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Recommended Citation

14 Pub. Land L. Rev. 5 (1993)

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ARTICLES

THE OLD FAITHFUL PROTECTION ACT: CONGRESS, NATIONAL PARK ECOSYSTEMS, AND PRIVATE PROPERTY RIGHTS

for Marge Brown, Montanan extraordinaire

Robert B. Keiter*

It was not Congress' finest hour. Faced with conflicting legislative proposals for protecting Yellowstone National Park's geothermal features from development outside the boundaries, the 102d Congress did nothing and thus left Yellowstone's geysers — one of the nation's most revered natural features — to the mercy of private development interests. Against a backdrop of private property interests, states' rights, and ecosystem protection, the story of the ill-fated Old Faithful Protection Act (OFPA)¹ offers a penetrating glimpse into the legal-political cross currents now shaping national park policy. Having once taken the bold — and at that time unprecedented — step of protecting Yellowstone's geysers and geothermal features from private ownership,² Congress must now decide whether it will ensure the survival of the park's geothermal aquifers against development on private lands outside park boundaries.

The Yellowstone geothermal controversy is one facet of the larger question of whether and how the United States should protect its national parks in an increasingly crowded and contentious world. In 1980, with the release of the State of the Parks Report,³ the federal government first

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1. H.R. 3359, 102d Cong., 1st Sess. (1991) [hereinafter H.R. 3359]. See *infra* app. A for the entire text of the bill. See also H.R. REP. NO. 374, 102d Cong., 1st Sess. (1991) [hereinafter H.R. REP. NO. 374].

2. 16 U.S.C. §§ 21, 22 (1988). See generally AUBREY HAINES, 1 THE YELLOWSTONE STORY 156-73 (1977); ALFRED RUNTE, NATIONAL PARKS: THE AMERICAN EXPERIENCE 33-47 (2d ed. 1987).

3. NATIONAL PARK SERVICE, DEP'T OF THE INTERIOR, STATE OF THE PARKS 1980: A REPORT TO THE CONGRESS (May 1980). See generally JOHN FREEMUTH, ISLANDS UNDER SIEGE: NATIONAL PARKS AND THE POLITICS OF EXTERNAL THREATS (1991); OUR COMMON LANDS: DEFENDING THE NATIONAL PARKS (D. Simon, ed., 1988) [hereinafter OUR COMMON LANDS]; Robert Keiter, *On Protecting the National Parks From the External Threats Dilemma*, 20 LAND & WATER L. REV. 355 (1985); George C. Coggins, *Protecting the Wildlife Resources of National Parks From External Threats*, 22 LAND & WATER L. REV. 1 (1987).

formally acknowledged that the national park system was at risk from activities occurring beyond its borders. Several park protection bills subsequently were introduced in Congress to provide legal protection for the national parks,⁴ but each one has died, usually after passing the House of Representatives and then languishing in a Senate committee. During this same time, scientists have confirmed myriad ecological connections between the national parks and the surrounding lands,⁵ enabling us to view parks as part of larger ecosystems and to understand the damage that careless development can inflict on sensitive park resources. In fact, the Yellowstone region is now widely known as the Greater Yellowstone Ecosystem,⁶ a concept legitimized by the federal land management agencies themselves through recent interagency coordination efforts intended to protect the region's ecosystems.⁷

Although jurisdictional lines may not have much ecological relevance

4. See, e.g., National Heritage Conservation Act, S. 2556, 102d Cong., 2d Sess. (1992), 138 CONG. REC. S5093-95 (daily ed. Apr. 8, 1992); National Park System Resources Preservation and Revitalization Act of 1986, S. 2130, 99th Cong., 2d Sess. (1986), 132 CONG. REC. S1873-1878 (daily ed. Feb. 28, 1986); National Park System Protection and Resources Management Act, H.R. 2379, 98th Cong., 1st Sess. (1983); Wildlife and the Parks Act of 1984, S. 978, 98th Cong., 1st Sess. §§ 601-607, 130 CONG. REC. S2919-21 (daily ed. Mar. 20, 1984).

5. See William D. Newmark, *Legal and Biotic Boundaries of Western North American National Parks: A Problem of Congruence*, 33 BIOLOGICAL CONSERVATION 197-208 (1985); Hal Salwasser, Schonewald-Cox & Baker, *The Role of Inter-Agency Cooperation in Managing for Viable Populations*, in VIABLE POPULATIONS FOR CONSERVATION 160 (M. Soule, ed., 1987). See generally ECOSYSTEM MANAGEMENT FOR PARKS AND WILDERNESS (J. Agee & D. Johnson, eds., 1988).

6. See, e.g., Robert Keiter, *An Introduction to the Ecosystem Management Debate*, in THE GREATER YELLOWSTONE ECOSYSTEM: REDEFINING AMERICA'S WILDERNESS HERITAGE 3 (Keiter & Boyce, eds., 1991) [hereinafter THE GREATER YELLOWSTONE ECOSYSTEM]; RICK REESE, GREATER YELLOWSTONE: THE NATIONAL PARK AND ADJACENT WILDLANDS 7 (2d ed. 1991); CONGRESSIONAL RESEARCH SERVICE, LIBRARY OF CONGRESS, GREATER YELLOWSTONE ECOSYSTEM: AN ANALYSIS OF DATA SUBMITTED BY FEDERAL AND STATE AGENCIES, 99th Cong., 2d Sess. 4-7 (Comm. Print No. 6, Dec. 1986) [hereinafter CRS ECOSYSTEM REPORT] (prepared for the Subcomm. on Public Lands and the Subcomm. on National Parks and Recreation of the House Comm. on Interior and Insular Affairs); Robert Keiter, *Taking Account of the Ecosystem on the Public Domain: Law and Ecology in the Greater Yellowstone Region*, 60 U. COLO. L. REV. 923, 933-43 (1989); Varley, *Managing Yellowstone National Park into the Twenty-first Century: The Park as an Aquarium*, in ECOSYSTEM MANAGEMENT FOR PARKS AND WILDERNESS, *supra* note 5, at 216; Clark & Zaunbrecher, *The Greater Yellowstone Ecosystem: The Ecosystem Concept in Natural Resource Policy and Management*, RENEWABLE RESOURCES J., Summer 1987, at 8-16.

7. U.S. DEP'T OF THE INTERIOR, NATIONAL PARK SERVICE, & U.S. DEP'T OF AGRICULTURE, FOREST SERVICE, A FRAMEWORK FOR COORDINATION OF NATIONAL PARKS AND NATIONAL FORESTS IN THE GREATER YELLOWSTONE AREA (1991) [hereinafter FRAMEWORK FOR COORDINATION]. See Keiter & Boyce, *Greater Yellowstone's Future: Ecosystem Management in a Wilderness Environment*, in THE GREATER YELLOWSTONE ECOSYSTEM, *supra* note 6, at 379, 392-98; TIM W. CLARK & STEVEN C. MINTA, GREATER YELLOWSTONE'S FUTURE: PROSPECTS FOR ECOSYSTEM SCIENCE, MANAGEMENT AND POLICY (1993); Bruce Goldstein, *The Struggle Over Ecosystem Management at Yellowstone*, 42 BIOSCIENCE 183-86 (1992); Barbee, Schullery, & Varley, *The Yellowstone Vision: An Experiment that Failed or a Vote for Posterity?*, in PROCEEDINGS OF A CONFERENCE, "PARTNERSHIPS IN PARKS AND PRESERVATION" 80-85 (1991).

in Greater Yellowstone and elsewhere on the public domain, they are of enormous legal significance. Jurisdictional boundaries define and limit the scope of federal and state authority, as well as the reach of governmental power over individuals and private property. In the case of Yellowstone, efforts to protect the park's geothermal features have foundered in the face of a powerful counterattack from private property rights proponents. Throughout the western public land states, groups like the Wise-Use Movement and People for the American West,⁸ concerned about increased federal environmental regulation on the public domain, have invoked constitutional property rights arguments to challenge federal regulatory proposals and reductions in extractive resource activity.⁹ Fueled by recent Supreme Court decisions revitalizing constitutional takings limitations,¹⁰ the property rights argument has an innate appeal when government regulation reaches onto private land to limit landowners' development options. Western congressional delegations, always sensitive to states' rights and private property claims, have proved willing allies in scuttling the legislation that would have extended federal power to protect Yellowstone's geysers from private geothermal development.

No doubt the 103d Congress will revisit the Old Faithful Protection Act, and it will likely pass a bill that provides legal protection for Yellowstone's geysers. Exactly what form that legislation will take is less certain.¹¹ The 1991 bill proposed by Montana Representative Pat Williams (H.R. 3359), and passed by the House of Representatives, provided dramatically different protection from the Senate Committee amendments substituted by Wyoming Senator Malcolm Wallop.¹² The impor-

8. See, e.g., Robert Hennelly, *Getting Wise to the "Wise Use" Guys*, 14 THE AMICUS JOURNAL 35 (No. 3, 1992); Jon R. Luoma, *Eco-Backlash*, 95 WILDLIFE CONSERVATION 26 (No. 6, 1992); Florence Williams, *Sagebrush Rebellion II*, HIGH COUNTRY NEWS, Feb. 24, 1992; John Buckley, *Wise-Use Movement Subverts Sierra Summit*, FOREST WATCH 6 (June 1992).

9. See, e.g., WAYNE HAGE, *STORM OVER RANGELANDS: PRIVATE RIGHTS IN FEDERAL LAND* (1989); RON ARNOLD, *ECOLOGY WARS: ENVIRONMENTALISM AS IF PEOPLE MATTERED* (1987); Florence Williams, *Landowners turn the Fifth into sharp-pointed sword*, HIGH COUNTRY NEWS, Feb. 8, 1993, at 1.

10. *Lucas v. South Carolina Coastal Council*, 112 S. Ct. 2886 (1992); *Nollan v. California Coastal Comm'n*, 483 U.S. 825 (1987); *First Evangelical Lutheran Church v. Los Angeles County*, 482 U.S. 304 (1987). See generally RICHARD EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* (1985). But see Joseph L. Sax, *Property Rights in the U.S. Supreme Court: A Status Report*, 7 UCLA J. OF ENVTL. LAW 139 (1988).

11. See H.R. 1137, 103d Cong., 1st Sess. (1993). Representative Pat Williams has reintroduced the OFPA, which tracks H.R. 3359 from the 102d Congress verbatim. 139 CONG. REC. E440 (Feb. 24, 1993). A House Subcommittee, however, recently amended H.R. 1137, virtually rewriting the bill in light of the Montana Reserved Water Rights Compact Commission negotiations. See *infra* notes 133-40 and accompanying text for a discussion of the Montana-National Park Service reserved water rights agreement. See also *infra* Postscript for a description of amended H.R. 1137.

12. S. REP. NO. 363, 102d Cong., 2d Sess. (1992) [hereinafter S. REP. NO. 363]. See *infra* app. B for the complete text of the Senate Committee's amendment to H.R. 3359. See also *infra* notes 65-66

tant question is whether one of Yellowstone's most vital and visible resources should be put at risk, even if that risk may be minimal. Although science can help define the magnitude of the risk, the choice between park protection and private property interests is ultimately a value judgment to be reached in a political arena where absolute certainty has never been a touchstone for legislative action. The underlying takings issue, on the other hand, can be adequately addressed in a judicial arena without additional legislative intervention. What follows is a review of the Yellowstone geothermal controversy, a clarification of the legislative choices confronting Congress, and some observations on the controversy's broader ramifications for the national parks.

I. YELLOWSTONE'S GEYSERS AND GEOTHERMAL LEGISLATION

Yellowstone and geysers are synonymous. Explorers' early reports, which often were not believed, described the Yellowstone plateau in striking terms: "[A] number of hot and boiling springs, some of water and others of most beautiful fine clay, resembling that of a mush pot and throwing its particles to the immense height of from twenty to thirty feet."¹³ Once the region's natural splendor and geothermal curiosities had been disclosed to the public, Congress needed little convincing to set Yellowstone aside as the world's first national park in 1872.¹⁴ In fact, the legislation creating Yellowstone quite intentionally described the park's boundaries to embrace the area's principal geothermal features.¹⁵ Nonetheless, it has long been understood that the park's geothermal aquifers extend beyond park boundaries. The U.S. Geological Survey has designated two geothermal resource areas on lands just beyond the park's borders: The Island Park Known Geological Resource Area (KGRA), located largely on national forest lands in Idaho west of the park,¹⁶ and the

and accompanying text for an analysis of the amendment.

13. LOUIS C. CRAMTON, *EARLY HISTORY OF YELLOWSTONE NATIONAL PARK AND ITS RELATION TO NATIONAL PARK POLICIES* 5 (1932); AUBREY L. HAINES, *THE YELLOWSTONE STORY* 41-42 (1977) (quoting Daniel T. Potts' July 8, 1827 letter). See generally RODERICK NASH, *WILDERNESS AND THE AMERICAN MIND* 108-16 (3d ed. 1982).

14. *Yellowstone Park Act of 1872*, 17 Stat. 32, 16 U.S.C. §§ 21, 22 (1988). See generally RUNTE, *supra* note 2, at 33-47.

15. RUNTE, *supra* note 2, at 46; NASH, *supra* note 13, at 112.

16. See U.S. DEP'T OF AGRIC., FOREST SERVICE, & U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, *FINAL ENVIRONMENTAL IMPACT STATEMENT OF THE ISLAND PARK GEOTHERMAL AREA* (Idaho, Montana, Wyoming) 8 (1980) [hereinafter *ISLAND PARK EIS*]. A "Known Geothermal Resource Area (KGRA) is "an area in which the geology, nearby discoveries, competitive interests, or other idicia would, in the opinion of the Secretary [of the Interior], engender a belief in men who are experienced in the subject matter that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose." 30 U.S.C. § 1001(e) (1988).

Corwin Springs KGRA, embracing public and private land in the Upper Yellowstone Valley, Montana, just north of the park's Mammoth entrance.¹⁷

Until recently, there was little interest in geothermal development in the Yellowstone region. In Montana, local residents occasionally have used surface flows from the hot springs, establishing businesses like the Chico Hot Springs Resort in Paradise Valley and the now long-defunct Corwin Springs Hotel and Spa.¹⁸ Since Montana water law does not distinguish between hot and cold water,¹⁹ some local property owners filed and received water rights to surface flows from the area's geothermal springs. However, recent actions by the Church Universal and Triumphant (CUT), a local religious cult that owns the Royal Teton Ranch, to develop subsurface geothermal waters triggered the Old Faithful Protection Act proposal.²⁰ Located just north of Mammoth Hot Springs, the Royal Teton Ranch traces its water right claim to the La Duke Hot Springs surface flows to a previous owner who built a resort hotel and health spa at the site early in the 20th century.²¹ The hotel was later destroyed by a fire, and the spa was eventually abandoned after World War II.

Throughout much of this century, the federal government did not regulate geothermal resources. There simply was little domestic interest in geothermal power until the 1960's, when the prospect of energy shortages as well as environmental pollution became a very real public concern. Because geothermal heat is the product of recent volcanic activity, most of the nation's known geothermal sources are located in the western states, often on public lands. When Pacific Gas and Electric pioneered a major geothermal electrical generating facility at the Geysers in northern California, interest quickly mounted in the commercial development of geothermal energy on western public lands, where estimates indicated that 1.35 million acres contained geothermal resources.²² But "the absence of reliable statutory authority to permit [geothermal] development on public lands" discouraged commercial development.²³ Lacking any legal direction, the Department of the Interior took the position that it had no authority to dispose of geothermal resources found on the public lands.

17. 40 Fed. Reg. 30,729 (1975).

18. *Corwin Springs: Past, Present, and Future*, ROYAL TETON RANCH NEWS, July 4, 1983, at 4.

19. MONT. CODE ANN. §§ 85-2-102(10), (16), -501(3) (1991). See Owen Olpin et. al., *Geothermal Development and Western Water Law*, 1979 UTAH L. REV. 773, 847-50.

20. H.R. REP. No. 374, *supra* note 1, at 2-3. See *infra* notes 44-48 and accompanying text for a description of CUT and its ownership and development of the Royal Teton Ranch.

21. Testimony of Edward L. Francis, representing CUT, to Senate Subcomm. on Mineral Resource Development and Production, July 14, 1987.

22. H.R. REP. No. 1544, 91st Cong., 2d Sess. 4 (1970) *reprinted in* 1970 U.S.C.C.A.N. 5113 [hereinafter H.R. REP. No. 1544].

23. *Id.*

Efforts to use the mining and mineral leasing laws to gain access to geothermal resources proved unsatisfactory, because these statutes were not designed to address the unique problems associated with geothermal development.²⁴

In the Geothermal Steam Act of 1970,²⁵ Congress created a geothermal leasing system modeled after the Mineral Leasing Act of 1920.²⁶ The Secretary of the Interior was authorized to lease public lands for geothermal exploration and development.²⁷ Although the Act excluded certain defined lands from leasing,²⁸ these excluded lands did not specifically include the national parks or other preserved lands. However, the congressional reports accompanying the Act plainly indicated that leasing was not contemplated in the national parks:

Leases would not be issuable for lands within national parks, monuments, and recreation areas. . . . Thus, under no circumstances could the well-known "Old Faithful" geyser at Yellowstone National Park or any other such geyser or hot springs in park or outdoor recreation areas be exploited under the bill.²⁹

Nonetheless, the Act did authorize leasing in national forests and on other public lands located adjacent to Yellowstone and other national parks.

During the 1970's energy crises, when developers filed more than 200 geothermal leasing applications for the Island Park KGRA located in the Targhee National Forest adjacent to Yellowstone National Park,³⁰ the Geothermal Steam Act's legal shortcomings were made explicit. The Forest Service, as the responsible land management agency, was statutorily vested with approval authority over the lease applications. In compliance with the National Environmental Policy Act (NEPA),³¹ it prepared an Environmental Impact Statement (EIS) on the leasing proposals.³² Opposition to the leasing proposal was swift and focused on the potential threat geothermal drilling posed to the nearby geothermal features located

24. *Id.* at 5.

25. 30 U.S.C. §§ 1001-1025 (as amended) (1988). *See generally* Olpin, *supra* note 19, at 773; Owen Olpin & A. Dan Tarlock, *Water That Is Not Water*, 13 LAND & WATER L. REV. 391 (1978); *Geothermal Resources Development Institute (Symposium on Geothermal Resources)*, 13 LAND & WATER L. REV. 1 (1977); Paul Schlauch & Theodore Worcester, *Geothermal Resources: A Primer for the Practitioner*, 9 LAND & WATER L. REV. 327 (1974).

26. 30 U.S.C. §§ 181-287 (1988).

27. *Id.* § 1002.

28. *Id.* § 1014.

29. H.R. REP. NO. 1544, *supra* note 22, at 5; S. REP. NO. 1160, 91st Cong., 2d Sess. 4 (1970); *see also* 43 C.F.R. § 3201.1-6 (1973) (superseded).

30. 130 CONG. REC. 12,689 (1984); ISLAND PARK EIS, *supra* note 16, at 1.

31. 42 U.S.C. §§ 4321-4370c (1988). Under NEPA, an EIS is required for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(c) (1988).

32. ISLAND PARK EIS, *supra* note 16, at 1.

in Yellowstone National Park, which were thought to be connected with Island Park through a common geothermal aquifer.³³ After noting that geothermal development elsewhere in the world had destroyed nearby geyser systems,³⁴ the 1980 Island Park EIS concluded:

The exact boundaries of the Yellowstone geothermal reservoir(s) are uncertain and no definite evidence is apparently available on what the permeability is at depth. Thus, it is difficult to say how much of a connection — if any — there is between the possible geothermal resource of the IPGA [Island Park Geothermal Area] and thermal areas inside the park, or if any adverse effects might result.³⁵

In the face of this uncertainty, the EIS provided for limited leasing, with leasing deferred on lands with high surface resource values and in areas deemed necessary to protect Yellowstone's unique geothermal features.³⁶

With Yellowstone's geothermal features at risk in the absence of explicit legal protection, Congress was finally stirred to action. After incorporating an Island Park leasing ban into the 1984 and 1986 Interior Department appropriations bills,³⁷ Congress passed the Geothermal Steam Act Amendments of 1988,³⁸ which extended some legal protection to national parks confronting geothermal development on nearby federal lands. The amendments precluded geothermal leasing on public lands adjacent to national parks if the Secretary of the Interior, based on scientific evidence, concluded that geothermal development was "reasonably likely to result in a significant adverse effect on a significant thermal feature within units of the National Park System."³⁹ The amendments also extended the ban on leasing in the Island Park region.⁴⁰ In addition, confronted with the fact that the CUT had drilled an unauthorized geothermal well on its property in the Corwin Springs KGRA,⁴¹ Congress mandated that the U.S. Geological Survey, in conjunction with the

33. See ISLAND PARK EIS, *supra* note 16, at 172-76, 184-85, 209-12, 222-23, 245-50. See generally, *id.* at 171-276 (app. N, Comments Received on the Draft EIS and Responses).

34. ISLAND PARK EIS, *supra* note 16, at 112. See *infra* note 63 for a description of international geothermal development problems.

35. ISLAND PARK EIS, *supra* note 16, at 112.

36. *Id.* at i, 88.

37. Pub. L. No. 98-473, § 319, 98 Stat. 1837, 1874 (1984); Pub. L. No. 99-190, § 322, 99 Stat. 1185, 1267 (1985) (codified at 30 U.S.C. § 1026(f) (1988)).

38. Pub. L. No. 100-443, 102 Stat. 1766 (1988) (codified as amended at 30 U.S.C. §§ 1001(f), 1026 (1988)).

39. 30 U.S.C. § 1026(c) (1988).

40. *Id.* § 1026(f). See also S. REP. NO. 283, 100th Cong., 2d Sess. 9 (1988), *reprinted in* 1988 U.S.C.A.N. 2350, 2356 [hereinafter S. REP. NO. 283].

41. See *infra* text accompanying notes 44-49 for a description of CUT's geothermal development activities.

National Park Service, undertake a study to determine the impact of geothermal development in the Corwin Springs area.⁴² Congress imposed a ban on further private development or leasing until 180 days after the report was submitted.⁴³

The CUT's unilateral decision to drill a test well on its property triggered the Corwin Springs study as well as the proposed Old Faithful Protection Act. By 1986, the CUT, which purchased the Royal Teton Ranch in 1981, had become a major irritant for Yellowstone officials and other Paradise Valley residents. During the mid 1980s, when the Church decided to move its headquarters to Montana from California, it undertook major construction on the ranch to accommodate church operations and its several thousand person membership, thus dramatically altering the rural character of the area.⁴⁴ The Church's proposed changes were so extensive and threatening to area water supplies that the Montana Department of Health and Environmental Sciences prepared an environmental impact statement to determine whether the development would meet existing water quality standards.⁴⁵ In 1986, invoking its acquired water right to the surface flows of La Duke Hot Springs, the Church drilled a geothermal test well (across the Yellowstone River from the hot springs) to determine whether it might change the point of diversion and utilize its hot water to heat ranch buildings. After securing a substantial hot water flow during test pumping, the Church capped the well, indicating that it would not further utilize the well pending resolution of the matter.⁴⁶ Significantly,

42. Pub. L. No. 100-443, § 8, 102 Stat. 1766, 1771 (1988) (noted after 30 U.S.C. § 1026 (1988) as "Corwin Springs Known Geothermal Resource Area Study"). See S. REP. NO. 100-283, *supra* note 40, at 3, 9, reprinted in 1988 U.S.C.C.A.N. 2350, 2355-56.

43. Pub. L. No. 100-443, §§ 8(b)-(c), 102 Stat. 1766, 1771 (1988). See also S. REP. NO. 100-283, *supra* note 40, at 3, 9, reprinted in 1988 U.S.C.C.A.N. 2350, 2355-56.

44. See Maureen Harrington, *New Age Range War*, THE SUNDAY DENVER POST (Contemporary), Nov. 26, 1989, at 20; Patrick Dawson, *God's Country is Being Developed*, HIGH COUNTRY NEWS, Apr. 11, 1988, at 1; Jim Robbins, *Beauty, Isolation and Cheap Land Bring a Sect to Montana*, HIGH COUNTRY NEWS, Sept. 14, 1987, at 1.

45. MONTANA DEP'T OF HEALTH AND ENVTL. SCIENCES, CHURCH UNIVERSAL AND TRIUMPHANT FINAL ENVIRONMENTAL IMPACT STATEMENT, Mar. 15, 1989 [hereinafter CUT FEIS]. After incorporating a Mitigation Plan Agreement in the FEIS, Montana officials authorized CUT's extensive development plans, finding no significant impact on the human environment. *Id.* at 6-8. Environmentalists unsuccessfully challenged the decision in state district court. Upper Yellowstone Defense Fund, Inc. v. Montana Dep't of Health & Env't Sciences, No. BDV-89-261, (Mont. First Jud. Dist., May 12, 1989) (findings of fact, conclusions of law, and order). Less than one year later, however, the state secured an injunction against further construction by CUT after underground storage tanks installed as part of a massive bomb shelter were discovered leaking into a nearby stream. See Todd Wilkinson, *Conservationists Decry Church's Bomb Shelter*, DENVER POST, Mar. 22, 1990, at 1B; *Church Universal Finds Diesel Fuel Tank Leakage*, CASPER STAR TRIBUNE, Apr. 14, 1990, at A3; Alan Gottlieb & Todd Wilkinson, *Church Told to Halt Shelter Work*, DENVER POST, Apr. 24, 1990, at 1B.

46. The CUT's commitment not to utilize the test well was confirmed in the Mitigation Plan Agreement accompanying Montana's FEIS. CUT FEIS, *supra* note 45, at 7.

the Church drilled the test well in apparent violation of Montana law,⁴⁷ and state officials subsequently concluded that the Church did not have a valid water right to pump from the well.⁴⁸

In October 1991, amidst much controversy, the Secretary of the Interior submitted the U.S. Geological Survey Report evaluating the impact development of the Corwin Springs KGRA might have on Yellowstone's geothermal features.⁴⁹ Congress, of course, contemplated that the report would provide sufficient information to devise legislation adequately protecting Yellowstone's geothermal resources. Invoking the Geological Survey's findings, Secretary of the Interior Manuel Lujan advised Congress that extensive geothermal development "may adversely affect" Yellowstone's geothermal features, but that limited production from the CUT well "will pose no discernible risk to the thermal features of the Park."⁵⁰ However, the National Park Service, in a companion report that the Secretary did not submit to Congress, reached the exact opposite conclusion.⁵¹ Noting that the U.S. Geological Survey Report did not

47. Under Montana water law, CUT was required to secure a permit before drilling a test well and then pumping water in excess of 35 gallons per minute. MONT. CODE ANN. § 85-2-302 (1991). Moreover, CUT was required to secure authorization from the state before changing its point of diversion from the LaDuke Hot Springs to a location across the river. MONT. CODE ANN. § 85-4-402 (1991). See letter from Larry Holman, Chief, Water Rights Bureau, Montana Dep't of Natural Resources and Conservation, to Louisa Willcox, Greater Yellowstone Coalition (Apr. 16, 1992) (copy on file with author); letter from Donald D. MacIntyre, Chief Legal Counsel, Montana Dep't of Natural Resources and Conservation, to State Representative Bob Raney (June 9, 1992) (copy on file with author). The CUT, however, denies that the well was drilled illegally, asserting that no permit was required for a test well. Letter from Ted J. Doney, Attorney at Law, representing CUT, to Senators Dale Bumpers and Jeff Bingaman, U.S. Senate Comm. on Energy and Natural Resources (May 15, 1992) (copy on file with author).

48. In short, Montana officials concluded that, because CUT had not secured the necessary state permits to drill the well and had not secured authorization to change the point of diversion, it could not claim a property right to water at the wellhead. See letter from Gary Fritz, Administrator, Water Resources Div., Montana Dep't of Natural Resources and Conservation, to Mark Simonich, Senate Office Bldg. (June 16, 1992) (copy on file with author); letter from Donald D. MacIntyre, Chief Legal Counsel, Montana Dep't of Natural Resources and Conservation, to State Representative Bob Raney (June 9, 1992) (copy on file with author). See also David Hackett, *Church Draws Water From Controversial Well*, CASPER STAR TRIBUNE, June 30, 1992, at A1.

49. U.S. GEOLOGICAL SURVEY, EFFECTS OF POTENTIAL GEOTHERMAL DEVELOPMENT IN THE CORWIN SPRINGS KNOWN GEOTHERMAL RESOURCES AREA, MONTANA, ON THE THERMAL FEATURES OF YELLOWSTONE NATIONAL PARK (Abstract) (Michael L. Sorey, ed., 1991) [hereinafter USGS CORWIN SPRINGS KGRA REPORT].

50. Letter from Manuel Lujan, Secretary of the Interior, to George Miller, Chairman, House Comm. on Interior and Insular Affairs (Oct. 16, 1991) (copy on file with author). Notably, Secretary of the Interior Bruce Babbitt has advised Congress that he strongly favors banning geothermal development in the vicinity of Yellowstone National Park. David Hackett, *Babbitt Favors Banning Geothermal Wells, Wants Fair Return on Resources*, CASPER STAR TRIBUNE, Feb. 17, 1993, at A1.

51. NATIONAL PARK SERVICE, YELLOWSTONE NATIONAL PARK, CORWIN SPRINGS KNOWN GEOTHERMAL RESOURCE AREA IMPACT ANALYSIS: REPORT TO CONGRESS (Feb. 1, 1991) [hereinafter NPS CORWIN SPRINGS KGRA REPORT].

conclusively establish that park resources were not at risk, the Park Service asserted that "any risk, no matter how small, to Yellowstone's geothermal resources is too much risk."⁵² Needless to say, the Secretary's omission of the Park Service report from his initial report to Congress called into question the integrity of the entire study process and provoked charges of a departmental coverup.⁵³

Regardless of which agency is correct, submission of the report started the clock running on the 180-day moratorium extension.⁵⁴ On April 16, 1992, when Congress failed to enact legislation extending the ban, the moratorium expired and left the park's thermal features without any federal legal protection. Less than three months later, the Church began pumping its La Duke well at a low flow level to operate a portable swimming pool.⁵⁵ The Church asserted that this entitled it to a water right under Montana law, which state officials subsequently granted.⁵⁶ Because Congress had stalemated over the competing House and Senate Committee legislative proposals,⁵⁷ the Church was able to use the opportunity to secure a property interest that it did not previously have.

The U.S. Geological Survey (U.S.G.S.) and National Park Service reports on the Corwin Springs KGRA present conflicting views on regional geothermal connections. The U.S.G.S. Report addressed three principal issues: 1) The sources of thermal water in the hot springs at Mammoth, La Duke, and Bear Creek; 2) the degree of subsurface connection between these areas; and 3) the effects of geothermal development in the Corwin Springs KGRA on the park's thermal features.⁵⁸ The report concludes that "there could be flow paths between Mammoth Hot Springs and La Duke Hot Springs, but there is no chemical evidence that such flow is actually

52. Memorandum from Bob Barbee, Superintendent, Yellowstone National Park, to James Ridenour, Director, National Park Service (June 21, 1991) (copy on file with author).

53. Tom Kenworthy, *Park Service Dissent Omitted in Report on Yellowstone*, THE WASHINGTON POST, Oct. 20, 1991, at A3; Todd Wilkinson, *Lujan Ignored Report on Geysers Risk, Critics Say*, DENVER POST, Oct. 19, 1991, at 1B; Eric Williams, *Park Service Chief Says His Views Rejected*, THE MONTANA STANDARD, Butte, Oct. 26, 1991, at 2.

54. See *supra* notes 49 and accompanying text.

55. David Hackett, *Church Draws Water from Controversial Well*, CASPER STAR TRIBUNE, June 30, 1992, at A1; *Montana Tells CUT to Halt Geothermal Well Pumping*, CASPER STAR TRIBUNE, July 3, 1992, at B1.

56. MONT. CODE ANN. § 85-2-306(1) (1991) (outside controlled groundwater area, appropriations less than thirty-five gallons per minute can be made without a state permit). See *Official Says CUT is Due Water Rights*, BILLINGS GAZETTE, Oct. 3, 1992.

57. See *infra* notes 75-129 and accompanying text for a description of the two legislative proposals. See also David Hackett, *Baucus Places 'Hold' on Geothermal Protection Bill*, CASPER STAR TRIBUNE, Sept. 15, 1992, at A1; David Hackett, *Geothermal Protection Act Dies*, CASPER STAR TRIBUNE, Oct. 10, 1992, at A1.

58. USGS CORWIN SPRINGS KGRA REPORT, *supra* note 49, at 1 .

occurring.”⁵⁹ The report also concludes that large-scale geothermal development in the Corwin Springs KGRA could impact thermal springs in the Yellowstone National Park, but that limited production from the existing CUT well “poses no risk of decreased discharge of the Park’s thermal springs.”⁶⁰ Noting that geothermal development elsewhere in the Corwin Springs KGRA at rates exceeding the natural surface flows could affect Mammoth Hot Springs, the U.S. Geological Survey suggested that information from monitoring wells could reduce the risk to park geothermal features.⁶¹

Unlike the U.S. Geological Survey Report, the National Park Service Report (or Impact Analysis) reached the conclusion that no development should be permitted in the Corwin Springs KGRA.⁶² Noting that geothermal development elsewhere had caused seven of the world’s ten major geyser systems to dry up,⁶³ the Park Service observed that U.S. Geological Survey scientists could not definitively rule out a connection between LaDuke Hot Springs and Mammoth Hot Springs.⁶⁴ The Park Service’s criticisms were joined by a U.S. Geological Survey scientist, who participated in this study and who initially was prevented by agency officials from

59. *Id.* at 2. The report also concludes that there is “chemical evidence of a small component of Mammoth-type thermal water in Bear Creek Springs and evidence of substantially greater flow in the past (>12,000 years ago) between Mammoth and other parts of the KGRA.” *Id.*

60. *Id.* The report concluded that development limited to the natural flow of LaDuke Hot Springs (7 liters per second), or the use of downhole heat exchangers in the well, or well production less than the outflow of thermal water from LaDuke Hot Springs into Yellowstone River (approximately 60 liters per second) would not cause a decrease in discharge of the Mammoth Hot Springs thermal features. *Id.*

61. *Id.* at 3. The U.S.G.S. Report, however, also notes that much more information is needed before monitoring wells can be properly sited. *Id.* Significantly, shortly after the 102d Congress recessed, an existing geothermal research well drilled by the U.S. Geological Survey in Yellowstone National Park in 1967 began leaking when a valve failed, causing park officials to worry that the leak could disrupt nearby thermal activity. The leaking well ultimately was sealed at a cost of \$52,000. *Federal Agency Will Seal Geothermal Research Well in Yellowstone Park*, CASPER STAR TRIBUNE, Nov. 18, 1992, at B1; *Sealing Work Starts on Leaking Yellowstone Well*, CASPER STAR TRIBUNE, Nov. 22, 1992, at B1. The incident illustrates the potential problems associated with monitoring wells.

62. NPS CORWIN SPRINGS KGRA REPORT, *supra* note 51, at 3.

63. *Id.* at 5-6. The report notes that the surface features at geothermal areas in New Zealand, China, Chile, Iceland, Russia, Nevada, and California have either been “seriously affected or destroyed outright” by development. In New Zealand, where more than 130 geysers were active in 1950, only fourteen geysers still erupt. In Beowawe, Nevada, thirty geysers were active in 1958, but none remain active in the aftermath of extensive geothermal development activity. Only two geothermal areas remain intact among the world’s geothermal regions: Kronotski Biological Reserve in Kamchatka, Russia, and Yellowstone National Park in the United States. *See also* WORKING GROUP YELLOWSTONE CONTROLLED GROUNDWATER AREA REPORT, *infra* note 136 at 2-3 (noting the diameter of impact caused by development on thirteen geothermal areas throughout the world).

64. Specifically, the Park Service Report noted that “there is no evidence of a geologic barrier between the geothermal resources of [Yellowstone National Park] and those of the [Corwin Springs] KGRA” and that “there is evidence of geothermal fluid movement between [Yellowstone National Park] and the KGRA.” NPS CORWIN SPRINGS KGRA REPORT, *supra* note 51, at 7.

testifying before Congress.⁶⁵ Fearing the precedential impact of the Church's geothermal well and the cumulative impact of further development, the Park Service urged extreme caution and supported a complete ban on geothermal development in the Corwin Springs KGRA.

The Church, joined by an assortment of western extractive industries and their support organizations, has steadfastly asserted that a ban on geothermal development would be an unconstitutional taking of its private property.⁶⁶ The Church's claim is based on its asserted water right to surface flows at La Duke Hot Springs. Although that right may exist, the Church has never established a right to change the point of diversion across the Yellowstone River, which would give it a property right at its well site. Indeed, as originally drilled and tested, the well violated state law.⁶⁷ But recognizing that it had no protected property interest, CUT has now complied with state law and evidently established a valid water right at its well site for low geothermal flows to maintain a portable swimming pool.⁶⁸ Viewing the entire controversy as a test of the Park Service's extra-territorial power over private property, a plethora of development-oriented national and local organizations have supported CUT's property right claims.⁶⁹ These same organizations have invoked similar arguments to challenge federal regulation over grazing, timbering, and other development activities traditionally associated with the multiple-use public lands throughout the West.⁷⁰

65. *A bill to amend the Geothermal Steam Act of 1970: Hearings on H.R. 3359 Before the Subcomm. on Mining and Natural Resources*, (1991)(statement of Dr. Irving Friedman). This same scientist also previously concluded that "gas and oil development represents a threat to the thermal features of the Park at least as important as geothermal heat extraction." Memorandum from Irving Friedman, Research Geochemist, to Lorraine Mintzmyer, NPS Regional Director (Jan. 13, 1986) (copy on file with author).

66. *A Bill to Amend the Geothermal Steam Act of 1970: Hearings on H.R. 3359 Before the Mineral Resources Development and Production Comm. and the Public Lands, National Parks and Forests Subcomm. of the Senate Comm. on Energy and Natural Resources*, (1992) (statement of Church Universal and Triumphant, Inc., presented by Edward L. Francis, Vice President). See *infra* note 69 for a list of organizations supporting the CUT's opposition to H.R. 3359. But see American Law Division, Congressional Research Service, Memorandum to Senate Comm. on Energy and Natural Resources (Feb. 24, 1992) (copy on file with author), concluding that H.R. 3359 would not constitute a regulatory taking.

67. See *supra* notes 47-48 and accompanying text.

68. See *supra* note 48 and accompanying text. See also *infra* notes 110-20 examining the validity of CUT's water right.

69. Letters or testimony supporting CUT's position and opposing H.R. 3359 were submitted by the National Inholder's Association, National Cattlemens Association, Montana Stockgrowers Association, Western Environmental Trade Association, Northwest Legal Foundation, and American Farm Bureau Federation.

70. See articles cited *supra* note 8 (describing activities of these multiple-use organizations). See also *Sweet Home Chapter of Communities v. Lujan*, 806 F. Supp. 279 (D.D.C. 1992); *Intermountain Forest Industry Ass'n v. Lyng*, 683 F. Supp. 1330 (D. Wyo. 1988); *Mountain States Legal Found. v. Madigan*, No. 92-0097 (D.D.C. 1992); *Mountain States Legal Found. v. Hodel*, 668 F. Supp. 1466 (D.

This is not the first time that Yellowstone National Park officials and their environmentalist allies have found themselves at odds with these same organizations. In 1985, at the behest of Congress, the National Park Service and the Forest Service undertook a comprehensive study of the Yellowstone region to inventory its resources and to devise a coordinated management strategy for the public domain lands.⁷¹ Yellowstone officials and environmentalists had long argued that the park is part of a larger ecosystem, which should be managed as an integrated entity. The interagency coordination process resulted in release for public comment of a draft Vision Document that explicitly legitimized the principle of ecosystem management for Greater Yellowstone and gave priority to protection of natural values.⁷² But, asserting that the Vision Document would curtail traditional extractive industries, such as mining and logging, and that it sanctioned federal regulation of private property, a broad-based coalition of industry and ranching organizations mounted a sustained campaign against the proposal.⁷³ With the aid of local congressional delegations, this coalition successfully undermined the Vision Document and pressured federal officials into adopting a much less sweeping coordination agreement.⁷⁴ Many of these same forces, which are now organized into potent regional and national advocacy organizations, have again rallied against the geothermal protection proposals, once more raising the spectre of unlawful government interference with private property rights.

Wyo. 1987).

71. U.S. NAT'L PARK SERVICE, DEP'T OF THE INTERIOR, & U.S. FOREST SERVICE, DEP'T OF AGRICULTURE, AN AGGREGATION OF NATIONAL PARK AND NATIONAL FOREST MANAGEMENT PLANS (1987) [hereinafter AGGREGATION REPORT]; Keiter, *supra* note 6, at 984-88.

72. U.S. DEP'T OF THE INTERIOR, NATIONAL PARK SERVICE, & U.S. DEP'T OF AGRIC., FOREST SERVICE, VISION FOR THE FUTURE: A FRAMEWORK FOR COORDINATION IN THE GREATER YELLOWSTONE AREA (DRAFT) 3-7, 4-1 (1990) [hereinafter DRAFT VISION DOCUMENT]. See generally Goldstein, *supra* note 7.

73. Barbee et al., *supra* note 7; Goldstein, *supra* note 7. For background information on the opposition to the federal interagency coordination initiative, see Budd, *Ecosystem Management: Will National Forests Be "Managed" into National Parks*, in THE GREATER YELLOWSTONE ECOSYSTEM, *supra* note 6, at 65; G. REYNOLDS, PROMISE OR THREAT? A STUDY OF "GREATER YELLOWSTONE ECOSYSTEM" MANAGEMENT (1987); WYOMING HERITAGE FOUND., WHITE PAPER: WYOMING'S FEDERAL LANDS (May 1987).

74. FRAMEWORK FOR COORDINATION, *supra* note 7. See Barbee et al., *supra* note 7, at 5-6; Goldstein, *supra* note 7, at 186; *Congressional report: Political 'Conspiracy' Killed Vision Plan*, CASPER STAR TRIBUNE, Jan. 7, 1993, at B1 for background information on political involvement in the interagency coordination efforts. Notably, the Regional Park Service Director, who served as co-chair of the interagency group responsible for preparing the coordination documents, was subsequently transferred involuntarily amidst allegations that the transfer was politically motivated; litigation is pending in the matter. See *id.*

II. THE PROPOSED LEGISLATION

Montana Representative Pat Williams sponsored the Old Faithful Protection Act of 1991, which was easily passed by the House of Representatives on November 25, 1991.⁷⁵ Adopting a posture of extreme institutional caution, the Old Faithful Protection Act would continue the existing prohibitions on geothermal development on Yellowstone's periphery, absolutely prohibit geothermal development on public and private lands in the Corwin Springs KGRA, and impose a moratorium on geothermal development elsewhere outside the park. The first section of the bill, responding to the imminent threat posed by CUT's geothermal activities, imposed an absolute ban on any existing or future geothermal use, production, exploration, or development in the Corwin Springs KGRA, whether on public or private land.⁷⁶ The bill explicitly found that any geothermal development activity would result in adverse effects on Yellowstone's geothermal features.⁷⁷ The bill also prohibited any federal geothermal leasing within a 15 mile radius of Yellowstone's borders.⁷⁸

Moreover, the OFPA imposed a moratorium on the use or development of any existing geothermal well or the exploration and development of any new geothermal well on nonfederal lands within a 15 mile radius of Yellowstone's borders,⁷⁹ pending a study on the impact geothermal development might have on the park's thermal features. The study was intended to assess the geothermal connections between Yellowstone's thermal features and adjacent lands to insure that development would not adversely affect the park's geothermal resources.⁸⁰ The Park Service, in consultation with the Forest Service and the U.S. Geological Survey, was to complete the study and submit a report to Congress within four years.⁸¹ The moratorium would allow Congress 180 days to respond to the Park Service report.⁸²

75. 137 CONG. REC. 11,239 (1991). Significantly, noting the need for extreme caution to protect Yellowstone's geothermal features, Wyoming Representative Craig Thomas and Montana Representative Ron Marlenee both expressed support for the OFPA, while also observing that compensation would be required if property rights were taken. *Id.* at 11,237-38.

76. H.R. 3359, *supra* note 1, at § 2.

77. *Id.*

78. *Id.* This leasing ban was superimposed over other congressional leasing bans and limitations as set forth in Sections 28(f) and 30 of the amended Geothermal Steam Act of 1970. *Id.*

79. H.R. 3359, *supra* note 1, § 3(a). This moratorium included the Island Park KGRA area, which already is off limits to geothermal leasing. 30 U.S.C. § 1026(f) (1988). In addition, the OFPA moratorium is superimposed over existing bans and prohibitions as reflected in §§ 28(f), 30, and 31 of the amended Geothermal Steam Act of 1970. H.R. 3359, *supra* note 1, § 3(a).

80. This study would include all areas surrounding Yellowstone National Park except the Corwin Springs KGRA, which already has been studied by the U.S. Geological Survey and National Park Service. *See supra* notes 49, 58-64 and accompanying text.

81. H.R. 3359, *supra* note 1, at § 3(b).

82. *Id.* § 3(a).

The OFPA plainly reflects an expansive view of congressional power to protect Yellowstone National Park's geothermal features. In effect, the bill would create a geothermal buffer zone around Yellowstone's periphery, prohibiting any geothermal activity on either federal, state, or private lands within the defined area. By requiring the Park Service to conduct a geothermal study, the bill would extend Park Service responsibilities beyond park boundaries onto adjacent public and private lands. The study responsibility also would acknowledge the Park Service's interest in water management, an area traditionally subject to state jurisdiction and oversight. State prerogatives as well as private property interests would be subordinated to the federal goal of protecting national park resources. In short, the Park Service would have primary responsibility for protecting park resources from external activities occurring on adjacent federal and nonfederal lands.

This expansive use of federal power did not sit well with Wyoming Senator Malcolm Wallop and several other western senators. They successfully amended the Old Faithful Protection Act in the Senate Energy and Natural Resources Committee, effectively substituting an alternative bill.⁸³ Responding to complaints that the OFPA would unduly expand federal authority over private land, unconstitutionally take private property, and displace traditional state prerogatives,⁸⁴ the Senate Committee amendment relied upon state rather than federal law to protect Yellowstone's geothermal features from development on adjacent private lands. Like the OFPA, the Senate Committee proposal precluded geothermal leasing on federal lands within 15 miles of park boundaries,⁸⁵ and imposed a broad moratorium on geothermal activity, pending completion of a Park Service-directed study of the effect geothermal development on adjacent lands might have on Yellowstone's geothermal features.⁸⁶ But unlike the OFPA, the amendment gave the surrounding states responsibility for protecting Yellowstone's geothermal features from development on adjacent nonfederal lands.⁸⁷ The amendment lifted the moratorium once

83. S. REP. NO. 363, *supra* note 12. See app. B for the entire text of the Senate Energy and Natural Resources Committee's amendment to the OFPA [hereinafter SENATE COMM. AMEND.].

84. H.R. REP. NO. 374, *supra* note 1, at 14-16 (Minority Views); 137 CONG. REC. 11,236 (1991) (Mrs. Vucanovich). See also letters noted *supra*, at notes 47-48.

85. SENATE COMM. AMEND., *supra* note 83, § 1(a)(1).

86. *Id.* §§ 1(a)(2), 1(b). The Senate Committee Amendment also required that the report be delivered to Congress within three years and extended the moratorium for an additional 180 days to allow Congress to respond to the report.

87. The Senate Committee amendment only imposed a moratorium on geothermal development on nonfederal lands in Montana and Wyoming; it did not impose a similar ban in Idaho. SENATE COMM. AMEND., *supra* note 83, § 1(a)(2). Idaho was omitted from the gubernatorial certification requirement because it already has enacted geothermal development legislation and the amendment sponsors did not want to preempt state law. S. REP. NO. 363, *supra* note 12, at 13. See IDAHO CODE §§ 42-4001 to

the adjoining state's governor certified that the state had enacted "laws regulating the exploration, development, production, and use of geothermal resources in a manner which provides for the protection of the thermal features of Yellowstone National Park."⁸⁸ Because a report already had been completed on geothermal development in the Corwin Springs KGRA, that moratorium was lifted once Montana's governor certified that the necessary state laws had been enacted.⁸⁹ Moreover, the Senate Committee proposal provided that property rights were to be defined solely by reference to state law and that takings actions were to be litigated in the local federal district court.⁹⁰

Despite some similarities, the Senate Committee amendment constituted a fundamental revision of the House's version of the OFPA. Most notably, it gave the states explicit responsibility for protecting national park resources from geothermal activities on nonfederal lands. In contrast, the OFPA vested Congress with that responsibility, based upon the Park Service's report. In the case of the Corwin Springs KGRA, the Senate Committee proposal left development dependent on state law as certified by Montana's governor, while the OFPA flatly banned any future development in this sensitive area. The Senate proposal specifically outlined a procedure for asserting a constitutional takings claim, while the OFPA presumed that the U.S. Claims Court would be available to hear takings challenges.⁹¹ These differences can be explained by fundamental philosophical disagreements about the appropriate spheres of federal and state power as well as the need for explicit legislative protection of private property rights in the face of governmental regulation.

Between the two approaches, the Williams-sponsored OFPA offers

4015 (1990). However, the Idaho legislation actually provides little protection for Yellowstone's geothermal features. The Director of the Idaho Department of Water Resources can grant a geothermal development permit based on a "public interest" standard, which may include consideration of whether the development will "render any geothermal resource of unreasonably less value." *Id.* § 42-4004(b)(3). The Director is given broad discretion to determine what constitutes the public interest. *Shokal v. Dunn*, 707 P.2d 441, 450 (Idaho 1985). In short, the Idaho statute does not accord any special protection to Yellowstone's geothermal resources, nor does it establish meaningful, judicially enforceable limitations on geothermal development permits. *See also* IDAHO CODE § 42-233 (1990). The Idaho Code establishes a "public interest" standard to govern development of "low temperature geothermal resources," defined as groundwater with a temperature greater than 85 degrees Fahrenheit and less than 212 degrees Fahrenheit. *Id.* § 230(a)(1)).

88. SENATE COMM. AMEND., *supra* note 83, §§ 1(a)(2), 3. The governor is required to transmit the certification notice to House and Senate committees, and the moratorium continues for an additional 180 days after the report is transmitted.

89. *Id.* § 1(a)(3).

90. *Id.* § 2. *See generally* Sho Sato & Thomas Crocker, *Property Rights to Geothermal Resources*, 6 *ECOLOGY L. Q.* 247 (1977)(discussing the issue of property rights in geothermal resources).

91. 28 U.S.C. § 1491(a)(1) (1988). *See infra* notes 121-22 and accompanying text for a further discussion of the U.S. Claims Court's jurisdiction over takings claims.

much more concrete legal protection for national park resources. The OFPA, unlike the Senate Committee amendment, provides clear and unambiguous federal protection for Yellowstone's geothermal resources. Under the Property Clause,⁹² the Constitution gives Congress responsibility for public lands, which includes protecting federal land and resources from harm regardless of the source. The courts consistently have sustained federal regulatory limitations on private lands or activities adjacent to national parks and other reserved federal lands.⁹³ Moreover, in the amended National Park Service Organic Act,⁹⁴ Congress has given the Secretary of the Interior specific legal authority to protect national park resources from threatening activities, either internal or external to the parks.⁹⁵ Consistent with these principles, the OFPA grants express federal protection to Yellowstone's geothermal features, including a ban on private development throughout the Corwin Springs KGRA and a moratorium elsewhere outside the park.

The Senate Committee amendment, on the other hand, contemplates state primacy and does not fully protect Yellowstone's geothermal features. The amendment's ill-defined gubernatorial certification process gives the states responsibility for protecting Yellowstone's thermal features. Historically, though, the states have not accorded national park lands and resources much legal protection. Current Montana law has not significantly curtailed development activities; in fact, CUT has been able to secure a state water right for hot water drawn from its unauthorized test well.⁹⁶ The amendment does not define what would constitute adequate protection to merit gubernatorial certification, nor does it provide any opportunity for federal review of the governor's certification decision.⁹⁷

92. U.S. CONST. art. IV, § 3, cl. 2.

93. See, e.g., *Columbia Gorge United v. Yeutter*, 960 F.2d 110 (9th Cir. 1992); *Minnesota v. Block*, 660 F.2d 1240 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982); *United States v. Lindsey*, 595 F.2d 5 (9th Cir. 1979). See generally Gaetke, *The Boundary Water Canoe Area Wilderness Act of 1978: Regulating Non-Federal Property Under the Property Clause*, 60 ORE. L. REV. 157 (1980); Joseph L. Sax, *Helpless Giants: The National Parks and the Regulation of Private Lands*, 75 MICH. L. REV. 239 (1976).

94. 16 U.S.C.S. §§ 1-18f (Law. Co-op. 1991 & Supp. 1992).

95. 16 U.S.C. § 1a-1 (1988). See Robert Keiter, *On Protecting the National Parks From the External Threats Dilemma*, 20 LAND & WATER L. REV. 355 (1985); Lockhart, *External Park Threats and Interior's Limits: The Need for an Independent Park Service*, in OUR COMMON LANDS, *supra* note 3, at 27-44. See also 16 U.S.C. § 22 (1988) (giving the Secretary of the Interior authority to promulgate regulations for Yellowstone National Park to "provide for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders, within the park, and their retention in their natural condition.").

96. See *supra* note 56 and accompanying text. See also *infra* note 110 (discussing the shortcomings of Montana law).

97. The only review available would be by the House of Representatives and the Senate Committee on Energy and Natural Resources. SENATE COMM. AMEND., *supra* note 83, § 3. No explanation is offered as to why the full House of Representatives would have review authority, while

Because each state would have separate certification authority, different standards would govern in Montana and Wyoming, thus further fragmenting management responsibility in a region already fraught with jurisdictional fragmentation. Paradoxically, the state certification process, which effectively would require the states to adopt geothermal legislation, may violate constitutional state sovereignty principles.⁹⁸ Furthermore, because geothermal development would be regulated by state law under the Senate Committee amendment, the states — rather than the federal government — may actually be liable in the event of a successful regulatory takings claim.⁹⁹ In short, besides reversing federal and state responsibility for national parks, the amendment would inject unnecessary ambiguity into the law and could impinge upon state sovereignty as well as state fiscal resources.

When originally proposed, neither the OFPA nor the Senate Committee amendment presented a serious takings problem, whether the affected property interest was defined as an estate in land or a separate water right.¹⁰⁰ According to the Supreme Court, government regulation can withstand a landowner's takings challenge if the regulation substantially advances a legitimate government interest and does not deprive the owner of all economically viable uses of the property.¹⁰¹ Protection of Yellowstone's geothermal resources is undoubtedly a legitimate governmental

only a committee would have such authority in the Senate.

98. *New York v. United States*, 112 S. Ct. 2408 (1992). In *New York*, the Supreme Court ruled that Congress violated the Tenth Amendment when it effectively coerced the states into promulgating legislation to deal with low level nuclear waste by requiring that states "take title" to the waste if they did not address the matter legislatively. According to the Court, state sovereignty principles preclude Congress from compelling a state to legislate. *Id.* at 2427-29.

99. This issue is not free from doubt. If the Senate Committee amendment effectively required the states to regulate geothermal development adjacent to Yellowstone—a proposition that might run afoul of state sovereignty principles, *see supra* note 98—then the federal government would presumably be liable, because federally-compelled state legislation had occasioned the takings. However, if the Senate Committee amendment did not compel state legislation and an adjacent state "voluntarily" enacted geothermal regulations that operated as a taking, then that state presumably would be liable for the required compensation. *Cf. Lucas v. South Carolina Coastal Council*, 112 S. Ct. 2886, 2889 (1992) (takings claim filed against state, when state adopted regulatory scheme in aftermath of similar federal legislation).

100. While the OFPA's takings implications are obvious, the Senate Committee amendment's takings ramifications remain obscure. Its regulatory impact depends upon yet undefined state geothermal development restrictions that will be subject to gubernatorial certification. *See supra* notes 87-89 and accompanying text. But because these state restrictions will have to protect Yellowstone's geothermal resources sufficiently to secure gubernatorial certification, they are not likely to be much less onerous than those proposed in the OFPA. The same takings principles that apply to the OFPA would therefore also govern takings claims directed against state regulatory limitations adopted under the Senate Committee amendment.

101. *Lucas*, 112 S. Ct. 2886; *Nollan v. California Coastal Comm'n*, 483 U.S. 825, 834 (1987). *See generally* Sax, *supra* note 10.

interest.¹⁰² Given the scientific reports noting probable geothermal connections between the park and adjacent private lands,¹⁰³ the OFPA's ban on geothermal development should easily meet the substantial relationship test.¹⁰⁴ In addition, the OFPA's geothermal development ban should not deprive any landowner of all economic use of his property.¹⁰⁵ Virtually all of the private land located in Greater Yellowstone retains considerable value, even if its full development potential cannot be exploited.¹⁰⁶ Moreover, when measuring diminution in value, the Supreme Court has ruled that ownership expectations must be tempered by "the restrictions that background principles of the State's law of property and nuisance already place upon land ownership."¹⁰⁷ Traditional public nuisance doctrine, as defined by federal common law,¹⁰⁸ should protect Yellow-

102. For cases illustrating the Court's expansive interpretation of the legitimate governmental interest requirement, see *Nollan*, 483 U.S. at 825 (visual amenities); *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470 (1987) (subsidence protection); *United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985) (wetlands protection); *Agins v. City of Tiburon*, 447 U.S. 255 (1980) (open space); *Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978) (historic preservation). Even in *Lucas*, the Court does not question the legitimacy of the state's interest in ecosystem protection. 112 S. Ct. at 2897-99. See also *Maine v. Taylor*, 477 U.S. 131 (1986) (acknowledging ecological protection as a legitimate governmental interest).

103. See *supra* notes 64-65 and accompanying text.

104. In *Nollan*, the Supreme Court concluded that the Coastal Commission's requirement of a beachfront easement "utterly fails" to advance the proffered visual access justification. 483 U.S. at 837-39. In contrast, with clear scientific evidence suggesting a link between Yellowstone's thermal features and adjacent geothermal aquifers, the link between park resource protection and a geothermal development ban is clear and substantial. It is difficult to imagine a court secondguessing such a congressional judgment. See *Sax*, *supra* note 10, at 142-44.

105. The fact that the geothermal development option is precluded would not constitute a denial of all economically viable uses of the property. The Supreme Court consistently has rejected the notion that property can be segmented into discrete interests with compensation available whenever one of the interests is adversely impacted. See *Keystone*, 480 U.S. at 496-98; *Penn Central*, 438 U.S. at 130. But see *Keystone*, 480 U.S. at 517-20 (Rehnquist, C.J., dissenting).

106. See H.R. No. 102-374, *supra* note 1, at 7-8.

107. *Lucas v. South Carolina Coastal Council*, 112 S. Ct. 2886, 2900 (1992). Under Montana law, one of these limiting background principles is the doctrine of federal reserved water rights. See *infra* note 115 and accompanying text.

108. Federal common law principles should govern a public nuisance action against adjacent private property owners to protect Yellowstone's geothermal features, though the issue is not entirely free from doubt. See M. Squillace, *Common Law Protection for Our National Parks*, in *OUR COMMON LANDS*, *supra* note 3, at 87-96. The absence of preemptive federal legislation, the unique federal interest in protecting Yellowstone's thermal features, and the interjurisdictional nature of Yellowstone's geothermal aquifers argue strongly that federal rather than state common law supplies the governing public nuisance standard. Cf. *National Audubon Soc'y v. Dep't of Water*, 869 F.2d 1196 (9th Cir. 1988) (recognizing that unique federal interests can sustain federal common law claims). Recent Supreme Court cases addressing the question of whether the common law can be invoked to accomplish environmental regulation goals include: *International Paper Co. v. Ouellette*, 479 U.S. 481 (1987); *City of Milwaukee v. Illinois*, 451 U.S. 304 (1981); *Middlesex County Sewerage Auth. v. National Sea Clammers Ass'n*, 453 U.S. 1 (1981); *Wilson v. Omaha Indian Tribe*, 442 U.S. 653 (1979); *United States v. Little Lake Misere Land Co.*, 412 U.S. 580 (1973); *Illinois v. City of Milwaukee*, 406 U.S. 91 (1972).

stone's geothermal features from injury caused by private development activities,¹⁰⁹ which means adjacent property owners could not reasonably expect to develop geothermal resources at the park's expense.¹¹⁰

However, any geothermal development ban also could impact state-defined water rights, which Montana law treats as a discrete property interest separate from land ownership.¹¹¹ Although CUT's claim to surface geothermal flows from La Duke Hot Springs is a recognized property interest, the proposed federal development ban would not preclude CUT from using these surface flows;¹¹² it would only preclude subsurface development. The more difficult question is whether CUT would have a viable takings claim if it is barred from using the water right now attached to its unauthorized well. While Montana statutory law

109. *Cf.* *United States v. Atlantic Richfield Co.*, 478 F. Supp. 1215 (D. Mont. 1979) (sustaining common law trespass action against nearby plant to enjoin fluoride emissions harmful to national park wildlife and flora resources). *See generally* M. Squillace, *Common Law Protection for Our National Parks*, in *OUR COMMON LANDS*, *supra* note 3, at 87-96. Common law public nuisance doctrine is inherently malleable, with the outcome in individual cases turning on a balancing of the public harm against the utility of the private activity. RESTATEMENT (SECOND) OF TORTS, §§ 821C, 827-31 (1979); *Lucas*, 112 S. Ct. at 2914 (1992) (Blackmun, J., dissenting). *See* WILLIAM H. RODGERS, ENVIRONMENTAL LAW § 2.4, at 48 (1986); Squillace, *supra* note 3, at 88-91; J. Goldman-Carter, *Protecting Wetlands and Reasonable Investment-Backed Expectations in the Wake of Lucas v. South Carolina Coastal Council*, 28 LAND & WATER L. REV. 425 (1993) (forthcoming). Under any reasonable balancing standard, it is difficult to conceive of a court not protecting such a prominent national resource as Yellowstone's geothermal features from adjacent geothermal drilling, so long as a plausible connection was established between drilling and harm to park resources. *Cf.* *Cappaert v. United States*, 426 U.S. 128 (1976) (invoking federal reserved water rights doctrine to protect national park resources from adjacent groundwater development); *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1902) (using federal common law nuisance doctrine to protect state forests from private-source air pollution). *But cf.* *Lucas*, 112 S. Ct. at 2902 n.18 (requiring an "objectively reasonable application of relevant [common law nuisance] precedents" before all economically viable uses of land can be eliminated without compensation); *Layton v. Yankee Caithness Joint Venture, L.P.*, 774 F. Supp. 576 (D. Nev. 1991) (dismissing private nuisance action against geothermal development for lack of scientific evidence establishing connection between plaintiffs' injuries and defendant's conduct).

110. Montana public nuisance law, however, probably would not protect Yellowstone's geothermal features from CUT's recent geothermal drilling activities. Although Montana statutorily defines a public nuisance as "[a]nything . . . which unlawfully obstructs the free passage or use, in the customary manner, of . . . any public park," MONT. CODE ANN. § 27-30-101(1) (1992), the statute also provides that "[n]othing which is done . . . under the express authority of a statute can be deemed a nuisance." *Id.* § 27-3-101(2). Because CUT's limited use of its geothermal well is evidently sanctioned by Montana water law statutes, it could not constitute a public nuisance under state law, regardless of the impact on Yellowstone's geothermal features. *See infra* text accompanying note 117 for a discussion of CUT's rights under Montana water law.

111. MONT. CONST. art. IX, § 3(4); MONT. CODE ANN. § 85-2-101 (2) (1991); *Harrer v. Northern Pacific Ry Co.*, 410 P.2d 713, 715 (Mont. 1966). Under the Montana water permitting system, permittees complying with statutory requirements are granted a water right, which constitutes transferrable property. MONT. CODE ANN. §§ 85-2-315, 85-2-403 (1991). *See generally* RICHARD POWELL & PATRICK ROHAN, 5A POWELL ON REAL PROPERTY § 710[3] (1993). For an insightful discussion of takings claims in the water rights context, see Joseph L. Sax, *The Constitution, Property Rights and the Future of Water Law*, 61 U. COLO. L. REV. 257 (1990).

112. H.R. REP. NO. 102-374, *supra* note 1, at 8.

provides that water rights can be acquired by appropriating water from a low flow well,¹¹³ CUT's property right and thus its takings claim is nonetheless qualified by relevant background legal principles.¹¹⁴ In the case of water rights, these background legal principles include the federal reserved water rights doctrine,¹¹⁵ as well as federal common law public nuisance doctrine,¹¹⁶ either of which could render CUT's development expectations unreasonable.¹¹⁷ Federal reserved water rights, which in Yellowstone's case are derived from the legislation originally creating the park,¹¹⁸ can displace subordinate state prior appropriation claims.¹¹⁹ Yellowstone National Park, therefore, has reserved water rights to hydrothermal flows sufficient to ensure the integrity of its geothermal resources,¹²⁰ which would have priority over CUT's later prior appropriation claims. Assuming park officials could establish that park geothermal features are connected to adjacent aquifers and that any diminished flow would adversely impact park features, Yellowstone's federal reserved water rights can be invoked to preclude adjacent geothermal development without running afoul of any property rights. In any event, Congress can either address this takings claim legislatively, or it can simply leave CUT to pursue a claims court action.

Although the Senate Committee amendment makes explicit provision

113. MONT. CODE ANN. § 85-2-306(1) (1991). See *supra* note 56 and accompanying text.

114. See *Lucas v. South Carolina Coastal Council*, 112 S. Ct. 2886, 2900 (1992). See *supra* text accompanying note 107.

115. *Cappaert v. United States*, 426 U.S. 128 (1976); see also *United States v. New Mexico*, 438 U.S. 696 (1978).

116. See *supra* note 108 and accompanying text for a discussion of federal common law public nuisance doctrine.

117. As the Supreme Court recognized in *Lucas*, extensive background statutory regulation also can operate to diminish a property owner's development expectations. 112 S. Ct. at 2899. The flurry of federal legislative activity limiting geothermal development adjacent to Yellowstone over the past decade certainly should call into question whether CUT (or any local property owner) reasonably could expect to engage in unregulated geothermal development on its property. See *supra* notes 37-43 and accompanying text for a description of this federal legislative activity. It is particularly noteworthy that CUT's geothermal water right was not secured until late 1992, long after much of the federal regulatory legislation was in place and well after the OFPA had been proposed. It also is noteworthy that CUT itself agreed in 1989 not to develop its geothermal well until securing authorization from the Montana Department of Natural Resources and Conservation. CUT FEIS, *supra* note 45, at 350 (Mitigation Plan Agreement).

118. Yellowstone National Park Enabling Act, 16 U.S.C. §§ 21-22 (1988). Federal reserved water rights also can be derived from congressional legislation establishing different federal reserved land classifications, which would be the National Park Service Organic Act, 16 U.S.C. §§ 1-18(f), in the case of the national parks. See *Cappaert*, 426 U.S. at 140-41; see also *United States v. New Mexico*, 438 U.S. 696, 705-15 (1978).

119. *Cappaert*, 426 U.S. 128; see also *United States v. New Mexico*, 438 U.S. 696.

120. See *infra* notes 132-140 and accompanying text discussing the Yellowstone Controlled Groundwater Area, which is based upon the park's federal reserved water rights and which was established to protect the park's geothermal resources.

for takings challenges, a takings claim could be pursued under either statute. Under the OFPA, anyone who has been deprived of property, either by the Corwin Springs geothermal development ban or by the moratorium, can pursue a takings claim under the Tucker Act in the U.S. Claims Court.¹²¹ The Claims Court actually has been a rather hospitable forum for regulatory takings challenges.¹²² It has jurisdiction to award monetary damages for unconstitutional takings, including compensation in the event that the OFPA moratorium affects a temporary taking of a property right.¹²³ The threshold question of whether a protected property interest is involved will be defined by reference to state law,¹²⁴ particularly in CUT's case where the claim would be based on state water law.¹²⁵ However, by not attempting legislatively to define the basis for property interests in terms of state law, the OFPA does not disturb or call into question Yellowstone's federal reserved water rights, which provide the park with powerful protection against external geothermal development.¹²⁶

In contrast, the Senate Committee amendment expressly grants property owners a constitutional takings cause of action, reallocates jurisdiction over takings claims, and invokes state law to define property rights. Express recognition of a Fifth Amendment takings claim is not necessary, however; the courts have long recognized that property owners can seek judicial redress for an unconstitutional deprivation of property.¹²⁷ By vesting local federal district courts with jurisdiction over takings claims challenging geothermal regulations, the amendment would eliminate the Claims Court as a forum for these claims. While Congress certainly has the power to redefine federal court jurisdiction in this manner,¹²⁸ it is unclear

121. 28 U.S.C. § 1491(a) (1988); *Preseault v. I.C.C.*, 494 U.S. 1 (1990). *See generally Special Issue: United States Claims Court Symposium*, 40 CATH. U. L. REV. 509 (1991).

122. *See, e.g., Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed. Cir. 1991), *cert. denied*, 112 S. Ct. 406 (1992); *Florida Rock Industries, Inc. v. United States*, 21 Cl. Ct. 161 (1990); *Loveladies Harbor, Inc. v. United States*, 21 Cl. Ct. 1533 (1990). *See also Rybachek v. United States*, 23 Cl. Ct. 222 (1991). *See generally* Roger Marzulla & Nancie Marzulla, *Regulatory Takings in the United States Claims Court: Adjusting the Burdens That in Fairness and Equity Ought to Be Borne by Society as a Whole*, 40 CATH. U. L. REV. 549 (1991).

123. 28 U.S.C. § 1491(a) (1988); *First Evangelical Lutheran Church of Glendale v. County of Los Angeles*, 482 U.S. 304 (1987).

124. *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886, 2901 (1992); *Board of Regents v. Roth*, 408 U.S. 564, 577 (1972).

125. *See supra* notes 67-68 and accompanying text.

126. *See infra* notes 131-38 and accompanying text.

127. *See, e.g., First English Evangelical Lutheran Church v. Los Angeles County*, 482 U.S. 304, 314-18 (1987); *United States v. Clarke*, 445 U.S. 253, 257 (1980); *United States v. Causby*, 328 U.S. 256, 267 (1946); *Jacobs v. United States*, 290 U.S. 13, 16 (1930). *See also* 28 U.S.C. §§ 1346(a)(2), 1491(a)(1) (1988).

128. U.S. CONST., art. I, § 8, cl. 9; art. 3, § 1; *Sheldon v. Sill*, 49 U.S. (8 How.) 441 (1850). *See generally* M. REDISH, *FEDERAL JURISDICTION: TENSIONS IN THE ALLOCATION OF JUDICIAL POWER*

what advantages would be realized by rearranging jurisdiction, except perhaps the convenience of a local forum. The provision invoking state law to define property interests is redundant; federal courts have always looked to state law to determine whether protected property interests are at risk in takings cases.¹²⁹ In sum, the amendment's takings provisions do not alter the substantive law of takings, and it provides few, if any, additional procedural advantages for affected property owners.

Confronted with these two quite different legislative approaches, the 102d Congress ultimately did nothing, and thus left Yellowstone's thermal features unprotected from adjacent development.¹³⁰ Faced with this reality, Park Service officials joined Montana officials in federal reserved water rights negotiations in an effort to secure state legal protection for Yellowstone's thermal features.¹³¹ After agreeing that Yellowstone has valid federal reserved water right claims to preserve the park's hydrothermal features,¹³² federal and state negotiators eventually entered into a

29-41 (2d ed. 1990). Although Congress has the power to displace the Claims Court's jurisdiction over takings cases, 28 U.S.C. § 1346(a) (1988), it rarely has exercised its power over federal court jurisdiction to exclude such a narrow class of cases. Besides, given the Claims Court's recent receptivity to regulatory takings claims, it is far from clear that takings plaintiffs would fare better in local federal district courts.

129. See *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886, 2901 (1992); *Board of Regents v. Roth*, 408 U.S. 564, 577 (1972). If the reference to state law was a covert effort to revoke or undermine Yellowstone National Park's federal reserved water rights claims, it is too ambiguous to effectuate such a fundamental change in the park's legal rights. Moreover, the accompanying Senate Report expressly notes that "nothing in this Act should be construed to affect in any way Federal reserved water rights." S. REP. NO. 363, *supra* note 12, at 7.

130. Hoping to secure some interim legal protection for the park's geothermal resources following the OFPA's demise during the final days of the 102d Congress, Montana Congressman Pat Williams wrote the Montana Governor requesting that he invoke a state law requiring a permit before any well is drilled in the Yellowstone region. However, the Director of the Montana Dep't of Natural Resources and Conservation denied the request, observing that there was little prospect of geothermal drilling in the Corwin Springs KGRA. *Rush to Drill Hot-Water Wells Near Yellowstone Not Likely, Official Says*, CASPER STAR TRIBUNE, Feb. 2, 1993, at B1.

131. Montana has created a Reserved Water Rights Compact Commission to address and resolve federal reserved water rights claims. See MONT. CODE ANN. § 2-15-212 (1991) (creating the Reserved Water Rights Compact Comm'n); §§ 85-2-701 to 705 (1991) (providing for negotiation of federal reserved water rights claims).

132. When negotiations began, state officials understandably were reluctant to upset local property owners, many of whom had groundwater wells, so they advocated balancing protection and development, while the Park Service was intent on protecting park geothermal resources in the face of any scientific uncertainty. Memorandum from Montana Reserved Water Rights Compact Comm'n to National Park Service Negotiating Team 2 (Jan. 14, 1992) (sic) (memo text suggests date was 1993) (copy on file with author); Memorandum from Reserved Water Rights Compact Comm'n National Park Service Negotiating Team to National Park Service Negotiating Team (Jan. 28, 1993) (copy on file with author; summarizing public concerns over the proposed Yellowstone Controlled Groundwater Area); Letter from Owen R. Williams and Richard Aldrich, NPS Negotiating Team, to Dave Wanzenried, NPS Negotiating Team Chairman, Montana Reserved Water Rights Compact Comm'n (Jan. 27, 1993) (copy on file with author).

formal Water Rights Compact,¹³³ which establishes a roughly fifteen mile-wide Yellowstone Controlled Groundwater Area adjacent to the park.¹³⁴ The Compact endorses the principle of "allow[ing] no impact to the hydrothermal system within the reserved land of Yellowstone National Park."¹³⁵ Because current research reveals that fundamental data about the region's geothermal aquifers are still unavailable,¹³⁶ the Compact imposes significant limitations on any groundwater development involving water with a temperature exceeding eighty-five degrees within the designated controlled groundwater area.¹³⁷ It also establishes a Technical Oversight Committee that is responsible for reviewing geothermal drilling applications and that can recommend modifications to the defined boundaries and development restrictions.¹³⁸ Although the Compact has now been signed and ratified by the state legislature, considerable interest still exists

133. STATE OF MONTANA, UNITED STATES OF AMERICA, NATIONAL PARK SERVICE, WATER RIGHTS COMPACT H.B. 692, 53d Leg., 1993 Mont. [hereinafter MONTANA-NATIONAL PARK SERVICE WATER RIGHTS COMPACT]. Although the Compact recognizes that "Congress reserved water necessary to preserve the hydrothermal features within the reserved land of [the park]," it specifically "does not recognize a reserved water rights to groundwater outside the boundaries of the reserved land of Yellowstone National Park." *Id.* at Art. IV(A).

134. MONTANA-NATIONAL PARK SERVICE WATER RIGHTS COMPACT, *supra* note 133, at Art. IV(D). *See also* MONT. CODE ANN. § 85-2-506 (1991), which provides for controlled groundwater areas. The irregularly shaped Yellowstone Controlled Groundwater Area, which is divided into discharge and recharge areas, extends approximately fifteen miles beyond park boundaries into the state of Montana. It generally follows the edge of the Madison formation, a geologic strata that scientists believe is responsible for recharging Yellowstone's hydrothermal features.

135. MONTANA-NATIONAL PARK SERVICE WATER RIGHTS COMPACT, *supra* note 133, at Art. IV(A).

136. *Id.* *See also* WORKING GROUP, UNABRIDGED RECOMMENDED BOUNDARY FOR CONTROLLED GROUNDWATER AREA IN MONTANA NEAR YELLOWSTONE PARK 1, 6 (prepared for Water Resources Division, National Park System, U.S. Dep't of Interior, for presentation to Montana Reserved Water Rights Compact Comm'n, Jan. 5, 1993) [hereinafter YELLOWSTONE CONTROLLED GROUNDWATER AREA REPORT]. Moreover, this report indicated that expensive and complex monitoring will be required indefinitely to ensure adequate protection for the park's geothermal features. *Id.* at 18-19.

137. Montana-National Park Service Water Rights Compact, *supra* note 133, at Art. IV(G)(2). More specifically, the Compact divides area groundwater into three categories: water with a temperature less than sixty degrees, water with a temperature between sixty and eighty-five degrees, and water with a temperature in excess of eighty-five degrees. For water under sixty degrees, the Compact presumes that this water is not hydrothermally connected to the park and development can proceed under state law unless the United States files a timely objection. For water over eighty-five degrees, the presumption is the opposite and development cannot proceed unless approved by the Technical Oversight Committee, with any doubt resolved in favor of protecting the park's hydrothermal systems. For water between sixty and eighty-five degrees the Compact makes no presumption about the hydrothermal connections with the park, though development is still limited by several procedural requirements. *Id.*

138. *Id.* at Art. IV(J). Composed of five qualified scientists experienced in hydrothermal systems, the Technical Oversight Committee can only approve drilling applications by a supermajority vote. *Id.* at Art. IV(J)(1)(d). The Committee also must periodically review the designated boundaries and restrictions, assess cumulative development impacts, and monitor hydrothermal changes. *Id.* at Art. IV(J)(1)(e).

in pursuing protective congressional legislation.

There is a certain allure to the state groundwater control area designation approach, which may establish an important precedent applicable beyond Montana. It draws upon preexisting law, which obviates the need to create a new legal scheme just for Yellowstone's sake. It regulates both hot and cold water development, while existing federal legislation does not directly regulate cold water development. The Park Service can enlist the state's extensive water monitoring resources to insure compliance. Because the controlled groundwater area designation applies retroactively to January 1, 1993, it regulates any interim development proposals that have surfaced since then.¹³⁹

However, the scheme also has several apparent shortcomings. It entrusts enforcement and adjudication authority primarily to state authorities. It does not provide for public participation in all administrative or judicial proceedings. It obviously does not address geothermal development problems in Idaho or Wyoming; these issues will have to be addressed later, perhaps by less receptive state officials. Being an administrative designation, the controlled groundwater area also can be changed administratively,¹⁴⁰ which could leave Yellowstone's geysers without sufficient legal protection. Moreover, if the scientists have wrongly concluded that cold water development should not impact park geothermal resources, then the differential standard governing water development based upon temperature leaves the park at risk. Of course, Congress might craft legislation confirming the Yellowstone Controlled Groundwater Area designation, while also insuring federal oversight in Montana and extending federal protection elsewhere on Yellowstone's periphery.¹⁴¹

The critical question for Congress, therefore, is whether to leave protection for Yellowstone's geothermal resources in the hands of state officials, constrained only by state law and the threat of state court

139. *Id.* at Art. IV(G)(1). (establishing Jan. 1, 1993 as date after which a permit would be required for all groundwater appropriations within the designated controlled groundwater area). The Compact, however, does not apply to private development that occurred prior to Jan. 1, 1993. *Id.* To avoid any takings issue, it does not address the existing CUT well, which means that well is subject only to regulation under existing state water law and perhaps under federal common law nuisance doctrine. See *supra* notes 108-110 and accompanying text.

140. Although the Montana legislature initially must ratify all reserved water rights compacts, MONT. CODE ANN. §§ 85-2-702(2), 703 (1991), the Compact itself provides for administrative modification of the original boundaries and restrictions. MONTANA-NATIONAL PARK SERVICE WATER RIGHTS COMPACT, *supra* note 133, at Art. IV(J). See *supra* note 138 and accompanying text. Moreover, the Compact provisions are contingent on regular congressional appropriations to fund the controlled groundwater area program. *Id.* at Art. IV(C)(3). See also MONT. CODE ANN. §§ 85-2-506, 507 (1991).

141. See *infra* Postscript for a description of amended H.R. 1137, which confirms the Montana Compact and provides for joint federal-state regulation outside Yellowstone's boundaries.

litigation, or whether to provide clear federal legislative protection against any risks associated with geothermal development.

III. PROTECTING NATIONAL PARK ECOSYSTEMS

America's national parks no longer exist in isolation. In Yellowstone, time and again, the ecological and biological sciences have confirmed far flung relationships encompassing critical ecosystem components. Grizzly bears and elk roam well beyond park boundaries, just as the geothermal aquifers that fuel Old Faithful, Mammoth Hot Springs, and countless other thermal features extend well beyond park borders. In an earlier era, when the lands surrounding Yellowstone were largely uninhabited and undeveloped, there was little need to extend federal protection to these or other ecosystem components. That is no longer the case in Yellowstone, or anywhere else in the national park system. Yet extending meaningful legal protection to national park ecosystems will inevitably impact the property interests of adjacent landowners.

Historically, Congress has invoked federal authority to protect park ecosystems and important park resources. Federal protection generally has been achieved by expanding park boundaries and vesting the Park Service with jurisdiction over adjacent lands. Prominent examples include the Grand Canyon National Park Enlargement Act¹⁴² and the 1978 amendments to the Redwood National Park Establishment Act,¹⁴³ both cases where Congress enlarged park boundaries to protect the ecological integrity of the national park itself. In the aftermath of the Redwood controversy, recognizing that national parks rarely encompass full ecosystems, Congress also gave the Park Service express legal responsibility for protecting park resources from ecological threats,¹⁴⁴ but provided little guidance as to how that responsibility should be implemented. Subsequent efforts to secure congressional passage of generic park protection legislation applicable throughout the national park system have proved unavailing.¹⁴⁵ Instead, Congress has continued to respond to park threats seriatim, usually crafting site-specific acquisition legislation to alleviate the most serious threats.¹⁴⁶ Although several park enabling bills have authorized federal regulation of state and private inholdings,¹⁴⁷ Congress generally

142. 16 U.S.C. § 228a (1988).

143. 16 U.S.C. § 79b (1988).

144. 16 U.S.C. § 1a-1 (1988). See *supra* notes 94-95 and accompanying text.

145. See *supra* note 4 and accompanying text.

146. For a comprehensive and thoughtful discussion of the legal problems confronting national parks in responding to external threats from adjacent private lands, see Sax, *supra* note 93.

147. For the most part, federal regulation has been sanctioned under so-called "Sword of Damocles" provisions, which authorize federal zoning in the event that local officials do not impose zoning standards consistent with those required by the Secretary of the Interior. See, e.g., 16 U.S.C.

has refrained from extending federal regulatory power to private lands beyond park boundaries.

While the OFPA fits within this historical tradition, it also represents a modest expansion of national park ecosystem protection efforts. By responding to the specific threat of geothermal development on Yellowstone's periphery, Congress continues its practice of addressing park threats individually on a site-specific basis. But this time, rather than utilize its spending powers to acquire adjacent private lands outright, Congress would invoke its Property Clause power to impose explicit federal regulatory restraints over adjacent public and private lands to protect park resources. Under its expansive property powers,¹⁴⁸ Congress is constrained only by the requirement that its regulatory limitations must reasonably relate to the goal of protecting federal property—a rather deferential standard of review.¹⁴⁹ In this case, the geothermal development ban is plainly related to the goal of protecting Yellowstone's geothermal features. Although science cannot yet definitively establish the regional geothermal connections, the courts never have required scientific certainty before Congress can legislate to protect important public resources.¹⁵⁰ In other words, Congress enjoys broad authority to craft legislative measures to protect national park ecosystems. Moreover, the OFPA regulatory restraints actually represent a less drastic congressional response to an external park threat than Congress ordinarily has used: no property ownership would change hands, only one development option would be foreclosed, and compensation is available if legitimate property rights are taken.

In recent years, Congress has used its property power to extend federal protection to important natural resources, even at the expense of private landowners. Under the Wild Free-Roaming Horses and Burros Act of

§ 459b-3(b)(2) (1988) (Cape Cod National Seashore); 16 U.S.C. § 459e-1(e) (1988) (Fire Island National Seashore). See Sax, *supra* note 146, at 242. Occasionally, Congress has directly imposed federal restraints on state and private lands located within the boundaries of a national park. See *Minnesota v. Block*, 660 F.2d 1240 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982) (Voyageurs National Park). Cf. *United States v. Moore*, 640 F. Supp. 164 (S.D.W.Va. 1986) (sustaining federal regulatory authority over all waters located in the New River Gorge National River, even though the United States owns only 6,000 acres in the 63,000 acre National River area).

148. See, e.g., *Kleppe v. New Mexico*, 426 U.S. 529 (1976); *Camfield v. United States*, 167 U.S. 518 (1897); *Minnesota v. Block*, 660 F.2d 1240 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982); *United States v. Lindsey*, 595 F.2d 5 (9th Cir. 1979). See generally GEORGE C. COGGINS & ROBERT GLICKSMAN, PUBLIC NATURAL RESOURCES LAW § 3.03[4][a] (1992).

149. *Minnesota v. Block*, 660 F.2d at 1250; *United States v. Brown*, 552 F.2d 817, 822 (8th Cir. 1977), *cert. denied*, 431 U.S. 949 (1977). See also COGGINS & GLICKSMAN, *supra* note 148, § 3.03[4][a].

150. Of course, any property owners adversely affected by the geothermal development ban can seek compensation for any lost property rights through customary legal channels. See *supra* notes 121-29 and accompanying text.

1971,¹⁵¹ Congress has expanded federal regulatory control onto private lands to prevent landowners from injuring any feral horses moving from public to private land.¹⁵² The Endangered Species Act,¹⁵³ which is designed to protect designated ecosystems,¹⁵⁴ contains a mandate against "taking" that extends to private as well as publicly owned lands,¹⁵⁵ thus insuring full federal protection for listed species wherever they are found. The Columbia River Gorge National Scenic Area Act,¹⁵⁶ which embraces an innovative, interjurisdictional approach to land management, gives federal land managers zoning authority over private lands located within the designated area—a provision that has been sustained against various constitutional attacks.¹⁵⁷ Relatedly, the recently enacted Grand Canyon Protection Act of 1992¹⁵⁸ and the Elwha River Ecosystem and Fisheries Restoration Act¹⁵⁹ reflect a heightened congressional sensitivity toward protecting and restoring national park ecosystems. To the extent that the OFPA invokes federal regulatory power to limit private development on adjacent lands to protect an important Yellowstone ecosystem, it is entirely consistent with the tradition established by these earlier measures.

Absent congressional intervention, the Secretary of the Interior might invoke his administrative authority to provide federal protection for Yellowstone's thermal features. Under the National Park Service Organic Act,¹⁶⁰ the Secretary has a statutory park protection responsibility,¹⁶¹ as well as broad rulemaking authority over park resources.¹⁶² Judicial precedent indicates that the Secretary can regulate activities occurring on

151. 16 U.S.C. § 1331-40 (1988).

152. *Id.* § 1334. See *Kleppe v. New Mexico*, 426 U.S. 186 (1976).

153. 16 U.S.C. § 1531-44 (1988).

154. *Id.* § 1531(b).

155. *Id.* § 1538(a)(1)(B). See Federico Cheever, *An Introduction to the Prohibition Against Takings in Section 9 of the Endangered Species Act of 1973: Learning to Live with a Powerful Species Preservation Law*, 62 U. COLO. L. REV. 109 (1991).

156. 16 U.S.C. §§ 544-544p (1988).

157. *Columbia River Gorge United v. Yeutter*, 960 F.2d 110 (9th Cir. 1992).

158. Grand Canyon Protection Act of 1992, Pub. L. No. 102-575, 106 Stat. 4669 (1992).

159. Recognizing that operation of the upstream Glen Canyon Dam has adversely impacted ecological processes in Grand Canyon National Park and Glen Canyon National Recreation Area, the legislation requires the Secretary of the Interior to prepare an EIS identifying measures to mitigate the dam's impact and improve downstream conditions.

160. Elwha River Ecosystem and Fisheries Restoration Act, Pub. L. No. 102-495, 106 Stat. 3173 (1992). Noting that operation of two hydroelectric projects on the Elwha River adversely impact native fisheries in Olympic National Park, the legislation requires the Secretary of the Interior to prepare a plan for restoring the river ecosystem and these fisheries.

161. 16 U.S.C. §§ 1-18f (Law. Co-op. 1991 & Supp. 1992).

162. 16 U.S.C.S. § 1a-1 (1988).

163. 16 U.S.C. § 3 (1988). See also 16 U.S.C. § 22 (1988) giving the Secretary of the Interior rulemaking authority to protect Yellowstone National Park resources, including its "natural curiosities."

adjacent private lands to protect park ecosystems.¹⁶³ In fact, recent administrations regularly have pointed to this authority to forestall congressional park protection legislation.¹⁶⁴ Nonetheless, the Park Service has never aggressively sought to regulate adjacent property owners, believing instead that a cooperative, good neighbor approach is better-suited to achieving park protection goals.¹⁶⁵ In regions like Greater Yellowstone, moreover, the political realities are such that Park Service officials advocating bold regulatory initiatives risk putting their careers in jeopardy.¹⁶⁶ Besides, the Park Service does not have a strong tradition of scientific research,¹⁶⁷ it often lacks the necessary expertise or data to establish definitive ecological links between external activities and park resources.¹⁶⁸ Thus, notwithstanding the Park Service's expansive regulatory powers, Congress is institutionally better-suited to assert the federal authority necessary to protect Yellowstone's geysers against adjacent development.

Congress ordinarily has not relied upon state law to protect national park resources. In the case of Yellowstone's geothermal aquifers, as we have seen, state law does not insure full legal protection for park resources. None of the states surrounding Yellowstone National Park have adopted geothermal legislation that addresses the unique problem of protecting Yellowstone's thermal features. Idaho has a statutory scheme governing

163. See, e.g., *Minnesota v. Block*, 660 F.2d 1240 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982); *United States v. Lindsey*, 595 F.2d 5 (9th Cir. 1979); *United States v. Brown*, 552 F.2d 817 (8th Cir. 1977), *cert. denied*, 431 U.S. 949 (1977); *Free Enterprise Canoe Renters Ass'n v. Watt*, 549 F. Supp. 252 (E.D. Mo. 1982), *aff'd*, 711 F.2d 852 (8th Cir. 1983).

164. U.S. GENERAL ACCOUNTING OFFICE, REPORT TO THE CHAIRMAN, SUBCOMM. ON NATIONAL PARKS AND RECREATION, COMM. ON INTERIOR AND INSULAR AFFAIRS, HOUSE OF REPRESENTATIVES, PARKS AND RECREATION: LIMITED PROGRESS MADE IN DOCUMENTING AND MITIGATING THREATS TO THE PARKS 13-14 (GAO/RCED-87-36, Feb. 1987). See also Lockhart, *supra* note 95, at 20-30.

165. Joseph L. Sax & Robert B. Keiter, *Glacier National Park and Its Neighbors: A Study of Federal Interagency Relations*, 14 *ECOLOGY L. Q.* 207, 221 (1987). See also Dan Whipple, *Barbee: No Suit Planned Against Border Developer*, *CASPER STAR TRIBUNE*, June 5, 1988, at A1.

166. U.S. HOUSE OF REPRESENTATIVES, COMM. ON POST OFFICE & CIVIL SERVICE, SUBCOMM. ON CIVIL SERVICE, STAFF REPORT, INTERFERENCE IN ENVIRONMENTAL PROGRAMS BY POLITICAL APPOINTEES: THE IMPROPER TREATMENT OF A SENIOR EXECUTIVE SERVICE OFFICIAL, THE DIRECTED REASSIGNMENT OF LORRAINE MINTZMYER, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, Dec. 30, 1992 (report not officially approved by the Committee or Subcommittee); *Congressional Report: Political 'Conspiracy' Killed Vision Plan*, *CASPER STAR TRIBUNE*, Jan. 7, 1993, at B1; Kit Miniclier, *Park Service Ex-Official Sues Over Transfer*, *THE DENVER POST*, Oct. 21, 1992, at 1B; Barbee et al., *supra* note 7, at 13-14.

167. NATIONAL RESEARCH COUNCIL, COMM. ON IMPROVING THE SCIENCE & TECHNOLOGY PROGRAMS OF THE NATIONAL PARK SERVICE, SCIENCE AND THE NATIONAL PARKS (1992); NAT'L PARKS & CONSERV. ASS'N, NATIONAL PARKS: FROM VIGNETTES TO A GLOBAL VIEW (1989). See also A. CHASE, *PLAYING GOD IN YELLOWSTONE: THE DESTRUCTION OF AMERICA'S FIRST NATIONAL PARK* 232-61 (1986).

168. See Sax & Keiter, *supra* note 165, at 223; Lockhart, *supra* note 95, at 14.

geothermal development, but it provides only uncertain protection against development that might harm other resources.¹⁶⁹ Neither Montana nor Wyoming have any statutes specifically addressing geothermal resources; rather, both states rely on general water law statutes to manage geothermal resources.¹⁷⁰ Although Montana's Yellowstone Controlled Groundwater Area designation should provide significant protection for Yellowstone's geothermal features,¹⁷¹ it was predicated upon federal—not state—law (i.e. the federal reserved water rights doctrine),¹⁷² is subject to administrative revision, and does not address the problem presented by the existing CUT well. Congress, therefore, should be reluctant to leave the fate of Yellowstone's thermal features to the uncertainty of state law.

Whether federal or state law is employed, legal protection for Yellowstone's geothermal ecosystems will impact private property interests and could foment takings litigation. Whichever approach is adopted—whether the OFPA's ban and moratorium, or the Senate Committee amendment's state-certified protective legislation, or an administrative controlled groundwater area designation—the upshot will be the same: limitations on private geothermal development on Yellowstone's periphery. As already suggested, however, a development ban should not constitute a compensable taking of private property, except perhaps in the narrow case of CUT's recently acquired water right.¹⁷³ A geothermal development ban is sufficiently related to important federal national park resource protection interests to meet constitutional nexus requirements, and limitations on subsurface development will not leave any property owner with economically valueless property.¹⁷⁴ Indeed, under the federal reserved water rights doctrine as well as federal common law public nuisance principles, adjacent property owners cannot convincingly argue

169. IDAHO CODE §§ 42-4001 to 4015 (1990). See *supra* note 87.

170. See, e.g., MONT. CODE ANN. § 85-2-306 (1991); WYO. STAT. §§ 41-3-908 to 930 (Supp. 1992). Moreover, Montana public nuisance law does not provide park geothermal resources with any evident protection against adjacent development. See *supra* note 110.

171. See *supra* notes 132-38 and accompanying text.

172. Indeed, absent the compulsion of federal reserved water rights law, it is not clear that Montana would—or legally could—have taken steps to protect the park's geothermal features. See *supra* notes 132 and accompanying text. Moreover, under the McCarran Amendment of 1952, 43 U.S.C. § 666 (1988), the federal reserved water rights determination is often made in state judicial or administrative proceedings—forums which have not always been particularly sensitive to federal water right claims. See, e.g., *United States v. Bell*, 724 P.2d 631 (Colo. 1986); *United States v. City and County of Denver*, 656 P.2d 1 (Colo. 1982); *Idaho Dep't of Water Resources v. United States*, 832 P.2d 289 (Idaho 1992), *reversed*, 113 S.Ct. 1893 (1993). However, under 28 U.S.C. § 1345 (1988), the United States could assert its reserved water rights in a federal court injunctive action to protect park resources from threatening adjacent development. *Cappaert v. United States*, 426 U.S. 128 (1976).

173. See *supra* note 56 and accompanying text.

174. See *supra* notes 100-110 and accompanying text for a discussion of contemporary takings doctrine.

that they harbored any reasonable expectation of developing local geothermal resources.¹⁷⁵ In short, once the rhetoric is stripped away, the takings arguments can perhaps best be described as contrived.

CONCLUSION

Does the current political wrangling over the OFPA herald a new era in national park policy? Or does it merely represent another chapter in the ongoing saga of national park relations with adjacent property owners? Given Yellowstone's prominence, it is difficult not to view the OFPA in precedential terms. Otherwise, why would so many interest group organizations rally to CUT's defense behind the property rights banner? But with a receptive federal judicial forum available to address any legitimate property rights claims, Congress should not linger over this issue. Instead, the important question is whether Congress wants to provide meaningful federal legal protection for Yellowstone's geothermal features, or whether it is content to entrust this responsibility to the vagaries of state law and the administrative discretion of state officials.

The available research on geothermal connections throughout the Greater Yellowstone region is at best inconclusive. Unless Congress wants to leave one of Yellowstone's premier attractions at risk or wants to add to the Yellowstone region's fragmentation, it would be well-advised to exercise federal power to insure the integrity of Yellowstone's geothermal system. There is no convincing evidence that the states have the political will to take on powerful local interests, even on behalf of nationally prominent resources. Moreover, the Park Service has given no indication that it can—or will—aggressively flex its regulatory muscles in the existing local political climate. With Yellowstone's natural heritage at risk, Congress should now reassert its commitment to the national park ideal, acknowledge the region's ecological interconnectedness, and assume full federal responsibility for one of the nation's most prominent resources.

POSTSCRIPT

The 103d Congress is presently considering H.R. 1137, which has been labeled the Old Faithful Protection Act of 1993. However, following adoption of the Montana-National Park Service Water Rights Compact, this Congress is pursuing a different approach to Yellowstone geothermal protection than its predecessor — one that provides a greater role for state regulation. On June 10, 1993, the House Subcommittee on Energy and Mineral Resources virtually rewrote H.R. 1137, which until then mirrored H.R. 3359 from the last Congress. As amended, the bill recognizes a

175. See *supra* notes 108-110 and accompanying text.

federal reserved water right to protect Yellowstone's geothermal features. It imposes a leasing ban on all federal lands within a legislatively defined Yellowstone Protection Area as well as a moratorium on all existing and new geothermal wells located anywhere within this area. Subject to approval by the Secretary of the Interior, the bill encourages the surrounding states to adopt their own geothermal management programs. But the bill prohibits the states from issuing geothermal development permits, unless an applicant can demonstrate by clear and convincing evidence that drilling "will have no effect on [Yellowstone's] protected systems and features." The bill specifically recognizes the Montana-National Park Service Water Rights Compact as an approved state program. It also provides that adjacent property owners adversely affected by the statute can pursue a monetary takings claim in the U.S. Court of Federal Claims. Moreover, it calls for further research on the impact of development, including oil and gas exploration, on the park's geothermal systems.

APPENDIX A

The Old Faithful Protection Act of 1991 (H.R. 3359), as proposed by Representative Pat Williams and passed by the House of Representatives in the 102d Congress:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Old Faithful Protection Act of 1991."

SECTION 2. AMENDMENTS TO GEOTHERMAL STEAM ACT.

The Geothermal Steam Act of 1970 (30 U.S.C. 1001 and following) is amended by adding the following new sections:

"SEC. 30. The Congress hereby declares that any use of, or production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources within the Corwin Springs Known Geothermal Resource Area (as designated in the July 22, 1975, Federal Register (Fed. Reg. Vol. 40, No. 141.) will result in adverse effects on significant thermal features in Yellowstone National Park. Notwithstanding any other provision of law to the contrary, the Secretary shall prohibit any use of, or production from, any existing geothermal well or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources within the Corwin Springs Known Geothermal Resource Area, including lands and waters and interests or rights in such lands and waters not owned by the United States. For the purposes of this section, the term 'geothermal well' means a well for geothermal steam and associated geothermal resources.

"SEC. 31. The Secretary shall not issue any lease under this Act for lands

within a 15-mile radius of the boundary of Yellowstone National Park. Nothing in this section shall be construed to affect the ban or prohibition referenced under section 28(f) and section 30.”

SEC. 3. MORATORIUM AND STUDY.

(a) Any use of, or production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources is prohibited on lands and waters and interests or rights in such lands and waters not owned by the United States, within a 15-mile radius of the boundary of Yellowstone National Park, except with respect to the Island Park Geothermal Area (as designated by the map in the ‘Final Environmental Impact Statement of the Island Park Geothermal Area’ (January 15, 1980, p. XI)), to which such prohibition shall apply to lands and waters and interests or rights in such lands and waters not owned by the United States within the full extent of such Area, until one hundred and eighty days after the receipt by Congress of the study referred to in subsection (b). Nothing in this section shall be construed to affect the ban or prohibitions referenced under section 28(f), section 30 and section 31 of the Geothermal Steam Act of 1970.

(b) The National Park Service, in consultation with the Forest Service and the United States Geological Survey, shall conduct a study on the impact of potential geothermal development on the thermal features of Yellowstone National Park. Such study shall not include the area referred to under section 30 of the Geothermal Steam Act of 1970, and shall not include federal lands within the areas referred to in section 28(f) and section 31 of such Act. The study shall be submitted to Congress no later than four years after the date of enactment of this Act.

APPENDIX B

The Senate Committee amendment to the Old Faithful Protection Act of 1991, as proposed by Senator Malcolm Wallop and adopted by the Senate Energy and Natural Resources Committee during the 102d Congress (Senate Report 102-363):

Sec. 1.(a) In order to ensure that no development of geothermal resources occurs which could result in any adverse effect on thermal features of Yellowstone National Park and afford the surrounding States sufficient time to assess the adequacy of State law to protect such features:

(1) The Secretary may not issue any lease under the Geothermal Steam Act of 1970, as amended, (30 U.S.C. 1001-1026) for Federal lands within a fifteen-mile radius of the boundary of Yellowstone National Park. Nothing in this Act shall be construed to affect the ban or prohibitions referenced under section 28(f) of the Geothermal Steam Act of 1970, as amended (30 U.S.C. 1001-1026).

(2) Except as provided in paragraph (3) of this section, any use of, or

production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources is prohibited on lands and waters and interests or rights in such lands and waters not owned by the United States within fifteen miles of the boundary of Yellowstone National Park within the States of Wyoming and Montana until one hundred and eighty days after: (A) the receipt by the Committee on Energy and Natural Resources of the United States Senate and the United States House of Representatives of the study referred to in subsection (b) of this section; and (B) completion of the certification process, as defined in section 3 of this Act, by the Governor of the state in which the affected lands are located. For the purposes of this section, the term "geothermal well" means a well for geothermal steam and associated geothermal resources.

(3) Notwithstanding the provisions of paragraph (2) of this section, any use of, or production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources is prohibited on lands and waters and interests or rights not owned by the United States in the Corwin Springs Known Geothermal Resource Area in the State of Montana until one hundred and eighty days after the Governor of the State of Montana has completed the certification process as defined in section 3 of this Act.

(b) The Secretary of the Interior, through the National Park Service, and in consultation with the Secretary of Agriculture, acting through the Forest Service, and using the resources of such other agencies as may be at the Secretary's disposal, including, but not limited to, the United States Geological Survey, shall conduct a study on the impact of potential geothermal development on the thermal features of Yellowstone National Park. Such study shall not include Federal lands within the areas referred to in section 28(f) of the Geothermal Steam Act of 1970, as amended or the lands subject to paragraph (a)(1) of this section. The study shall be submitted to Congress no later than three years after the date of enactment of this Act.

Sec. 2.(a) The existence and extent of any property right, including, but not limited to, lands and waters and interests therein, shall be based on the laws of the State in which the resource is located. Nothing in this Act shall affect the authority of any State to determine the existence and extent of any right including, but not limited to, certification of compliance with the laws of such State relating to the acquisition of any such right.

(b) Any action alleging the taking of property as a result of this Act shall be brought in the United States district court for the district in which the property is located. Said district court is hereby granted exclusive original jurisdiction over any such action without regard to the amount

claimed. The United States shall pay just compensation should the court determine that a taking within the meaning of the fifth amendment to the United States Constitution has occurred.

Sec. 3. For purposes of this Act, the term "certification process" means certification by the Governor of the affected state that the state has enacted, subsequent to the date of enactment of this Act, laws regulating the exploration, development, production, and use of geothermal resources in a manner which provides for the protection of the thermal features of Yellowstone National Park and transmittal by the Governor of notice of such certification and a copy of such laws to the Committee on Energy and Natural Resources of the United States Senate and to the United States House of Representatives.

Sec. 4. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

