect rights of owners of interest in groundwater).

Upon being denied a permit application for one of their two pecan orchards, Glenn and JoLynn Bragg ("Braggs") brought suit against the Edwards Aquifer Authority ("Authority") and its general manager.

The Edwards Aquifer Act ("EAA") created the Authority to manage groundwater withdrawals from the aquifer through a permit system. The EAA charged the Authority with carrying out the state legislature's mandate of conservation. The legislature anticipated that an increased withdrawal of water from the aquifer could cause a drought with potentially devastating effects.

The issue in the case hinged on the Authority's adoption of rules governing the issuance of well permits. The permit system gave preference to "existing users," which the EAA defined as people who withdrew and beneficially used the aquifer on or before June 1, 1993. The Braggs only accessed the aquifer by means of a well on one of

their orchards, Home Place, prior to 1993; they did not drill a well for the other orchard, D'Hanis, until 1995. Based upon the fact that the Braggs did not qualify as existing users for the D'Hanis orchard, their permit application was denied. The Braggs brought suit because they could not grow pecans in commercial quantities with the single permit granted for Home Place.

The Property Rights Act ("PRA") provided for a cause of action for real property owners if there was governmental action taken without preparing a takings impact assessment ("TIA"). The Braggs argued that pursuant to the PRA, the Authority was required to prepare a TIA before promulgating rules governing aquifer permits, and before applying those rules to the Braggs' pending application.

Since the PRA applied to "governmental entities," including political subdivisions, and the Authority was considered a political subdivision, the Braggs maintained that the Authority's promulgation of rules constituted a government action that was subject to the PRA. The trial court found the Authority's well-permitting rules and the proposed actions on the Braggs' permit application were void because the Authority did not prepare a TIA. The court of appeals vacated in part and reversed in part. The Supreme Court of Texas affirmed.

The Supreme Court concluded that based upon the EAA, the Authority was not required to prepare a TIA. The Court recognized that the PRA applies to governmental entities when they make rules, but exempts these entities from the requirement of a TIA when the entity acts pursuant to its enabling statute in preventing waste or protecting the owner's rights of interest in groundwater. Since the Authority adopted well-permitting rules pursuant to the EAA, an enabling act that gave the Authority all of the powers, rights and privileges necessary to manage, conserve, preserve and protect the aquifer and to prevent the waste or pollution of water in the aquifer the PRA did not apply.

Melissa L. Gordon

VERMONT

Cnty. Nat'l Bank v. State, 782 A.2d 1195 (Vt. 2001) (holding an interest in condominium property constructed on lake landfill is subject to Vermont's public trust doctrine).

Community National Bank and Newport Harbor Club Condominium Association (collectively "National Bank") appealed a superior court judgment in favor of the State of Vermont ("Vermont"). The superior court concluded National Bank held the condominium property subject to the Vermont's public trust interest, and the property's diminution in value was insufficient to estop Vermont's interest.

In 1986, National Bank constructed condominiums on filled lands

that were once a part of Lake Memphremagog. It discovered, through a prospective purchaser's title search in 1969, the Vermont Water Resources Board ("Board") had required a former owner to dredge a portion of the lake bottom, and use it as fill for a Newport city boathouse. The Board stated the order did not convey any title or interest to the landfill or to lands lying under public waters or waters affected. The current land owners, the Stevens, brought their concerns to Reginald LaRosa, the Department of Water Resources, and Environmental Engineering's operations chief. As a result, LaRosa concluded the order had not required work done below the low water mark and the state had no property interest.

In 1998, National Bank discovered the property was located on filled land and reduced the units' appraised value. As such, it commenced action against Vermont, seeking a declaration that the public trust doctrine did not apply, or, alternatively, estopping Vermont from asserting any interest in the property.

National Bank first argued the legislature had the power to transfer public trust lands into private ownership free from state claim. The court entertained the transfer idea but rather, required the state's intent to abandon. The court ruled intent must be clearly expressed or necessarily implied and statutes were interpreted in favor of retaining public interest in tidelands. In the case at bar, the court found no express or implied intent. The plaintiffs argued LaRosa's declaration constituted Vermont's intent to hold no interest in the condominium property. While LaRosa was in charge of managing the State's public trust lands, the court ruled the legislature had not delegated authority to LaRosa to abandon or convey into private ownership all public trust lands.

Thus, National Bank alternatively argued Vermont was equitably estopped from asserting the public-trust doctrine because the diminished property values resulted in injustice, which required an equitable remedy. However, the court found the injustice was not of sufficient magnitude to justify estoppel. Thus, the court held the equitable estoppel doctrine applicable to lands held in public trust. Ultimately, the appellate court affirmed the superior court's decision.

Jon Hyman

WASHINGTON

Rothweiler v. Clark Cty., 29 P.3d 758 (Wash. App. 2001) (holding Clark County did not have a duty to improve a drainage system, but did have a duty to maintain the system's original efficiency; the County was not liable for damages resulting from the system being overwhelmed).

In June 1997, heavy rains overwhelmed a drainage system

maintained by Clark County, Washington ("County"), resulting in the flooding of the Rothweilers' home. Both parties agreed the flooding resulted from an inadequate drainage system being overwhelmed by extremely heavy rainfall. The Rothweilers sued the County for negligence, negligent intrusion, nuisance, statutory nuisance, and statutory negligence. The trial court granted the County's motion for summary judgment, and the Rothweilers appealed.

On appeal, the County asserted both that a municipality had no common law duty to drain surface water, and the common enemy doctrine, which permits landowners the opportunity to dispose of unwanted surface water with no liability for damages to one's neighbor that may occur. However, this law has long been perceived as inequitable by Washington courts, and as a result, exceptions to the no duty rule have evolved. As such, the Rothweilers argued three applicable exceptions.

The Rothweilers first sought relief under the "watercourse or natural drainway" exception. This exception asserts that a municipality that dams a stream, gully, or natural drainway is not shielded from the ensuing damage. However, the court found this exception inapplicable because the drainage system the County operated did not qualify as a natural drainway or watercourse. The Rothweilers' second argument relied on the "collect and discharge" exception. This exception provides surface waters may not be artificially collected and discharged on adjoining lands in quantities greater than, or in a manner different from, the natural flow thereof. However, the Rothweilers' expert witnesses were unable to support this position with any material facts. Therefore, the court found there was inadequate support for attempting to assert this exception. Finally, the Rothweilers asserted the "due care" exception. This exception requires landowners who alter surface water flow to act in good faith in order to avoid unnecessary damage to others' property. However, the County was able to successfully reject this assertion because the issue did not involve a stream or natural drainway, nor does failing to drain naturally accumulating water constitute altering the flow of surface water.

The Rothweilers then attempted to attach liability for their flooding damages by asserting that a municipality has a duty to reasonably maintain its drains. This rule does not require a city to modify its system over the passage of time. Rather, it requires a positive duty to use reasonable care to maintain its original efficiency once a city has adopted a particular plan. The County admitted the drainage system was insufficient for handling the storm water that flooded the Rothweilers' house. However, the County maintained it was not liable for using an inadequate system because it was only required to maintain the original efficiency of the system. As such, the County produced evidence it had cleaned the drainage system six months before the flooding. The Rothweilers were unable to produce any evidence that the drain was clogged. Rather, evidence by both parties reinforced the idea that the failure of the system was because of

it being overwhelmed. The court thus held there was no duty for the County to upgrade the system. The appellate court affirmed the decision of the lower court finding no duty to drain surface water, and a duty only to maintain the drain system, not to improve it.

Michael Sheehan

Tapps Brewing, Inc. v. City of Sumner, 22 P.3d 280 (Wash. Ct. App. 2001) (holding city imposed General Facilities Charges, billing property owners for city storm drainage system improvements, valid).

Tapps Brewing, Inc., Daniel, and Andrea McClung (collectively “Tapps”) appealed the trial court’s denial of summary judgment. Tapps had challenged the imposition of a General Facilities Charge (“GFC”) the City of Sumner (“City”) imposed in order to improve the City’s storm drainage system. Under the City’s scheme, the GFC is imposed upon the issuance of property improvement permits, and is based on the amount of impervious surface on the developed property.

Tapps applied for a development permit to remodel its property, and was charged \$9,950 as a storm drainage GFC. The McClungs replaced an existent building and paved a parking lot. The storm drainage pipe running through McClung’s property was too small; therefore, the City required the McClungs to replace the pipe with a larger pipe as a condition of the development permit. The GFCs give the City authority to construct “systems of sewerage” by “control[ing] the rates and charges for their use.” The court found the statutory language clear and unambiguous in legally authorizing the City to impose the instant GFCs.

Tapps first argued the GFC was invalid because the City’s power to impose fees on land development was limited and any city “charges must be proportionate to the cost of the system attributable to the property being charged.” However, the Court found the charges imposed did not meet this proportionality standard.

Tapps then argued the City had “unlawfully discriminated against them by requiring them to pay more than other customers.” They claimed the charges were disproportionately applied, in violation of the statutory uniformity standard. Nonetheless, the Court refused to hear this issue as it was not raised as a stipulation, and therefore was outside of the scope of the Court’s discretionary review.

Anne Francis

WISCONSIN

***In re Annexation of the Smith Prop. v. City of La Crosse*, 634 N.W.2d 840 (Wis. App. 2001)** (holding contiguous requirement in property annexation did not require physical contact between dry land).

The Town of Campbell (“Town”) challenged four City of La Crosse (“City”) ordinances, which annexed certain properties from the Town to the City. The trial court granted summary judgment to the Town.

In 1996 and early 1997, the City annexed four different properties from the Town. The Black River separates the Town’s properties from the City. At no point do the dry lands of the City and the annexed properties meet. The trial court determined Wisconsin Stat. § 66.021(2)(a) governed the annexations. The statute requires the annexed property be contiguous to the City. The trial court determined the annexed properties and the City were neither touching nor close enough to be contiguous to validate the four annexations.

The City argued the trial court erred in granting the Town’s motion for summary judgment because the borderline separating the City and the Town lies at the center of the riverbed and the contiguity requirement does not mean dry land must meet dry land. The Town argued the body of water destroyed contiguity. In the absence of statutory definition, the court relied on Webster’s Dictionary to define the term “contiguous.” The court concluded “contiguous” included properties in physical contact with one another and as such, the annexing and annexed properties were in physical contact along the riverbed.

The Town argued the state ownership of the submerged land beneath navigable waters up to the high water mark caused a separation between the City and the Town properties and therefore could not be considered contiguous. The court disagreed. Thus, while the state held this land in trust, it was subject to a riparian’s ownership of the center of the riverbed to the bank.

Jon Hyman

WYOMING

***McTiernan v. Scott*, 31 P.3d 749 (Wyo. 2001)** (holding the State Board of Control’s decision that Scott abandoned water rights in 14.8 acres of his property was not supported by substantial evidence, and the Board did not have authority to order Scott to file a petition to change the point of diversion and means of conveyance absent appropriate findings of fact).

Scott and McTiernan are adjoining landowners whose properties were once owned in common. Both parties held water rights in Smith Creek. Scott's water right was a territorial right with a priority date of May 1882 and has number three priority on Smith Creek. McTiernan's priority was number four.

In 1996, McTiernan filed a petition with the State Board of Control ("Board") seeking an order that Scott had abandoned a portion of his water right. After a contested hearing in 1997, the Board concluded that Scott had abandoned 14.7 acres of the Shellcross parcel. Scott appealed to the district court. On certification from the district court, the Wyoming Supreme Court held the Board's factual findings regarding the irrigated acreage on the Shellcross parcel were insufficient and remanded the matter to the Board. On remand, the Board concluded that Scott had abandoned 14.8 acres of the Shellcross parcel and ordered Scott to file a petition for change of the point of diversion and means of conveyance with the Board. Scott again appealed to the district court, which independently reviewed the evidence. The district court concluded there was not substantial evidence to support the Board's conclusion that 14.8 acres of the Shellcross parcel had been abandoned, and found instead that only 9.2 acres had been abandoned. Furthermore, the district court found there were no basic findings of fact to support the Board's order requiring Scott to file a petition to change his point of diversion and means of conveyance. McTiernan appealed to the supreme court.

The first issue presented to the supreme court concerned the existence of substantial evidence. To find substantial evidence, the supreme court must review the entire record to determine if there is relevant evidence that a reasonable mind might accept in support of the agency's decision. The standard requires there be more than a scintilla of evidence, although it does not require that the proof support only one conclusion to the exclusion of all others. Furthermore, for evidence to be sufficient to allow a "reasonable mind" to accept an agency's conclusion, there must appear in the record evidence that allows either a definitive conclusion or a reasonable extrapolation based on the surrounding circumstances.

The supreme court's review of the record led it to conclude that the district court's decision regarding the abandoned acreage was correct. Although the Supreme Court will defer to the Board's specialized knowledge and expertise regarding water and irrigation, it will overturn an agency's decision when it is clearly contrary to the overwhelming weight of the evidence on record. Occasionally, the review process requires the reviewing court to assess the facts gathered during the administrative hearing, but that assessment usually does not involve reweighing or reconsidering basic facts found by the agency. However, because of that process, the court may arrive at a different conclusion from the agency. Such was the situation in this case.

After reviewing the record, the supreme court concluded the evidence in the record did not support the Board's conclusion. It found that the Board had ignored key evidence of irrigation activity on

the Shellcross parcel showing extensive irrigation efforts by Scott during July and August of 1996. As the supreme court stated, the Board may have found this testimony not credible and unpersuasive, but if so, it was incumbent upon it to articulate its reasoning in the order. Ignoring relevant evidence adduced at a contested case proceeding constitutes an arbitrary and capricious action. Thus, the supreme court affirmed the district court's finding that 9.2 acres had been abandoned.

The second issue involved the Board's order to Scott to file the necessary petitions with the Board for changing the point of diversion and means of conveyance and to identify the lands actually irrigated under the appropriation. The Supreme Court affirmed the district court finding that such an order required basic findings of fact regarding when and who made changes in diversions and means of conveyance. Without such information, the district court held that Scott would not know how to respond to the Board's order. The district court noted that if the Board simply meant Scott to identify his point of diversion and means of conveyance without formal petition, it had the power to require that action.

John A. Helfrich

COLORADO WATER RIGHTS APPLICATIONS

WATER COURT DIVISION 1

APPLICATION FOR WATER RIGHTS, WATER STORAGE RIGHT, CONDITIONAL UNDERGROUND WATER RIGHTS, CHANGE OF WATER RIGHT AND PLAN OF AUGMENTATION, IN WELD COUNTY, COLORADO.

Case No. 2001CW182 (Water Division 1, Oct. 25, 2001). Applicant: Eric Koolstra (Atty. P. Andrew Jones, Lind, Lawrence & Ottenhoff L.L.P).

1. Applications

Eric Koolstra ("Koolstra") seeks to expand the Koolstra Aquaculture Facility ("Aquaculture Facility") by filing an application for absolute and conditional water rights, absolute and conditional storage rights, change of water rights, and plan of augmentation.

Koolstra operates the Aquaculture Facility, where water is diverted from the Koolstra Seep and Drain Tile No. 1 ("Tile No. 1"), circulated through four covered fish runs, and then directed to the Little Thompson River with no consumptive use. Koolstra plans to expand the operation to include uncovered runs at Koolstra Aquaculture Facility Enlargement ("Facility Enlargement"), and a series of warm water ponds ("Aquaculture Ponds").

Uses for the water include: aquaculture, irrigation, storage, fish and wildlife, recreation, augmentation, and replacement. Separate descriptions for each structure, reservoir, and change requested in the application are detailed below.

The application for absolute and conditional water rights contains eleven separate structures. Included therein are Tile No. 1, Tile No. 2, and the Wells. Tile No. 1 is located at the SW1/4 of the NE1/4 of Section 21, T.4 N., R. 68 W., 6th P.M., Weld County, Colorado. The sources for Tile No. 1 are drain and seep waters accumulating in Sections 17, 20 and 21, T. 4 N., R. 68 W., 6th P.M. Diversion of one cfs from the drain tile and application to a beneficial use commenced appropriation for an absolute water right on March 1, 1997. The claimed amount of water from Tile No. 1 is used for irrigation of 126 acres in the NE1/4 of Section 21, T. 4 N., R. 6 W. 6th P.M., aquaculture, augmentation, and storage.

Tile No. 2 is located on the SE1/4 of the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M., Weld County, Colorado. The sources for Tile No. 2 are drain and seep waters accumulating in Sections 21 and 22, R. 4 N., R. 68 W., 6th P.M. An engineering study commenced the

application for one cfs of a conditional water right. The proposed use for Tile No. 2 is the same in nature and location as the use for Tile No. 1.

Nine separate wells are proposed at a depth of fifty feet; drawing 1000 gallons per minute from tributary alluvium for aquaculture and storage. Appropriation for the wells is initiated by the filing of this application.

The next section of Koolstra's application proposes six separate structures for absolute and conditional storage rights. The structures include: the Home Pond, the Seep Pond, the Storage Pond, and the Aquaculture Ponds. The reservoirs include: the Aquaculture Facility and the Facility Enlargement.

The Home Pond is located in the SW1/4 of the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M., Weld County, Colorado. Sources for the reservoir are the Big Thompson River, the Little Thompson River, and drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, R. 3 N., R. 68 W., 6th P.M. Diversion of one acre-foot, absolute, with a right to fill and refill as in priority, of water was put to beneficial use on August 1, 1997 for aquaculture, fish and wildlife, recreation, augmentation, and replacement.

The Seep Pond is located in the SE1/4 of the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M, Weld County, Colorado. Sources for the reservoir are the Big Thompson River, the Little Thompson River, and drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, T. 4 N., R. 68 W., 6th P.M. Appropriation for one acre-foot, conditional, with a right to fill and refill as in priority, commence pursuant to an engineering study and filing of this application. The amount claimed will be used for aquaculture, fish and wildlife, recreation, augmentation, and replacement.

The Storage Pond is located in the NW1/4 of the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M, Weld County, Colorado. Sources for the reservoir are the Big Thompson River, the Little Thompson River, drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, T. 4 N., R. 68 W., 6th P.M. Appropriation for thirty-four acre-feet, conditional, with a right to fill and refill as in sources are in priority, commence pursuant to an engineering study and filing of this application. The amount claimed will be used for irrigation of 126 acres in the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M, and for aquaculture, augmentation, and replacement.

The Aquaculture Ponds are located in the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M, Weld County, Colorado. Sources for the ponds are the Big Thompson River, the Little Thompson River, drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, R. 4 N., R. 68 W., 6th P.M. Appropriation for forty-two acre-feet, combined, conditional, with right to fill and refill as sources are in priority, commence pursuant to an engineering study and filing of this application. The amount claimed will be used for aquaculture, augmentation, and replacement.

The Aquaculture Facility is located in the SW1/4 of the NE1/4 of Section 21, T., 4 N., R. 68 W., 6th P.M., Weld County, Colorado. Sources for the ponds are the Big Thompson River, the Little Thompson River, drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, R. 4 N., R. 68 W., 6th P.M. The Aquaculture Facility comprises four covered fish runs, each run measuring 120 feet by seven feet. Diversion of .5 acre-feet of water, absolute, with right to fill and refill as sources are in priority, was put to beneficial use on March 1, 1997 for aquaculture, augmentation, and replacement.

The Facility Enlargement is located in the SW1/4 of the NE1/4 of Section 21, T. 4 N., R. 68 W., 6th P.M., Weld County, Colorado. Sources for the ponds are the Big Thompson River, the Little Thompson River, drain and seep waters accumulating in the SW1/4 of Sections 17, 20, 21 and 22, R. 4 N., R. 68 W., 6th P.M. The Facility Enlargement comprises thirty-two fish runs, each measuring 120 feet by ten feet. Appropriation for 5.5 acre-feet, conditional, with right to fill and refill as sources are in priority, commence pursuant to an engineering study and plan and filing of this application.

Koolstra seeks to change 4.5 shares of the capital stock of the Handy Ditch Company out of the total outstanding 900 shares. Koolstra proposes to change the use of the Handy Ditch shares from irrigation use to irrigation, augmentation, storage, replacement, and aquaculture uses. Return flow obligations associated with the Handy Ditch shares are 15.58 acre-feet per year, distributed in varying amounts throughout the year. A previous adjudication declared the historic consumptive use of each Handy Ditch share to be 6.88 acre-feet. Koolstra's plan mandates releasing the amount of water necessary to maintain historic return flows from the Handy Ditch shares, when being delivered, or alternatively from Tile No. 1 and Tile No. 2, the Storage Pond, the Seep Pond, the Facility Enlargement, the Aquaculture Ponds, the Home Pond, and the Aquaculture Facility directly to the Little Thompson River.

Koolstra proposes to use the Handy Ditch Shares changed by virtue of the application to augment 26.88 acre-feet of out-of-priority evaporative consumption occurring in the Aquaculture Facility Enlargement, the Aquaculture Ponds, the Home Pond, and the Seep Pond. During times of valid downstream senior call, Koolstra will release fully consumptive use water in the amounts and at the time set forth in a set distribution schedule directly to the Little Thompson River to prevent any injury to other holders of vested water rights. During the irrigation season, Koolstra will use the Handy Ditch shares to make these releases. When the Handy Ditch is not delivering water, Koolstra will release water from the Storage Pond.

2. Opposition

As of February 4, 2002, three Statements of Opposition have been filed in response to Koolstra's application. The opposing parties include: the State Engineer, the Thompson Water Users Association,

and the Handy Ditch Company.

The Thompson Valley Water Users Association ("Association") filed a Statement of Opposition on December 24, 2001 concerned that the rights sought in Koolstra's application may injure the rights of Association members and other water users. Additionally, the objector proposed that any decree, if entered, contain appropriate provisions for the release of all water stored out-of-priority. The Association also requested that strict proof be required as to the amount of evaporative loss and out-of-priority depletions, and that the reasonable administration of applicant's augmentation plan meet the requirements of strict proof; resulting in remediation of any injury caused by applicant's out-of-priority diversions. Lastly, the Association asked that the amount of consumptive use claimed in applicant's Handy Ditch shares be substantiated.

On December 28, 2001, the State Engineer filed a Statement of Opposition requesting that Koolstra: (1) quantify the historical and consumptive use of the water right and provide terms and conditions for dry-up of irrigated acreage; (2) maintain the historic flow regime; (3) prove ownership of other entitlements to use the structure claimed; (4) provide adequate engineering to verify claims made in the application, including timing and location of historic return flows and how claimed replacement sources will match the historic flow regime; and (5) allow for development of adequate account and other conditions to prevent injury to vested water rights.

The day of the State Engineer's filing, the Handy Ditch Company advanced a similar objection, asserting that members of the Handy Ditch Company along the Big Thompson River and its tributaries may be adversely affected if the application is granted. Further, the Handy Ditch Company asserted the requirements that Koolstra's (1) use of the water should remain subject to operational control of the Handy Ditch Company; and (2) should be limited in accordance with the water rights' historical use, including a requirement that return flows reasonably approximate historic return flow in amount, location and timing.

Each Statement of Opposition included the right to raise additional objections or otherwise amend their Statements of Opposition as more information becomes available.

Kiowa K. Engwis

CONCERNING THE APPLICATION FOR WATER RIGHTS OF THE CITY OF GOLDEN, Case No. 98CW448 (Division 1 Water Court, June 2001).

Applicant: City of Golden (Attys. Glenn E. Porzak & Steven J. Bushong, Porzak, Bronwning & Johnson, LLC.)

1. Applications

On December 30, 1998, the City of Golden ("Golden") submitted an application to the Division 1 Water Court ("water court") for water

required for a championship white water course ("course") on Clear Creek in Jefferson County. Golden is proposing to design, construct and install eight dam structures and flow deflectors for the purpose of controlling and concentrating the flow of Clear Creek to allow boating (including kayaking, rafting and canoeing), piscatorial, and general recreational beneficial uses. As part of the application, Golden claims the following amounts of water per month on an absolute ("A") and conditional ("C") basis: January 101 cubic feet per second ("cfs") A, February 75 cfs A, March 96 cfs A, April 255 cfs A, May 836 cfs A and 164 cfs C, June 992 cfs A and 8 cfs C, July 768 cfs A and 232 cfs C, August 559 cfs A, September 251 cfs A, October 143 cfs A, November 103 A, December 128 cfs A.

In addition, Golden also applied for water rights associated with ten additional structures to be added to the course for the same beneficial uses. The amounts of water claimed per month for this extension are: January 101 cfs C, February 75 cfs C, March 96 cfs C, April 255 cfs C, May 1000 cfs C, June 1000 cfs C, July 1000 cfs C, August 559 cfs C, September 251 cfs C, October 143 cfs C, November 103 C, December 128 cfs C.

After submission of the application, Golden amended this application by dropping their claim on the first structure in the course and amending their claimed appropriations for the months of January, February, March and December on both the existing and additional courses to 70 cfs per month absolute.

2. Opposition

Statements of Opposition were filed by the following parties: Colorado Water Conservation Board ("CWCB"), the State Engineer ("SEO"), Coors Brewing Company ("Coors"), Town of Idaho Springs ("Idaho Springs"), City of Arvada ("Arvada"), Board and County Commissioners of the County of Clear Creek ("Clear Creek Board"), Clear Creek Skiing Corporation, City of Westminster ("Westminster"), and Town of Georgetown ("Georgetown").

Before trial, Arvada, Idaho Springs, and Coors all withdrew their statements of opposition. Additionally, the Clear Creek Board, Clear Creek Skiing Corporation, Westminster, and Georgetown entered into stipulations with Golden and, thus, withdrew from the case. Westminster stipulated that their primary diversion was downstream of Golden's last proposed diversion structure. In the other three stipulations, Golden agreed to subordinate up to 41 cfs of the course water rights for the benefit of the upstream objectors.

Therefore, the CWCB and the SEO remained as the only objectors to the application. The CWCB argued against the application because the application's purpose was similar in nature to an instream flow right. The SEO opposition disputes: (1) whether the water rights sought had been applied to beneficial use in the amount and at the time claimed; (2) the conditional water rights are sought in amounts and times that cannot be placed to beneficial use; (3) the application

is not capable of administration; and (4) the application seeks in-stream uses inconsistent with the Colorado Supreme Court Ruling in *Thornton v. City of Fort Collins*.

3. *Water Court Proceedings*

In March 2001, the water court held a hearing on Golden's application. The water court determined the amount of water diverted and controlled by the existing structures within the course were both reasonable and in conformance with *Thornton*. Unrebutted testimony and evidence indicated the design capacity of the diversion structures supported the claimed diversion amounts, and the diversion structures controlled, concentrated and directed the flow of the water through the course constituting a diversion as required under C.R.S. § 37-92-103(7).

The water court stated recreational use is a recognized beneficial use within Colorado. The water court determined most of the water claimed by Golden was put to beneficial use, and the conditional portions of the existing course can and will be diverted in a reasonable amount of time. Evidence indicated this course is economically beneficial to Golden, and boaters of all skill levels at the claimed flow rates can use the course. However, the water court determined that Golden was only entitled to an absolute decree for those flow rates that have been put to beneficial use by the boaters. Insufficient data was provided to support that all the diversions within the course were put to beneficial use. Therefore, the water court reduced Golden's absolute water right claims, while increasing their conditional water right claims. Furthermore, the court also made a distinction between daytime, nighttime uses of the course, and determined nighttime uses were still in the planning stages and should be considered conditional.

The water court also ruled on two additional points raised by the SEO and the CWCB. First, the court determined Golden had no intent to export water outside Colorado. Undisputed evidence indicated major industrial, municipal and agricultural diversions existed downstream of Golden, which would use and reuse this water up to seven times before the water exited the state at the Nebraska/Colorado state line. Finally, the water court determined, pursuant to the *Board of County Commissioners and Aspen Wilderness Workshop v. Colo. Water Conservation Board* decisions, Golden's constitutional right to appropriate new water in accordance with Colorado law may not be denied or limited due to public policy.

William H. Fronczak

CONFERENCE REPORT

THE 20TH ANNUAL WATER LAW CONFERENCE GROWTH AND SCARCITY: MANAGING WATER TO AVOID CONFLICT

San Diego, California February 21-22, 2002

The 20th Annual Water Law Conference provided two days of discussion focused on the rising tensions, especially in the West, between the ever increasing growth of water demand and the equally increasing scarcity of water to meet that demand. Among the highlights of the conference was a celebration of twenty years of water law conferences, an in-depth look at the Klamath Basin crisis, an examination of the issues surrounding federal Indian reserved rights to groundwater and a look at the water resource issues in New York City before and after the World Trade Center tragedy.

DAY ONE

SESSION ONE—FIVE PERSPECTIVES ON THE ALLOCATION OF SCARCE WATER RESOURCES

This discussion, moderated by Douglas MacDougal of Schwabe, Williamson & Wyatt based in Portland, Oregon, included five speakers who each addressed the allocation of water resources for varying needs. The *Water Law Review's* own advisory board member Hamlet "Chips" Barry, Manager for Denver Water, provided insight on the allocation of water resources for cities. Mr. Barry addressed the issue of water supply versus demand in metropolitan Denver and throughout the urban West. Mr. Barry also discussed various allocation methods and theories as well as the flaws, both real and perceived, of all allocation systems.

Tom Birmingham the General Manager of the Westlands Water District, Fresno, California, provided a perspective on water allocation for agriculture. Specifically, Mr. Birmingham discussed the policy issues arising from a proposal to retire up to 200,000 acres of land in the Westlands District from irrigated agriculture as a means of balancing demand with supply. Mr. Birmingham noted that land retirement is a means of dealing with the scarcity of water resources that was once considered taboo. However, the Westlands District views land retirement of a substantial area it controls as "an innovative means of dealing with two significant issues, drainage and water supply."

The third speaker on Thursday morning was Steven T. Miano of Wolf, Block, Schorr & Solis-Cohen, LLP from Philadelphia. Mr. Miano looked at the allocation of water resources to maintain water quality. Among the topics addressed were a historical perspective on water quality, the Clean Water Act's regulatory approach, and what states must do to maintain water quality.

Mason D. Morisset, of Morisset, Schlosser, Ayer & Jozwiak, Seattle, Washington, provided a perspective on water resources for Native American tribes. Mr. Morisset gave an overview on the *Winters* Doctrine and the scope of tribal reservation water rights. Also discussed was the trust responsibility of federal agencies to Native American tribes and federal compliance with NEPA and tribal rights.

Before a short break, we heard from Rachel Paschal Osborne who discussed various efforts to restore and protect instream flows for the benefit of fish in Washington State. In particular, Ms. Osborne provided insight on trends in instream flow protection, different restoration mechanisms, water transfers and water markets, and the future of river and stream restoration in Washington.

SESSION TWO—THE KLAMATH RIVER BASIN: THE CHALLENGE OF RECONCILING MIXED MISSIONS

Session Two addressed the Klamath River Basin crisis where drought, Endangered Species Act issues, and the over-allocation of limited water supplies created serious impacts on agriculture and wildlife interests. Years of litigation and mediation efforts have done little to resolve the issues surrounding the Basin. This session, moderated by Martha O. Pagel, Schwabe, Williamson & Wyatt, looked at whether the mixed missions and goals of agencies, tribes and users in the Basin have to be better understood before a solution is possible.

The first speaker was Meg Reeves, the Deputy Director of the Oregon Water Resources Department. Ms. Reeves described the Oregon adjudication process generally, the specifics of the current Klamath Basin Adjudication and other related mediation proceedings. Ms. Reeves also discussed the activities of the Oregon Water Resources Department in the Basin.

Paul S. Simmons, Somach, Simmons & Dunn, Sacramento, California, spoke about the Klamath Irrigation Project and the various legal and regulatory issues surrounding the water shortages and drought of 2001. Mr. Simmons also looked at the issues likely to influence the availability of water in future years. Among these issues are pending litigation, future administrative and/or legislative action, and the potential success or failure of dispute resolution processes.

Carl Ullman provided insight on the water rights of the Klamath tribes. Mr. Ullman looked at the crisis outside of the common "fish vs. farmers" clash in which the crisis is often portrayed, and discussed the many tribal and non-Indian communities that are involved and affected by the issues surrounding the Klamath Basin.

Finally, Sue Ellen Woolridge, Deputy Chief of Staff, Department of Interior, described the Basin's ecological diversity and gave an overview on the various species of wildlife found in the area. Ms. Woolridge also discussed the Klamath Project crisis from the perspective of the Department of Interior. Remarking on the lack of effective collaboration between the Department and tribal interests in regard to Indian water rights in the Basin, Woolridge mentioned that, "tribes are so hardened by pain and anger that they are unwilling to work for creative solutions." Woolridge mentioned that environmental groups active in the area must also accept a degree of blame for the present impasse because "they are bent on serving their interests regardless of the human costs."

LUNCHEON WITH KEYNOTE SPEAKER: RODERICK E. WALSTON, DEPUTY SOLICITOR, DEPARTMENT OF THE INTERIOR

This year's keynote speaker was Roderick E. Walston, the newly appointed Deputy Solicitor of the Department of Interior. Mr. Walston began his speech by giving a brief overview of the Office of the Solicitor including a look at the history of the office and his role as Deputy Solicitor. Mr. Walston then addressed two major issues affecting his office: the Endangered Species Act ("ESA"), and Tribal water rights.

Mr. Walston initially remarked that species not even heard of when the Water Law Conference first began twenty years ago are now crucial factors behind many water allocations. The Deputy Solicitor then noted the contrast between critical determinations made under state clean water acts, which often balance competing factors, and the ESA, which makes its determination that a species is endangered or threatened solely on the basis of the best available scientific evidence. Mr. Walston observed that a natural outgrowth of this is that many issues currently in litigation regarding the ESA go to the validity of the science used to determine critical habitat.

Mr. Walston observed that environmental groups were winning court battles over the ESA regarding "timing issues." For example, courts are rejecting the Fish and Wildlife Service's policy of delaying determinations regarding habitat designations and instead creating deadlines for the Fish and Wildlife Service. On the other hand, Mr. Walston did believe that developers and other similar interests were gaining ground by making various state and federal agencies consider economic factors when making their decisions.

Mr. Walston then turned to the issue of Indian water rights. After a brief review of the history behind the *Winters* doctrine and Indian reserved water rights, Mr. Walston outlined the policy under which his office operates in regard to Indian water rights. The Office of the Solicitor favors negotiated settlements as opposed to "time consuming" adjudications. Furthermore, Gale Norton's four "Cs," consultation, cooperation and communication in the service of conservation, drive the office's handling of all negotiations.

Mr. Walston concluded his speech with optimism as to the Department of Interior's future involvement regarding both ESA issues and Indian water rights. Mr. Walston also concluded with the belief that national interests should prevail, but that state and local governments need to be heard and that there is room for both interests.

BREAK-OUT SESSION ONE—PRACTICE SKILLS: DISCLOSURE, DISCOVERY AND SETTLEMENT IN COMPLEX WATER LITIGATION

In this first break-out session, the panelists discussed three aspects of water law litigation that are seldom addressed, yet essential to effective practice in the field.

From her prospective as a practitioner in Idaho, Josephine P. Beeman led off the session with an overview of disclosure requirements in water litigation. Beeman noted that although Federal Rule of Civil Procedure 26(a)(1) demands mandatory disclosure of non-requested information, many federal district courts have chosen to opt out of the initial disclosures requirement. Beeman also noted that in a review of the procedural rules in the western states, only Arizona, Colorado, and Utah follow the mandatory disclosure requirements of Federal Rule 26. To demonstrate how water practitioners have faced disclosure challenges in states without mandatory disclosure, Beeman detailed Idaho's Eastern Snake Plain Aquifer dispute between surface- and groundwater users.

John B. Draper continued the session with a lecture on discovery in water litigation. Referring to recent technological advances in the field, Draper's discourse focused on the unique challenges litigants now face in water litigation, and how to confront them. In particular, Draper addressed the growing use of data bases, FTP servers, and special software in order to satisfy water litigation discovery requirements. Draper acknowledged that while these new mediums allow for more efficient discovery on one hand, they nevertheless present problems such as inflated expenditures and technology sharing obstacles.

The session closed with a lecture on settlement in water litigation given by Hank Meshorer of the United States Department of Justice. Mr. Meshorer noted the natural propensity of water litigation to lead to a polarization of the parties involved. In order to foster settlement and avoid extended litigation in water cases, it is advisable for the central parties to restrict the involvement of peripheral interests in the settlement discussions. Environmental groups, in particular he said, often make settlement difficult. When settlement is achieved, Mr. Meshorer concluded, the agreement should be fair to all the parties, legally sufficient to the degree that the agreement would not spur litigation, and final, inasmuch as it will require no further judicial action.

BREAK-OUT SESSION TWO—ETHICS AND THE UNITARY GOVERNMENT: THE FEDERAL LAWYER AND HER CLIENT, AND CONSIDERATIONS OF THE PUBLIC GOOD

The Session Two panel reviewed some ethical issues that tend to arise among federal attorneys. Specifically, the panel spoke about: (1) the not-uncommon situation where multiple agencies' authorities are in conflict; (2) attorney representation of Indian tribes following federal employment; and (3) the conflicts between the public duty and client loyalty.

Jeffrey P. Minear of the Solicitor General's Office led off the session. He addressed "the legal and ethical issues that are implicated in litigation and water negotiations when one federal agency has regulatory or quasi-judicial authority over another."

The second speaker was V. Heather Sibbison. Sibbison is a former federal attorney who now represents Indian tribes. She addressed the unique problems that normally arise when federal litigators choose to discontinue their government employment. While federal statutes create many post-employment prohibitions, Sibbison noted that federal Indian Law practitioners are generally exempt from these prohibitions under the Indian Self Determination Act and Education Assistance Act of 1975.

Clive Strong's lecture on the federal theory of the unitary executive concluded the session. This theory posits that a dispute between two agencies of the Executive branch does not amount to a "case or controversy" within the Constitution's Article III jurisdiction for federal courts. Strong discussed the variety of approaches the states have taken to role conflicts where this theory is applicable.

BREAK-OUT SESSION FOUR—FEDERAL INDIAN RESERVED RIGHTS TO GROUNDWATER

Professor Robert Anderson from the University of Washington School of Law began the session by giving a legal overview of Indian Water Rights. Anderson revisited the creation of the *Winters* doctrine, in *Winters v. United States*, 207 U.S. 564 (1908). He noted the doctrine's consequence in establishing Indian reserved water rights. Anderson then discussed the significance of the 1952 McCarran Amendment, which allows the United States to be a defendant in a suit aimed at the adjudication of a water right. Finally, Professor Anderson reviewed Indian water rights settlement issues as presented in 55 Fed. Reg. 9223 (Mar. 12, 1990).

Harley R. Harris next offered a state and private perspective on federal Indian reserved rights to surface and groundwater. In regard to surface water, Harris pointed out that the state's legal regime is generally paramount; a state's adoption of the riparian, prior appropriation, dual, or permit system will usually control the

adjudication of a surface water right. Rights to groundwater, however, are often scrutinized within the confines of common law principles such as that of reasonable use. Turning to federal reserved rights, Harris noted that numerous federal and state courts have decided the extent of such rights under varying circumstances. This, he concluded, has led to the vague and open-ended nature of the doctrine of Indian reserved water rights.

Scott B. McElroy, of Boulder Colorado concluded the session with an examination of the present enforcement approach to reserved tribal water rights to groundwater. McElroy focused on two recent cases that came before the Arizona Supreme Court; *Gila III* and *Gila IV*. He noted that the *Gila IV* decision confirmed the notion the United States Supreme Court originally expressed in *Arizona v. California* that reserved rights must "satisfy the future as well as the present needs of the Indian Reservations." *Gila III*, he went on to say affirmed that groundwater may be set aside under the reserved rights system. The court was clear that whether the water source involved is underground or above ground is not a determinative factor.

DAY TWO

SESSION ONE—100 YEARS OF U.S. RECLAMATION: DEALING WITH SCARCITY AND GROWTH – PERSPECTIVES OF THE CURRENT AND FORMER COMMISSIONERS OF RECLAMATION

For the opening panel discussion on Friday morning, the current Commissioner of Reclamation and three former commissioners came together to discuss the successes and failures of reclamation over the years, and to discuss the future of the agency. Joining the panel was R. Keith Higgenson, appointed in 1977, Dennis B. Underwood, appointed in 1989, and the current commissioner, John W. Keys III.

President Bush, the elder, appointed Mr. Underwood as commissioner in 1989. According to Mr. Underwood, this was a period of confrontation between the new Republican President and Democratic controlled Congress, the beginning of a multi-year drought affecting the West, a period of growing conflict between environmental and economical interests, and a time of uncertainty for the Bureau of Reclamation and its employees. Mr. Underwood responded to the issues facing his agency by preparing a comprehensive strategic plan for the Bureau, enhancing human resources development, and establishing a corporate sense and business practices.

The next speaker was Mr. Higgenson who shared his recollections, as well as a splendid video show on the Bureau's "most significant failure:" the breakdown of the Teton Dam in Idaho on June 5, 1976. Mr. Higgenson showed the audience video footage that chronicled the leaks leading up to the Teton Dam's eventual failure. The Dam's failure resulted in the emptying the reservoir of about 250,000 acre-feet of water in five hours, cost eleven people their lives and resulted in

the payment of more than \$322 million in damages.

Finally, Mr. Keyes provided perspective and insight on his lifetime career in the Bureau. Mr. Keyes had spent time working for all the previous speakers on the panel, retired and then returned to reclamation to serve as commissioner. Mr. Keyes focused on the need to build consensus rather than conflict for the Bureau to succeed in the future.

SESSION TWO—LOOKING INTO THE FUTURE OF WATER MANAGEMENT: SELECTED BASIN ISSUES

The conference's final session provided examples of approaches to future water management in two vastly different regions: southern Nevada and New York City.

Kay Brothers of the Southern Nevada Water Authority began with a presentation on southern Nevada's growing water needs. Her presentation focused on the tremendous population growth in the Las Vegas area throughout the twentieth century. This unanticipated growth, Brothers observed, has forced the state to tap into unanticipated water resources. The most significant of these resources has been the Colorado River, which was not originally slated as a water source for the region. Brothers gave a brief overview of the Law of the Colorado River, touching on every legal device governing the river from the 1922 Colorado River Compact, to the 1974 Colorado River Basin Salinity Control Act. While Nevada's apportionment of the Colorado is still far less than that of other dependent states, the Southern region's population continues to grow at an inordinate rate, creating a concurrent growth in reliance on Colorado River water.

Mark D. Hoffer, general counsel for the New York Department of Environmental Protection, concluded the conference with his perspective on the New York City Watershed Memorandum of Agreement ("MOA") of 1997. He first detailed the history of the three supplies serving the city and the city's distribution system. Next, Mr. Hoffer discussed the challenges new federal drinking water regulations presented to updating these systems. While the City began to fashion a watershed protection program in 1990, it met with opposition from the watershed communities. The state became involved in 1995, and ultimately produced the MOA, which summarizes a consensus between the City and the watershed communities. The final MOA has five basic elements aimed at fulfilling federal law: (1) watershed land acquisition by the City; (2) new, updated City watershed rules and regulations; (3) City funding of watershed protection and partnership programs; (4) creation of watershed protection and partnership council; and (5) new filtration avoidance determination.

CUMULATIVE INDEX VOLUMES 1 - 5

ARTICLES - AUTHOR INDEX

Author, Article	Vol: Issue	Page
Ahmad, Ali, Islamic Water Law as an Antidote for Maintaining Water Quality.....	2:2	169
Alby, Jon B., Watershed Planning	1:1	75
Anderson, Steven M., The California Supreme Court Reviews the Mojave River Adjudication	2:1	26
Beatie, Amy, The City of Golden's Application for Surface Water Rights: A Kayak Course, Instream Flow, Dilution, or What?.....	2:2	273
Brandt, Alf W., An Environmental Water Account: The California Experience.....	5:2	426
Bromley, Chris, A Political and Legal Analysis of The Rise and Fall of Western Dams and Reclamation Projects.....	5:1	204
Brown, Darrell, The Colorado Supreme Court Addresses Reasonable Diligence in the Continuation of a Conditional Water Right.....	3:1	98
Brown, David M., Outline of Colorado Ground Water Law	1:2	275
Caloia, Sherry A., The Water Rights Determination and Administration Act of 1969: A Western Slope Perspective on the First Thirty Years	3:1	39
Cavanaugh, Amy M., Basic Exchange 101	1:2	206
Cavanaugh, Tara, Mining Contamination of Ground Water: The Need for Legislation and Reform	2:1	60
Chalos, George M., A Practical Guide to the Oil Spill Liability Trust Fund Claim Submission Procedures	3:1	80
Cherry, Randall Hale, Mine Waste, Clean Water, and Good Business: Using Effluent Trading to Clean Up Orphaned Mine Sites in the Clear Creek Watershed	2:1	80
Clayton, Jeffrey J., "Here is a Land Where Life is Written in Water": Re-Writing Western Water Law in the 21st Century.....	5:2	525

Crass, Karen, Eroding the Winters Right: Non-Indian Water Users' Attempt to Limit the Scope of the Indian Superior Entitlement to Western Water to Prevent Tribes from Water Brokering.....	1:1	109
Curran, R. Woodruff, Colorado Supreme Court Prevents Collateral Attack on Previously Litigated Change of Use Decrees	2:2	267
Drucker, Paul M., <i>Wisconsin v. EPA</i> : Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act.....	5:2	323
Fosnaught, James, The City of Golden's Application for Surface Water Rights: A Kayak Course, Instream Flow, Dilution, or What?	2:2	273
Funk, Casey S., Basic Exchange 101.....	1:2	206
Garner, Eric L., The California Supreme Court Reviews The Mojave River Adjudication.....	2:1	26
Gillbn, Kara, Watershed Down?: The Ups and Downs of Watershed Management in the Southwest.....	5:2	395
Green, Barbara J.B., Watershed Planning	1:1	75
Hamilton, Mark E., The Water Rights Determination and Administration Act of 1969: A Western Slope Perspective on the First Thirty Years.....	3:1	39
Hamre, Austin C., The 1969 Act's Contributions to Local Governmental Water Suppliers.....	3:1	20
Harrison, Sylvia, The Historical Development of Nevada Water Law.....	5:1	148
Helton, Duane D., Developing a Water Supply in Colorado: The Role of an Engineer	3:2	373
Hill, John R., Jr., The "Right" to Float through Private Property in Colorado: Dispelling the Myth	4:2	331
Hirokawa, Keith, How Good is an Old Water Right? The Application of Statutory Forfeiture Provisions to Pre-Code Water Rights	4:1	1
Hobbs, Justice Gregory J., Jr., Colorado's 1969 Adjudication and Administration Act: Settling In	3:1	1
Hobbs, Justice Gregory J., Jr., Colorado Water Law: An Historical Overview.....	1:1	1
Hobbs, Justice Gregory J., Jr., Second Update to Colorado Water Law: An Historical Overview.....	4:1	111
Hobbs, Justice Gregory J., Jr., State Water Politics Versus an Independent Judiciary: The Colorado and Idaho Experiences	5:1	122
Hobbs, Justice Gregory J., Jr., Update to Colorado Water Law: An Historical Overview	2:2	223

Holder, Holly I., Water Quality Issues in Augmentation Plans and Exchanges	1:1	96
Houpt, Jefferson V., The Water Rights Determination and Administration Act of 1969: A Western Slope Perspective on the First Thirty Years.....	3:1	39
Howe, Charles W., Protecting Public Values in a Water Market Setting: Improving Water Markets to Increase Economic Efficiency and Equity	3:2	357
Jankowski, David F., The 1969 Act's Contributions to Local Governmental Water Suppliers	3:1	20
Jones, Patricia, The Legal Response to the World's Water Crisis: What Legacy from the Hague? What Future in Kyoto?.....	4:2	418
Kanda, Kathy, Legal Underpinnings of the Right to Float Through Private Property in Colorado: A Reply to John Hill	5:2	457
Kassen, Melinda, A Critical Analysis of Colorado's Water Right Determination and Administration Act of 1969	3:1	58
Knox, Kenneth W., The La Plata River Compact: Administration of an Ephemeral River in the Arid Southwest.....	5:1	104
Lacy, Peter M., The Irrigated Desert and Imperiled Salmon: "Reclaiming" Illegally Spread Water Via the Endangered Species Act.....	4:2	351
Lochhead, James S., An Upper Basin Perspective on California's Claims to Water From the Colorado River.....	4:2	290
Lock, Marcus J., Braving the Waters of Supreme Court Takings Jurisprudence: Will the Fifth Amendment Protect Western Water Rights from Federal Environmental Regulation?	4:1	76
Marlin, Steven, Legal Underpinnings of the Right to Float Through Private Property in Colorado: A Reply to John Hill	5:2	457
Maynard, Alison, Deconstructing a Water Project	2:2	227
McAllister, Sean T., The Confluence of a River and a Community: An Experiment with Community-Based Watershed Management in Southwestern Colorado.....	3:2	287
McElroy, Scott B., History Repeats Itself—A Response to the Opponents of the Colorado Ute Indian Water Rights Settlement Act of 1988.....	2:2	244
Miller, Lee E., Open Meetings and Open Records Laws: A Primer for Colorado Water Conservancy Districts.....	3:2	273

Modesitt, Kent, Antidegradation: A Lost Cause or the Next Cause	2:2	189
Montgomery, Dennis M., The Arkansas River Compact.....	5:1	58
Morrison, Richard N., The Evolution of Environmental Ethics	2:1	99
Neuman, Janet C., How Good is an Old Water Right? The Application of Statutory Forfeiture Provisions to Pre-Code Water Rights	4:1	1
Nichols, Peter D., Do Conservation Easements and Water Mix (in Colorado)?.....	5:2	504
O'Day, Sean E., <i>San Carlos Apache Tribe v. Superior Court</i> : Rejecting Legislative Favoritism in Water Right Allocations.....	4:1	29
Paddock, William A., The Rio Grande Compact of 1938.....	5:1	1
Potter, Lori, Legal Underpinnings of the Right to Float Through Private Property in Colorado: A Reply to John Hill	5:2	457
Potter, Lori, The 1969 Act and Environmental Protection	3:1	70
Robbins, David W., The Arkansas River Compact.....	5:1	58
Salman, Salman M.A., The Legal Response to the World's Water Crisis: What Legacy from the Hague? What Future in Kyoto?	4:2	418
Saunders, Glenn, Reflections on Sixty Years of Water Law Practice	2:1	1
Shane, E. Brendan, Litigation Update.....	5:2	500
Shane, E. Brendan, Water Rights and <i>Gila River III</i> : The <i>Winters</i> Doctrine Goes Underground	4:2	397
Sower-Hall, Carmen, Water Quality Issues in Augmentation Plans and Exchanges	1:1	96
Sparks, Felix L., Synopsis of Major Documents and Events Relating to the Colorado River.....	3:2	339
Sperling, Veronica A., Outline of Colorado Ground Water Law	1:2	275
Tarlock, A. Dan, Safeguarding International River Ecosystems in Times of Scarcity	3:2	231
Tarlock, A. Dan, What the Report of the World Commission on Dams Might Mean for the United States Water Community	5:1	225
Taussig, David C., The 1969 Act's Contributions to Local Governmental Water Suppliers.....	3:1	20
Tyler, Daniel, Delphus Emory Carpenter and the Colorado River Compact of 1922.....	1:2	228
Weiss, Wendy, The Federal Government's Pursuit of Instream Flow Water Rights.....	1:2	151
Welborn, Robert F., The Colorado Water Crisis	1:2	307

Whitworth, Joe S., A Relic Dam Dislodged by a Dormant Doctrine: The Story of Beneficial Use and Savage Rapids Dam	5:1	183
Wouters, Patricia, The Legal Response to the World's Water Crisis: What Legacy from the Hague? What Future in Kyoto?	4:2	418
Young, Daniel S., Developing a Water Supply in Colorado: The Role of an Engineer	3:2	373
Zilis, Paul J., Colorado Supreme Court Prevents Collateral Attack on Previously Litigated Change of Use Decrees	2:2	267

ARTICLES - SUBJECT INDEX

Subject	Vol.: Issue	Page
GENERAL		
Basic Exchange 101	1:2	206
Deconstructing a Water Project	2:2	227
Delphus Emory Carpenter and the Colorado River Compact of 1922.....	1:2	228
How Good is an Old Water Right? The Application of Statutory Forfeiture Provisions to Pre-Code Water Rights.....	4:1	1
Reflections on Sixty Years of Water Law Practice	2:1	1
INDIAN WATER RIGHTS		
Department of the Interior Solicitor's Opinion—Department Backs Ute Claims to 1868 Treaty-Date Reserved Water Rights	3:1	94
Eroding the <i>Winters</i> Doctrine: Non-Indian Water Users' Attempt to Limit the Scope of the Indian Superior Entitlement to Western Water to Prevent Tribes from Water Brokering.....	1:1	109
History Repeats Itself—A Response to the Opponents of the Colorado Ute Indian Water Rights Settlement Act of 1988.....	2:2	244
<i>San Carlos Apache Tribe v. Superior Court</i> : Rejecting Legislative Favoritism in Water Right Allocations	4:1	29
Water Rights and <i>Gila River III</i> : The <i>Winters</i> Doctrine Goes Underground.....	4:2	397
<i>Wisconsin v. EPA</i> : Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act	5:2	323
INTERNATIONAL WATER LAW		
Islamic Water Law as an Antidote for Maintaining Water Quality.....	2:2	169

The Legal Response to the World's Water Crisis: What Legacy from the Hague? What Future in Kyoto?	4:2	418
Safeguarding International River Ecosystems in Times of Scarcity.....	3:2	231
What the Report of the World Commission on Dams Might Mean for the United States Water Community	5:1	225
INTERPRETATIONS OF COURT DECISIONS		
California Supreme Court Reviews the Mojave River Adjudication, The	2:1	26
Colorado Supreme Court Addresses Reasonable Diligence in the Continuation of a Conditional Water Right, The	3:1	98
Colorado Supreme Court Prevents Collateral Attack on Previously Litigated Change of Use Decrees.....	2:2	267
<i>San Carlos Apache Tribe v. Superior Court</i> : Rejecting Legislative Favoritism in Water Right Allocations	4:1	29
Water Rights and <i>Gila River III</i> : The <i>Winters</i> Doctrine Goes Underground.....	4:2	397
<i>Wisconsin v. EPA</i> : Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act	5:2	323
INTERSTATE COMPACTS/ISSUES		
An Upper Basin Perspective on California's Claims to Water from the Colorado River	4:2	290
Arkansas River Compact, The	5:1	58
La Plata River Compact: Administration of an Ephemeral River in the Arid Southwest, The.....	5:1	104
Rio Grande Compact of 1938, The	5:1	1
POLITICAL/ECONOMIC ANALYSES		
A Political and Legal Analysis of the Rise and Fall of Western Dams and Reclamation Projects.....	5:1	204
"Here is a Land Where Life is Written in Water": Re-Writing Western Water Law in the 21st Century	5:2	525
Protecting Public Values in a Water Market Setting: Improving Water Markets to Increase Economic Efficiency and Equity	3:2	357
State Water Politics Versus an Independent Judiciary: The Colorado and Idaho Experiences.....	5:1	122

STATE WATER USE/ISSUES

An Environmental Water Account: The California Experience.....	5:2	426
California Supreme Court Reviews the Mojave River Adjudication, The	2:1	26
Historical Development of Nevada Water Law, The	5:1	148

Colorado

City of Golden's Application for Surface Water Rights: A Kayak Course, Instream Flow, Dilution, or What?, The	2:2	273
Colorado Supreme Court Addresses Reasonable Diligence in the Continuation of a Conditional Water Right, The	3:1	98
Colorado Water Crisis, The	1:2	307
Colorado Water Law: An Historical Overview	1:1	1
Developing a Water Supply in Colorado: The Role of an Engineer	3:2	373
Legal Underpinnings of the Right to Float Through Private Property in Colorado: A Reply to John Hill.....	5:2	457
Open Meetings and Open Records Laws: A Primer for Colorado Water Conservancy Districts.....	3:2	273
Outline of Colorado Ground Water Law.....	1:2	275
"Right" to Float Through Private Property in Colorado: Dispelling the Myth, The	4:2	331
Second Update to Colorado Water Law: An Historical Overview.....	4:1	111
Synopsis of Major Documents and Events Relating to the Colorado River.....	3:2	339
Update to Colorado Water Law: An Historical Overview.....	2:2	223

THE 1969 ACT

1969 Act and Environmental Protection, The.....	3:1	70
1969 Act's Contributions to Local Governmental Water Suppliers, The.....	3:1	20
A Critical Analysis of Colorado's Water Right Determination and Administration Act of 1969.....	3:1	58
Colorado's 1969 Adjudication and Administration Act: Settling In.....	3:1	1
Water Rights Determination and Administration Act of 1969: a Western Slope Perspective on the First Thirty Years, The.....	3:1	39

WATER QUALITY/ENVIRONMENTAL ISSUES

An Environmental Water Account: The California Experience.....	5:2	426
--	-----	-----

Anitdegradation: A Lost Cause or the Next Cause.....	2:2	189
A Practical Guide to the Oil Spill Liability Trust Fund Claim Submission Procedures	3:1	80
A Relic Dam Dislodged by a Dormant Doctrine: The Story of Beneficial Use and Savage Rapids Dam.....	5:1	183
Braving the Waters of Supreme Court Takings Jurisprudence: Will the Fifth Amendment Protect Western Water Rights from Federal Environmental Regulation?	4:1	76
The Confluence of a River and a Community: An Experiment with Community-Based Watershed Management in Southwestern Colorado	3:2	287
Do Conservation Easements and Water Mix (in Colorado)?	5:2	504
Evolution of Environmental Ethics, The	2:1	99
Federal Government's Pursuit of Instream Flow Water Rights, The.....	1:2	151
Irrigated Desert and Imperiled Salmon: "Reclaiming" Illegally Spread Water Via the Endangered Species Act, The	4:2	351
Mine Waste, Clean Water, and Good Business: Using Effluent Trading to Clean Up Orphaned Mine Sites in the Clear Creek Watershed.....	2:1	80
Mining Contamination of Ground Water: The Need for Legislation and Reform	2:1	60
Water Quality Issues in Augmentation Plans and Exchanges	1:1	96
<i>Wisconsin v. EPA</i> : Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act	5:2	323
WATERSHED MANAGEMENT AND PLANNING		
Watershed Planning	1:1	75
Watershed Down?: The Ups and Downs of Watershed Management in the Southwest.....	5:2	395
<i>Wisconsin v. EPA</i> : Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act	5:2	323

BOOK REVIEWS / BOOK NOTES

Book Reviews	Vol.: Issue	Page
Environmental Law Handbook (Thomas F.P. Sullivan, ed.)	1:1	133

Farmers' Highline Canal and Reservoir Company: A Century of Change on Clear Creek, The Gregory M. Silksen	5:2	551
Instream Flow Protection: Seeking A Balance in Western Water Use, David M. Gillilan & Thomas C. Brown	2:1	109
The Last Ranch, Sam Bingham	2:1	106
The Last Water Hole in the West: The Colorado- Big Thompson Project and the Northern Colorado Water Conservancy District	4:1	146
Requiem for Reclamation: From Reclamation to Sustainability, Lawrence J. McDonnell	2:2	295
Salmon Without Rivers: A History of the Pacific Salmon Crisis, Jack McDonald	3:2	401
Water Resources Management: Principles, Regulations And Cases, Neil S. Grigg	1:2	316

Book Notes

A Landowner's Guide to Western Water Rights, Mary Ellen Wolfe	1:2	328
A Moment on the Earth, Gregg Easterbrook	4:2	447
Action Plan for Beaches and Recreational Waters	3:2	406
All My Rivers are Gone: A Journey of Discovery Through Glen Canyon, Katie Lee	3:2	413
<i>The American Heritage Rivers Initiative: A Magnificent Idea or the Great Land/Power Grab? in Briefly... Perspectives on Legislation, Regulation, and Litigation</i> , Ray Clark et al.	3:2	408
Cases and Materials on Water Law, 5th ed., George A. Gould & Douglas L. Grant	1:2	326
Clean Water Handbook, Lynn Gallagher & Leonard Miller	1:1	143
Colorado Water Law	3:2	410
Comprehensive Water Planning and Regulation: New Approaches for Workable Solutions, William Whipple, Jr.	1:1	147
The Demise of Environmentalism in American Law, Michael S. Greve	2:1	122
Dividing the Waters: The Resolution of Interstate Water Conflicts in the United States	4:2	453
Drowning the Dream: California's Water Choices at the Millennium, David Carle	4:2	445
Environmental Law and Policy in the European Union and the United States, Randall Baker	2:2	307
Environmental Rights: Critical Perspectives, Christopher Miller	2:2	300
Environmental Science Deskbook, James W. Conrad	3:2	411

Every Drop For Sale: Our Desperate Battle Over Water In a World About to Run Out, Jeffery Rothfeder.....	5:2	565
Federal Environmental Law: The User's Guide, Olga L. Moya & Andrew L. Fono.....	3:1	122
Federal Judge's Desk Reference to Environmental Economics, (John A. Baden, ed.).....	4:1	149
Fluid Arguments: Five Centuries of Western Water Conflict, (Char Miller, ed.).....	5:2	558
Fundamentals of Water Law in Colorado: Protecting Water Rights, Use and Quality, Cynthia F. Covell et al.....	5:1	233
Groundwater and Soil Contamination: Technical Preparation and Litigation Management, Thomas J. Bois II & Bernard J. Luther.....	1:1	138
Groundwater Management in the West, Jeffrey S. Ashley & Zachary A. Smith.....	4:2	443
High and Dry: The Texas-New Mexico Struggle for the Pecos River, G. Emlen Hall.....	5:2	556
High Country News, Water in the West.....	2:2	303
Instream Flow Protection: Seeking a Balance in Western Water Use, David M. Gillilan & Thomas C. Brown.....	1:2	325
International Environmental Negotiations: Strategic Policy Issues, (Carraro, Carlo, ed.).....	2:1	117
Land Surveys: A Guide for Lawyers and Other Professionals, (Mitchell g. Williams, ed.).....	4:2	454
The Legal Regime for Transboundary Water Pollution: Between Discretion and Constraint, Andre Nollkaemper.....	3:2	416
Must the Seas Die?, Colin Moorcraft.....	3:2	414
Oregon Salmon: Essays on the State of Fish at the Turn of the Millennium, (Oregon Trout, ed.).....	5:2	561
Our National Wetland Heritage, A Protection Guide, Jon Kusler & Teresa Opheim.....	2:2	305
Reflected in Water: A Crisis of Social Responsibility, Colin Ward.....	2:1	124
Regulating Wetlands Protection: Environmental Federalism and the States, Ronald Keith Gaddie & James L. Regens.....	4:1	151
Riparian Ecosystem Recovery in Arid Lands: Strategies & References, Mark K. Briggs.....	1:1	141
Riverkeepers, John Cronin & Robert F. Kennedy, Jr.	1:2	321
Rivers of Discord, Greg Shapland.....	5:2	568
Rivers of Gold: Designing Markets to Allocate Water in California, Brent M. Haddad.....	4:2	450
Sampling, Analysis, & Monitoring Methods: A Guide to EPA Requirements, C.C. Lee.....	1:1	144

The Scarcity of Water: Emerging Legal and Policy Responses, Edward H.P. Brans et al.....	1:2	320
Storm Water Discharges: Regulatory Compliance and Best Management Practices, Mark S. Dennison.....	2:1	119
The Struggle for Water: Politics, Rationality, Identity in the American Southwest, Wendy Nelson Espeland.....	2:1	120
Vranesh's Colorado Water Law, Revised Edition, (James N. Corbridge Jr. & Teresa A. Rice, eds.)	3:2	404
Water: A Natural History, Alice Outwater.....	3:1	114
Water Boundaries, George Cole	1:1	142
Water Boundaries, George Cole	2:2	301
Water Conflict: Economics, Politics, Law and Palestinian-Israeli Water Resources, Sharif S. Elmusa.....	4:2	449
Water, Earth, and Sky: The Colorado River Basin, Michael Collier	3:1	118
Water, Land & Law in the West, Donald J. Pisani	1:1	145
Water Law in a Nutshell, David H. Getches.....	3:1	116
Water Management in the 21st Century: The Allocation Imperative, Terence Richard Lee	5:1	235
Water Marketing—The Next Generation, (Terry L. Anderson & Peter J. Hill, eds.)	3:1	120
Water Markets: Priming the Invisible Pump, Terry L. Anderson & Pamela Snyder	2:1	116
Water Quantity/Quality Management and Conflict Resolution, (Ariel Dinar & Edna Tusak Loehman, eds.).....	1:2	324
Water Rights of the Eastern United States, (Kenneth R. Wright, ed.)	3:1	115
Water: The Fate of Our Most Precious Resource, Marq De Villiers.....	5:2	554
Water Use, Management, and Planning in the United States, Stephen A. Thompson	5:1	237
Wetland Mitigation: Mitigation Banking and Other Strategies for Development and Compliance, Mark S. Dennison	1:2	323
Wetlands Protection: The Role of Economics, Paul F. Scodari	5:2	566

COURT REPORTS

FEDERAL COURTS

SUPREME COURT

Case Name	Vol.: Issue	Page
Arizona v. California, 530 U.S. 392 (2000)	4:1	154
Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. Inc., 120 S. Ct. 693 (2000)	3:2	418
Idaho v. United States, 533 U.S. 262 (2001).....	5:1	241
Kansas v. Colorado, 533 U.S. 1 (2001).....	5:1	242
Palazzolo v. Rhode Island, 533 U.S. 606 (2001)	5:1	239
Solid Waste Agency of N. Cook County v. United States Army Corps of Eng'rs, 121 S. Ct. 675 (2001)	4:2	457

FIRST CIRCUIT

Baker v. Coxe, 230 F.3d 470 (1st Cir. 2000)	4:2	460
Dubois v. United States Dep't of Agric., 270 F.3d 77 (1st Cir. 2001).....	5:2	573
Mass. Water Res. Auth., Unites States v., 256 F.3d 36 (1st Cir. 2001).....	5:2	574
Pepperell Assoc. v. United States Envtl. Protection Agency, 246 F.3d 15 (1st Cir. 2001).....	5:1	244

SECOND CIRCUIT

Burnette v. Carothers, Nos. 98-7835(L), 98- 9003(CON), 1999 WL 710624 (2d Cir. Sept. 13, 1999)	3:1	126
Catskill Mtns. Chapter of Trout Unlimited v. City of New York, 273 F.3d 481 (2nd Cir. 2001)	5:2	577
LeBlanc v. Cleveland, 198 F.3d 353 (2d Cir. 1999)	3:2	419
Mango, United States v., 199 F.3d 85 (2d Cir. 1999)	3:2	420
Natural Res. Def. Council, Inc. v. Muszynski, 268 F.3d 91 (2d Cir. 2001)	5:2	578
S. Road Assocs. v. Int'l Bus. Machs. Corp., 216 F.3d 251 (2d Cir. 2000)	4:1	157
TGR Corp., United States v. 171 F.3d 762 (2d Cir. 1999)	3:1	127

THIRD CIRCUIT

W.R. Grace & Co. v. United States Envtl. Protection Agency, 261 F.3d 330 (3d Cir. 2001)	5:1	246
--	-----	-----

FOURTH CIRCUIT

Deaton, United States v., 209 F.3d 331 (4th Cir. 2000)	4:1	159
Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 179 F.3d 107 (4th Cir. 1999)	3:1	128
Piney Run Pres. Ass'n v. Cty. Comm'rs, 268 F.3d 255 (4th Cir. 2001)	5:2	580
Smithfield Foods, United States v., No. 97-2709, 1999 WL 713847 (4th Cir. Sept. 14, 1999)	3:1	130

FIFTH CIRCUIT

Geraghty & Miller, Inc. v. Conoco, Inc., 234 F.3d 917 (5th Cir. 2000)	4:2	461
Miss. River Basin Alliance v. Westphal, 230 F.3d 170 (5th Cir. 2000)	4:2	464
Rice v. Harken Exploration Co., 250 F.3d 264 (5th Cir. 2001)	5:1	247

SIXTH CIRCUIT

Adams County Reg'l Water Dist. v. Vill. of Manchester, 226 F.3d 513 (6th Cir. 2000)	4:1	160
Jolly, United States v., No. 99-5700, 2000 U.S. App. LEXIS 29907 (6th Cir. Nov. 20, 2000)	4:2	467
Jones v. City of Lakeland, 224 F.3d 518 (6th Cir. 2000)	4:1	162
M/G Transp. Servs., Inc. v. Water Quality Ins. Syndicate, 234 F.3d 974 (6th Cir. 2000)	4:2	465
Michigan Peat v. United States Env'tl. Protection Agency, 175 F.3d 422 (6th Cir. 1999)	3:1	132
White, United States v., 270 F.3d 356 (6th Cir. 2001)	5:2	582

SEVENTH CIRCUIT

Alshabkhoun, United States v., 277 F.3d 930 (7th Cir. 2002)	5:2	584
Chemetco, Inc., United States v., 274 F.3d 1154 (7th Cir. 2001)	5:2	586
Kaukauna v. Fed. Energy Regulatory Comm'n, 214 F.3d 880 (7th Cir. 2000)	4:1	163
Kelly v. United States Env'tl. Protection Agency, No. 99-2496, 2000 U.S. App. LEXIS 1786 (7th Cir. Feb. 10, 2000)	3:2	422
Krilich, United States v., 209 F.3d 968 (7th Cir. 2000)	4:1	165

Solid Waste Agency of N. Cook County v. United States Army Corps of Eng'rs, 191 F.3d 845 (7th Cir. 1999), petition for cert. filed, Jan. 14, 2000.....	3:2	423
Wisconsin v. Federal Energy Regulatory Comm'n, 192 F.3d 642 (7th Cir. 1999).....	3:2	425
Wisconsin v. United States EPA, 266 F.3d 741 (7th Cir. 2001).....	5:2	583

EIGHTH CIRCUIT

Armstrong v. Asarco, Inc., 138 F.3d 382 (8th Cir. 1998).....	3:1	133
Missouri v. City of Glasgow, No. 97-2279, 1998 WL 459937 (8th Cir. Aug. 10, 1998).....	2:1	127
Sokol v. Kennedy, 210 F.3d 876 (8th Cir. 2000).....	4:1	166

NINTH CIRCUIT

Alaska Wildlife Alliance v. National Park Service, 108 F.3d 1065 (9th Cir. 1997).....	1:2	330
Alpine Land & Reservoir Co., United States v., 174 F.3d 1007 (9th Cir. 1999).....	3:1	139
Alpine Land & Reservoir Co., United States v., 279 F.3d 1189 (9th Cir. 2002).....	5:2	592
American Rivers v. Federal Energy Regulatory Comm'n, 187 F.3d 1007 (9th Cir. 1999).....	3:1	135
B.J. Carney Indus., Inc. v. United States Environmental Protection Agency, 192 F.3d 917 (9th Cir. 1999).....	3:2	427
B.J. Carney Indus. Inc. v. United States Envtl. Protection Agency, No. 98-70315, 1999 WL 739575 (9th Cir. Sept. 23, 1999).....	3:1	137
Carson Harbor Vill., Ltd. v. Unocal Corp., 227 F.3d 1196 (9th Cir. 2000).....	4:1	168
City of Portland v. The Boeing Co. & Cascade Corp., 2002 U.S. Dist. LEXIS 2209.....	5:2	591
Defenders of Wildlife v. Browner, No. 98-71080, 1999 WL 717721 (9th Cir. Sept. 15, 1999).....	3:1	138
Defenders of Wildlife v. Browner, 191 F.3d 1159 (9th Cir. 1999).....	3:2	429
Ecological Rights Found. v. Pac. Lumber Co., 230 F.3d 1141 (9th Cir. 2000).....	4:2	468
Firebaugh Canal Co. v. United States, 203 F.3d 568 (9th Cir. 2000).....	3:2	430
Hagberg, United States v., 207 F.3d 569 (9th Cir. 2000).....	4:1	170

Iverson, United States v., 162 F.3d 1015 (9th Cir. 1998)	2:2	321
Klamath Water Users Protective Assoc. v. Patterson, 191 F.3d 1115 (9th Cir. 1999)	3:2	432
Mohave Valley Irrigation & Drainage Dist. v. Norton, 244 F.3d 1164 (9th Cir. 2001)	5:1	250
Montana v. United States Envtl. Protection Agency, 137 F.3d 1135 (9th Cir. 1997)	2:2	318
Muckleshoot Indian Tribe, United States v., 235 F.3d 429 (9th Cir. 2000)	4:2	472
Natural Res. Def. Council v. United States Envtl. Prot. Agency, 279 F.3d 1180 (9th Cir. 2002)	5:2	589
Natural Res. Def. Council v. S.W. Marine, Inc., 236 F.3d 985 (9th Cir. 2000)	4:2	470
Orr Water Ditch Co., United States v., 256 F.3d 935 (9th Cir. 2001)	5:1	248
Sierra Club v. Whitman, 268 F.3d 898, (9th Cir. 2001)	5:2	588

TENTH CIRCUIT

Alaska Wildlife Alliance v. National Park Service, 108 F.3d 1065 (9th Cir. 1997)	1:2	330
American Wildlands v. Browner, 260 F.3d 1192 (10th Cir. 2001)	5:1	251
Diamond Bar Cattle Co. v. United States, 168 F.3d 1209 (10th Cir. 1999)	3:1	141
Elephant Butte Irrigation Dist. v. United States Dept. of Interior, 269 F.3d 1158 (10th Cir. 2001)	5:2	594
Hayes v. Whitman, 264 F.3d 1017 (10th Cir. 2001)	5:2	597
Sanpete Water Conservancy Dist. v. Carbon Water Conservancy Dist., 226 F.3d 1170 (10th Cir. 2000)	4:1	172

ELEVENTH CIRCUIT

Driscoll v. Adams, 181 F.3d 1285 (11th Cir. 1999)	3:1	142
---	-----	-----

D.C. CIRCUIT

Chlorine Chemistry Council & Chem. Mfrs. Ass'n v. Envtl. Prot. Agency, 206 F.3d 1286 (D.C. Cir. 2000)	4:1	184
Nat'l Wildlife Fed'n v. Browner, 237 F.3d 670 (D.C. Cir. 2001)	4:2	479
Slinger Drainage, Inc. v. EPA, 237 F.3d 681 (D.C. Cir. 2001)	4:2	481

FEDERAL CLAIMS COURT

Brace v. United States, 51 Fed. Cl. 649 (2002)	5:2	598
Broadwater Farms Joint Venture v. United States, 45 Fed. Cl. 154 (1999)	3:2	434
Klump v. United States, 50 Fed. Cl. 268 (2001)	5:1	254
Lakewood Assocs. v. United States, 45 Fed. Cl. 320 (1999)	3:2	435
Palm Beach Isles Assoc. v. United States, No. 93- 654L, 1998 WL 784551 (Fed. Cl. Oct. 19, 1998)	2:2	319
Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001)	5:1	252

FEDERAL DISTRICT COURTS

ALABAMA

Iberville Parish Waterworks Dist. No. 3 v. Novartis Crop Protection, Inc., 45 F. Supp. 2d 934 (S.D. Ala. 1999)	3:1	144
--	-----	-----

CALIFORNIA

Advanced Micro Devices, Inc. v. National Semiconductor Corp., 38 F. Supp. 2d 802 (N.D. Cal. 1999)	3:1	146
Alisal Water Corp., United States v., 114 F. Supp. 2d 927 (N.D. Cal. 2000)	4:1	176
California v. California Coastal Comm'n, 150 F. Supp. 2d 1046 (N.D. Cal. 2001)	5:1	255
Cmtys. for a Better Env't v. Tosco Ref. Co., No. C 00-0248, 2001 U.S. Dist. LEXIS 1161 (N.D. Ca. Jan. 26, 2001)	4:2	474
Pac. Coast Fed'n of Fisherman's Ass'ns v. United States Bureau of Reclamation, 138 F. Supp. 2d 1228 (N.D. Cal. 2001)	5:1	257
Pronsolino v. Marcus, 91 F. Supp. 2d 1337 (N.D. Cal. 2000)	4:1	174
Woodward v. Goodwin, No. C 99-1103 MJJ, 2000 U.S. Dist. LEXIS 7642, (N.D. Cal. May 12, 2000)	4:1	178

COLORADO

Am. Wildlands v. Browner, 94 F. Supp. 2d 1150 (D. Colo. 2000)	4:1	180
Cabeza de Vaca Land & Cattle Co., L.L.C. v. Babbitt, 58 F. Supp. 2d 1226 (D. Colo. 1999)	3:2	436

United States v. Power Eng'g Co., 125 F. Supp. 2d 1050 (D. Colo. 2000)	4:2	475
---	-----	-----

CONNECTICUT

Caprio v. Upjohn Co., 148 F. Supp. 2d 168 (D. Conn. 2001)	5:1	258
--	-----	-----

DISTRICT OF COLUMBIA

Am. Mining Cong. v. United States Army Corps of Eng'rs, 120 F. Supp. 2d (D. D.C. 2000)	4:1	182
Burke v. U.S. Envtl. Prot. Agency, 127 F. Supp. 2d 235 (D.D.C. 2001)	4:2	477
Friends of the Earth, Inc. v. U.S. Army Corps of Eng'rs, 109 F. Supp. 2d 30 (D.D.C. 2000)	4:1	186

GEORGIA

Altamaha Riverkeepers v. City of Cochran, 162 F. Supp. 2d 1368 (M. D. Ga. 2001)	5:2	600
--	-----	-----

IDAHO

Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169 (D. Idaho 2001)	5:1	259
---	-----	-----

ILLINOIS

Indus. Enclosure Corp. v. N. Ins. Co. of N.Y., No. 97 C 6850, 2000 U.S. Dist. LEXIS 11567 (N.D. Ill. July 26, 2000)	4:1	187
Sheegog v. Washington, No. 99 C 7283, 2000 U.S. Dist. LEXIS 9863 (N.D. Ill. July 10, 2000)	4:1	189
United States v. Hartz Constr. Co., No. 98C4785, 1999 WL 417388 (N.D. Ill., June 15, 1999)	3:2	438
United States v. Krilich, 152 F. Supp. 2d 983 (N.D. Ill., 2001)	5:1	261

INDIANA

Alcoa, Inc., United States v., 98 F. Supp. 2d 1031 (N.D. Ind. 2000)	4:1	193
Hoosier Envtl. Council, Inc. v. U.S. Army Corps of Eng'rs, 105 F. Supp. 2d 953 (D.C. Ind. 2000)	4:1	190
Metalite Corp., United States v., NA 99-008-CR- B/N, 2000 U.S. Dist. LEXIS 11507 (S.D. Ind. July 28, 2000)	4:1	195
Save the Valley, Inc. v. United States Envt'l Prot. Agency, 99 F. Supp. 2d 981 (D. Ind. 2000)	4:1	192

KANSAS

Cameron v. Navarre Farmers Union Coop. Ass'n, 76 F. Supp. 2d 1178 (D. Kan. 1999).....	3:2	439
--	-----	-----

LOUISIANA

Save Our Wetlands v. Conner, No. 98-3625, 2000 U.S. Dist. LEXIS 10496 (E.D. La. July 20, 2000)	4:1	196
Save Our Wetlands v. United States Army Corps of Eng'rs, No. 01-3472, 2002 U.S. Dist. LEXIS 1294 (E.D. La. January 15, 2002)	5:2	602
United States v. A.J.S., Inc., No. CIV.A.00-0263-C, 2000 U.S. Dist. LEXIS 17388 (E.D. La. Nov. 29, 2000)	4:2	481

MAINE

South Port Marine, LLC v. Gulf Oil Ltd. Partnership, 73 F. Supp. 2d 17 (D. Me. 1999)	3:2	440
United States Pub. Interest Research Group v. Heritage Salmon, Inc., No. 00-150-B-C, 2001 U.S. Dist. LEXIS 13283 (D. Me. Aug. 28, 2001)	5:2	603

MARYLAND

Mayor of Baltimore v. Susquehanna River Basin Comm'n, No. WMN-98-3135, 2000 U.S. Dist. LEXIS 8199 (D. Md. Mar. 30, 2000)	4:1	198
--	-----	-----

MASSACHUSETTS

L.B. Corp. v. Schweitzer-Mauduit Int'l, Inc., 121 F. Supp. 2d 147 (D. Mass. 2000)	4:2	482
Massachusetts Water Resources Auth., United States v., 48 F.Supp.2d 65 (D. Mass. 1999)	3:1	145

MICHIGAN

Kalamazoo River Study Group v. Rockwell Int'l, 3 F. Supp. 2d 815 (W.D. Mich. 1997)	2:2	323
Michigan, United States v., 122 F. Supp. 2d 785 (E.D. Mich. 2000)	4:2	484

MINNESOTA

Mississippi River Revival, Inc. v. Cities of Minneapolis and St. Paul, MN, 145 F. Supp. 2d 1062 (D. Minn. 2001)	5:1	262
---	-----	-----

MONTANA

Buday, United States v., 138 F. Supp. 2d 1282 (D. Mont. 2001)	5:1	263
Madison v. Graham, 126 F. Supp. 2d 1320 (D. Mont. 2001)	4:2	485

NEW HAMPSHIRE

Purity Springs Resort v. TIG Ins. Co., No. 99-295-JD, 2000 U.S. Dist. LEXIS 10918 (D. N.H. July 18, 2000)	4:1	200
---	-----	-----

NEW YORK

Atl. States Legal Found., Inc. v. Browner, No. 00-1947, 2000 U.S. Dist. LEXIS 12511 (S.D.N.Y. Aug. 31, 2000)	4:1	201
D'Agnillo v. U.S. Dep't of Housing & Urban Dev., No. 89 Civ. 5609 (CSH), 2000 U.S. Dist. LEXIS 17290 (S.D.N.Y. Nov. 29, 2000)	4:2	487
Natural Res. Def. Council, Inc. v. Fox, 93 F. Supp. 2d 531 (S.D.N.Y. 2000)	4:1	202
No Spray Coalition, Inc., v. City of New York, No. 00 Civ. 5395, 2000 U.S. Dist. LEXIS 13919 (S.D.N.Y. Sept. 25, 2000)	4:1	204

OHIO

Le-Ax Water Dist. v. City of Athens, 174 F. Supp. 2d 696 (S.D. Ohio 2001)	5:2	604
Technical Rubber Co. v. Buckeye Egg Farm, L.P., No. 2:99-CV-1413, 2000 U.S. Dist. LEXIS 8602 (S.D. Ohio June 16, 2000)	4:1	205

OREGON

Kandra v. United States, 145 F. Supp. 2d 1192 (D. Or. 2001)	5:1	264
Nat'l Wildlife Fed'n v. United States Army Corps of Eng'rs, 92 F. Supp. 2d 1072 (D. Or. 2000)	4:1	207
N.W. Env'tl. Def. Ctr. v. Blue Heron Paper Co., No. 00-1201-KI, 2000 U.S. Dist. LEXIS 17848 (D. Or. Nov. 30, 2000)	4:2	489
Umatilla Waterquality Protective Ass'n, Inc. v. Smith Frozen Foods, Inc., 962 F. Supp. 1312 (D. Or. 1997)	2:1	128

PUERTO RICO

Colbro Ship Management Co. v. United States, 84 F. Supp.2d 253 (D.P.R. 2000)	3:2	441
--	-----	-----

Commonwealth of Puerto Rico, United States v., 144 F. Supp. 2d 46 (D.P.R. 2001)	5:1	266
--	-----	-----

TEXAS

Martin Marietta Materials Southwest, Ltd. v. St. Paul Guardian Ins. Co., 145 F. Supp. 2d 794 (N.D. Tex. 2001)	5:1	267
---	-----	-----

VIRGINIA

American Canoe Ass'n v. United States Env'tl. Protection Agency, 54 F. Supp. 2d 621 (E.D. Va. 1999)	3:1	149
---	-----	-----

WASHINGTON

Waste Action Project v. Clark County, 45 F. Supp. 2d 1049 (W.D. Wash. 1999)	3:1	150
--	-----	-----

STATE COURTS

ALABAMA

City of Dothan v. Eighty-Four West, Inc., No. 2991351, 2000 Ala. Civ. App. LEXIS 313 (Ala. Civ. App. June 15, 2001)	5:1	268
Cove Prop., Inc. v. Walter Trent Marina, Inc., 702 So. 2d 472 (Civ. App. Ala. 1997)	3:1	152
Ex Parte Cove Props., Inc., No. 1981893, 2000 Ala. LEXIS 320 (Ala. July 28, 2000)	4:1	208
Russell Corp. v. Sullivan, No. 1981074, 2000 Ala. LEXIS 340 (Ala. Aug. 4, 2000)	4:1	209
Snyder v. Howard Plumbing & Heating Co., No. 2991066, 2000 Ala. Civ. App. LEXIS 578 (Ala. Civ. App. Sept. 15, 2000)	4:1	212
Water Works & Sewer Bd. of Selma v. Randolph, No. 1002182, 2002 Ala. LEXIS 34 (Ala. Feb. 1, 2002)	5:2	605

ALASKA

Alaska v. Marie Arnariak v. Adam Arnariak, 941 P.2d 154 (Alaska 1997)	2:1	129
Kelso v. Rybachek, 912 P.2d 536 (Alaska 1996)	2:1	131
Kodiak Island Borough v. Exxon Corp., 991 P.2d 757 (Alaska 1999)	3:2	443

ARIZONA

<i>In re</i> Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source, 989 P.2d 739 (Ariz. 1999).....	3:2	445
<i>In re</i> Gen. Adjudication of all Rights to Use Water in the Gila River Sys. & Source, 9 P.3d 1069 (Ariz. 2000).....	4:1	213
<i>In re</i> Gen. Adjudication of All Rights to Use Water in the Gila River Sys., 35 P.3d 68 (Ariz. 2001).....	5:2	607
San Carlos Apache Tribe v. Maricopa Superior Court, No. CV-95-0161-SA 1999 WL 4128 (Ariz. Jan. 7, 1999)	2:2	325

ARKANSAS

Whisenhunt v. Bee Branch Water Ass'n, No. CA 99- 165, 2000 Ark. App. LEXIS 297 (Ark. Ct. App. April 12, 2000)	4:1	215
White v. J.H. Hamlen & Son Co., 1 S.W.3d 464 (Ark. Ct. App. 1999)	3:2	446

CALIFORNIA

Bolsa Chica Land Trust v. Superior Court of San Diego County, 83 Cal. Rptr. 2d 850 (Cal. Ct. App. 1999)	3:1	153
County of Amador v. El Dorado County Water Agency, 91 Cal. Rptr. 2d 66 (Cal. Ct. App. 1999)	3:2	447
County of Del Norte v. Crescent City, 84 Cal. Rptr. 2d 179 (Cal. Ct. App. 1999)	3:1	155
County of San Joaquin v. State Water Resources Control Board, 63 Cal. Rptr. 2d 277 (Cal. Ct. App. 1997)	2:1	134
Deltakeeper v. Oakdale Irrigation Dist., No. C035745, 2001 Cal. App. LEXIS 3687 (Cal. App. Dec. 26, 2001)	5:2	608
Equilon Enters., L.L.C. v. Consumer Cause, Inc., 102 Cal. Rptr. 2d 371 (Cal. Ct. App. 2000), reh'g granted, 21 P.3d 758 (Cal. 2001)	4:2	490
Galante Vineyards v. Monterey Peninsula Water Management District, 60 Cal. App. 4th 1109 (Cal. Ct. App. 1997)	2:1	132
Hartwell Corp. v. Superior Court, 38 P.3d 1098 (Cal. 2002)	5:2	610
Paterno v. California, 87 Cal.Rptr.2d 754 (Cal. Ct. App. 1999)	3:1	156
Planning & Conservation League v. Dep't of Water Res., 100 Cal. Rptr. 2d 173 (Cal. Ct. App. 2000)	4:1	216

San Luis Coastal Unified Sch. Dist. v. City of Morro Bay, 97 Cal. Rptr. 2d 323 (Cal. Ct. App. 2000)	4:1	218
Santa Barbara Pistachio Ranch v. Chowchilla Water Dist., 105 Cal Rptr. 2d 856 (Cal. Ct. App. 2001)	5:1	270

COLORADO

Baseline Farms Two, LLP v. Hennings, 26 P.3d 1209 (Colo. Ct. App. 2001)	5:1	273
Bd. of County Comm'rs v. Crystal Creek Homeowner's Ass'n, 14 P.3d 325 (Colo. 2000)	4:1	219
Chatfield East Well Co., Ltd. v. Chatfield East Property Owners Ass'n, 956 P.2d 1260 (Colo. 1998)	2:1	135
City of Grand Junction v. City and County of Denver, 960 P.2d 675 (Colo. 1998).....	2:1	137
City of Lafayette v. New Anderson Ditch Co., 962 P.2d 955 (Colo. 1998)	2:2	331
Dallas Creek Water Co. v. Huey, 933 P.2d 27 (Colo. 1997)	1:2	332
Eagle Peak Farms, Ltd. v. Lost Creek Ground Water Management Dist., No. 98CA1518, 1999 WL 771014 (Colo. Ct. App. Sept. 30, 1999)	3:1	158
Empire Lodge Homeowners' Assoc. v. Moyer, 39 P.3d 1139 (Colo. 2002)	5:2	611
Farmers' High Line Canal and Reservoir Co. v. City of Golden, No. 97SA343 slip op. at 1 (Colo. March 29, 1999)	2:2	326
Farmers' Reservoir & Irrigation Co. v. Consolidated Mutual Water Co., No. 00SA229 (Colo. Oct. 15, 2001)	5:1	271
Haystack Ranch, L.L.C. v. Fazzio, 997 P.2d 548 (Colo. 2000).....	4:1	223
Left Hand Ditch Co. v. Hill, 933 P.2d 1 (Colo. 1997)	1:2	334
Mount Emmons Mining Co. v. Crested Butte, 40 P.3d 1255 (Colo. 2002)	5:2	614
Mun. Subdist., N. Colo. Water Conservancy Dist. v. Getty Oil Exploration Co., 997 P.2d 557 (Colo. 2000).....	4:1	221
Mun. Subdist., N. Colo. Water Conservancy Dist. v. OXY USA, Inc., 990 P.2d 701 (Colo. 1999)	3:2	450
O'Neill v. Simpson, 958 P.2d 1121 (Colo. 1998)	2:1	139
Rice v. Brandon, 961 P.2d 1092 (Colo. 1998).....	2:2	333
Roaring Fork Club, L.P. v. St. Jude's Co., 36 P.3d 1229 (Colo. 2001).....	5:2	615

Santa Fe Trial Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46 (Colo. 1999)	3:2	451
Shirola v. Turkey Cañon Ranch Ltd. Liab. Co., 937 P.2d 739 (Colo. 1997)	1:2	335
Strole v. Guymon, 37 P.3d 529 (Colo. Ct. App. 2001)	5:2	613
<i>In re</i> Title, Ballot Title & Submission Clause v. Brandon, 960 P.2d 672 (Colo. 1998)	2:2	330
Upper Black Squirrel Creek Ground Water Mgmt. Dist. v. Goss, 993 P.2d 1177 (Colo. 2000)	4:1	225
USI Properties East, Inc. v. Simpson, 938 P.2d 168 (Colo. 1997)	2:2	335
<i>In re</i> Water Rights of Park County Sportsmen's Ranch LLP v. Bargas, 986 P.2d 262 (Colo. 1999)	3:2	453
Watson v. Vouga Reservoir Ass'n., 969 P.2d 815 (Colo. App. 1998)	2:2	336
Williams v. Midway Ranches Property Owners Ass'n, Inc., 938 P.2d 515 (Colo. 1997)	1:2	337

CONNECTICUT

Albahary v. City of Bristol, No. CV 970482781, 1999 WL 185131 (Conn. Supp. Mar. 16, 1999)	3:1	159
Branhaven Plaza, L.L.C. v. Inland Wetlands Comm'n, 740 A.2d 847 (Conn. 1999)	3:2	455
City of Waterbury v. Town of Washington, No. X01UWYCV 970140886, 2000 Conn. Super. LEXIS 1161 (Conn. Super. Ct. May 1, 2000)	4:1	226
Dineen v. Woodbury Inland Wetlands Agency, No. CV 980150299S, 2000 Conn. Super. LEXIS 2247 (Conn. Super. Ct. Aug. 30, 2000)	4:1	228
Fish Unlimited v. N.E. Utils. Serv. Co., 755 A.2d 860 (Conn. 2000)	4:1	229
Hartt v. Schwartz, No. CV 920331912S, 1997 WL 625467, at *1 (Conn. Super. Ct. Sept. 30, 1997)	2:1	140
McNee v. Town of Newton Conservation Comm'n, No. CV000338817S, 2000 Conn. Super. LEXIS 3178 (Conn. Super. Ct. Nov. 27, 2000)	4:2	492
Middlefield Citizens Action, Inc. v. Middlefield Inland Wetland, Nos. 82372, 85259, 82830, 83209, 1999 WL 195882 (Conn. Super. Ct. 1999)	3:1	160
Peck v. Edelman, No. CV 97056833S, 2000 Conn. Super. LEXIS 1903 (Conn. Super. Ct. July 10, 2000)	4:1	231

Queach Corp. v. Inland Wetlands Comm'n, No. 430078, 2000 Conn. Super. LEXIS 2283 (Conn. Super. Ct. Sept. 1, 2000)	4:1	232
Reynolds v. City of Bristol, No. CV 970482675, 1999 WL 240064 (Conn. Super. Ct. March 29, 1999)	3:1	161
Wood v. Somers Zoning Bd. of Appeals, No. CV970063972S, 1999 WL 1013118 (Conn. Super. Ct. Oct. 29, 1999).....	3:2	457
Wood v. Zoning Bd. of Appeals., 784 A.2d 354 (Conn. 2001)	5:2	617

DISTRICT OF COLUMBIA

Jubilee Hous., Inc. v. Dist. of Columbia Water and Sewer Auth., 774 A.2d 281 (D.C. 2001).....	5:1	274
---	-----	-----

FLORIDA

Barley v. S. Fla. Water Mgmt. Dist., 766 So. 2d 433 (Fla. Dist. Ct. App. 2000)	4:1	233
Brevard County v. A. Duda & Sons, Inc., 742 So. 2d 476 (Fla. Dist. Ct. App. 1999)	3:2	458
City of Tallahassee v. Thompson Trust, 771 So. 2d 587 (Fla. Dist. Ct. App. 2000)	4:2	494
City of West Palm Beach v. Board of Trustees of the Internal Improvement Trust Fund, Nos. 93,821, 1999 WL 731654 (Fla. Sept. 9, 1999)	3:1	162
Fla. Cities Water Co. v. Fla. PSC, 778 So. 2d 310 (Fla. Dist. Ct. App. 2000)	4:2	494
Intracoastal North Condominium Ass'n., Inc., v. Palm Beach County, 698 So.2d 384 (Fla. Dist. Ct. App. 1997)	1:2	339
Millender v. Fla. Dep't of Transp., 774 So. 2d 767 (Fla. Dist. Ct. App. 2000)	4:2	496
Palm Coast Util. Corp. v. Florida Pub. Serv. Comm'n, 742 So. 2d 482 (Fla. Dist. Ct. App. 1999)	3:2	459
Quiles v. Boynton Beach, 802 So. 2d 397 (Fla. App. 2001)	5:2	618
S.W. Fla. Water Mgmt. Dist. v. Charlotte County, 774 So. 2d 903 (Fla. Dist. Ct. App. 2000)	4:2	497
S.W. Fla. Water Mgmt. Dist. v. Save the Manatee Club, Inc., 773 So. 2d 594 (Fla. Dist. Ct. App. 2000)	4:2	499
Tewksbury v. City of Deerfield Beach, No. 98-2673, 1999 WL 741109 (Fla. App. 4 Dist. Sept. 17, 1999)	3:1	163

VLX Props., Inc. v. S. States Utils., Inc., No. 5D99-3314, 2000 Fla. App. LEXIS 9251 (Fla. Dist. Ct. App. July 21, 2000)	4:1	234
VLX Properties v. S. States Utilities, Inc., 792 So. 2d 504 (Fla. Dist. Ct. App. 2001)	5:1	275
Wentworth v. Fla. Dep't of Envtl. Prot., 771 So. 2d 1279 (Fla. Dist. Ct. App. 2000).....	4:2	500

GEORGIA

City of Centerville v. City of Warner Robins, 508 S.E.2d 161 (Ga. 1998).	2:2	337
Givens v. Ichauway, Inc., 493 S.E.2d 148 (Ga. 1997).....	2:1	141
Goode v. Mountain Lake Invs., L.L.C., No. S99A01710, 1999 WL 1048240 (Ga. Nov. 22, 1999)	3:2	461
Rouse v. Georgia Dep't of Natural Resources, No. S99A1148, 1999 WL 1048241 (Ga. Nov. 22, 1999)	3:2	462

HAWAII

Young v. Planning Comm'n of Kaua'i, 974 P.2d 40 (Haw. 1999)	3:1	164
---	-----	-----

IDAHO

A & B Irrigation Dist. v. Idaho Conservation League, 1997 WL 612633 (Idaho)	1:2	340
City of Challis, United States v., 988 P.2d 1199 (Idaho 1999).....	3:2	463
Dupont v. Idaho State Bd. of Land Comm'rs, 7 P.3d 1095 (Idaho 2000)	4:1	235
Idaho, United States v., 23 P.3d 117 (Idaho 2001)	5:1	276
N. Snake Ground Water Dist. v. Gisler (<i>In re</i> SRBA Case No. 39576, Subcase No. 36-00077D), 40 P.3d 105 (Idaho 2002)	5:2	619
Potlatch Corp. v. United States, Nos. 24546, 24547, 24548, 24557, 24559 (1999 WL 778325 (Idaho Oct. 1, 1999).....	3:1	166
Sagewillow, Inc. v. Idaho Dep't of Water Res., 13 P.3d 855 (Idaho 2000)	4:1	237
<i>In re</i> SRBA, 20 P.3d 693 (Idaho 2001).....	4:2	501
Weaver v. Stafford, 8 P.3d 1234 (Idaho 2000)	4:1	238

ILLINOIS

Independent Trust Corp. v. Chicago Dep't of Water, 693 N.E.2d 459 (Ill. App. Ct. 1998)	2:1	142
--	-----	-----

Gernand v. Illinois Commerce Comm'n and Consumers Ill. Water Co., 286 Ill. App. 3d 934 (Ill. App. Ct. 1997)	2:1	143
Roketa v. Hoyer, 763 N.E.2d 417 (Ill. 2002)	5:2	621
Ryan v. Stonehedge, Inc., 680 N.E.2d 497 (Ill. App. Ct. 1997)	2:1	144

INDIANA

Carnahan v. Moriah Property Owners Ass'n, Inc., 716 N.E.2d 437 (Ind. 1999)	3:1	167
Change to the Established Water Level of Lake of the Woods v. Ralston, 748 N.E.2d 396 (Ind. 2001)	5:1	278
<i>In re</i> Clinton Water Works Rate Schedule Adopted Sept. 9, 1997, 707 N.E.2d 807 (Ind. Ct. App. 1999)	3:1	169

IOWA

ACCO Unlimited Corp. v. Johnston, 611 N.W.2d 506 (Iowa 2000)	4:1	240
Iowa v. DeCoster, 596 N.W.2d 898 (Iowa 1999)	3:1	169
Organic Techs. Corp. v. Iowa, 609 N.W.2d 809 (Iowa 2000)	4:1	241

KANSAS

Moon v. City of Lawrence, 982 P.2d 388 (Kan. 1999)	3:1	171
Water District No. 1 v. Mission Hills Country Club, 960 P.2d 239 (Kan. 1998)	2:2	338

LOUISIANA

Bransford v. Int'l Paper Timberlands Operating Co., 750 So. 2d 424 (La. Ct. App. 2000)	3:2	465
Crump v. Sabine River Auth., 737 So. 2d 720 (La. 1999)	3:1	172
Eubanks v. Bayou D'Arbonne Lake Watershed Dist., 742 So. 2d 113 (La. Ct. App. 1999)	3:2	466

MAINE

Dorey v. Spicer, 715 A.2d 182 (Me. 1998)	2:2	340
Maddocks v. Giles, 728 A.2d 150 (Me. 1999)	3:1	174
Trask v. Public Util. Comm'n, 731 A.2d 430 (Me. 1999)	3:1	175

MARYLAND

A. H. Smith Assoc. Ltd. Part. v. Maryland Dept. of the Env't., 695 A.2d 1252 (Md.App.1997).....	2:2	342
Bucktail, LLC v. County Council, 723 A.2d 440 (Md. 1999).....	3:1	176
Gwynn v. Oursler, 712 A.2d 1072 (Md. Ct. Spec. App. 1998).....	2:1	146
Kirby v. Hook, 701 A.2d 397 (Md. 1997)	1:2	341
Serra v. Maryland Dep't. of the Env't, 758 A.2d 1057 (Md. Ct. Spec. App. 2000).....	4:1	244

MASSACHUSETTS

Enos v. Secretary of the Executive Office of Env'tl. Affairs, 719 N.E.2d 874 (Mass. App. Ct. 1999)	3:2	467
Fafard v. Conservation Comm'n of Barnstable, 733 N.E.2d 66 (Mass. 2000)	4:1	245

MICHIGAN

Bolt v. City of Lansing, 561 N.W.2d 423 (Mich. 1997).....	2:1	148
K & K Construction, Inc. v. Dep't. of Natural Resources, 575 N.W. 2d 531 (Mich. 1998)	2:2	343

MINNESOTA

Johnson v. City of Eagan, 584 N.W.2d 770 (Minn. 1998).....	2:2	345
Pelican Group of Lakes Improvement Dist. v. Minnesota Dep't of Natural Resources, 589 N.W.2d 517 (Minn. Ct. App. 1999)	3:1	177
Town of Fayal v. City of Eveleth, 587 N.W.2d 524 (Minn. App. 1999).....	3:1	178
Zaluckyj v. Rice Creek Watershed Dist., 639 N.W.2d 70 (Minn. Ct. App. 2000).....	5:2	622

MISSISSIPPI

Cox v. F-S Prestress, Inc., No. 97-CT-01547-SCT, 2001 Miss. LEXIS 4 (Miss. Jan. 18, 2001)	4:2	505
Mississippi Sierra Club, Inc. v. Mississippi Dep't of Env'tl. Quality, No. 1999-SA-02035-SCT, 2001 Miss. LEXIS 97 (Miss. Apr. 19, 2001)	5:1	280
Winters v. City of Columbus, 735 So. 2d 1104 (Miss. Ct. App. 1999)	3:1	180

MISSOURI

<i>In re</i> Application of Osage Water Co., 51 S.W.3d 58 (Mo. App. 2001)	5:2	624
--	-----	-----

Chance v. Pub. Water Supply Dist., 41 S.W.3d 523 (Mo. Ct. App. 2001)	4:2	502
Rosenfeld v. Thoele, 28 S.W.3d 446 (Mo. Ct. App. 2000)	4:1	246
Willamette Indus. v. Clean Water Comm'n, 34 S.W.3d 197 (Mo. Ct. App. 2000)	4:2	503

MONTANA

Axtell v. M.S. Consulting, 955 P.2d 1362 (Mont. 1998)	2:1	149
Barnes v. Thompson Falls, 979 P.2d 1275 (Mont. 1999)	3:1	181
Collins v. Swinger, No. 01-157, 2001 MT 265N (Mont. Dec. 17, 2001)	5:2	625
<i>In re</i> Deadman's Basin Water Users Ass'n, 40 P.3d 387 (Mont. 2002)	5:2	628
Gaudreau v. Clinton Irrigation Dist., 30 P.3d 1070 (Mont. 2001)	5:2	627

NEBRASKA

City of Lincoln v. Cent. Platte Natural Res. Dist., 638 N.W.2d 839 (Neb. 2002)	5:2	631
Hagan v. Upper Republican Nat'l Res. Dist., No. S- 99-374, 2001 Neb. LEXIS 35 (Neb. Mar. 2, 2001)	4:2	506
Jurgensmier Farms, Inc. v. Kearney Cty., No. A-00- 564, 2001 WL 968062 (Neb. App. Aug. 28, 2001)	5:2	629
Springer v. Kuhns, 571 N.W.2d 323 (Neb. Ct. App. 1997)	1:2	342

NEVADA

Desert Irrigation, Ltd. v. State of Nevada, 944 P.2d 835 (Nev. 1997)	1:2	343
Mineral County v. State, 20 P.3d 800 (Nev. 2001)	5:1	283
So. Fork Band Te-Moak Tribe of Western Shoshone Indians of Nevada v. 6th Judicial District Court, 7 P.3d 455 (Nev. 2000)	4:1	248
State Eng'r, United States v., 27 P.3d 51 (Nev. 2001)	5:1	284
Turnipseed v. Truckee-Carson Irrigation Dist., 13 P.3d 395 (Nev. 2000)	4:2	507

NEW HAMPSHIRE

Greenan v. Lobban, 717 A.2d 989 (N.H. 1998)	2:2	346
---	-----	-----

KSC Realty Trust v. Town of Freedom, 772 A.2d 321 (N.H. 2001)	5:2	632
--	-----	-----

NEW JERSEY

Bubis v. Kassin, 733 A.2d 1232 (N.J. Super. Ct. App. Div. 1999)	3:1	183
East Cape May Assoc. v. N.J. Dept. of Env'tl. Prot., 777 A.2d 1015 (N.J. 2001)	5:2	632
Fed. Pac. Elec. Co. v. N.J. Dep't of Env'tl. Prot., 759 A.2d 851 (N.J. Super. Ct. App. Div. 2000)	4:1	249
Lacey Mun. Utils. Auth. v. New Jersey Dep't of Env'tl. Protection, 738 A.2d 955 (N.J. 1999)	3:2	469
Lake Lookover Prop. Owner's Ass'n v. Olsen, 791 A.2d 270 (N.J. Super. Ct. App. Div. 2002)	5:2	634
<i>In re</i> Tideland's License, 740 A.2d 1125 (N.J. Super. Ct. App. Div. 1999)	3:2	470

NEW MEXICO

Brantley Farms v. Carlsbad Irrigation Dist., 1998 WL 67209 (N.M. Ct. App. 1998)	1:2	344
--	-----	-----

NEW YORK

Cammon v. City of New York, 700 N.Y.S.2d 110 (N.Y. App. Div. 1999)	3:2	472
Guglielmo v. Unanue, 664 N.Y.S.2d 662 (N.Y. App. Div. 1997)	1:2	345
Higgins v. Village of Orchard Park, 716 N.Y.S.2d 845 (N.Y. App. Div. 2000)	4:2	509
LaSala v. Terstiege, No. 99-01339, 2000 N.Y. App. Div. LEXIS 10129 (N.Y. App. Div. Oct. 10, 2000)	4:2	510
<i>In re</i> Moores Lane Dev. Corp. v. Suffolk County Water Auth., 699 N.Y.S.2d 739 (N.Y. App. Div. 1999)	3:2	473
<i>In re</i> New Rochelle, Inc. v. New York, 712 N.Y.S.2d 637 (N.Y. App. Div. 2000)	4:1	252
People v. Duell, 698 N.Y.S.2d 87 (N.Y. App. Div. 1999)	3:2	471
People v. Grucci, 729 N.Y.S.2d 577 (N.Y. 2001)	5:1	282
Town of Bellmont v. New York State Dep't of Env'tl. Conservation, 726 N.Y.S.2d 769 (N.Y. App. Div. 2001)	5:1	281
United Water New Rochelle, Inc. v. City of New York, 687 N.Y.S.2d 576 (N.Y. Sup. Ct. 1999)	3:1	185
Vinciguerra v. State of New York, 693 N.Y.S. 2d 634 (1999)	3:1	186

<i>In re</i> Warrensburg Hydro Power Ltd. Partnership, 694 N.Y.S.2d 506 (N.Y. App. Div. 1999).....	3:2	474
Water Auth. of W. Nassau County v. Lockheed Martin Corp., 714 N.Y.S.2d 726 (N.Y. App. Div. 2000).....	4:2	510

NORTH CAROLINA

King v. State of North Carolina, 481 S.E.2d 330 (N.C. Ct. App. 1997)	2:1	150
Pine Knoll Ass'n v. Cardon, 484 S.E.2d 446 (N.C. Ct. App. 1997)	2:1	151
Shell Island Homeowners Ass'n, Inc. v. Tomlinson, No. COA98-961, 1999 WL 506986 (N.C. Ct. App. July 20, 1999)	3:1	189

NORTH DAKOTA

Douville v. Pembina County Water Res. Dist., 612 N.W.2d 270 (N.D. 2000)	4:1	253
Graber v. Logan County Water Resource Bd., 598 N.W.2d 846 (N.D. 1999)	3:1	191
Huber v. Oliver County, 602 N.W.2d 710 (N.D. 1999)	3:2	475
Mougey Farms v. Kaspari, 579 N.W.2d 583 (N.D. 1998)	2:1	152
State <i>ex rel.</i> Sprynczynatyk v. Mills, 592 N.W.2d 591 (N.D. 1999).....	3:1	193

OHIO

City of Hudson v. County of Summit, 2001 Ohio App. LEXIS 2601 (Ohio Ct. App. June 13, 2001)	5:1	285
City of Northwood v. Wood County Reg'l Water & Sewer Dist., 711 N.E. 2d 1003 (Ohio 1999).....	3:1	194
Collier v. Dorcik, No. 3009-M 2000, 2000 Ohio App. LEXIS 5540 (Ohio Ct. App. Nov. 29, 2000)	4:2	512
Friends of Ottawa River v. Schregardus, No. 98AP- 1314, 1999 Ohio App. LEXIS 4236 (Ohio Ct. App. Sept. 16, 1999)	3:2	477
Long Beach Association, Inc. v. Jones, 697 N.E.2d 208 (Ohio 1998)	2:2	347
Ormet Primary Aluminum Corp. v. Employees Ins. of Waussau, 725 N.E.2d 646 (Ohio 2000)	4:1	255
Rivers Unlimited, Inc. v. Schregardus, 685 N.E.2d 603 (Ohio Misc. 1997)	2:1	154

Smith v. City of Avon, No. 99CA007319, 2000 Ohio App. LEXIS 5435, (Ohio Ct. App. Nov. 22, 2000)	4:2	514
---	-----	-----

OKLAHOMA

Messer-Bowers Co. v. State, 8 P.3d 877 (Okla. 2000)	4:1	257
---	-----	-----

OREGON

Becker v. Pieper, 32 P.3d 912 (Ore. App. 2001)	5:2	635
Dayton Prairie Water Ass'n v. Yamhill County, 11 P.3d 671 (Or. Ct. App. 2000)	4:1	259
Dority v. Hiller, 986 P.2d 636 (Or. Ct. App. 1999)	3:2	484
Environmental Quality Comm'n v. City of Coos Bay, 14 P.3d 649 (Or. Ct. App. 2000)	4:2	515
Kinross Copper Corp. v. State, 981 P.2d 833 (Or. Ct. App. 1999)	3:1	195
Norden v. Oregon, 973 P.2d 910 (Or. Ct. App. 1999)	3:1	198
Norden v. Oregon, 329 Or. 641 (Or. 2000)	3:2	478
Plotkin v. Washington County, 165 Or. App. 246 (Or. Ct. App. 2000)	3:2	480
Russell-Smith v. Water Resources Department, 952 P.2d 104 (Or. Ct. App. 1998)	2:1	155
Staats v. Newman, 988 P.2d 439 (Or. 1999)	3:2	483
Shasta View Irrigation Dist. v. Amoco Chems. Corp., 986 P.2d 536 (Or. 1999)	3:2	481

PENNSYLVANIA

Adams Sanitation Co. v. Department of Env'tl. Protection, 715 A.2d 390 (Pa. 1998)	2:2	348
International Land Acquisitions, Inc. v. Pennsylvania Pub. Util. Comm., 743 A.2d 1000 (Pa. Commw. Ct. 1999)	3:2	486
Lehigh Falls Fishing Club v. Andrejewski, 735 A.2d 718 (Pa. Super. Ct. 1999)	3:1	199
O'Neal v. Department of the Army, 742 A.2d 1095 (Pa. Super. Ct. 1999)	3:2	486
Redstone Water Co. v. PUC, No. 531 C.D. 2001, 2001 Pa. Commw. LEXIS 789 (Penn. Oct. 30, 2001)	5:2	636
Segal v. Zoning Hearing Bd., 771 A.2d 90 (Pa. Commw. Ct. 2001)	5:1	286
Shamnoski v. PG Energy, No. 1274 MDA 1999, 2000 Pa. Super. LEXIS 3428 (Pa. Super. Dec. 1, 2000)	4:2	515

Youst v. Pennsylvania Dep't of Transp., 739 A.2d 625 (Pa. Commw. Ct. 1999)	3:2	488
---	-----	-----

RHODE ISLAND

R&R Assocs. v. City of Providence Water Supply Bd., 756 A.2d 432 (R.I. 2001)	4:2	517
Reitsma v. Pascoag Reservoir & Dam, 774 A.2d 826 (R.I. 2001)	5:1	288
Town of Lincoln v. City of Pawtucket, 745 A.2d 139 (R.I. 2000)	3:2	489

SOUTH CAROLINA

Barnhill v. City of North Myrtle Beach, 511 S.E.2d 361 (S.C. 1999)	3:1	200
---	-----	-----

SOUTH DAKOTA

Sherburn v. Patterson Farms, Inc., 593 N.W.2d 414 (S.D. 1999)	3:2	491
Steiner v. County of Marshall, 568 N.W.2d 627 (S.D. 1997)	1:2	346

TENNESSEE

City of Murfreesboro v. Pierce Hardy Real Estate, Inc., No. M2000-00562-COA-R9-CV, 2001 Tenn. App. LEXIS 767 (Tenn. App., Oct. 12, 2001)	5:2	638
The Pointe, LLC v. Lake Management Ass'n, Inc., No. W2000-00211-COA-R3-CV, 2000 Tenn. App. LEXIS 771 (Tenn. Ct. App. November 6, 2000)	4:2	519

TEXAS

Bragg v. Edwards Aquifer Auth., No. 00-0436, 2002 Tex. LEXIS 13 (Tex. February 14, 2002)	5:2	639
Brainard v. State, No. 98-0578, 1999 WL 795545 (Tex. Oct. 7, 1999)	3:1	201
City of Saginaw v. Carter, 996 S.W.2d 1 (Tex. Ct. App. 1999)	3:1	203
Domel v. City of Georgetown, 6 S.W.3d 349 (Tex. Ct. App. 1999)	3:2	493
Dyegard Land P'ship v. Hoover, No. 2-99-361-CV, 2001 Tex. App. LEXIS 255 (Tex. App. Jan. 11, 2001)	4:2	520
Freeman v. Cherokee Water Co., 11 S.W.3d 480 (Tex. Ct. App. 2000)	3:2	494

Hess v. McLean Feedyard, Inc., No. 07-99-0519-CV, 2000 Tex. App. LEXIS 8114 (Tex. Ct. App. 2000)	4:2	521
Larry Koch, Inc. v. Texas Natural Resource Conservation Comm'n, 52 S.W.3d 833 (Tex. Ct. App. 2001)	5:1	289
Mendez v. San Benito/Cameron County Drainage Dist. No. 3, 45 S.W.3d 746 (Tex. App. 2001)	5:1	290
Raburn v. KJI Bluechip Inv., 50 S.W.3d 699 (Tex. App. 2001)	5:1	291
Wilson v. Texas Parks & Wildlife Dep't, 8 S.W.3d 634 (Tex. 1999)	3:2	492

UTAH

Jensen v. Intermountain Power Agency, 977 P.2d 474 (Utah 1999)	3:1	204
Longley v. Leucadia Fin. Corp., 9 P.3d 762 (Utah 2000)	4:1	260
Workman v. Brighton Properties, Inc., 976 P.2d 1209 (Utah 1999)	3:1	205

VERMONT

Cnty. Nat'l Bank v. State, 782 A.2d 1195 (Vt. 2001)	5:2	640
Town of Groton v. Agency of Natural Resources, 772 A.2d 1103 (Vt. 2001)	5:1	292
Vermont Agency of Nat. Resources v. Irish, No. 97- 509, 1999 WL 424317 (Vt. June 25, 1999)	3:1	207

VIRGINIA

Alliance to Save the Mattaponi v. State, 519 S.E.2d 413 (Va. Ct. App. 1999)	3:2	496
Carr v. Kidd, 540 S.E.2d 884 (Va. 2001)	4:2	523
Costello v. Fredrick County Sanitation Auth., No. 97-59, 1999 WL 231720 (Va. Cir. Ct. Apr. 9, 1999)	3:1	209
Mattaponi Indian Tribe v. Virginia, 524 S.E.2d 167 (Va. Ct. App. 2000)	3:2	497
Treacy v. Smithfield Foods, Inc., 500 S.E.2d 503 (Va. 1998)	2:1	156

WASHINGTON

Currens v. Sleek, No. 66830-2, 1999 Wash. LEXIS 883 (Wash. Sept. 9, 1999)	3:2	498
DiBlasi v. City of Seattle, 969 P.2d 10 (Wash. 1998)	2:2	353
Halverson v. Skagit County, 983 P.2d 643 (Wash. 1999)	3:2	500

Hillis v. State Dept. of Ecology, 932 P.2d 139 (Wash. 1997)	2:1	160
Hsieh v. State of Washington Dep't of Ecology, No. 19126-5-II, 2001 Wash. App. LEXIS 3 (Wash. Ct. App. Jan. 2, 2001)	4:2	524
Hubbard v. State, 936 P.2d 27 (Wash. Ct. App. 1997)	2:1	164
Okanogan Wilderness League v. Town of Twisp, 947 P.2d 732 (Wash. 1997)	1:2	347
Price v. Seattle, 24 P.3d 1098 (Wash. Ct. App. 2001)	5:1	294
Puget Soundkeeper Alliance v. Wash., 9 P.3d 892 (Wash. Ct. App. 2000)	4:1	262
Ravenscroft v. Washington Water Power Co., 969 P.2d 75 (Wash. 1998)	2:2	350
R.D. Merrill Co. v. State Pollution Control Hearings Bd., 969 P.2d 458 (Wash. 1999)	3:2	502
Rothweiler v. Clark Cty., 29 P.3d 758 (Wash. App. 2001)	5:2	641
Sharp v. Union St. Dev. Co., No. 19001-3-III, 2000 Wash. App. LEXIS 2121 (Wash Ct. App. Nov. 2, 2000)	4:2	526
Skokomish Indian Tribe v. Fitzsimmons, 982 P.2d 1179 (Wash. Ct. App. 1999)	3:1	210
State of Washington, Dep't of Ecology v. Acquavella, 935 P.2d 595 (Wash. 1997)	2:1	162
Tapps Brewing, Inc. v. City of Sumner, 22 P.3d 280 (Wash. Ct. App. 2001)	5:2	643
Tiegs v. Watts, 954 P.2d 877 (Wash. 1998)	2:1	157
Washington Dep't of Ecology v. Theodoratus, 957 P.2d 1241 (Wash. 1998)	2:1	159
Wedden II v. San Juan County, 958 P.2d 273 (Wash. 1998)	2:2	351

WEST VIRGINIA

Shaffer v. W. VA. Dep't of Transportation, No. 27446, 2000 W. Va. LEXIS 136 (W. Va. Dec. 1, 2000)	4:2	527
---	-----	-----

WISCONSIN

<i>In re</i> Annexation of the Smith Prop. v. City of La Crosse, 634 N.W.2d 840 (Wis. App. 2001)	5:2	644
County of Sawyer Zoning Bd. v. Wisconsin Dep't of Workforce Dev., 605 N.W.2d 627 (Wis. Ct. App. 1999)	3:2	504
Danielson v. Sun Prairie, 619 N.W.2d 108 (Wis. Ct. App. 2000)	4:1	263

Gillen v. City of Neenah, 580 N.W. 2d 628 (Wis. 1998)	2:2	355
Grafft v. Wis. Dep't of Natural Res., 618 N.W.2d 897 (Wis. Ct. App. 2000)	4:1	264
Maple Leaf Farms, Inc. v. Wisconsin Dep't of Natural Res., 633 N.W.2d 720 (Wis. Ct. App. 2001)	5:1	295
Milam v. Wisconsin Dep't of Natural Resources, No. 98-1585, 1999 WL 391577 (Wis. Ct. App. 1999)	3:1	212
O-Ton-Kah Park v. Wisconsin Dep't of Natural Resources, 604 N.W.2d 34 (Wis. Ct. App. 1999)	3:2	505
Silver Lake Sanitary Dist. v. Wisconsin Dep't of Natural Resources, No. 99-0620, 1999 WL 1125252 (Wis. Ct. App. Dec. 9, 1999)	3:2	506
Turkow v. Wisconsin Dep't of Natural Resources, 576 N.W. 2d 288 (Wis. Ct. App. 1998)	2:2	356
West v. Marek, 604 N.W.2d 34 (Wis. Ct. App. 1999)	3:2	508
Wisconsin v. Hurley, 604 N.W.2d 35 (Wis. Ct. App. 1999)	3:2	509

WYOMING

McTiernan v. Scott, 31 P.3d 749 (Wyo. 2001)	5:2	644
Rennard v. Vollmar, 977 P.2d 1277 (Wyo. 1999)	3:1	213
Scott v. McTiernan, 974 P.2d 966 (Wyo. 1999)	3:1	214

COLORADO WATER RIGHTS APPLICATIONS

ARAPAHOE DISTRICT COURT

Application	Vol.: Issue	Page
Applications of Thomas H. Bradbury, et al. for a Determination of Rights to Withdraw Designated Ground Water Pursuant to CRS § 37-90-107(7).	5:1	297

DIVISION ONE

Application	Vol.: Issue	Page#
Amendment to the Application for Underground Water Right from the Lower Dawson Aquifer in the Denver Basin.	5:1	300
Amendment to the Application for Underground Water Right from the Denver Aquifer in the Denver Basin.....	5:1	300

Amendment to the Application for Underground Water Right from the Laramie-Fox Hills Aquifer in the Denver	5:1	300
Amendment to the Application for Underground Water Right from the Upper and Lower Arapahoe Aquifers in the Denver Basin	5:1	300
Application for a Change in Water Rights Including Appropriative Rights of Substitution and Exchange In Park, Clear Creek, Larimer, Weld, Jefferson, Gilpin, and Adams Counties.....	1:1	127
Application for Approval of Plan for Augmentation Including Exchange, in Jefferson County, Colorado	5:1	303
Application for Change in Use and Place of Water Rights, Concerning the Application for Water Rights of Valley Development Group, L.L.C., in Indian Creek in the South Platte River Watershed, Douglas County, Colorado	4:2	529
Application for Change of Water Right, in Boulder County, Colorado	4:1	267
Application for Surface Water Rights	2:2	360
Application for Water Rights, Water Storage Right, Conditional Underground Water Rights, Change of Water Right and Plan of Augmentation, in Weld County, Colorado.....	5:2	647
Application from A.L.E. Partnership, for Not Nontributary and Nontributary Ground Water Rights in the Lower Arapahoe and Laramie-Fox Hills Aquifers.....	4:1	266
Application from Centerre Development, LLC, for Approval of a Plan for Augmentation Concerning the Application for Water Rights of Centerre Development, LLC, in Douglas County, Colorado	3:2	511
Application from Coors Brewing Company for an Amended Application: (X) For Sexennial Finding of Reasonable Diligence For Conditional Right of Exchange, in Jefferson County, Colorado.	3:1	216
Application from South Suburban Park and Recreation District, for Water Rights in Arapahoe County.....	4:2	530
Application from Town of Georgetown for a Change of Use of Water Right, and a Plan for Augmentation Including Exchange, in Clear Creek County.....	2:2	358
Concerning the Application for Water Rights of the City of Golden.....	5:2	650

DIVISION TWO

Application	Vol.: Issue	Page#
Application for Approval of Water Storage Rights, Surface Water Right, Plan of Augmentation, and Appropriative Rights of Exchange of Water Rights	1:1	130
Application For Underground Water Rights From Nontributary Sources And For Approval of a Plan for Augmentation for Replacement of Evaporation of Impounded Surface Water, EL Paso County, Colorado	3:1	218

DIVISION THREE

Application	Vol.: Issue	Page#
Application for Approval of Plan for Augmentation, in Costilla County, Colorado	3:1	220
Application for Change of Water Right in Conejos County, Colorado	4:1	268

DIVISION FOUR

Application	Vol.: Issue	Page#
Application for Change of Water Right Concerning the Application for Water Rights of Spring Valley Enterprises, in Montrose County, Colorado	4:1	269
Application for Surface Water Right and Water Storage Right Concerning the Application for Water Rights of Old Curry Ranch Partnership, in San Miguel County, Colorado	3:2	513
Application for Surface Water Rights and for Approval of a Plan for Augmentation Concerning the Application for Water Rights of Robert N. and Frances J. Sharpe in Cebolla Creek, a tributary of Gunnison River	3:2	512
Application for Surface Water Rights, in Gunnison County, Colorado	3:2	514
Application for Surface Water Rights of Bruce and Nancy Donegan, in Ouray County, Colorado	4:2	532
Application for Surface Water Rights of Rick Curtis, Connie Curtis and William Johnson, in Delta County, Colorado	4:2	531

DIVISION FIVE

Application	Vol.: Issue	Page#
Application for Absolute Water Rights and for Approval of Plan of Augmentation in Eagle County, Colorado	3:1	221
Application for Absolute Water Rights in Summit, Eagle, and Lake Counties, Colorado	4:2	532
Application for a Finding of Reasonable Diligence and to Make Water Right Absolute (In Part), In Eagle County, Colorado.....	5:1	304
Application for a Finding of Reasonable Diligence, in Eagle County, Colorado	4:2	535
Application for Surface Water Rights in Summit County, Colorado	4:2	537
Application From the Town of Eagle, Colorado, for Finding of Reasonable Diligence for Conditional Water Rights, in Eagle County, Colorado	5:1	306
Concerning the Application for Surface Water Rights of Kummer Development Corporation, in Eagle County, Colorado.....	3:2	515

DIVISION SEVEN

Application	Vol.: Issue	Page#
Amended Application for Changes of Water Rights and for Modification of a Decreed Plan for Augmentation, Concerning the Application for Water Rights of Twilight Peaks LLC in the Animas River Watershed, La Plata County, Colorado	3:2	516
Application for Water Rights—Change of Use; Clarification of Point of Diversion; Alternative Point of Diversion, in Dolores County, Colorado	3:2	518

GOVERNMENT REPORTS

Report	Vol.: Issue	Page
Indian Water Law—1997 Trends and Directions in Federal Water Policy; A Summary of the Conference Proceedings, Report to the Western Water Policy Review Advisory Commission, The Commission, Todd Olinger.....	2:2	309

Water in the West: Challenge for the Next Century, Report to the Western Water Policy Review Advisory Commission	2:2	313
Water in the West Today: A States' Perspective: Report to the Western Water Policy Review Advisory Commission, D. Craig Bell	2:2	311
Water Quality: Federal Role in Addressing—and Contributing to—Nonpoint Source Pollution: Report to the Chairman, Subcommittee on Water Resources and Environment.....	3:1	124
Water Quality in the West: Report to the Western Water Policy Review Advisory Commission, Gene R. Reetz, Ph.D.....	2:2	316

CONFERENCE REPORTS

Conference	Vol.: Issue	Page
The Fourth Western Regional Instream Flow Conference: Water for Fish vs. Water for People: A Real Conflict?.....	2:1	165
The Nineteenth Annual Water Law Conference: Watershed Management: A New Governance Trend	4:2	539
The Twentieth Annual Water Law Conference: Growth and Scarcity: Managing Water to Avoid Conflict.....	5:2	653
University of Colorado Natural Resources Law Center 22nd Annual Conference: Two Decades of Water Law and Policy Reform: A Retrospective and Agenda for the Future	5:1	308

PRACTITIONER'S PERSPECTIVES

Perspective	Vol.: Issue	Page
Interview with Felix Larry Sparks, Esquire.....	3:1	105
Interview with John A. Carver, Jr., Esquire	4:2	426
Interview with Raphael J. Moses, Esquire	2:2	284

LECTURES

Lecture	Vol.: Issue	Page
From Grand Staircase to Grand Canyon Parashant: Is There a Monumental Future for the BLM?, Secretary of the Interior Bruce Babbitt	3:2	223

Water Rights for New Federal Land Conservation Programs: A Turn-of-the-Century Evaluation, Former Solicitor of the Interior John D. Leshy	4:2	271
---	-----	-----

WEBSITE REVIEWS

Review	Vol.: Issue	Page
www.waterknowledge.colostate.edu	4:2	439
www.werf.org	4:2	440

POETRY

Poetry	Vol.: Issue	Page
Selections of Poetry, Justice Gregory J. Hobbs, Jr.....	3:2	391
Selections of Poetry, Justice Gregory J. Hobbs, Jr.....	5:2	545

TRIBUTES

Perspective	Vol.: Issue
L. Ward Bannister.....	1:1
John U. Carlson	1:2
Glenn Saunders	2:1
Raphael J. Moses	2:2
Felix Larry Sparks	3:1
Ralph W. Johnson	3:2
Ray Jay Davis.....	4:1
John A. Carver, Jr.....	4:2
Delphus Emory Carpenter.....	5:1
Justice Edward Pringle.....	5:2