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### Administering Colorado's Water: A Critique of the Present Approach

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ADMINISTERING COLORADO'S WATER:  
A CRITIQUE OF THE PRESENT APPROACH

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Denver, Colorado

COLORADO WATER ISSUES AND OPTIONS:  
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Toward Maximum Beneficial Use  
of Colorado's Water Resources

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ADMINISTERING COLORADO'S WATER:  
A CRITIQUE OF THE PRESENT APPROACH

By Clyde O. Martz and Bennett W. Raley  
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I. THE ROLE OF ADMINISTRATION.

A. The Character of Water Rights.

Water rights are an unusual form of property right. They do not arise from and are not defined in patents or instruments of grant; they rather arise by claim, by seizure and by application of water to beneficial use. They are transferable as interests in real property but have no tangible physical properties. They are only components of an ever-changing and interrelated regimen of precipitation, flow, storage, diversion, consumption and return flows. Their existence and value is wholly dependent upon (i) their recognition by custom and state law, (ii) the ability of the claimant to divert water from the source of supply in priority without interference by others, and (iii) the ability of the claimant to prohibit diversions by others at times and in amounts that impair delivery of water to the point of diversion.

To the extent that the right is recognized by state law, it is clear that the individual has a legal right to protect his interest but, as a practical matter, cannot do so physically and economically without cooperative action. Unlike more traditional forms of property, a water right can-

not be protected by building a fence or placing it in a safe. The usufructuary nature of the right necessarily exposes all water rights to dimunition by the wrongful acts of others. This potential for injury can only be prevented by the constant supervision or administration of every water right in a given basin. Accordingly, the proper administration of all water rights lies at the core of each property right. With it, the right has value and utility; without it, water is no more than ferae naturae, subject to capture by force or stream location.

B. The Role of the State.

The state's responsibility for administration of water rights is frequently misconceived. It does not rest on a passive role as proprietor and grantor with ministerial functions to allocate and deliver water pursuant to rights created by state action. Rather, it stems from the state's role as sovereign and rests on a duty to administer the resource similar to the fiduciary responsibility of a trustee.

The waters of the western United States were owned initially by the federal government by cession from foreign powers. By the Act of 1866,<sup>1/</sup> Congress authorized the transfer of rights to individuals to the extent they are recognized by local custom and state law. In Article XVI,

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<sup>1/</sup> 30 U.S.C. § 5; 43 U.S.C. § 661

Section 5 of its constitution,<sup>2/</sup> Colorado declared that all of the waters of natural streams are the property of the public and dedicated to public use. By such declaration with respect to waters in which it had no proprietary interest, the state assumed a trusteeship role to administer the waters of the state for the benefit of the public.<sup>3/</sup> As such, it became responsible not only for minimal administrative functions but also for administration of the kind a trustee owes to the beneficiary of the trust. Its responsibilities include, first and foremost, the conservation of the estate and avoidance of waste; second, the promotion of beneficial use by assisting the appropriator in achieving use objectives to the maximum extent feasible; third, the representation of beneficiaries in a parens patriae capacity and maintaining the use regimen on the river system; and fourth, the promotion of efficiency and prudence of the kind expected of a trustee.

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<sup>2/</sup> Colo. Const., Art. XVI, Section 5 states that:

**Water of streams public property.** 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.

<sup>3/</sup> But see People v. Emmert, 198 Colo. 137, 597 P.2d 1025 (1979), where the Colorado Supreme Court rejected the argument that public access to waters flowing in nonnavigable streams was justified by the fact that the state serves as a trustee of these waters.

C. Criteria for Judging Administrative Responsibility.

If water is administered in a ministerial capacity only, it is susceptible to use, particularly in agricultural and grazing basins, with little regard for conservation and maximization of benefits. If administration is viewed, however, as a fiduciary responsibility, the role of the state is not limited to the determination of priorities and allocation of water pursuant to such priorities, but further includes: (i) the obligation to undertake a continuous study of hydrological conditions throughout the basin or aquifer and the development of a databank for use in the administration and adjudication of water rights; (ii) a responsibility for objectively assessing proposed changes in use to determine whether other rights would be adversely affected; (iii) assisting water users seeking changes in points of diversion or place of use to structure a program to achieve the desired change without impairment of the common source of supply; (iv) taking action on behalf of user beneficiaries generally to require terms and conditions for protection of the regimen of flow and use; and (v) making technically-qualified hearing officers responsible for initial determinations with respect to issues which involve matters of technical expertise. The performance of these duties would be aided considerably by the development of an official state policy on the relevant water rights issues.

Consider whether Colorado's administration of water rights meets this standard. Is its system of administration a product of historic accident, addressing only ministerial functions and leaving to the user the responsibility, high cost and inefficiency of protecting rights in a common source of supply?

## II. COLORADO ADMINISTRATIVE STRUCTURE.

### A. Historic Patterns.

Prior to 1969, state administration of water rights was limited to the enforcement of court decrees. These decrees were entered in proceedings resembling an action for a declaratory judgment which determined that water had been diverted from the source of supply and applied to beneficial use.<sup>4/</sup> The decrees also recognized, as a benchmark for priority purposes, the date the intent to appropriate was first manifested on the ground.<sup>5/</sup> The State Engineer was responsible for the administration of the decrees, which was achieved through water commissioners in each of 70 water districts. The water commissioners had authority to administer calls on the basis of priority lists, to check

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<sup>4/</sup> See C.R.S. 1963 § 148-9-1 et seq.

<sup>5/</sup> See, e.g., Elk Rifle Water Company v. Templeton, 173 Colo. 438, 484 P.2d 1211 (1971).



headgates and to maintain records of diversions.6/ Other functions performed by the office of the State Engineer were only collateral to water administration, e.g., approving reservoir design for safety,7/ metering temporary exchanges 8/ and rating flumes and weirs.9/

Adjudications generally were personal to the appropriator; they were a vehicle for him to fix the date and quantity of his water right and locate the point of diversion. Change proceedings occurred only for alterations in the point of diversion, i.e., for modification of the decree, and rarely drew opposition from other water right owners. No proceedings were prescribed by law or were in fact required for changing the place and character of use or increasing the consumptive use of water. Under this system, expanded uses which were undetected by the state or other water users were transformed by the magic of time into "historic uses." Not until 1943 was there any formal procedure for such changes or was provision made for securing jurisdiction over all potential claimants to water from the common source by publication

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6/ See C.R.S. 1963 § 148-15-1 et seq.

7/ C.R.S. 1973 § 37-87-105.

8/ C.R.S. 1973 § 37-83-101 et seq.

9/ C.R.S. 1973 § 37-84-114.

of notice rather than personal service upon the water users.<sup>10/</sup>

No provision was made in the 1943 Act to bring the State Engineer into the adjudication process; it left him only with the minimal data collection powers granted to him in the initial legislation of 1889.<sup>11/</sup> The Act applied only to waters of natural streams and did not encompass wells hydraulically connected to streams or nontributary aquifers. Adjudications continued to be held on each stream system, some extending over many years. Both statute and case law provided that no rights adjudicated in a supplemental proceeding could predate the junior priority in a prior proceeding,<sup>12/</sup> which allowed users with previously adjudicated rights to ignore subsequent proceedings unless or until a change occurred in the source of supply. This system worked relatively well when changes of existing water rights were infrequent; the priority doctrine automatically assured owners of senior rights that they would not be adversely affected by new water rights. If, however, an application to change an existing decree could or would affect an appropriator's source of supply, he had the responsibility of going to court in a private proceeding. It

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<sup>10/</sup> C.R.S. 1953 § 147-9-5.

<sup>11/</sup> C.R.S. 1953 § 147-11-1 et seq.

<sup>12/</sup> C.R.S. 1953 § 147-9-13; Hardesty Reservoir, Canal and Land Company v. Arkansas Valley Sugar Beet and Irrigated Land Company, 85 Colo. 555, 277 P 763 (1929); The United States of America v. The District Court in and for the County of Eagle, 169 Colo. 555, 458 P.2d 760 (1969).

should be noted that there was relatively little need for an efficient mechanism for reviewing and approving changes of water rights because such changes were relatively infrequent and simple when compared to those of today.

This judicial method of determination and enforcement of rights has become unique. Only Montana and Idaho had similar systems,<sup>13/</sup> where waters were plentiful and regulation unnecessary. Both states later rejected such procedures when increased demands on the resource created the need for effective administration. Today Colorado stands alone with such a procedure; it arose by accident, not by planning, and has not been reviewed and revised when the regimen of use has changed from plenty to scarcity, and the focus has shifted from the acquisition of new rights to the change and management of existing water rights.

B. Inadequacies First Noted.

Three developments in the 1950s and 1960s exposed the inadequacies of the existing system. The first development was a recognition that substantial quantities of undeveloped water lay in deep nontributary aquifers which could be mined over limited time periods. The use of this resource presented issues that were not addressed by existing law and not resolvable by reference to traditional priority concepts. Moreover, the physical location and nature of this water required sub-

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<sup>13/</sup> R.C.M. 1947 §§ 89-829, 89-836 (Repl. Vol. 6, part 1).  
Idaho \_\_\_\_\_.

stantial hydrological data to quantify the amount of water available in the aquifer and determine the effects of development and the impact of administration.

Second, with the coming of rural electric power, a plethora of wells were dug in the alluvial aquifers. They were not initially perceived to have a direct impact on river flows. They were not subject to adjudication or to priority administration under existing legislation. As a result of this lack of regulation, an entire economy developed on the basis of well water supply before the impact of these wells on stream flows was identified. These unadministered tributary wells threatened the very fabric of the constitutionally mandated doctrine of prior appropriation. The wells were diverting and consumptively using water out of priority, which resulted in injury to senior water rights. A strict application of existing laws would require that all of these wells be shut down permanently. However, the economic ramifications of this potential solution created extraordinary political pressure to resolve the problem without taking the drastic step of shutting down the many unadministered and unadjudicated wells.

The third development was the post-World War II migration of people to Colorado's front range. This demographic shift created unprecedented demands for water for municipal and industrial purposes. Because existing water supplies were largely held by the agricultural sector, farms and ranches became the source of the water for this new

growth. A market for water separate from the land arose, and changes in use as well as changes in points of diversion became common. However, many of these changes were defacto and without accommodation under existing law. While courts had previously made determinations on application of users as to priority date and quantity of use, little attention had been paid to the impact of changes in use on return flows. New focus was given by engineers to the issues of consumptive use, on farm efficiency, evapotranspiration losses and transmissivity of aquifers, and water administration became a highly technical art.

C. Legislative Responses.

The legislative response to the discovery and development of nontributary groundwater was two-fold. First, the legislature enacted H.B. 1066 in 1965 14/ to mandate the regulation of wells in accordance with their priorities, and second, it enacted a Ground Water Management Act 15/ which created a nontechnical ground water commission to designate nontributary ground water basins, approve establishment of local management districts and regulate well permits for uses within such basins. This legislation mandated a level of administration in law that was not possible in fact. While an integrated body of water in a stream can be allocated in priority by opening and closing headgates, the low

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14/ C.R.S. 1963, supp. § 148-11-22.

15/ C.R.S. 1973 § 37-90-101 et seq.

transmissivity rate of water in ground water aquifers makes it impossible to allocate water in priority by regulation of rates of well pumping. Moreover, the time lag between ground water withdrawal and stream impact may be so long that water cannot be made available to meet stream calls by curtailing diversions from wells. The void between theory and fact quickly created problems; the first attempt to curtail pumping from particular wells was found to be arbitrary and capricious in Fellhauer v. People 16/ as the Fellhauer well was senior to other wells from the same aquifer that were not curtailed.

The Ground Water Management Act recognized that non-tributary waters may exist and that they should be administered on a basin-by-basin basis. But, largely for political reasons, no administrative machinery was put in place to implement the mandates of the Act. The State Engineer, to be sure, was made an ex officio member of the Commission,17/ but was given no regulatory authority. Boundaries of aquifers were set by application without reference to or knowledge of actual hydrological conditions. In fact, the definition of designated groundwater included groundwater that was "not adjacent to a continuously flowing natural stream wherein groundwater withdrawals have constituted the principal water usage for fifteen years preceding January 1, 1965."18/ When a

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16/ 167 Colo. 320, 447 P.2d 986 (1968).

17/ C.R.S. 1973 § 37-90-103(6).

18/ C.R.S. 1973 § 37-90-103(6).

basin was designated, levels of historic division were given priority regardless of aquifer limitations;19/ and new uses of nontributary groundwaters outside of designated basins were restricted to projections of the lifetime yield in and under the land owned by or permitted to the user.20/

While the 1965 Act attempted to solve the problems surrounding the use of nontributary groundwater, the Act did not address the other two developments identified above, in that it offered no solution for the problems created by the tributary wells and the recently created need for changes in existing decrees to accommodate new and different uses of the water resource. In response, the General Assembly in 1967 21/ directed the Director of the Division of Water Resources (i) to investigate relationships in areas where intermingled surface and groundwater are used in conjunction with each other for irrigation; (ii) to employ such technical, legal and practical assistance as may be reasonably required to determine the need for and content of legislation that would provide for integrated administration of all diversions and uses of the water within the state; (iii) to review existing water laws to determine their sufficiency and the need for any modifications or supplementations thereto in order to provide an effective system of administration; and (iv) to present a

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19/ C.R.S. 1973 §§ 37-90-102, 37-90-106(1)(f).

20/ C.R.S. 1973 § 37-90-137(4).

21/ C.R.S. 1963 § 148-2-9.

report, recommendations and proposed legislation to the 47th General Assembly. Public hearings were held, hydrological studies of surface-groundwater relationships were completed by consulting engineers and analyses of legislative needs and proposed changes were made by private water attorneys.

Neither the State Engineer's office, the Attorney General's office nor the Colorado Water Conservation Board were given specific responsibilities.

Although consideration of administrative systems of other states may have occurred in the course of the investigations, the resulting report recommended, and the legislature passed, an act 22/ which (i) preserved the judicial system for determination of priorities; (ii) extended that system to the determination of hydrological issues raised by changes in place and character of use; (iii) changed the adjudication process from periodic adjudications to a continuous adjudication process; and (iv) limited the State Engineer's role essentially to administration of decrees and to a series of administrative actions in connection with the granting of well permits, approval of augmentation programs and preparation of a tabulation of priorities that would all require, with or without contest, an independent determination in court.

In place of delegating authority to the State

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22/ C.R.S. 1973 § 37-92-101 et seq., known as the Water Right Determination and Administration Act of 1969.



Engineer to make determinations as to hydrological fact and approve or disapprove applications of water users for changes in point of diversion or place and character of use, the Act (i) required all existing wells to be filed for adjudication by the Water Court not later than July 1, 1972;23/ (ii) provided that a regimen of pumping that had continued for 18 years would be recognized in the tabulations,24/ and (iii) only allowed the state to participate in proceedings for a change of the water right as an adversary or an applicant.

The 1969 Act, and subsequent amendments, did not dispense with the need for both a well permit from the State Engineer and a decree from the water court.25/ Thus, the rights determined on application for a well permit are subject to independent adjudication in the water court, and the water right decreed may be different from that initially granted by the State Engineer.

The legislative solution to the problem created by the existing tributary wells was contained in the 1969 Act, which recognized and allowed "plans for augmentation"26/; alternate points of diversion at the wellhead for stream priorities; and permitted the State Engineer to limit

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23/ C.R.S. 1973 § 37-92-306.

24/ C.R.S. 1973 § 37-92-401(1)(b)(VI).

25/ See C.R.S. 1963 § 148-18-36(3); repealed in 1971 and replaced by an amendment to what is now C.R.S. 1973 § 37-90-132(2).

26/ C.R.S. 1973 § 37-92-103(9).

diversions by regulation to the extent required for protection of vested rights in the basin. Although the State Engineer promulgated regulations, they had to be approved, if contested, in the water court and essentially all the determinations pertinent to the integration of well and surface diversions were left to the costly, time-consuming and inefficient procedures of the water court.

Finally, the evaluation of impacts resulting from changes in use, which is essentially an analysis of hydrological and engineering factors, was relegated once more to the water court. No provisions were made for the exercise of any state responsibility for protecting vested rights, or for the use of the data base accumulated in the State Engineer's office. Accordingly, each water user continued to have the responsibility to make technical investigations and retain engineers and legal counsel to represent him on a

continuing basis before the water court in order to protect his "vested" right from injury.

D. Nontributary Aquifers.

The 1969 Act, however, only pertained to constitutional appropriations, i.e., to waters in aquifers hydraulically connected to a natural stream. Outside of the recognized alluvial boundaries, groundwater areas could be delineated and placed in a designated groundwater basin. Several such basins were in fact designated on the high plains in eastern Colorado and have been administered unchanged under the management of the Ground Water Commission and the board of directors of the appropriate management district. No such basins, however, were established on the western slope, in the San Luis valley nor, most significantly, in the broad Denver basin extending along the front range from Colorado Springs to Loveland. By a 1973 amendment, well permits outside of a designated basin were limited to the owner of the land or to one with the authorization of the owner, and conferred an almost absolute right to withdraw water within the boundaries of the property at such a rate that the aquifer feeding the well would not be exhausted for 100 years.<sup>30/</sup>

If the basins were nontributary to any stream system in fact, and if the basin yield over a 100-year period could be established with any reasonable level of predictability,

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<sup>30/</sup> This provision was commonly referred to as Senate Bill 213, and was codified at C.R.S. § 37-90-137(4).

the theory behind the legislative regulation, being essentially the same as that established in designated basins, was theoretically sound. The flaws in this approach, however, are readily apparent. First, the right is adjudicated in the water court on evidence of nontributary status and aquifer characteristics presented in an adversary proceeding. True, the State Engineer is authorized to make that determination but it cannot be made in fact on an ad hoc basis without first determining the boundaries of an aquifer as a whole, the recharge the aquifer may in fact have through faults from surface or stream supplies and discharge by faults into a river drainage system. Second, once fixed by decree the right is absolute and does not change with the hydrological data that may be developed from other well logs and studies of aquifer effects from aggregate pumping rates. Third, the decree limits the right to appropriate and divert available water that might migrate, in consequence of withdrawals, from tract to tract.

E. The Huston Case.

In 1969 John Huston and others put the system at issue by making appropriations of nontributary groundwater throughout the state. Adjudications of claims were mandated under law on a tract-by-tract basis in the several water divisions and separate water courts. The cases were consolidated by order of the Supreme Court under a special water judge and several key issues were stipulated for preliminary determination by the Court. Finally, in 1983, the Supreme Court

rendered a decision 31/ that nontributary waters were not subject to adjudication prospectively in the water court (although it recognized existing decrees), and provided that such waters were subject to such prescriptions as the General Assembly might provide. The Governor responded with a directive to the Director of Natural Resources to make a thorough study of alternative administration systems for such waters and make recommendations to an interim committee of the General Assembly.32/ The studies were made, the report was filed and the General Assembly once more enacted a band-aid-type statute in Senate Bill 5 in 1985.33/

F. Senate Bill 5

Senate Bill 5 provided that (i) nontributary waters shall not be subject to appropriation; (ii) such waters shall be allocated on the basis of ownership of overlying land; (iii) augmentation to the stream system is required on a formula basis in all cases, with special provisions for the various Denver aquifers; and (iv) the findings of the State Engineer regarding well permit applications in the Denver Basin aquifers only are reviewable in the water court pursuant to modified provisions of the Administrative Procedure Act.

While this process continues the need for adjudi-

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31/ State of Colorado v. Southwestern Colorado Water Conservation District, 671 P.2d 1294 (Colo. 1983).

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33/ Senate Bill 5 was signed into law by the Governor on June 6, 1985.

cation of water rights by the water courts, and does not adopt an administrative system for the allocation of water rights, it does permit the State Engineer to prescribe, by regulation, guidelines for definition of nontributary waters and withdrawal limits. The State Engineer is authorized to make determinations as to augmentation requirements, to exercise threshold discretion in granting well permits and make extensions on good cause shown, and to determine rates of withdrawal on the basis of a 100-year aquifer life for specified Denver Basin formations. He can also impose terms and conditions for protection of vested rights and determine the existence and extent of nontributary aquifers.

This increased participation by the state, acting through the State Engineer, is a significant step by Colorado towards meeting its fiduciary duty to administer water rights in a coordinated and efficient manner. Yet, once more, political self-interest has qualified the State Engineer's power in ways that may increase water court litigation and lose the administrative benefits prescribed by the Act. In particular, the Act (i) gives special treatment throughout to the Denver

Basin aquifers,<sup>34/</sup> (ii) grants special rights to municipalities who provide water service to overlying lands and by ordinance create a presumption of consent that the owner has allocated underground supplies to municipal use, and (iii) allows the decisions of the State Engineer to be reversed or modified by judicial review. Moreover, with respect to the Denver Basin aquifers, the Act specifically limits the range in which administrative discretion can be exercised, and requires an assumption that hydrostatic pressures have been abated in calculating the impact of withdrawals from such aquifers in the 100-year projections made.

The Act also stops far short of addressing all of the problems with the existing system for allocation and administration of nontributary water rights. Senate Bill 5:

(1) raises constitutional questions by attempting to subject admittedly tributary waters to allocation on the basis of overlying land ownership. This method of allocation conflicts with the constitutional right to appropriate tributary waters of the state;<sup>35/</sup> (2) continues the requirement that every groundwater right outside of a designated groundwater basin go through a formal adjudication

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<sup>34/</sup> The Dawson, Denver, Arapahoe, Laramie-Fox Hills and Dakota aquifers are considered to be part of the Denver Basin.

<sup>35/</sup> The Huston decision certainly did not provide a foundation for excluding other than nontributary water from the appropriation system.

proceeding in the water court. These proceedings are in large part duplicative of the factual investigations, evidentiary proceedings and findings now required of the State Engineer, and continues the present inefficient process of submitting, in an adversarial setting, complex hydrological issues to a non-technical decision maker; (3) negates any appropriative right to nontributary waters, implicitly confirms the existence of a proprietary right and proceeds to limit such right on an arbitrary and non-uniform basis throughout the state; (4) provides different appeal procedures for Denver Basin administrative actions than for comparable actions in other basins in the state; (5) allows extension of well permits only in the Denver Basin and thereby continues "use it or lose it" conditions throughout the remainder of the state; (6) permits aquifer status to be determined as of the date of the permit, and assumes that this status continues notwithstanding the fact that changes in the aquifer may result from depletions caused by existing wells. This provision ultimately allows landowners who first acquire permits to impair the correlative rights of neighbors; (7) presumes consent by landowners to mine drainage programs even though the effect of the mine drainage may be to deplete groundwater resources under the owner's land without compensation; (8) allows municipal entities to take, without showing the existence of an overriding public intent and without the payment of just compensation, nontributary groundwater which belongs to the overlying landowners; and



(9) constitutes special legislation for Denver Basin aquifers which goes beyond any privilege based on unique conditions, e.g., differing augmentation obligation and ceilings and differing regulatory procedures.

In sum, Senate Bill 5 was a glaring exercise of political self-interest, providing wholly superficial protection to developers, municipalities, mining interests, existing groundwater basins and management districts and a broad class of persons with vested rights in the adjudication system. The legislature lost an opportunity given by the Supreme Court in the Huston case to put in place a tested program for regulation and use of the state's critical groundwater resources.

### III. CRITIQUE OF SYSTEM.

Such is the Colorado system. Does it meet the tests prescribed for a sound system of administration? It does provide a vehicle for all the ministerial functions for all kinds of water rights, i.e., it determines the existence, point of diversion, and quantity and character of use in such a form that the right can be administered.

#### A. Need for Judicial Proceeding.

But is there any rational basis for continuing to require these kinds of determinations to be made routinely in costly judicial proceedings? Perhaps more pertinent is the question whether any need exists for requiring present and potential holders of rights in a common source of supply to police the initiation and perfection of rights of other

appropriators. Historically, prior to the 1969 Act, a judicial proceeding may have had its place to establish historic facts relating to the intent to appropriate, the time when water was claimed, diverted and applied to beneficial use, the appropriate quantity of flow appropriated and the use to which it was put. These were all evidentiary matters which were susceptible to determination on the basis of nontechnical findings of fact. Moreover, since multiple rights were adjudicated in the same proceeding, it was inevitable that questions would arise as to the appropriate priority date.

But consider the changes wrought by the 1969 Act. Under the new system, historical inquiries are limited by the yearly adjudications. The most important issues in the adjudication of a water right are the determination of the tributary or nontributary nature of the source of supply and the need for augmentation of out of priority diversions. Both are technical or hydrological issues which can be determined in the first instance by the State Engineer.

Where a conditional decree is first given, the appropriator must return from time to time to show diligence 36/ or to establish that his right has become absolute. The latter issue is ministerial and could be determined by the filing of a report with inspection by the water commissioner to show compliance. The former is the source of extensive contested water court litigation, where decrees are continued from

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36/ C.R.S. § 37-92-301(4).

period to period on assertions of diligence and stipulations with objectors. The diligence standard in Colorado is far too ephemeral and far too subject to distortion and abuse. In other states where rights arise by permit, the permit will specify a time when work is to be completed or parts of work are to be performed. Where events of force majeure make it impractical to meet permit deadlines, extensions can be procured, with consideration for intervening rights of other appropriators. Determinations by the State Engineer can be appealed to a court and judicial determinations made in those cases where contests may exist. Query whether any purpose is served (i) by putting responsibility on individual water users to challenge diligence in the first instance or, to avoid the cost of trial, to stipulate for continuation of right on specified conditions, or (ii) by requiring a judicial proceeding, with notice and potential objections, for merely putting in decree format the claims of an applicant set out in his application. Significant court time could be saved and costs to water users reduced if these matters could be found administratively, with right of review for any person who believes that an administrative decision is arbitrary or capricious.

B. Allocation Mechanics.

Consider next how effective the Colorado administrative system is in monitoring allocations of water in accordance with decreed priorities. Division engineers and their assistants (referred to as "water commissioners") make daily

determinations of river flows at various measurement points, determine the priority dates of appropriations that may take water,37/ and regulate headgate diversions to meet downstream calls. Although they are charged with preventing waste of water,38/ they have historically asserted no control over the allocation and use of water below the headgate, and in fact do not have acre-foot allocation figures in the decrees administered (except where change proceedings have occurred) to permit nonarbitrary regulation of use.

But in an age of growing water scarcity, this kind of abstract regulation by dates and rates of flow is wholly inadequate. In arid regions there is a natural inclination to divert, regardless of actual crop needs, the full amount of a water right whenever it is available. Statistics of aggregate headgate diversions and acres of irrigated lands reveal a variance in rates of water application, with some irrigators using as much as six acre-feet per acre. Although the waste water may be returned to the stream through wasteways or percolation to alluvial aquifers, the excess diversion may delay the time when available water in the stream can be delivered to headgates of downstream appropriators.

These inefficient uses of water can be prevented by the implementation of a system which allows effective monitoring of water diversions. All ditches should be

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37/ C.R.S. 1973 § 37-92-501, 502.

38/ C.R.S. 1973 § 37-92-502(2).

required to file with the division engineer at the start of an irrigation season the number of acres to be irrigated, the calculated ditch and field losses that are reasonable for application, the calculated consumptive use for the crops grown and an estimate of the maximum water requirements (in absence of precipitation) for the ditch operation. Water users could then be required to maintain timely records of acre-foot diversions as well as second-foot rates of flow and be required to report this information on a monthly basis to the division engineer or water commissioner. Where ditches, on the basis of such reports, are using water at a higher rate than requirements, the appropriate water official should be authorized to designate such ditches as critical, monitor uses below the headgate, impose penalties on the ditch, or give notice to junior ditches to monitor excessive diversions. Such a system would create consciousness of waste, impose reasonable management requirements on ditch administrations,

and facilitate exercise of authority now vested in the division engineers to conserve the available supplies.<sup>39/</sup>

Although the foregoing discussion focuses on ditch diversions, the same kind of monitoring is now authorized and is necessary for tributary wells, particularly where they are subject to a limited pumping regime and powered by windmills and gas engines not susceptible to withdrawal estimates. In both cases, penalties for erroneous reporting, or out-of-priority diverting, should be increased and summary action should be available to administrators to assure proper compliance.

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<sup>39/</sup> Legal support for increased regulation of waste is inherent in existing water law: the right to appropriate exists only for beneficial uses, which by definition excludes waste. The practical application of this concept has been referred to in western water law as the "duty of water." Reference to this concept can be found in the case law of many states, and it referred to the presumption that a given amount of water should be sufficient to irrigate a fixed amount of land. See Farmers Highline Canal & Reservoir Co. v. City of Golden, 129 Colo. 575, 272 P.2d 629 (1954); Taylor v. Tempe Irrigatory Canal Company, 21 Ariz. 574, 193 P. 12 (1920); California Pastoral and Agricultural Company, Ltd. v. The Madera Council and Irrigation Company, 176 Cal. 78 (Calif. 1914); Basin Electric Power Cooperative v. State Board of Control, 578 P.2d 557 (1978); State ex rel Reynolds v. Mears, 86 N.M. 510, 525 P.2d 870 (1974). While this restriction is not new, in Colorado it is only applied when an appropriator seeks a change in point of use of water right. If, however, this concept were to be applied to all diversions, regardless of whether they had been the subject of a change application, excess diversions could be prevented. This establishment of a duty of water, which would be equivalent to the quantification of beneficial uses, should logically be accomplished through a rulemaking by the State Engineer.

C. Changes of Use.

Consider next how effective the Colorado system is in protecting existing rights from the effects of expanded uses by others or alterations in stream flow resulting from the many changes made in points of diversion and places and character of use. These matters are now committed to the jurisdiction of the water court. State Engineer participation is limited to a report of the division engineer to the referee or water judge unless the State files a statement of opposition and thereby obtains party status. Change proceedings are typically contested and rest upon extensive factual presentations or stipulations between applicant and objectors with respect to acceptable terms and conditions.

The processing of these matters through the water court has worked well, subject nonetheless to three significant shortcomings. First, and most importantly, the process places the burden on the water right owner to keep apprised of applications filed, to bear the cost of engineering evaluations necessary to determine the impact of a change upon his particular water right and to bear the cost of appearing as an objector, with legal representation, to put the applicant on his proof. Second, the State Engineer does not have the opportunity to employ the expertise of his office to get facts, to evaluate potential impacts, to secure terms and conditions to protect the river and to act in a parens patriae capacity on behalf of the water users. Finally, the very nature of a judicial proceeding, with all of its provisions

for discovery and other opportunities for delay, assures water users that approval of a change cannot be expected in anything short of one to two years.

It would seem that the commendable objectives of the adjudication process could be achieved, without these shortcomings, if the State Engineer were given jurisdiction in the first instance to review applications, counsel with the applicant on desired terms and conditions to protect the river, and enter a decision approving or rejecting the application. Notice could be given of that determination, with a right of review by applicant or objectors. Where a hearing is held at the administrative level with opportunity for objectors to present evidence, review should be made on the administrative record pursuant to the Administrative Procedure Act. The decision of the hearing officer should be overturned only if arbitrary, capricious or contrary to law. If an administrative decision is reached without an administrative record, review should be de novo.

In brief, this change would eliminate the referees in water court and substitute the State Engineer as the first decision officer. If one were to assume the worst, and all decisions of the State Engineer were appealed, we would have a no more costly or time-consuming exercise than we now have in water court, but we would have the additional advantage of an expert nonadversary hearing officer who would be capable of using available river and aquifer data from a growing data bank, and who would fashion a preliminary decree that would



give the court a sounder basis for a decision than is generated in the adversary arena. But if the State Engineer were to play an active and effective role in investigating and evaluating proposals, and in the negotiation of protective terms and conditions, substantial protection would be given to water users without requiring their continual participation in basinwide water court proceedings.

The adoption of this system would, in all likelihood, result in more efficient allocation and administration of Colorado water resources. The owners of vested water rights would be freed from the costly burden of monitoring all applications for water rights and change of water rights, and the existing system would be streamlined so as to eliminate unnecessary duplication and the attendant expense and delay.

D. Need for Uniformity.

To the extent the General Assembly has used band-aid approaches to deal with special problems that have arisen in administration, it has lost the objectivity which is only available by a coordinated approach. For instance, in the Ground Water Management Act of 1965, a nontechnical commission was established to make policy decisions with respect to boundaries of designated basins, the creation of management districts, the measurement of aquifer life, determination of rate of development and the like. It placed the State Engineer on the commission but gave him no administrative authority. Its decisions as well as the State Engineer's decisions are reviewable by the District Court in the judicial

district where the land lies, not by the water court. In contrast, when Senate Bill 5 was enacted this year for nontributary groundwaters outside designated basins, policy was fixed by the legislature, special rules were enacted for the Denver Basin and no jurisdiction was given to the ground water commission. Appeals from State Engineer decisions pertaining to the Denver Basin would go to the water court under modified provisions of the Administrative Procedure Act; other appeals would go to the District Courts as before.

This seemingly illogical delegation of authority and responsibility creates needless confusion. What is right in one case should be right in others. If policy can be made by a commission, rather than by the State Engineer, it should be made uniformly. There frankly is no need for compartmentalizing water resources for separate administration and inconsistent rules. Diversity continues to exist because special interest groups and certain self-serving legislative representatives have approached each issue with the intent to obtain an advantage for a particular group of water users.. The time has come for water administration to be viewed as a whole, decision authority to be centralized and administrative procedures to be compatible for all variations in water sources.

#### IV. OTHER STATE PATTERNS.

Without detailing the laws of each of our sister states, I will describe four patterns of administration that

Colorado could well investigate.

A. The Preliminary Decree.

First is the use of a preliminary decree. Under this system, an application is made to the responsible agency. A preliminary decree is then fashioned on the basis of information in the application, a report from the agency charged with analyzing all applications for decrees,<sup>40/</sup> and applicable laws and compacts and other information the decision officer may collect. The decision is then served on interested parties or published in a form adequate to assure notice to all who might perceive they would be affected. If no objections are filed, the preliminary decree becomes final and is recorded; if an objection is filed, the objector must state specific grounds and evidence on which error is claimed. A hearing is then held either in the department or in court and, following such hearing, a final decree is entered.

If a judicial proceeding is required in order to join and bind the United States under the McCarren Act,<sup>41/</sup> the action can be initiated in court, referred to the hearing officer, and then the preliminary decree can be entered by the court. Montana, with a permit system for initiation of water

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<sup>40/</sup> Public confidence in any administrative system requires that there be adequate, if not total, separation between the hearing officer and the agency which purports to provide an objective analysis of the proposed application. This could easily be accomplished by creating separate divisions within the agency to perform each function.

<sup>41/</sup> 43 U.S.C. § 666.

rights and historic practices of nonjudicial adjudication and administration, went to a judicial system in 1979 to permit compacts with Indian tribes and federal water rights to be adjudicated.<sup>42/</sup> It did so in a form preserving the benefits of its historic administrative system. It confined evidentiary proceedings to objections made to carefully sculpted preliminary decrees. Since we have water courts already established, Colorado could utilize such a system, by requiring applications to be filed with the water court, which would then be referred to the State Engineer. A report would then be prepared regarding relevant hydrological considerations with data drawn from an ongoing data bank. The State Engineer would then prepare a preliminary decree which would be filed with the water judge and published and distributed in the same manner applications are now published and distributed. The water court could confine evidentiary proceedings to objections to the preliminary decree. The system would avoid routine litigation and duplication of hearings before the administrator and the court.

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<sup>42/</sup> R.C.M. 1983 § 85-2-211 et seq.

B. Change Application Processing.

Procedures are fairly uniform in appropriation states with respect to the investigation and processing of change applications. The McCarren Act does not waive sovereign immunity in such proceedings so it is unnecessary to use a court proceeding for jurisdictional purposes. Even where court proceedings may be employed in adjudication of priorities, the designated water official exercises complete jurisdiction over such changes. He reviews the application and, if change can be made without impairment of existing rights, the change is approved. If the state water official perceives there might be injury to others from the proposed change, notice is served personally or by publication so that interested parties may appear and participate. The state officer then makes a decision on the basis of an administrative record, including his evaluation and report and any evidence introduced by parties who appeared as the result of the published notice. His decision is final unless the applicant or objectors elect to appeal. If so, the trial court will take up the record as evidence subject to objections, allow additional evidence to be taken, give weight to the water officer's decision, thereby putting the burden on the objector to overturn, and render a final determination. With that type

of system in New Mexico,43/ Utah 44/ and Wyoming,45/ the state administrator is given broad authority to promulgate rules and guidelines for the conduct of proceedings and the administration of priorities.

Such an approach would eliminate the most serious of Colorado's problems. It would permit the State Engineer to use the hydrological data bank as a foundation for analysis of injury, and would allow active participation by the State Engineer in negotiations between the applicant and objectors in an effort to protect existing rights. Moreover, it puts the State Engineer in a parens patriae position with responsibility for protecting the regimen of existing uses, yet gives any party an opportunity for an independent judicial hearing if aggrieved by arbitrary or unjust administrative action.46/

C. Groundwater Regimen.

The pattern developed in all states with identifiable groundwater reservoirs with limited rechargeability is four-pronged. First, groundwater permitting and adjudication is

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43/ Section 72-7-1 N.M.S.A. 1978.

44/ U.C.A. 1953 § 73-3-14 (Repl. Vol. 7C, 1980).

45/ W.S. 1977 § 41-4-401.

46/ One facet of the Montana statute that has appeal is the assessment of attorneys' fees against the losing party on appeal, if appeal is taken from an administrative order or preliminary decree. See R.C.M. 1983 § 85-2-125. Such a provision should make the administrator more sensitive to the defensibility of his decision and the objector a bit more cautious about appealing a decision.

integrated into the general water management institution, and procedures for acquiring groundwater rights are frequently the same as for surface rights. Second, where diversions exceed recharge to an aquifer, the aquifer is designated to be critical, and new rights are limited to the quantity of recharge or augmentation provided. Third, local management is permitted over such aquifers to encourage conservation of water, exploration and development of recharge opportunities and control changes of beneficial use. However, even where local management and control exist, the State Engineer polices withdrawals under statutes, regulations and administrative orders. Finally, judicial review is generally limited to the standards of review provided by the Administrative Procedure Act. Colorado should take a hard look at the Arizona Act.<sup>47/</sup> This approach was rejected by a majority of the Governor's interim study group on the grounds that the act has not solved all of Arizona's problems. But that approach would go far in avoiding the definitional issues raised by S.B. 5, provide uniformity of administration, define critical aquifers and permit drawdown and usage of each aquifer to be tailored to the characteristics of the aquifer.

D. Conservation and Elimination of Waste.

Finally, the statutes of Utah,<sup>48/</sup> Wyoming,<sup>49/</sup> New

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<sup>47/</sup> A.R.S. § 45-401 through § 45-637.

<sup>48/</sup> U.S.A. 1953 § 73-5-9 (Repl. Vol. 7C, 1980)

<sup>49/</sup> W.S. 1977 § 41-3-603/

Mexico, 50/ Washington 51/ and California 52/ confer broad powers on the water officials to take affirmative action to conserve water and eliminate waste in the application of water to beneficial use. Some states permit the appointment of water masters in limited areas and confer powers on engineers and water masters to get expedited relief in the form of injunctions and assessments of penalties from the courts. While Colorado has expressed concern about water shortages, nonbeneficial usage of water and speculative activities, the General Assembly has refused to take the steps necessary to solve these problems. The General Assembly should define and enforce forfeiture of water rights for nonuse, grant authority to water officials to define and prevent waste and establish substantial penalties for violation of administrative or judicial orders.

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50/ [Section 72-13-8 N.M.S.A. 1978]

51/ R.C.W. §§ 90.03.005, 90.44.110.

52/ Wests Ann. Cal. Water Code §§ 100, 275, 300-311.



V. RECOMMENDATION.

All of the above-described procedures are preferable in my judgment to the existing Colorado procedure, not only from the viewpoint of the water user but more broadly from the viewpoint of the public. But in light of the self interest that maintains the existing archaic system, I see no likelihood that the present General Assembly will make any significant change in present procedures. I have been hard pressed to find a rational explanation for the anti-State Engineer syndrome that seems to be peculiar to this state. The General Assembly has neither authorized nor funded that office to perform adequately the services which it is capable of providing to the water users of the state. As previously discussed, the State Engineer can make priority determinations and provide records for administration of priorities without need for complex judicial proceedings, with a right of appeal under the Administrative Procedure Act for those who feel that the agency has been arbitrary or capricious. He can protect the regimen of use on the river for the benefit of all water users and can monitor allocations to avoid or at least minimize waste. But far beyond those administrative roles, his office can facilitate decision-making by developing a data bank for each of the rivers and aquifers, use such data for evaluation of applications for change, needs for augmentation and effects of exchange and provide nonadversarial data for decision-making at minimal cost to water users. With such data, that office can further facilitate changes in water use

by counseling proponents on impacts of proposed actions and alternatives to achieve their goal. It can conduct continuing studies of nontributary aquifers and, with authority, enlarge or control diversion rates and augmentation requirements to achieve conservation objectives. However, all of these functions require trained personnel and adequate technical support, which has not been forthcoming from the General Assembly.

Unfortunately, the General Assembly is not the only barrier to change. This state started on a court adjudicatory system in part by chance but initially of justifiable necessity when records of appropriations were not otherwise available for administration. By the time that system came up for review in 1968-69, we had an entrenched legal and engineering fraternity that was dependent on the continuation of a judicial system of adjudication. Members of the water bar and engineering group had significant partisan roles in reviewing existing law and recommending revisions. The validity of this analysis is certainly confirmed by the fact that almost every change that has been recommended and adopted by the General Assembly has enlarged the judicial role, increased the cost of decision-making and increased the volume and complexity of the legal and hydrological determination which must be made in conjunction with the acquisition or change of a water right. A change can occur only if a nonpartisan body makes a comparative study of practices in other adjudication states in the west and in the eastern states that have converted to an

appropriation system in recent years, and from such study measure: (i) the success of the comparative systems by the volume of water litigation that is generated; (ii) the cost to water users of protecting the regimen of the river and their historic uses; (iii) the time required for decision-making; and (iv) the extent to which conservation of water resources and elimination of waste are recognized as management objectives. What I therefore recommend is that a nonpolitical research organization be encouraged to prepare a white paper on water administration which addresses, from an analytical and political perspective, the administrative systems in our sister appropriation states.

I have no doubt that such a study will demonstrate that an administrative nonjudicial system will be more effective, less costly, less time-consuming and less susceptible to court-oriented disputes. Once such a white paper is prepared, and any proposal for change is carefully tied to protection of vested rights, I suspect a wide level of support will be found in the League of Women Voters, the American Water Resources Association, the Colorado Water Congress and similar groups. Once user support is generated, the fears of change will evaporate and pressure will be asserted for legislative action.