FROM MARTZ TO THE TWENTY-FIRST CENTURY: A HALF-CENTURY OF NATURAL RESOURCES LAW CASEBOOKS AND PEDAGOGY

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Clyde Martz published the first natural resources law casebook in 1951, combining the previously discrete subjects of water law, mining law, and oil and gas law. Martz relied almost exclusively on case excerpts and emphasized the creation of private rights in natural resources. Over the next-half century, through several generations of casebooks, the natural resources course developed in response to the rise of the environmental movement and a series of energy crises.

This article traces the evolution of the natural resources law casebooks from Martz's pioneering effort through several generations of texts to a new generation of casebooks that has been published over the past couple of years. Through the years, the casebook authors have variously emphasized the allocation of private rights versus public management, extractive rights versus resource preservation, public vs. private lands, Western versus Eastern issues, and case law versus secondary materials. Some have emphasized economic themes, others ecosystem preservation. This article illustrates these variations by focusing on the books' approach to the water resource, arguably with most important natural resource.

After the past quarter-century of dominance by the Coggins, Wilkinson, and Leshy book, a public lands-oriented casebook, a new generation of four texts seek to balance private lands and Eastern issues against Western public lands, and in one case focuses on state private property law as the dominant forum for resolving natural resource disputes. The new generation also emphasizes place-based contextual approaches and employs materials well beyond traditional case law, including web-based resources, visual aids, maps, charts, diagrams, and the like, as well as many secondary sources.

INTRODUCTION

Clyde Martz published the first natural resource law casebook, *Cases and Materials on the Law of Natural Resources*,[1] in 1951, some eighty years after Professor Christopher Columbus Langdell distributed pamphlets of cases on contract law to his students at Harvard Law School, introducing the casebook to American legal pedagogy.[2] By the turn of the twentieth century, scholars had developed and published casebooks for nearly every subject taught in law schools, including contracts, property, trusts, torts, constitutional law, criminal law, evidence, corporations, and admiralty.[3] These early casebooks covered discrete subjects, which often had long-established treatises bounding their scope.[4] By contrast, the Martz text and subsequent generations of natural resources casebooks have faced the challenge of organizing an area of law that emerged as a separate subject of legal study only in the second half of the twentieth century, encompassing such diverse topics as water and water rights, mining, timber, oil and gas, energy, agriculture, recreation, resource preservation and even general land-use planning.[5] George Coggins, co-author of one of the principal contemporary natural resource texts,[6] has referred to

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1. CLYDE O. MARTZ, CASES AND MATERIALS ON THE LAW OF NATURAL RESOURCES (1951).

2. *See* Steve Sheppard, *Casebooks, Commentaries, and Curmudgeons: An Introductory History of Law in the Lecture Hall*, 82 IOWA L. REV. 547, 599 (1997).

3. *Id.* at 615.

4. *See id.* at 574, 615; George C. Coggins, *Some Disjointed Observations on Federal Public Land and Resource Law*, 11 ENVTL. L. 471, 479 (1981).

5. *See* Coggins, *supra* note 4, at 478–80. *See generally* ARNOLD W. REITZE, JR., ENVIRONMENTAL PLANNING: LAW OF LAND AND RESOURCES (1974) (addressing over twenty different natural resources or resource-related values such as recreation and planning).

6. GEORGE CAMERON COGGINS, CHARLES F. WILKINSON & JOHN D. LESHY, FEDERAL PUBLIC LAND AND RESOURCE LAW (5th ed. 2002).

this organizational process as forcing some order on random sprawl.[7]

The challenge of organizing the study of natural resource law has grown significantly over the past half-century as the field has expanded and become more diffuse, with an explosion of federal statutes regulating the management and use of natural resources, and a parallel shift in societal attitudes towards preservation and non-consumptive use of natural resources.[8] Natural resource law casebooks have evolved over the past half-century in response to these changes in the substantive law, public perception of resource use, and federal management of natural resources.[9] Casebook authors have used different organizational schemes and stressed or muted themes to reflect these changes, and they have also incorporated an increasing amount of non-case materials as teaching aids in keeping with a general trend in legal casebooks.[10] Each generation of texts has made different organizational and thematic choices regarding which resources to cover; whether to focus on resource allocation or regulation, public lands or private lands, Western or more national issues; and reliance on cases alone or incorporation of secondary materials.

The first generation of casebooks, Martz's 1951 text[11] and *Cases and Materials on Natural Resources*, authored by Frank Trelease, Harold Bloomenthal, and Joseph Geraud in 1965,[12] focused on the allocation of property rights in natural resources. Developed against a historical background of private rights in government disposition of natural resources, these

7. Coggins, *supra* note 4, at 478–79. Coggins has subsequently co-authored a comprehensive treatise. *See* GEORGE CAMERON COGGINS & ROBERT L. GLICKSMAN, PUBLIC NATURAL RESOURCES LAW (1990 & Supp. 2005).

8. *See* Coggins, *supra* note 4, at 471, 475–78.

9. *See* Scott W. Hardt, *Federal Land Management in the Twenty-First Century*, 18 HARV. ENVTL. L. REV. 345, 350–51 (1994) (describing the change in federal land management from an early focus on accommodating natural resource extraction to a multiple-use approach which includes attention to recreational uses, aesthetics, a healthy environment, and maintaining ecological values for their own sake, unconnected to economic use).

10. *See, e.g.*, LAWRENCE M. FRIEDMAN, AMERICAN LAW IN THE 20TH CENTURY 479 (2003) (describing how, "[g]enerally speaking, the casebooks of the 1990s included a lot more than cases. Typically, they bristled with notes and questions; they sometimes included excerpts from law review articles and, occasionally, historical, philosophical, economic, or sociological material").

11. MARTZ, *supra* note 1.

12. FRANK J. TRELEASE, HAROLD S. BLOOMENTHAL & JOSEPH R. GERAUD, CASES AND MATERIALS ON NATURAL RESOURCES (1965).

casebooks had a decidedly Western perspective, and aimed to teach the mechanics of obtaining private rights in natural resources, predominantly resource rights on public lands. These first-generation texts made almost exclusive use of cases, with short prefatory materials prepared by the authors before the cases, notes and questions after.

Following the revolution in environmental regulation in the late 1960s and 1970s, and set against the energy crises brought on by the 1973 Arab oil embargo, Arnold Reitze's *Environmental Planning* ushered in a second generation of casebooks in 1974.[13] Second-generation texts departed from the first generation by covering a wider range of resources; addressing the growing regulation and protection of resources, while de-emphasizing allocation of private rights; introducing overarching legal themes—such as administrative law—applicable to all resources; and expanding the scope of the books to include non-legal materials, such as articles and information on history, science, and economics, to provide context for the discussion of contemporary law. In addressing a significantly broader set of resources, these books also moved away from a purely Western focus. For example, the Reitze book combined both the newly enacted pollution-control statutes as well as traditional natural resources law, transportation planning, land use planning, and energy law into an overall focus on environmental planning.

Other second-generation books responded to the energy crises of the 1970s. William Rodgers's *Cases and Materials on Energy and Natural Resource Law*, published in 1979, with a second edition in 1983, began with a discussion of the common law, proceeded to explain the framework of constitutional and administrative law surrounding the law of individual resources, and then treated the individual natural resources primarily as sources of energy.[14] Jan Laitos's *Natural Resources Law*, published in 1985, echoed Rodgers's focus on overarching themes, as well as Reitze's concern with the planning process, and added a significant discussion of the effect of economics on

13. REITZE, *supra* note 5.

14. WILLIAM H. RODGERS, JR., CASES AND MATERIALS ON ENERGY AND NATURAL RESOURCE LAW (2d ed. 1983) [hereinafter RODGERS]; WILLIAM H. RODGERS, JR., CASES AND MATERIALS ON ENERGY AND NATURAL RESOURCE LAW (1st ed. 1979).

natural resource development and preservation.[15]

Federal Public Land and Resources Law, by George Coggins, Charles Wilkinson, and (beginning with the third edition) John Leshy, has dominated the field of natural resource law textbooks for the past twenty-five years.[16] We consider its five editions to constitute a third generation of casebooks in their own right.[17] More than any of the earlier texts, this casebook presented the rich cultural history of the law of natural resources, identifying landmark cases of the nineteenth and early twentieth century and establishing a Western canon of public lands and resource law. Like some of the second-generation texts, *Federal Public Land and Resources Law* laid out a framework of overarching statutes and doctrines, then proceeded through a description of the law of particular resources within this framework and through the unifying theme of federal ownership and management of public lands. Going beyond the earlier texts, this third-generation casebook systematically elevated resource preservation to equal prominence with resource extraction and devoted significant space to the growing importance of recreation as a predominant use of public lands.[18]

This paper explores the history and evolution of natural resources casebooks and pedagogy over the past half-century. Part I considers the first generation of casebooks, describing their central emphasis on resource allocation and the creation of private rights in public resources. Part II discusses the second generation of casebooks, published after the regulatory explosion of the late 1960s and 1970s and during the energy crises of the latter decade. These texts addressed a wider range of resources, emphasized the growing importance of regulation and resource protection, expanded the use of scientific and economic materials to provide context and, in some cases, dis-

15. JAN G. LAITOS, NATURAL RESOURCES LAW: CASES AND MATERIALS xvii–xviii (1985).

16. COGGINS ET AL., *supra* note 6.

17. *Id.*; GEORGE CAMERON COGGINS, CHARLES F. WILKINSON & JOHN D. LESHY, FEDERAL PUBLIC LAND AND RESOURCE LAW (4th ed. 2001); GEORGE CAMERON COGGINS, CHARLES F. WILKINSON & JOHN D. LESHY, FEDERAL PUBLIC LAND AND RESOURCE LAW (3d ed. 1993) [hereinafter COGGINS ET AL. (3d ed.)]; GEORGE CAMERON COGGINS & CHARLES F. WILKINSON, FEDERAL PUBLIC LAND AND RESOURCE LAW (2d ed. 1987) [hereinafter COGGINS ET AL. (2d ed.)]; GEORGE CAMERON COGGINS & CHARLES F. WILKINSON, FEDERAL PUBLIC LAND AND RESOURCE LAW (1st ed. 1981).

18. Coggins, *supra* note 4, at 479–80.

cussed individual resources within the context of overarching legal frameworks. Part III addresses the Coggins, Wilkinson, and Leshy casebook and its establishment of the Western canon of natural resource law through its magnificent history of public lands law and its innovation of treating wildlife, recreation, and public lands preservation co-equal with the traditional extractive resources of the earlier texts. Part IV illustrates the evolution of the three generations of casebooks by examining their treatment of the most important natural resource, water. The casebooks' approaches to water reflects the changing themes and focuses on the context of underlying changes in the legal and societal approaches to natural resources. Part V concludes with a peek at the new, emerging fourth generation of natural resources casebooks,[19] which contain new responses to the challenge of organizing and teaching the law of natural resources. These fourth-generation texts depart from the prevailing Western canon of the Coggins book by expanding the attention given to issues of Eastern natural resources law and by returning to issues—like private lands regulation and the acquisition of private rights—which were more prominent in earlier texts. Describing the significance of the fourth-generation casebooks is the task of the commentaries that follow this one.

I. THE FIRST GENERATION: ALLOCATING OWNERSHIP AND USE RIGHTS IN RESOURCES

Clyde Martz's *Cases and Materials on the Law of Natural Resources* was the first text attempt to consolidate natural resources law into one course of legal study.[20] Martz's case-

19. ERIC T. FREYFOGLE, NATURAL RESOURCE LAW: PRIVATE RIGHTS AND COLLECTIVE GOVERNANCE (forthcoming 2007) (manuscript on file with authors); CHRISTINE A. KLEIN, FEDERICO CHEEVER & BRET C. BIRDSONG, NATURAL RESOURCES LAW (2005); JAN G. LAITOS, SANDRA B. ZELLMER, MARY C. WOOD & DANIEL H. COLE, CASES AND MATERIALS ON NATURAL RESOURCES LAW (2006); JAMES RASBAND, JAMES SALZMAN & MARK SQUILLACE, NATURAL RESOURCES LAW AND POLICY (2004).

20. MARTZ, *supra* note 1, at vii. Prior to the publication of Martz's book in 1951, individualized courses in mining and mineral law, oil and gas law, and water rights existed, but no single course surveyed all these subjects. *See, e.g.*, GEORGE A. BLANCHARD & EDWARD P. WEEKS, THE LAW OF MINES, MINERALS, AND MINING WATER RIGHTS (1877); JAMES M. KERR, MINING AND WATER CASES ANNOTATED (1912); ROBERT S. MORRISON, MINING RIGHTS ON THE PUBLIC DOMAIN (1st ed. 1874). The Morrison text, which included statutes and patent forms

book—which provided comprehensive coverage of water, mineral, and oil and gas resource allocation schemes—was a response to the demand for lawyers in allocation disputes growing out of resource scarcity created by military needs before and during World War II and the housing boom that followed.[21] Martz also observed that the resulting and ever-expanding body of "conservation"[22] legislation from Congress further fueled the demand for a comprehensive natural resources law course.[23]

At the time Martz published his casebook, scholars generally described three broad periods of public lands management in American history, usually categorized as the eras of acquisition, disposition, and retention.[24] These "distinct but some-

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as well as case decisions, survived through sixteen editions over more than sixty years. *See* EMILIO D. DESOTO, ARTHUR R. MORRISON & ROBERT S. MORRISON, MINING RIGHTS ON THE PUBLIC DOMAIN (16th ed. 1936).

21. MARTZ, *supra* note 1, at vii; *see also* Jason Scott Johnston, *The Tragedy of Centralization: The Political Economics of American Natural Resource Federalism*, 74 U. COLO. L. REV. 487, 510 (2003) (suggesting that scarcity resulted in part from overdevelopment of federal natural resources in the Western United States in the post-World War II era, due to the ability of Western congressmen controlling several key committees to encourage resource development through vote bargaining).

22. Martz's definition of "conservation" as government efforts to "restrict the wasteful exploitation of . . . natural resources," MARTZ, *supra* note 1, at 994, is consistent with the Progressive Era concept of conservation as the maximum development of resources without waste. *See* A. Dan Tarlock, *The Changing Meaning of Water Conservation in the West*, 66 NEB. L. REV. 145, 160–61 (1987); *see also* SAMUEL TRASK DANA & SALLY K. FAIRFAX, FOREST AND RANGE POLICY, ITS DEVELOPMENT IN THE UNITED STATES 69–70 (2d ed. 1980) (describing the "Golden Age of American Conservation history" from 1898 to 1910). Writing in 1910, Gifford Pinchot, first chief of the United States Forest Service, described three principles of conservation: (1) "development," by which he meant "use of the natural resources now existing on this continent for the benefit of the people who live here now;" (2) "preservation," meaning "prevention of waste;" and (3) "common good," meaning that "natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of the few." GIFFORD PINCHOT, THE FIGHT FOR CONSERVATION 43–49 (Univ. of Wash. Press 1967) (1910). *See infra* note 50 and accompanying text.

23. MARTZ, *supra* note 1, at vii.

24. *See* Leigh Raymond & Sally K. Fairfax, *Fragmentation of Public Domain Law and Policy: An Alternative to the "Shift-to-Retention" Thesis*, 39 NAT. RESOURCES J. 649, 661 & n.42 (1999) (citing THOMAS DONALDSON, THE PUBLIC DOMAIN, ITS HISTORY, WITH STATISTICS (1880) as the first writer to describe acquisition and disposition and E. LOUISE PEFFER, THE CLOSING OF THE PUBLIC DOMAIN: DISPOSAL AND RESERVATION POLICIES, 1900–1950, at 4 (1951) (citing F.H. DENNETT, THE PUBLIC LANDS OF THE UNITED STATES 1 (1910) as the source of the division of public lands history into three phases—sale, development and reservation—of which the first two involved disposition)); *see also* BENJAMIN HORACE HIBBARD, A HISTORY OF THE PUBLIC LAND POLICIES 7–31 (Peter Smith 1939)

what overlapping" eras began with acquisition of the public domain, which ran from the foundation of the United States until the Alaska Purchase in 1867; proceeded to disposition of these lands, from shortly after acquisition until President Roosevelt's withdrawal of remaining public domain land from entry in 1934; and culminated in reservation of the public domain, beginning with the first systematic reservation of federal lands in the Forest Reserve Act of 1891.[25] Descriptions of the acquisition and disposition periods appeared as early as 1880, with the first delineation of a history that included retention in 1910.[26] Although these eras capture the dominant direction of government policies within the respective periods, the distinctions among the periods are not crystal-clear because the federal government continued acquisition of lands and disposition of at least partial estates in public land during the retention period.[27] In particular, the government continued to grant pri-

(1924) (describing the acquisition of the public domain), *id.* at 32–471 (describing the disposition of the public domain from colonial times through the date of writing (1924) under various public land sale and development programs and statutes), *id.* at 472–537 (describing the period of conservation (1900–1920), federal reserved lands, and grazing, land classification, and mineral lands administration during that period). The division of the history of public lands management into three general eras involving acquisition, disposition, and retention has been a principal organizing theme for several texts. *See, e.g.*, COGGINS ET AL., *supra* note 6, at 34–137 (dividing the history of public lands management into three eras, covering (1) acquisition of the public domain; (2) disposition of the public domain; and (3) reservation, withdrawal, and reacquisition); DANA & FAIRFAX, *supra* note 22, at ix, 1–32 (describing the acquisition and disposition eras); *id.* at 33–348 (describing conservation and management policy in the retention era).

25. *See* MARION CLAWSON, THE FEDERAL LANDS REVISITED 15, 16, 20, 28 (1983) [hereinafter CLAWSON, THE FEDERAL LANDS REVISITED]; *see also* Raymond & Fairfax, *supra* note 24, at 661 & n.43 (describing the rough contours of the three periods and noting that some scholarship recognized that the eras overlapped without precise beginnings and endings). Writing in 1951 when he was director of the Bureau of Land Management, Clawson described the use of the three eras or periods as the usual approach to the subject. MARION CLAWSON, UNCLE SAM'S ACRES 16 (1951); *see also id.* at 18–41 (describing the acquisition of public lands), *id.* at 42–94 (describing the disposition of most of the public lands), *id.* at 95–127 (describing the reservation and conservation of public lands); Raymond & Fairfax, *supra* note 24, at 661 n.42 (describing development of the three-period distinction in public lands law history). Clawson later refined what he described as the era of retention, or reservation, to include periods of custodial management (roughly 1898 to 1950), intensive management (from 1950 to 1960), and consultation and confrontation (beginning in 1960). CLAWSON, THE FEDERAL LANDS REVISITED, *supra*, at 31–56.

26. *See* Raymond & Fairfax, *supra* note 24, at 661 n.42.

27. For example, the Weeks Act of 1911, Pub. L. No. 61-435, 36 Stat. 961 (codified as amended in scattered sections of 16 U.S.C.), authorized the federal government to reacquire forested lands in the Eastern states, while the Mineral

vate rights on public lands even after the retention era began, with the government retaining title to the land but granting leases, permits, or profits to private parties in the resources on those lands.[28]

Martz's casebook devoted a short section—some eleven pages—to what he described as a "cursory review" of natural resources law and its history, explaining that the "policy of the government towards the exploitation of the nation's resources" passed through three separate eras: (1) sale; (2) exploitation and development; and (3) conservation.[29] Martz's eras generally track the acquisition-disposition-retention periods which other scholars had laid out,[30] although he omitted the discussion of acquisition and divided the disposition period into his first two categories.[31] The era of sale between the American Revolution and the mid-nineteenth century involved the federal disposition of public land in order to generate revenue.[32] The era of exploitation, beginning with the California Gold Rush of the 1850s, involved making minerals, lands, and waters available for private use with few restraints, and culmi-

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Land Leasing Act of 1920, Pub. L. No. 66-146, 41 Stat. 437 (codified as amended at 30 U.S.C. §§ 181-287 (2000)), and the Taylor Grazing Act of 1934, Pub. L. No. 73-482, 48 Stat. 1269 (codified as amended at 43 U.S.C. §§ 315 to 315o-1 (2000)) allowed private parties to obtain leasehold rights on public lands for mineral development and livestock grazing. *See* Raymond & Fairfax, *supra* note 24, at 736–45. These authors argued that a description of a "shift" from disposition to retention failed to adequately explain the fragmentation of public domain law and policy in the late 1800s and early 1900s. *See generally id. See also* Karin P. Sheldon, Commentary, *How Did We Get Here? Looking to History to Understand Conflicts in Public Land Governance Today*, 23 PUB. LAND & RESOURCES L. REV. 1, 6–16 (2002) (describing the eras as "concurrent and overlapping" and detailing the major policy themes during each era).

28. *See* Raymond & Fairfax, *supra* note 24, at 728–45 (describing significant federal disposition of private rights to resources from or on public lands from the Reclamation Act of 1902 to the Taylor Grazing Act of 1934). The authors calculated in 1999 that, by excluding lands on which public resources such as livestock forage and minerals were available for private exploitation, the extent of federal land ownership dropped from the commonly-accepted one-third of the nation's lands to only about ten percent. *See id.* at 746; *infra* note 88.

29. MARTZ, *supra* note 1, at 1–11.

30. *See supra* notes 24–26 and accompanying text.

31. MARTZ, *supra* note 1, at 1–11.

32. *Id.* at 2–3. Martz cited the Homestead Act of 1862, 12 Stat. 392 (1862) (repealed by Federal Land Policy and Management Act, Pub. L. No. 94-579, § 702, 90 Stat. 2743, 2787 (1976)), as marking the end of the policy of sale for revenue, because, beginning with the Homestead Act, land was given outright to settlers in limited acreages in return for their compliance with residence, cultivation and use conditions. MARTZ, *supra* note 1, at 3.

nated around the turn of the twentieth century as resources throughout the West grew scarce[33] Martz's era of conservation, corresponding roughly with what others described as the retention era, began around 1900.[34] This period witnessed reservation of federal lands from disposition, reclamation of arid lands, and restrictions on uneconomic and wasteful exploitation. But it continued to involve private access to resources on public lands, although subject to a growing system of laws regulating exploitation of resources for the public welfare.[35]

Consistent with government policies allocating resource rights on public lands that continued even after the retention era began, the overriding theme of Martz's casebook was the acquisition of private rights in public natural resources. The principal part of his definition of natural resources law—"the techniques by which private interests in the water, minerals and land of the public domain or in *publici juris* are acquired"[36]—reflected this perspective. The Martz casebook essentially served as a "how-to" guide for the acquisition of private rights in public natural resources, including water rights, oil and gas, and even private rights in the public lands themselves.[37] Although Martz successfully combined the law of several resources into one course, the book's coverage was limited almost exclusively to the exploitation and maximum efficient use of the key extractive resources of the time: water, minerals, and oil and gas.[38]

This view of maximum efficient use carried through to the final section of Martz's casebook, which explored "conservation

33. MARTZ, *supra* note 1, at 3–6.

34. *Id.* at 6.

35. *Id.* at 6–11.

36. *Id.* at 1. To this definition of natural resources law Martz added, "the nature of these interests; and the common law and statutory responsibilities that individuals who exploit the resources of the country owe to others who hold like interests and to the public." *Id.* The casebook covered the latter part of the definition in a short section describing correlative rights in split estates and duties to adjoining estates, such as lateral support and the duties to avoid stream pollution and water leakage. *See id.* at 944–93.

37. *Id.* at 19–466 (water rights); *id.* at 467–726 (acquisition of mineral rights by location); *id.* at 727–894 (oil and gas by lease); *id.* at 895–943 (acquisition of public lands).

38. *See id.* at 19–466 (water); *id.* at 467–726 (minerals); *id.* at 727–894 (oil and gas); *id.* at 895–943 (acquisition of public lands). Only a few sections of the casebook involved cross-resource issues or the reservation of lands for public uses. *See id.* at 944–95 (correlative rights and duties to adjoining estates); *id.* at 996–1001 (reservations of public lands for public uses or classification).

techniques."[39] Martz's definition of "conservation" generally meant maximizing efficiency of resource use, rather than the more modern conception as the protection of resources in their natural state.[40] The federal government would achieve conservation by preventing wasteful extraction to achieve "maximum ultimate production of the resource,"[41] putting water resources to their most beneficial uses, and encouraging the production of scarce and strategic resources.[42] Martz advocated use of irrigation to "reclaim" productive use of water and soils,[43] and he continued to maintain these views some forty years after publication of his casebook.[44]

Martz devoted over a hundred pages of his section on conservation techniques to the law of reclamation of water on arid lands[45] and measures to eliminate wasteful extraction of natural resources.[46] By contrast, only a few pages discussed the reservation of lands for public uses,[47] and the text made passing reference to only a few Progressive Era luminaries—Theodore Roosevelt, Henry L. Doherty (a utility entrepreneur and advocate of conservation in petroleum production[48]), and

39. *Id.* at 994–1101.

40. *See supra* note 22 and accompanying text.

41. MARTZ, *supra* note 1, at 995.

42. *Id.* at 1002 (quoting from the House Report on the Reclamation Act of 1902, which stated that the construction of irrigation works could profitably reclaim an estimated 35 million acres).

43. *Id.* Martz's emphasis on the importance of irrigation for reclaiming arid lands echoed the views of John Wesley Powell, who had proposed detailed land systems for organizing water for land reclamation in his epic 1879 report on the arid lands of the Western United States. *See* JOHN WESLEY POWELL, LANDS OF THE ARID REGION OF THE UNITED STATES 25–45 (The Harvard Common Press 1983) (1879) (describing the land and water rights system he deemed necessary to best reclaim arid lands and proposing statutory language authorizing homestead settlements to organize irrigation and pasturage districts).

44. *See* Clyde O. Martz, *Natural Resources Law: An Historical Perspective, in* NATURAL RESOURCES POLICY AND LAW: TRENDS AND DIRECTIONS 21 (Lawrence J. MacDonnell & Sarah F. Bates eds., 1993) (Martz expressing his frustration with environmental regulations restricting private development of natural resources).

45. MARTZ, *supra* note 1, at 1002–39 (citing among other authorities the Reclamation Act of 1902, 43 U.S.C. § 411, Flood Control Act of 1936, 33 U.S.C. § 701a, and the Federal Water Pollution Control Act of 1948, 33 U.S.C. § 466-466d).

46. *Id.* at 1038–1101 (citing among other authorities the Interstate Oil Compact of 1935, the Uniform Oil and Gas Conservation Statute, the Federal Hot Oil Act, 15 U.S.C. §715, and many state cases involving waste-reducing measures related to resource extraction).

47. *Id.* at 996–1000 (citing provisions of the National Park Service Organic Act, 16 U.S.C. § 1, and the National Forest Service Organic Act, 16 U.S.C. §471).

48. *See, e.g.*, Jacqueline Lang Weaver, Lecture, *The Federal Government as a Useful Enemy: Perspectives on the Bush Energy/Environmental Agenda From the*

Herbert Hoover (presumably in his role as Secretary of Commerce during the 1920s)—naming them as leaders who ushered in the conservation era without further description of their roles in that development.[49] Gifford Pinchot, the first chief of the United States Forest Service and the leading Progressive Era advocate of scientific conservation,[50] was not mentioned at all.

Many of the principal themes of Martz's *Cases on Natural Resources* were echoed a decade and a half later in Trelease, Bloomenthal, and Geraud's 1965 book, *Cases and Materials on Natural Resources*, which the authors of the latter text specifically claimed to be a "successor" to Martz's pioneering casebook.[51] In devoting the majority of the book to water resources and natural resources in the public domain—with shorter sections on oil, gas, and mineral rights on private land—the Trelease book authors mirrored Martz in organization.[52] Like Martz's, the text focused on a limited number of resources: water, minerals, and oil and gas. Also like its predecessor, the Trelease text was concerned primarily with the acquisition of private rights in public resources; for example, the water resources portion of the book adopted a "functional approach to private water rights," explaining how to acquire and exercise those rights.[53] However, because Trelease and his co-authors

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Texas Oilfields, 19 PACE ENVTL. L. REV. 1, 9–10 (2001) (describing Doherty's advocacy of federally-enforced compulsory unit operation in Texas oilfields "to prevent the incredible waste that was so contrary to the national interest in conservation" while he was a director of the American Petroleum Institute in 1924).

49. MARTZ, *supra* note 1, at 994.

50. *See* CLAWSON, THE FEDERAL LANDS REVISITED, *supra* note 25, at 32–33. On Pinchot, see Michael C. Blumm, *Pinchot, Property Rights, and Western Water: A Reply to Gregory Hobbs*, 24 ENVTL. L. 1203 (1994).

51. TRELEASE, ET AL., *supra* note 12, at ix.

52. *Compare id.* at 1–358 ("Water Resources"), *id.* at 359–725 ("The Public Domain and Natural Resources"), *and id.* at 725–1120 ("Private Ownership of Mineral Interests"), *with* MARTZ, *supra* note 1, at 19–466 ("The Acquisition of Water Rights"), *id.* at 467–726 ("The Acquisition of Mineral Rights by Location"), *id.* at 727–65 ("Leases on Public Land"), *id.* at 766–894 ("Landowner Rights to Oil and Gas" and "The Mineral Lease" on private lands), *and* 895–943 ("The Acquisition of Public Lands"). Both books also included sections describing the historical background of public lands acquisition, disposition, and reservation. TRELEASE, ET AL., *supra* note 12, at 359–409; MARTZ, *supra* note 1, at 1–11. The final chapter of the section in Trelease's text on private ownership of mineral interests, which discussed conservation in oil and gas operations, reflected similar concerns in the Martz casebook about avoiding wasteful exploitation of resources. TRELEASE, ET AL., *supra* note 12, at 1055–1120; MARTZ, *supra* note 1, at 994–1101; *see supra* notes 39–46 and accompanying text.

53. TRELEASE, ET AL., *supra* note 12, at ix.; *cf.* GEORGE A. GOULD & DOUGLAS

intended the book to serve either for a natural resource law survey course or a course focused on one of the resources covered in the text, they included a longer section on private ownership of mineral interests than Martz did, with a primary emphasis on oil and gas rights and development.[54]

The first chapter of the water resources part of the Trelease text examined acquisition of water rights under state law, while the second chapter explored the exercise of those rights.[55] Short sections examined certain aspects of federal law, such as interstate water allocation, hydropower development, and irrigation projects,[56] not unlike the relatively limited attention that Martz gave to federal development programs.[57] Trelease and his co-authors devoted a significant portion of their casebook to the public domain, with a heavy emphasis on mining and mineral leasing.[58] The text assumed the perspective of a private entrepreneur seeking to develop natural resources.[59] The mining chapters operated as a practical guide for how to obtain rights to minerals through location and leasing.[60]

The Trelease book included a short historical chapter on

L. GRANT, CASES AND MATERIALS ON WATER LAW (5th ed. 1995) (revised edition of FRANK J. TRELEASE & GEORGE A. GOULD, CASES AND MATERIALS ON WATER LAW (4th ed. 1986), which continued the study of acquisition and exercise of private water rights).

54. *See* TRELEASE, ET AL., *supra* note 12, at x, 725–1120. *Compare id.*, *with* MARTZ, *supra* note 1, at 766–894 (discussion of rights to oil, gas and minerals on private lands).

55. *Id.* at 1–244.

56. TRELEASE, ET AL., *supra* note 12, at 283–310 (interstate allocation); *id.* at 310–28, 348–57 (hydropower issues); *id.* at 328–48 (irrigation issues).

57. *See* MARTZ, *supra* note 1, at 1002–37 (describing the Reclamation Act of 1902 and federal programs for watershed development, flood control, and pollution control).

58. TRELEASE, ET AL., *supra* note 12, at 410–613 (examining location of minerals, location procedures, unpatented mining claims, and lodes in placers); *id.* at 614–78 (mineral leasing on federal lands); *cf. id.* at 679–723 (covering multiple utilization of public lands and limitations on mineral development).

59. *Id.* at 359 (noting that if a "modern entrepreneur" had an interest in developing land "located in one of the public land states, he is apt to find that the land still forms a part of the public domain and may be acquired only if such an acquisition is possible under present public land laws; he may find that only limited rights may be acquired which will authorize specific uses of the land which will have to be limited so as to accommodate rights previously acquired by other individuals; or he may find that the available rights are not sell defined and may be subject to future clarification by legislation, judicial decision or administrative determination").

60. *Id.* at 410–678. The authors even included a short section on geology. *Id.* at 410–15.

the disposition era and the government's subsequent retention and classification of public lands, introducing a discussion of the public domain.[61] The book's history of public lands, which introduced the chapters on mining law and mineral leases on those lands, tracked the standard story of acquisition, disposition and retention, paying most attention—as Martz did—to the disposition and retention eras.[62] The historical chapter included sections on rights-of-way across the public domain, the Taylor Grazing Act of 1934—mainly with respect to its withdrawal of remaining public domain from entry—and the administration of public lands.[63] The authors limited their discussion of non-mineral resources to the restrictions that the principle of multiple use of public lands placed on mineral development.[64] They examined grazing lands, national forests, wilderness areas, national parks and monuments, and wildlife conservation areas only to demonstrate how such classifications and reservations could restrict the availability of land for mineral disposition.[65] The book's paramount concern was the availability of lands for mineral development and opportunities for conducting mineral operations on those public lands.[66]

Except for the Trelease text's enhanced treatment of mineral rights on private lands, the two first-generation casebooks shared substantially the same focus on allocation of private rights in a few public resources. They shared other similarities as well. For example, both the Martz and Trelease casebooks presented a Western perspective on the law of natural resources. The remarkable consistency of this perspective is evident in both books' discussion of riparian water rights, a doc-

61. *Id.* at 359–409.

62. *Id.* at 360 (discussion of acquisition of the public domain); *id.* at 361–96 (disposition of non-mineral lands in fee and disposition of mineral lands); *id.* at 396–409 (retention and administration of public lands, including non-fee, limited grazing "rights" on public lands under the Taylor Grazing Act).

63. *Id.* at 397–409.

64. TRELEASE, ET AL., *supra* note 12, at 679–723. The Multiple-Use Sustained-Yield Act of 1960, Pub. L. No. 86-517, 74 Stat. 215 (codified as amended at 16 U.S.C. §§ 528-531 (2000)), codified the prior administrative practice of permitting multiple uses on national forest lands five years before publication of the Trelease book. *See generally* Michael C. Blumm, *Public Choice Theory and the Public Lands: Why "Multiple Use" Failed*, 18 HARV. ENVTL. L. REV. 405 (1994) (describing multiple use of public lands as a system that resulted in subsidies and threatened destruction of natural resources rather than the promised simultaneous production of compatible resources through sound federal land use planning).

65. TRELEASE, ET AL., *supra* note 12, at 679–723.

66. *See id.* at 679.

trine which is associated with the East but which is followed to at least some degree in forty-one of the fifty states.[67] Martz devoted just over fifty pages to discussing riparian rights, compared to about three hundred pages on prior appropriation systems.[68] The Trelease book examined riparian rights in only about thirty pages, compared to nearly two hundred pages on prior appropriation.[69] What is most striking about their discussion of riparian rights is that, while between them the two texts include excerpts from some twenty-six cases, only six of those were from Eastern states, with the balance mostly from California and Washington courts.[70] Without specifically referring to the section on water rights, Trelease and his co-authors justified their Western focus by the "importance of the western public domain to the nation as a whole."[71] This Western emphasis was also no doubt due to the preponderance of public lands west of the hundredth meridian, and the location of the authors—Martz at the University of Colorado, Trelease, Bloomenthal, and Geraud at the University of Wyoming.

The two first-generation casebooks also shared a pedagogical approach that relied almost exclusively on case excerpts to focus the discussion of the law. Although both texts included some introductory and historical materials, these were almost invariably abbreviated.[72] Besides case excerpts, the authors of

67. *See* TRELEASE, *supra* note 12, at 5 (map showing only Alaska, Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico as pure prior appropriation states).

68. *See* MARTZ, *supra* note 1, at 69–70, 91-147 (riparian doctrine); *id.* at 19–68, 71–90, 148–403 (appropriation doctrine).

69. *See* TRELEASE, *supra* note 12, at 8–20, 116–34 (riparian doctrine); *id.* at 21–115, 135–244 (appropriation doctrine).

70. *See* MARTZ, *supra* note 1, at 114–15, (citing Evans v. Merriweather, 4 Ill. (3 Scam.) 492 (1842)); *id.* at 116–19 (citing Dumont v. Kellogg, 29 Mich. 420 (1874)); *id.* at 122–24 (citing Sandusky Portland Cement Co. v. Dixon Pure Ice Co., 221 F. 200 (7th Cir. 1915)); *id.* at 144–45 (citing City of New Britain v. Sargent, 42 Conn. 137 (1875)); TRELEASE, *supra* note 12, at 16–19 (citing Muench v. Pub. Serv. Comm'n, 53 N.W. 2d 514 (Wis. 1952)); *id.* at 130–33 (citing Nekoosa-Edwards Paper Co. v. Pub. Serv. Comm'n, 99 N.W. 2d 821 (Wis. 1959)).

71. TRELEASE, *supra* note 12, at ix (describing the book as having a "definite western flavor").

72. *See* MARTZ, *supra* note 1, at 1–17 (survey of natural resource law and the administration of natural resources law); *id.* at 467–68 (introduction to mineral location laws); *id.* at 727–28 (introduction to mineral leases on public lands); *id.* at 994–95 (introduction to conservation techniques); TRELEASE, *supra* note 12, at 1–8 (introductory note on water rights); *id.* at 359–409 (introduction and historical background to the public domain and natural resources); *id.* at 410–18 (introduction to mining law); *id.* at 614–16 (introduction to mineral leasing on public lands); *id.* at 725 (introduction to private ownership of mineral interests); *id.* at

both books quoted statutory language and included some note cases, author-written notes on points of law, questions, and footnotes referencing law review articles, but neither book added excerpts from secondary sources like law reviews or other potential sources of background or contextual information.[73]

The first generation of casebooks successfully organized natural resource law into a distinct field of legal study. Both the Martz and Trelease books featured only a few key natural resources, focusing primarily on the allocation of private rights in resources on public lands. This focus reflected the genesis of both books in a period in which the principal public concern with natural resources was in their extraction from public land under private control, although the Trelease text did include a section on mineral rights in private lands. The two first-generation casebooks had a decidedly Western focus, and employed case excerpts as the almost exclusive tool for illustrating the law of natural resources. Their resource allocation approaches were soon overtaken by the environmental regulatory explosion of the late 1960s and 1970s.

II. THE SECOND GENERATION: RESPONDING TO THE RISE OF FEDERAL REGULATORY MANAGEMENT OF NATURAL RESOURCES

An excerpt from the Wilderness Act of 1964,[74] enacted one year before Trelease and his co-authors published their casebook, appeared in a "Note on particular withdrawals and availability of lands for mineral disposition" on pages 692–96 of that text.[75] That note in turn fell within a larger section devoted to multiple use of public lands and limitations on mineral development.[76] Given this minimal attention accorded the Wilderness Act, it is clear that Trelease and his coauthors did not anticipate that this statute would be only the first of many that would follow over the next decade-and-a-half, completely trans-

858–59 (introduction to the mineral lease on private lands); *id.* at 1009–10 (introduction to exploration and development of mineral properties).

73. *See generally* MARTZ, *supra* note 1; TRELEASE, *supra* note 12.

74. Pub. L. No. 88-577, 78 Stat. 890 (1964) (codified as amended at 16 U.S.C. §§ 1131–36 (2000)).

75. TRELEASE, *supra* note 12, at 692–96.

76. *Id.* at 679–723.

forming the field of natural resources law.[77]

During the 1960s and 1970s, the rise of the science of ecology and growing public awareness of the environmental costs of economic development led to an emerging consensus supporting federal legislation to protect the environment.[78] Congress responded by passing a number of new environmental and land management laws which provided both a procedural framework for land management decision making—notably, the National Environmental Policy Act of 1969 ("NEPA")[79] and land planning statutes like the National Forest Management Act ("NFMA")[80] and the Federal Land Policy Management Act of 1976 ("FLPMA")[81]—as well as substantive standards constraining that decision making, such as the Federal Water Pollution Control Act Amendments of 1972 (the "Clean Water Act")[82] and the Endangered Species Act of 1973 ("ESA").[83] The effect of the

77. *See* Coggins, *supra* note 4, at 473–78 (discussing legislative changes to management and regulation of natural resources during the 1960s and 1970s and concluding that "[i]t is not total hyperbole to say that modern federal land and resources law is a product of the last decade or two [prior to 1980], despite the developments of the preceding centuries"); Hardt, *supra* note 9, at 370–71 (describing how environmental statutes of 1960s and 1970s transformed federal land management by requiring management decisions to consider environmental values and establishing substantive standards to protect those values).

78. Hardt, *supra* note 9, at 370; *see also* Coggins, *supra* note 4, at 477–78 (noting the "new public priorities" that arose during this period and describing the rise and institutionalization of public interest representatives as part of the "public land law revolution").

79. Pub. L. No. 91-190, 83 Stat. 852 (1969) (codified as amended at 42 U.S.C. §§ 4321–70f (2000)).

80. Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended at scattered sections of 16 U.S.C. (2000)) (amending Forest and Rangeland Renewable Resources Planning Act of 1974, Pub. L. No. 93-378, 88 Stat. 476).

81. Pub. L. No. 94-579, 90 Stat. 2743(1976) (codified as amended at 43 U.S.C. §§ 1701–85 (2000)).

82. Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33 U.S.C. §§ 1251–1387 (2000)).

83. Pub. L. No. 93-205, 87 Stat. 884 (1973) (codified as amended at 16 U.S.C. §§ 1531–44 (2000)); *see* Hardt, *supra* note 9, at 370–71. Congress enacted many other significant environmental and land management statutes between 1968 and 1977. *See* National Wild and Scenic Rivers Act, Pub. L. No. 90-542, 82 Stat. 906 (1968) (codified as amended at 16 U.S.C. §§ 1271–87 (2000)); Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (codified at 42 U.S.C. §§ 7401–7671q (2000)); Federal Safe Drinking Water Act of 1974, Pub. L. No. 93-523, 888 Stat. 1660 (1975) (codified as amended at 42 U.S.C. §§ 300f to 300j-26 (2000)); Resource Conservation and Recovery Act of 1976, Pub L. No. 94-580, 90 Stat. 2795 (codified as amended at 42 U.S.C. §§ 6901–92k (2000)) (amending Solid Waste Disposal Act, Pub L. No. 89-272, 79 Stat. 997 (1965)); Surface Mining Control and Reclamation Act, Pub L. No. 95-87, 91 Stat 445 (1977) (codified at 30 USC §§ 1201–1328 (2000)).

new statutes was to make public land and natural resources law, in the words of George Coggins, "a new ballgame being played by new rules."[84]

The changing tide of natural resources law was illustrated by the experience of the Public Land Law Review Commission. When Congress chartered the Commission in 1964 to study existing public land laws and recommend appropriate changes to provide maximum benefit to the general public,[85] an array of outdated laws and policies governed the 750 million acres of land owned by the federal government.[86] Congress charged the Commission with considering subjects that struck at the very core of the existing system of private rights in public lands, such as whether to abandon the 1872 Mining Law's location system in favor of a leasing system for hardrock minerals.[87] By the time the Commission issued its final report, *One Third of the Nation's Land,* in 1970, it included 137 specific recommendations for improvements in the public land laws.[88] Among the changes the Commission advocated was increased public participation in federal land management decisions.[89] Congress adopted many of these recommendations, including the public participation requirement, when it enacted FLPMA and NFMA in 1976.[90] Public participation in federal land decision making through NEPA, NFMA, and FLPMA is now the hallmark of the statutes which govern public land management.[91]

Arnold Reitze's *Environmental Planning: Law of Land & Resources* went to press in December 1973, in the midst of this

84. Coggins, *supra* note 4, at 477.

85. Public Land Law Review Commission Organic Act, Pub. L. No. 88-606, § 4, 78 Stat. 983 (1964) (codified?); *see* TRELEASE, *supra* note 12, at 403 (describing the mandate of the Commission).

86. *See* Perry R. Hagenstein, *One Third of the Nation's Land – Evolution of a Policy Recommendation*, 12 NAT. RESOURCES J. 56, 58 (1972).

87. *See* Randy Hubbard, *The 1872 Mining Law: Past, Present, and Future?*, 17 NAT. RESOURCES & ENV'T 149 (2003); *see also* Hagenstein, *supra* note 86, at 59–63 (describing land use conflicts and effects of existing statutes which the Commission considered in reaching its recommendations).

88. PUBLIC LAND LAW REVIEW COMM'N, ONE THIRD OF THE NATION'S LAND 9–16 (1970); *see* Hagenstein, *supra* note 86, at 58.

89. *See* PUBLIC LAND LAW REVIEW COMM'N, *supra* note 88, at 11–16; Bret C. Birdsong, *Road Rage and R.S. 2477: Judicial and Administrative Responsibility for Resolving Road Claims on Public Lands*, 56 HASTINGS L.J. 523, 567 & n.223 (2005).

90. *See* Birdsong, *supra* note 89, at 567 n.223.

91. *See* Robert L. Fischman, *The National Wildlife Refuge System and the Hallmarks of Modern Organic Legislation*, 29 ECOLOGY L.Q., 457, 512 (2002).

period of rapid and revolutionary change in environmental and natural resources law.[92] Reitze responded to these changes by attempting to bridge the growing gap between the newly enacted environmental regulatory statutes and more traditional natural resource subjects.[93] Departing significantly from its predecessors, Reitze's casebook was not preoccupied with private rights in a few core resources on public lands, but instead was an ambitious attempt to survey the full range of issues which had arisen in the field of natural resources law, including discussions of resources such as timber, recreation, grazing, wild and scenic rivers, and endangered wildlife.[94] The book covered a breathtaking variety of subjects, including topics as diverse as regulation of billboards, pedestrian access, off-road vehicles, and solar power.[95]

Although this effort to cover so many diverse topics made achieving any sort of overall organization or thematic linkage difficult, one recurring theme in the Reitze casebook was environmental planning.[96] In the early 1970s, when the book was published, environmental planning was a relatively novel idea. The enactment of NEPA in 1969 had established a federal policy of planning before acting by requiring federal agencies to study and publicly disclose the environmental effects of their proposals through an interdisciplinary environmental planning process.[97] Influenced by this recent federal commitment to en-

92. REITZE, *supra* note 5, at iii.

93. *See* Robert L. Glicksman, *Pollution on the Federal Lands I: Air Pollution Law* 12 UCLA J. ENVTL. L. & POL'Y 1, 2–4 (1993) (discussing the pros and cons of splitting the field into the two branches of environmental law and natural resources law). Reitze acknowledged that this endeavor started out over two thousand pages long, requiring a year to edit the book down to an economically feasible size. REITZE, *supra* note 5, at ix.

94. The casebook contained chapters on land use planning, wetlands, stream channelization, transportation, public lands, forests, recreation, wild and scenic rivers, grazing, wildlife, weather modification, surface mining, hardrock mining and mineral leasing, energy from fossil fuels, siting problems of electric power plants, new or unconventional sources for power, atomic power, marine mammals, ocean pollution, and ocean resources. *Id.* at chs. 1–20.

95. *Id.* at 1-59 to -66, 4-1 to -6, 7-8, 16-1 to -3.

96. The original title for the book was *Environmental Law: Volume II*, but, after pre-publication announcements, Reitze changed the title to *Environmental Planning: Law of Land and Resources*. *Id.* at title page, ix–x, 1-1 to -80 (chapter on land use planning and regulation); *see also infra* note 98 and accompanying text. The natural resources casebook was a companion volume to Reitze's 1972 book, *Environmental Law*, which covered the law of air and water pollution control. ARNOLD W. REITZE, JR., ENVIRONMENTAL LAW (2d ed. 1972).

97. *See generally* Symposium, *NEPA at Twenty*, 20 ENVTL. L. 447 (1990) (dis-

vironmental planning, Reitze placed a heavy emphasis on its benefits in his 1974 text.[98] In this regard, and in his attention to the wide variety of regulatory authority which seemed to be developing almost daily,[99] his book diverged significantly from his extraction-oriented predecessors.

Environmental Planning: Law of Land and Resources was in many ways also a reaction to heavy emphasis those predecessors placed on the mechanics of obtaining private rights in public lands. The book's perspective was evident in its admonition that "legal title cannot morally convey the right to destroy the non-renewing resources that nature has formed," and in the first sentence of its chapter on the federal public lands, where the author claimed that "[l]and has always been acquired by theft—if not from other men, then from other creatures that would otherwise have inhabited the land."[100] This shift in focus from earlier natural resource texts was evident in Reitze's chapters on surface mining and public land mining. Where the earlier casebooks had been concerned with how to obtain private rights and how to conserve resources through maximum efficient production, Reitze primarily paid attention to the role of governmental regulation in solving the problems caused by strip mining and examining potential regulatory reforms to mining and oil extraction from public lands.[101]

Because of the ecumenical scope of his text, Reitze's casebook abandoned the consistent emphasis on Western law in the first-generation books. Many of the issues the book examined had nationwide relevance, such as transportation, land for recreation, and conventional and nuclear power plant siting.[102] In addition, some resource and regulatory issues were of particu-

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cussing the history and implementation of NEPA, including a description of how NEPA has made the acquisition of private mineral rights on public lands more difficult).

98. *See, e.g.*, REITZE, *supra* note 5, at ix-x, 1-1 to -80, 2-36, 4-66, 13-30, 17-58, 17-68 (discussing land use planning and regulation and the role of planning, particularly through NEPA, in federal wetlands law, transportation, mineral extraction, and nuclear plant licensing and siting).

99. E-mail from Arnold W. Reitze, Jr. to Michael C. Blumm (Oct. 5, 2005) (on file with authors) (describing the rapid changes in the subject matter as he wrote and rewrote the casebook).

100. REITZE, *supra* note 5, at x, 5-1.

101. *Id.* at 12-1 to -56, 13-17 to -54. However, the casebook did include the text of a Bureau of Land Management pamphlet called "Staking a Mining Claim on Federal Lands" and discussed related cases and issues regarding private rights in minerals on public lands. *Id.* at 13-1 to -16.

102. *Id.* chs. 4, 7, 15, 17.

lar concern for certain Eastern states, such as wetlands filling and strip mining.[103] Reitze also placed a much heavier reliance on secondary materials than his predecessors. For example, he quoted extensively from the Department of Interior's 1966 survey, *The Public Lands*,[104] and the Public Land Law Review Commission's landmark 1970 report, *One Third of the Nation's Land*,[105] to provide historical background on the federal public lands. Other non-case materials included maps, charts, graphs, diagrams, scientific articles, and discussions of international law.[106] These departures from the precedent set by Martz and Trelease marked the Reitze casebook as a product of the environmental revolution of the late-1960s and early-1970s. These changes would later be emulated—except for the nationwide focus—by the Coggins book that has been the canonical Western natural resource text for the last quarter-century.[107]

William Rodgers's *Energy and Natural Resources Law*, first published in 1979, was in part a response to the energy crises experienced in during the 1970s.[108] In marked contrast to the Reitze book, Rodgers set out to offer an organized, theoretical framework for students of natural resource and energy law.[109] Rodgers did so in two ways. First, the casebook contained a substantial introduction, subtitled "Perspectives," which surveyed the physics of energy, theoretical perspectives on human choices related to energy, and competing policy paradigms.[110] Second, the book examined doctrinal issues which cut across natural resources law: the common law, constitutional law, administrative law, judicial review, federal re-

103. *Id.* chs. 2, 12; *see id.* at 2-60 to -82 (discussion of Massachusetts and Maryland wetlands programs); *id.* at 12-33 to -46 (discussion of Ohio strip mining law).

104. DEP'T OF THE INTERIOR, THE PUBLIC LANDS (1966); *see* REITZE, *supra* note 5, at 5-1 to -6 (including excerpt from THE PUBLIC LANDS briefly describing the acquisition, disposition, and retention of the public domain).

105. PUBLIC LAND LAW REVIEW COMM'N, *supra* note 88; *see* REITZE, *supra* note 5, at 5-8 to -22.

106. *See, e.g.*, REITZE, *supra* note 5, at 4-15, 4-35, 5-3, 5-27, 7-4, 9-0 to -1, 14-16, 16-2, 17-8, 18-2, 18-8, 18-10, 19-1 to -4, 19-41 to -73. The casebook also included a single photograph, of Gifford Pinchot. *Id.* at 6-1.

107. *See infra* Part III.

108. RODGERS, *supra* note 14.

109. *Id.* at xvii.

110. *Id.* at 1–106; *see also id.* at xvii (lamenting the copyright fees needed to include "a delightfully diverse collection of introductory materials" from contemporary journals and books).

source management, and conservation.[111] Having established a conceptual framework and identified legal doctrines relevant to any particular resource, the book proceeded through a resource-by-resource exploration of various fuel cycles, including water, coal, oil, natural gas, uranium, and electricity.[112]

Rodgers noted that his casebook placed more emphasis on the theoretical side of resource allocation than on doctrinal law.[113] This emphasis on legal theory derived from his premise that students should understand that many controversies in natural resources law concerned fundamental allocation choices.[114] Consequently, Rodgers framed much of his material around basic questions of who gets what natural resource, and how allocation decisions are made.[115] In this way, the Rodgers casebook echoed some of the private rights allocation concerns of the first generation, although Rodgers focused on the law of allocation of resources for energy production rather than on the general acquisition of private rights in resources.[116] Also, like the Trelease text, Rodgers's casebook included some discussion of energy-resource development rights on private lands, although public land resources remained the primary focus.[117]

In an apparent attempt to draw a sharper boundary between environmental law and natural resources law, the second edition of the Rodgers text, published in 1983, deleted

111. *Id.* at 107–89 (common law and constitutional law); *id.* at 190–240 (judicial review of administrative allocations); *id.* at 241–317 (federal resource management); *id.* at 318–59 (conservation).

112. *Id.* at 360–440 (water); *id.* at 441–510 (coal); *id.* at 511–99 (oil); *id.* at 600–33 (natural gas); *id.* at 634–737 (uranium); *id.* at 738–848 (electricity).

113. *Id.* at xvii–xix.

114. *Id.* at xvii.

115. *See, e.g.*, *id.* at 371–99 (allocation of water development rights for hydropower production); *id.* at 447–81 (acquisition and exercise of coal mining development rights on private and public lands); *id.* at 515–73 (allocation of development rights in oil); *id.* at 603–31 (allocation of preferences, disabilities, and equalities in production of natural gas); *id.* at 814–48 (allocation of electricity by user, price, and service).

116. For example, Rodgers's treatment of the water resource involved a six-page discussion of riparian rights, no discussion of prior appropriation rights, a short section describing preferences for domestic consumption and conservation, and a primary focus on allocation of rights for hydropower development and potential legislative barriers to such rights, including the Endangered Species Act. *See id.* at 130–36 (riparian rights); *id.* at 360–79 (preferences and allocation for domestic consumption and conservation); *id.* at 379–440 (facility or project approval and legislative rights choices).

117. *Id.* at 447–67 (coal mining development rights on private lands); *id.* at 515–27 (oil development rights on private lands).

nearly 150 pages of NEPA material contained in the first edition.[118] This conscious decision, coupled with a focus on resource use for energy production, meant that the Rodgers text could avoid some, but not all, of the regulatory issues raised by the modern environmental statutes.[119] Only the chapter on conservation involved a significant discussion of environmental regulation,[120] diverging somewhat from Martz's concept of conservation as the prevention of waste in the extraction of resources.[121] Rodgers recognized that the definition of conservation in natural resources law is amorphous, given the fact that "[o]ne person's waste is another's conservation."[122] He approached conservation in two ways, examining the common law and the statutes and regulations separately.[123] Although the overall tone of the conservation chapter was that of reducing wasteful extraction and use—whether of land, water, or oil resources—unlike Martz before him, Rodgers suggested that the rise of regulation might lead to curtailment of natural resource uses or the elimination of waste not only of uneconomical or physically unproductive uses, but also uses considered immoral as well.[124]

Like Reitze, Rodgers eschewed the Western focus of the first-generation authors. This was possible in part because many of the energy issues on which Rodgers focused had nationwide relevance, such as hydropower plant siting or production of coal or oil on private lands.[125] The elimination of the

118. *Id.* at 190.

119. *See, e.g., id.* at 339–59 (discussing statutory and administrative regulation of energy conservation); *id.* at 360–440 (covering the allocation and development of water for energy production without discussion of the Clean Water Act).

120. *Id.* at 318–59.

121. *See* MARTZ, *supra* note 1, at 994–95, 1002–1101 (defining and addressing conservation as restriction of the wasteful exploitation of natural resources through reclamation and waste prevention); *see also supra* notes 22, 39–46 and accompanying text.

122. RODGERS, *supra* note 14, at 339.

123. *Id.* at 318–39 (common law of conservation); *id.* at 339–59 (conservation through regulation).

124. *Id.* at 340, 348. Rodgers suggested that an expression of preferences for renewable resources might involve a moral conservation issue. *See id.* at 358.

125. *See, e.g., id.* at 191–201 (excerpting Scenic Hudson Pres. Conf. v. Fed. Power Comm'n, 354 F.2d 608 (2d Cir. 1965) (involving the challenge to a hydropower license for a project near Storm King Mountain, New York)); *id.* at 448–52 (excerpting Martin v. Ky. Oak Mining Co., 429 S.W. 2d 395 (Ky. Ct. App. 1968) (involving strip mining on split estate properties)); *id.* at 515–19 (excerpting Getty Oil Co. v. Jones, 470 S.W. 2d 618 (Tex. 1971) (involving a conflict between a surface irrigator and the lessee of subsurface oil rights)).

discussion of NEPA[126] from the course on natural resources law in the second edition also reflected the fact that the Rodgers text was not Western-oriented; texts which had as a central concern the Western public lands would be unable to excise NEPA from their scope. Also, like Reitze, Rodgers incorporated a large quantity of non-legal background material, but did so almost exclusively in the introduction.[127] The balance of the casebook has much in common with the first-generation texts, with substantial case excerpts, author's notes, and questions.[128]

The Rodgers text introduced a significant innovation of a thematic framework of legal concepts necessary for the study of individual resources, as it incorporated consideration of different resources into a cohesive whole, linked by its focus on allocation of resources. However, his guiding theme of natural resources as sources of energy proved to be too limiting in view of the rapid expansion of environmental and land regulatory statutes of the prior decade, causing his text to have a relatively short lifespan, ending with a second edition in 1983.

In contrast to Rodgers's attempted separation of environmental law from natural resources law, Jan Laitos's *Natural Resources Law*, published in 1985, sought a comprehensive fusion of environmental law, public land law, mining law, timber law, water law, oil and gas law, energy law, public utility law, and land use planning.[129] Laitos noted that the law of natural resources had become compartmentalized by subject, due to the broad array of resources and laws involved, and he saw the purpose of his text as providing an overview of the full spectrum of natural resources law.[130] This approach resembled the earlier Reitze casebook in scope, but Laitos adopted a thematic structure similar to that in Rodgers's text, imposing a higher level of organization on the individual topics. Thus, the Laitos casebook was organized into five parts: part one provided a le-

126. *See supra* note 118 and accompanying text.

127. RODGERS, *supra* note 14, at 1–106. Like the Coggins text, discussed *infra* section IV, Rodgers included non-legal readings in the introduction to demonstrate the wide variety of considerations that shaped U.S. natural resource law. The topics of these readings included the physics of energy, RODGERS, *supra* note 14, at 1–19, the cultural preference for harnessing energy, *id.* at 19–37, the biological preference, *id.* at 37–57, the economic preferences, *id.* at 58–71, and various policy perspectives on natural resource allocation, *id.* at 71–106.

128. *See generally id.* at 107–848.

129. LAITOS, *supra* note 15, at xvii–xviii.

130. *Id.*

gal background section, presenting common law, constitutional law and administrative law issues applicable to all resources;[131] part two contained chapters on environmental law and federal public land and resources law, illustrating the federal regulation and management of resources;[132] part three examined the development and use of economically valuable resources—mining, timber and water;[133] part four surveyed the law governing private party interests in oil and gas;[134] and part five included chapters on public utility law and land use planning.[135]

More than any of the earlier casebooks authors, Laitos combined consideration of the allocation of property rights in natural resources with the regulation of those resources. In the chapters on development of particular resources, allocation issues predominated.[136] However, in the chapters devoted to environmental law, public utility law, and land use planning, Laitos devoted greater attention to the regulation of and restrictions on resource development.[137] The chapter on public land and resources law incorporated both themes through sections on the history and law of acquisition of private rights to public mineral resources, protection of wildlife resources, and regulation of various types of land, including rangeland, recreational land, and wilderness areas.[138]

Like the Reitze and Rodgers casebooks before it, *Natural Resources Law* examined many topics, such as environmental

131. *Id.* at 2–79. This chapter included a section on economic principles relevant to natural resources law, discussed *infra* at notes 142–45 and accompanying text.

132. LAITOS, *supra* note 15, at 80–365.

133. *Id.* at 366–642.

134. *Id.* at 643–857.

135. *Id.* at 857–932.

136. *See, e.g.*, *id.* at 365–428 (ownership, development and use of minerals on public lands); *id.* at 428–71 (development of timber); *id.* at 472–642 (water rights under riparian and prior appropriation systems, including federal water law and interstate allocation).

137. *See, e.g.*, *id.* at 84–113 (evaluation of environmental impacts under NEPA); *id.* at 113–53 (regulation of air pollution); *id.* at 154–97 (control of water pollution); *id.* at 206–29 (regulation of toxic, hazardous, and dangerous substances); *id.* at 858–99 (regulation of public utilities); *id.* at 908–32 (land use planning restrictions on natural resource development and protection of wetlands and coastal zones).

138. *Id.* at 239–312 (history of natural resources law and description of mineral location and leasing principles); *id.* at 312–25 (wildlife law); *id.* at 326–63 (special purpose public lands).

law and energy law, with a nationwide scope.[139] Some of the specific resource topics had a concededly regional focus, based on the predominance of resources in certain geographical areas, such as timber, oil and gas, and public land.[140] Also, in keeping with a trend established by Reitze and Rodgers, Laitos included a significant amount of non-case and non-legal material, including maps, charts, and graphs.[141]

Laitos's principal innovation was an introductory chapter on the economics of natural resources.[142] The casebook included basic lessons of microeconomics as applied to resources, such as market allocation and supply and demand.[143] The chapter then addressed market failures, externalities, and government intervention to correct market imperfections.[144] This attention to the economics of allocation and the role of government in encouraging private resource users to internalize external costs and producing public goods continued throughout the text, distinguishing the Laitos casebook from others in the field.[145] Also distinctive were the Laitos book's concluding chapters on public utility law and land-use planning, the latter

139. *See, e.g., id.* at xviii (describing the coverage of environmental law, water law, energy law, public utility law, and land use planning as important in every part of the country).

140. *Id.*; *see also, e.g., id.* at 713–50 (law related to coal, a resource for which 66% of the nation's production in 1981 occurred east of the Mississippi River).

141. *See, e.g.*, LAITOS, *supra* note 15, at 46–55, 60–64, 150, 171, 644–45, 800. The casebook also included amusing sketches illustrating "the exhaustion doctrine," "negative externalities," the "revenge of the snail darter," "clearcutting," "water principle # 1: water runs uphill to money," "the power of eminent domain," and "energy facility siting." *Id.* at 18, 59, 318, 435, 475, 869, 912.

142. *Id.* at 42–79.

143. *Id.* at 42–57.

144. *Id.* at 57–78.

145. For example, the casebook devoted roughly 150 pages to its chapter on environmental law, describing that law as "intended to protect resources (primarily 'public' resources) from the adverse environmental effects of private marketplace action." *Id.* at 79; *see id.* at 79–233. This chapter included frequent references to the costs and benefits in its examination of the law of pollution control, environmental impact review, and control of toxic, hazardous, and dangerous substances. *See, e.g., id.* at 81 (discussing the economic principles of cost-benefit and impact analysis and their application to pollution control); *id.* at 109 (discussing cost-benefit analysis in NEPA determinations); *id.* at 114–17 (discussing costs of pollution and potential government regulations or economic incentives or disincentives to induce pollution control); *id.* at 133 (explaining economic factors in development of Clean Air Act state implementation plans); *id.* at 223 (considering the relative advantages and disadvantages of the tax and cleanup fund model under the Comprehensive Environmental Response, Compensation and Liability Act).

topic echoing a theme in Reitze's earlier text.[146] The Laitos book explained that the two subjects served to bracket the study of individual resources, since land-use planning influences the "front end" of resource development, while public utility regulation becomes relevant at the post-development, "back end."[147]

Although the Laitos book provided a comprehensive and well-organized approach to natural resource law which allowed individual professors to pick and choose from among all of the subjects covered, its treatise-like approach and its dense text made teaching from it a challenge. Twenty years after its publication, a new edition, with several co-authors, it is one of the new generations of natural resources books.[148]

The authors of the second-generation texts faced a significant challenge in organizing cases and materials on traditional extractive resources like water, oil, gas, and minerals; additional resources and values such as timber, recreation, and land use planning; the development of resources for energy production; and the rapidly expanding body of federal regulatory law. The authors responded to this challenge by addressing new resources, either selectively or comprehensively, and, in the case of Rodgers and Laitos, by first erecting a legal framework of generally applicable principles within which to evaluate individual resources. Reitze's casebook contained extensive discussion of regulation of resource production and use, while Rodgers focused more on the allocation of resources for energy production, and Laitos covered both allocation and regulation. Because of the attention the second-generation books gave to issues other than allocation of private rights to resources on public lands, their geographical scope was far broader than the first generation's Western focus. And, in different ways, each of the second-generation casebooks moved beyond their predecessors by adding a significant amount of non-case, and even non-legal, material to provide a conceptual or historical context within which to examine the case law.

146. *Id.* at 858–99 (public utility law); *id.* at 900–32 (land use planning); *see* discussion *supra* notes 96, 98 and accompanying text.

147. LAITOS, *supra* note 15, at 857.

148. LAITOS ET AL., *supra* note 19; *see infra* notes 230, 235–38 and accompanying text.

III. THE THIRD GENERATION: ESTABLISHING THE MODERN WESTERN CANON

George Coggins, Charles Wilkinson, and John Leshy's *Federal Public Land and Resources Law*, first published in 1981, established the modern Western canon of public land and natural resource law.[149] The book broke with the earlier generations of casebooks both stylistically and substantively by including an extensive chapter detailing the rich historical underpinnings of public lands law, reflecting Coggins's aphorism that, in spite of the dramatic developments in environmental and natural resource law during the 1960s and 1970s, "public land and resource law cannot be divorced from history . . . [and] one cannot understand present problems without understanding their historical derivation."[150] This casebook, now in its fifth edition, has become more detailed in an effort to keep pace with new developments in natural resources law, adding, for example, sections on hydropower re-licensing and cultural resource protection in the latest edition.[151] Despite these additions, the casebook has retained its original organizational approach.[152]

The Coggins casebook diverged from preceding casebooks in several significant ways, redefining natural resources law

149. The book was initially a joint effort of George Coggins and Charles Wilkinson, who each began teaching public lands and natural resource law in 1975. COGGINS ET AL., *supra* note 6, at v. John Leshy joined as a co-author beginning with the publication of the third edition in 1992. *See supra* note 17. Leshy is also the author of the standard analysis of the 1872 Mining Law. JOHN D. LESHY, THE MINING LAW: A STUDY IN PERPETUAL MOTION (1987).

150. Coggins, *supra* note 4, at 496; *see also* Letter from George Cameron Coggins to Michael C. Blumm (Sept. 30, 2005) (on file with authors) (noting that "[h]istory, of course, was the culprit, and still is" in defining the law of particular resources and guiding the organization of the casebook).

151. COGGINS ET AL., *supra* note 6, at 560–82 (hydropower re-licensing); *id.* at 1034–53 (cultural resource protection).

152. *Federal Public Land and Resources Law* is divided broadly into four sections: 1) history; 2) legal framework; 3) resource development, including the law of specific extractive resources—water, minerals, timber, and grazing; and 4) resource preservation, covering wildlife, recreation, and preservation resources and values. COGGINS ET AL., *supra* note 6. In the fifth edition, the authors devoted 171 pages—about fifteen percent of the total text—to history and introduction, with each of the other three sections taking up roughly equal thirds of the remaining text. *Id.* at 1–171 (introduction and history); *id.* at 172–508 (constitutional, congressional, executive, state, and judicial authority on the public lands, and overarching legal doctrines); *id.* at 509–851 (water, minerals, timber, and range); *id.* at 852–1162 (wildlife, recreation, and preservation).

pedagogy in the process. First, in addition to establishing a framework of common legal principles underlying the discussion of individual resources,[153] followed by a resource-by-resource discussion of applicable law and policy[154]—much as Rodgers and Laitos did—it emphasized the richness of the history and the cultural conflicts that inform and pervade public natural resources law.[155] Second, it used federal ownership of land and resources as a unifying concept, permitting examination of the allocation of private rights in public resources as well as how public values increasingly demanded the preservation and non-extractive use of public resources.[156] Third, while the first generation of casebook authors largely confined their scope to water, oil and gas, and minerals, and the second generation ranged from Reitze's all-encompassing approach to Rodgers's narrower focus on natural resources as sources of energy, the Coggins text effectively redefined the term "natural resource" by considering both traditional and emerging resources—such as recreation and preservation—on an equal footing.[157]

The casebook's short introductory chapter provided some perspectives on public land and resources law and the relationships between disposing and managing public land and resources. A logical starting point was a passage from Garrett Hardin's famous article, *The Tragedy of the Commons*, which articulated a universal problem of public land and natural resource controversies: the external costs that cause an individual's cost-benefit calculus to diverge from that society's.[158]

153. *Id.* at 172–283 (issues of federalism and constitutional authority over public lands); *id.* at 284–381 (judicial and executive branch authority on public lands); *id.* at 382–508 (overarching legal doctrines such as the public trust, environmental impact review under NEPA, planning, and endangered species protection).

154. *Id.* at 509–82 (water); *id.* at 583–703 (minerals); *id.* at 704–76 (timber); *id.* at 777–851 (rangeland); *id.* at 852–929 (wildlife); *id.* at 930–1031 (recreation); *id.* at 1032–1162 (historical, scientific, river, and wilderness preservation).

155. *See supra* notes 111–12, 131–34 and accompanying text; *see also infra* notes 160–67 and accompanying text.

156. COGGINS ET AL., *supra* note 6, at vi; Coggins, *supra* note 4, at 479–80.

157. The casebook included seven chapters devoted to individual resources, allotting approximately equal space to traditional and new resources. *See* COGGINS ET AL., *supra* note 6, at 510–851 (water, minerals, timber, and range resources); *id.* at 852–1162 (wildlife, recreation, and preservation resources). Although the Reitze and Laitos casebooks also examined wildlife, recreation, and land preservation, they did so in far less detail. *See supra* notes 94, 138 and accompanying text; *infra* note 186 and accompanying text.

158. COGGINS ET AL., *supra* note 6, at 17–18 (citing Garrett Hardin, *The Trag-*

Other background materials included a passage from *One Third of the Nation's Land* and articles on the privatization of public lands, wildlife management, lawless and violent behavior relating to federal lands, federal land planning, federal-state conflicts, preservationism, and ecosystem management.[159]

The casebook's chapter on the history of public land law represented a significant innovation in the organization of natural resource law casebooks, providing a coherent explanation of the evolution of the subject through a brilliant selection of colorful cases.[160] Although many of these cases are now thought of as seminal decisions in the history of public lands law, few of the first- or second-generation texts that preceded the first edition of the Coggins book relied on more than one or

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edy of the Commons, 162 SCIENCE 1243 (1968)). Hardin maintained that the solutions to preventing externalities created by the unregulated use of common resources was either privatization or regulation. *See id.* at 17. Rodgers also included a passage from Hardin's article in the chapter of his casebook on federal resource management. RODGERS, *supra* note 14, at 241–47.

159. COGGINS ET AL., *supra* note 6, at 18–33 (citing PUBLIC LAND LAW REVIEW COMM'N, *supra* note 88).

160. The authors chose the principal cases in the history section to highlight the stories as much as the legal principles involved, based on their being "intrinsically provocative." Coggins, *supra* note 4, at 480 n.65; *see* COGGINS ET AL., *supra* note 6, at 40–165 (excerpting cases, including Johnson v. M'Intosh, 21 U.S. (8 Wheat.) 543 (1823) (Indian title); Pollard v. Hagan, 44 U.S. (3 How.) 212 (1845) (equal footing doctrine and submerged lands); Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892) (public trust doctrine); Andrus v. Utah, 446 U.S. 500 (1980) (statehood act grants); Stewart v. Penny, 238 F. Supp. 821 (D. Nev. 1965) (homesteading); Camfield v. United States, 167 U.S. 518 (1897) (federal authority to regulate private lands); United States v. Gettysburg Elec. Ry. Co., 160 U.S. 668 (1896) (federal authority to condemn lands); United States v. Grimaud, 220 U.S. 506 (1911) (land manager authority to regulate public land use); Light v. United States, 220 U.S. 523 (1911) (land manager authority to regulate public land use contrary to state law); United States v. Midwest Oil Co., 236 U.S. 459 (1915) (congressional acquiescence to executive authority to withdraw lands); Omaechevarria v. Idaho, 246 U.S. 343 (1918) (applicability of state law on public lands absent conflicts with federal law); Leo Sheep Co. v. United States, 440 U.S. 668 (1979) (access problems to checker-boarded federal lands); Sierra Club v. Hodel, 848 F.2d 1068 (10th Cir. 1988) (R.S. 2477 rights-of-way across federal lands)). All of these cases appeared in the first edition of the casebook, with the exception of *Sierra Club v. Hodel*, which was not decided until seven years after the first edition appeared. Prior to the third edition, the authors included a shorter excerpt from *United States v. Grimaud* in the chapter on the authority of the executive and courts on public lands, rather than in the chapter on the history of public lands law where it now appears. *See* COGGINS ET AL., *supra* note 6, at 107–09; COGGINS ET AL. (3d ed.), *supra* note 17, at 110–12; COGGINS ET AL. (2d ed.), *supra* note 17, at 238.

two of them.[161] This wide-ranging historical introduction captured the reader's interest and highlighted cultural conflicts that arise repeatedly in public natural resources law, issues of great importance to the authors.[162]

The historical chapter presented the standard progression of acquisition, disposition, and retention of the public domain.[163] The authors devoted most attention to the disposition era, which seemed fitting since the laws from that era continue to exert a disproportionate effect on modern public resource allocation and use, as—in their words—"ancient notions, doctrines, and problems refuse to be relegated to molding archives."[164] Coggins and his co-authors used the topic of access

161. *See* RODGERS, *supra* note 14, at 160–61 (citing Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892)); *id.* at 250–57 (excerpting United States v. Midwest Oil Co., 236 U.S. 459 (1915)); TRELEASE, *supra* note 12, at 392–96 (excerpting United States v. Midwest Oil Co., 236 U.S. 459 (1915)). Neither the Martz text nor the Reitze text cited any of the cases listed *supra* note 160. The 1985 Laitos casebook excerpted three of the cases found in the Coggins text and cited several others in notes, in its section on the history of public land and resources law. LAITOS, *supra* note 15, at 241 (citing Johnson v. M'Intosh, 21 U.S. (8 Wheat.) 543 (1823)); *id.* at 244–45 (citing Pollard v. Hagan, 44 U.S. (3 How.) 212 (1845)); *id.* at 246–49 (excerpting Andrus v. Utah, 446 U.S. 500 (1980)); *id.* at 253–58 (excerpting Leo Sheep Co. v. United States, 440 U.S. 668 (1979)); *id.* at 260 (citing United States v. Grimaud, 220 U.S. 506 (1911)); *id.* at 261–64 (excerpting United States v. Midwest Oil Co., 236 U.S. 459 (1915)); *id.* at 265 (citing Light v. United States, 220 U.S. 523 (1911) and United States v. Gettysburg Elec. Ry. Co., 160 U.S. 668 (1896)); *id.* at 285 (citing Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892)).

162. *See, e.g.*, Coggins, *supra* note 4, at 480 n.65 (noting that the authors selected cases and materials not only for relevance, but also based on interest, believing that "unless the case is inherently provocative or its subject matter inherently interesting, student response and class discussion can become boring," and therefore they chose cases by giving preference "to outrageously bad opinions over correct but rote judicial discussions in the belief that nothing delights a law teacher more than criticizing the bench sector of the profession"); *see also* CHARLES F. WILKINSON, FIRE ON THE PLATEAU: CONFLICT AND ENDURANCE IN THE AMERICAN SOUTHWEST (2004) (chronicling the history of interaction among Indian societies, settlers, industry, and the legal establishment on the Colorado Plateau); CHARLES F. WILKINSON, MESSAGE FROM FRANK'S LANDING: A STORY OF SALMON, TREATIES, AND THE INDIAN WAY (2000) (illustrating the conflict of cultures in the history of tribal treaty fishing rights in the Pacific Northwest and the judicial decisions enforcing those rights); Letter from George Cameron Coggins, *supra* note 150 (acknowledging that "[o]ur central theme has always been the inherent conflicts between resources and resource uses").

163. COGGINS ET AL., *supra* note 6, at 35–46 (acquisition); *id.* at 46–102 (disposition); *id.* at 102–37 (reservation, withdrawal, and reacquisition).

164. *Id.* at vi.; *see* CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN: LAND, WATER AND THE FUTURE OF THE WEST xii–xiii, 1–27 (1992) (characterizing as "Lords of Yesterday" the federal land management laws of the late nineteenth and early twentieth century, which continue to set priorities today, although they appear to conflict with modern economic trends, scientific knowledge, and social

to and across federal lands as a practical illustration of how historical federal grants of land and rights to states, settlers, miners, railroads, irrigators, and timber cutters continue to drive contemporary public lands controversies.[165] For example, R.S. 2477, a provision of the 1866 Mining Law, although repealed by FLPMA in 1976, continues to recognize pre-1976 rights-of-way on federal lands, including federal reservations, resulting in litigation over motorized access along and allowable improvements to what in some cases amount to little more than sheep or cattle trails.[166] "Lords of yesterday," such as R.S. 2477, remain at the center of many modern public land disputes.[167]

Like the second-generation casebooks of Rodgers and Laitos, *Federal Public Land and Resources Law* laid a framework of common legal principles underlying the discussion of individual resources.[168] But, in contrast to some of the earliest casebooks, which explored resources separately without adopting a conceptual framework, and the Rodgers book, which considered individual resources through the lens of energy development,[169] the Coggins text used federal ownership of public land and resources as a unifying theme. Building on the introductory and historical chapters, the following three chapters provided a coherent analysis of the basic elements of public land law.[170] These chapters addressed the constitutional un-

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values).

165. COGGINS ET AL., *supra* note 6, at 147–71.

166. *See id.* at 160–67; *see also* Michael C. Blumm, *The Bush Administration's Sweetheart Settlement Policy: A Trojan Horse Strategy for Advancing Commodity Production on Public Lands,* 34 ENVTL. L. REP. 10,397, 10,407–09 (2004) (describing the Bush Administration's 2003 R.S. 2477 memorandum of understanding with Utah).

167. *See supra* notes 164, 166 and accompanying text; *see, e.g.*, Birdsong, *supra* note 89, at 523–26, 533–37 (describing "road rage" of individuals seeking unfettered motorized access across R.S. 2477 right-of-ways and their deployment of bulldozers in support of their claims); Robert H. Hughes, *That Was Then, But That's What Counts: Freezing the Law of R.S. 2477*, 2002 UTAH L. REV. 679, 679–83, 701–03 (describing the interpretation of R.S. 2477 as a critical issue in the contemporary and future designation of wilderness areas on lands managed by the Bureau of Land Management); Patrick Parenteau, *Anything Industry Wants: Environmental Policy Under Bush II*, 14 DUKE ENVTL. L. & POL'Y F. 363, 398–400 (describing claims to R.S. 2477 rights-of-way in Utah and 2003 Department of the Interior rules liberalizing the basis for R.S. 2477 claims).

168. *See supra* notes 111, 131 and accompanying text.

169. See *supra* Parts II & III.

170. COGGINS ET AL., *supra* note 6, at 172–283 (constitutional power over federal lands and natural resources, takings limitations on federal power, and state

derpinnings and administrative systems governing public land and natural resources law. The authors identified common themes that affect all of the resources, such as constitutional questions concerning the scope of the enclave, property, and takings clauses, as well as federal preemption.[171] This discussion illustrated the historical federalism tension in allocating public natural resources, providing context for examining issues such as the "sagebrush rebellion" and "county supremacy" movements.[172] The book also examined several generic laws and processes that affect all individual resources, including executive withdrawals and reservations, judicial review of land management agency decisions, and the administrative planning and public review ushered in by NEPA and the ESA.[173] Both NEPA and the ESA earned substantial coverage, understandable in a text on federal public natural resources.[174]

After identifying the overarching themes of federal land use law and generally applicable legal concepts, the balance of the casebook examined seven separate natural resources. For the four extractive resources—water, minerals, timber, and grazing—Coggins and his co-authors addressed the allocation of property rights in public lands resources, and explored how property rights in different resources and federal management and regulation affected the development of those resources.[175] These chapters highlighted the different types of private property interests in public resources, showing how the degree of security can vary from resource to resource.[176] For example,

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authority); *id.* at 284–381 (judicial review, administrative delegation, and executive withdrawals and reservations); *id.* at 382–508 (public trust doctrine, NEPA, federal land and resource planning processes, and endangered species protection).

171. *Id.* at 172–255.

172. *Id.* at 193–94.

173. *Id.* at vi, 339–63 (executive withdrawals and reservations); *id.* at 284–321 (judicial review); *id.* at 389–433 (NEPA and the planning process for federal lands and resources); *id.* at 434–508 (ESA); *see also* Letter from George Cameron Coggins, *supra* note 150 (describing the federal planning and species protection laws as "'overlay' laws, applying across the board of federal endeavor").

174. COGGINS ET AL., *supra* note 6, at 389–426 (NEPA); *id.* at 434–508 (endangered species protection). In the fifth edition, for the first time, the authors consolidated sections on the public trust doctrine, NEPA, and the ESA into a single chapter. *See id.* at xi, 382–508.

175. *See id.* at 509–82 (water on federal lands); *id.* at 583–703 (minerals); *id.* at 704–76 (timber); *id.* at 777–851 (rangeland and grazing).

176. The Coggins text does not discuss private rights in water, but rather, as described *infra* at notes 212–15 and accompanying text, addresses the federal rights and powers over water on public lands.

the Coggins text described how discoverers of "valuable" hard rock minerals may obtain secure property rights to mine and, until recently, even title to public land, through the location and patenting process under the General Mining Law of 1872.[177] Mineral leases[178] and timber sales[179] also provide relatively secure property rights, at least within their terms, but those terms are frequently influenced by environmental impact review and regulatory concerns. Grazing, on the other hand, is legally a "privilege," rather than a "right," and has been a source of considerable conflict in the West between grazers and recreationists or preservationists in recent years.[180] The authors demonstrate how this conflict and the relative insecurity of the grazing privilege on federal lands have been major factors in motivating grazing permittees to mobilize politically.[181]

For the remaining—largely non-commodity—resources, the Coggins casebook concentrated on the role of the federal government in regulating and managing these non-traditional resources for the public benefit. The chapter on wildlife de-

177. COGGINS ET AL., *supra* note 6, at 584–642. The scope of the applicability of the 1872 law has been narrowed by eliminating fuel and common variety minerals, among others, and certain lands have been excluded from the operation of the statute. Moreover, environmental impact review and pollution control laws have imposed restrictions on access and development of many mining claims. In addition, a moratorium on patents has been in place since 1994 under annually-renewed riders to the Department of the Interior appropriation bill. *See id.* at 618; Randy Hubbard, *The 1872 Mining Law: Past, Present, and Future?*, 17 NAT. RESOURCES & ENV'T 149, 150–51 (2003). The House of Representative's version of the 2005 budget bill, approved on November 17, 2005, contained a provision that would have lifted the eleven-year moratorium on patents and potentially allowed the sale of millions of acres of public lands to mining companies. *See* Michelle Burkhardt, *Public-Lands Agenda Turns More Radical*, HIGH COUNTRY NEWS, Nov. 28, 2005, *available at* http://www.hcn.org/servlets/hcn.Article?article_id=15944; Allison A. Freeman, *Bid to Let Companies Buy Land Rights at Issue in House Budget Fight*, LANDLETTER, Nov. 17, 2005, *available at* http://www.eenews.net/Landletter/ Backissues/111705/111705ll.htm#2. Congress dropped this provision from the final budget reconciliation bill in the face of fierce public opposition and lack of support in the Senate. *See* Allison A. Freeman, *Effort to Allow Public Land Sales Collapses*, LANDLETTER, Dec. 15, 2005, *available at* http://www.eenews.net/Landletter/Backissues/121505/121505ll.htm#2.

178. COGGINS ET AL., *supra* note 6, at 643–703 (explaining that fossil fuel minerals such as coal and oil and gas, fertilizer, and chemical minerals such as phosphate and potash, as well as minerals on the outer continental shelf, are subject to lease).

179. *Id.* at 704–76.

180. *Id.* at 777–81, 809–16.

181. *See id.* at 779–80.

scribed the evolution of the American public's attitude towards wildlife from consumption—a means to "put food on the table"—to preservation, for recreational, scientific, and aesthetic purposes. To this end, the casebook discussed the national wildlife refuge system, wildlife protection on other federal lands, and protection of migratory birds as well as wild horses and burros.[182] The final chapters review the recreation resource and the preservation resource, which are increasingly in conflict.[183] Among the topics examined are "resources" far removed from the first-generation casebooks' conception of that term, such as the national park system, national recreation areas, off-road vehicle regulation, archeological and historical artifact preservation, and river and wilderness protection.[184]

Taken together, the last seven chapters of the Coggins casebook fundamentally redefined the concept of public natural resources. The first-generation books of Martz and Trelease focused detailed coverage of only the most economically significant extractive resources.[185] Although Reitze's 1974 casebook and Laitos's 1985 casebook included wildlife, recreation, and preservation as discrete subjects among the many they surveyed,[186] the Coggins text broke new ground by giving equal prominence to these resources and values as it did to the more traditional extractive resources.[187] In stressing the importance of non-consumptive uses of natural resources and the protec-

182. *Id.* at 853, 855–87 (national wildlife refuge system); *id.* at 887–906 (wildlife conservation in national parks, national forests, and BLM public lands); *id.* at 906–18 (protection of migratory birds); *id.* at 918–29 (protection of wild horses and burros).

183. *Id.* at 930–1031 (recreation); *id.* at 1031–62 (preservation).

184. *Id.* at 943–67 (national parks); *id.* at 968–78 (national recreation areas); *id.* at 988–1012 (off-road vehicle regulation); *id.* at 1034–52 (preservation of artifacts); *id.* at 1081–1103 (river preservation); *id.* at 1104–62 (wilderness preservation).

185. *See supra* Part II.

186. *See* REITZE, *supra* note 5, at 7-1 to -38 (recreation); *id.* at 8-1 to -25 (preservation of wild and scenic rivers); *id.* at 10-1 to -42 (endangered wildlife); LAITOS, *supra* note 15, at 312–25 (wildlife); *id.* at 339–45 (preservation for recreation); *id.* at 346–63 (preservation for wilderness).

187. *See supra* note 157 and accompanying text (describing the equal amount of space given to extractive and non-extractive resources); *see also* Letter from George Cameron Coggins, *supra* note 150 (describing the co-equal treatment of wildlife, recreation, and especially preservation as the most important innovation of the casebook, and noting that "preservation in its various forms was the most important public land priority in the second half of the twentieth century, and recreation has come to outstrip all commodity resource production combined in economic importance").

tion and preservation of resources in their natural states, *Federal Public Land and Resources Law* recognized the growing importance of these values to both society as a whole and the study of law in particular.[188] When first published in 1981, the Coggins book emphasized the relatively recent increase in public interest groups in the natural resources field and the resulting expansion of public interest litigation.[189] By placing resource protection on equal footing with resource consumption, Coggins, Wilkinson, and Leshy's casebook appealed to many law students who study natural resources law with aspirations to protect natural resources, rather than only those who counsel parties seeking to exploit those resources.

Although public land law evolved slowly over two centuries, some commentators, including Coggins himself, consider the two decades following 1960 to be "the public land law revolution."[190] According to Coggins, the enormous volume of legislation between 1960 and 1980 effectively defined the playing field for public land law at the dawn of the 1980s.[191] First published as the dust of the revolution began to settle, and refined over the suceeding two decades, this casebook effectively organized the fruits of the revolution. Providing a window into public law unavailable at the time of the private rights-oriented first generation of casebooks, the Coggins, Wilkinson, and Leshy text articulated a new canon of Western public natural resources law, one that has dominated natural resources law pedagogy for the last twenty-five years.[192] As noted below,

188. *See* Jan G. Laitos, *The Multiple to Dominant Use Paradigm Shift in Natural Resource Management*, 24 J. LAND RESOURCES & ENVTL. L. 221 (2004) (claiming that there is now a new era of natural resources law in which recreation is the primary use of public lands); Jan G. Laitos & Thomas A. Carr, *The Transformation on Public Lands*, 26 ECOLOGY L.Q. 140, 178, 184 (1999) (describing the dramatic increase in recreational use of the public lands in the twentieth century and the development of public lands recreation as a source of significant economic and psychological value in modern society).

189. *See* Coggins, *supra* note 4, at 477–78, 491–93

190. *Id.* at 478.

191. *See id.* at 477–78.

192. *See* COGGINS ET AL., *supra* note 6, at v; Letter from George Cameron Coggins, *supra* note 150 (noting the "level of general acceptance" of the casebook's approach for the past two decades). Other casebooks that have been published in the natural resources field over the past twenty-five years have concentrated on specific resources without incorporating the sort of thematic framework provided by *Federal Public Land and Resources Law*, or they placed greater emphasis on the environmental law of pollution control, hazardous waste management, and contaminated site cleanup. *See, e.g.*, D. BARLOW BURKE, NATURAL RESOURCES: CASES AND MATERIALS (1998) (including mining, quarrying, taxation of mining,

some of the new, fourth-generation casebooks are now placing greater emphasis on topics, such as regulation of resources on private lands and natural resources in the Eastern states, which received less attention in the Coggins text due to its predominant focus on federal public lands.[193]

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riparian and appropriation water law, and timber as essentially discrete subjects); ERIC PEARSON, ENVIRONMENTAL AND NATURAL RESOURCES LAW 133–386 (2d ed. 2005) (examining natural resources topics, including NEPA, federal lands, the public trust doctrine, the endangered species act, and water rights); *id.* at 365–707 (considering the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act ("RCRA") and the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA")). Scholars have, of course, continued to publish casebooks devoted to individual resources, but such texts are beyond the scope of this history. *See, e.g.*, DALE D. GOBLE & ERIC T. FREYFOGLE, WILDLIFE LAW: CASES AND MATERIALS (2002); GOULD & GRANT, *supra* note 53 (water law); RICHARD C. MAXWELL, PATRICK H. MARTIN & BRUCE M. KRAMER, CASES AND MATERIALS ON THE LAW OF OIL AND GAS (7th ed. 2002); JOHN COPELAND NAGLE & J.B. RUHL, THE LAW OF BIODIVERSITY AND ECOSYSTEM MANAGEMENT (2002); JUDITH V. ROYSTER & MICHAEL C. BLUMM, NATIVE AMERICAN NATURAL RESOURCES LAW: CASES AND MATERIALS (2002); JOSEPH L. SAX, BARTON H. THOMPSON, JR., JOHN D. LESHY & ROBERT H. ABRAMS, LEGAL CONTROL OF WATER RESOURCES: CASES AND MATERIALS (3d ed. 2000); A. DAN TARLOCK, JAMES N. CORBRIDGE, JR. & DAVID H. GETCHES, WATER RESOURCE MANAGEMENT: A CASEBOOK IN LAW AND PUBLIC POLICY (5th ed. 2002).

193. *See infra* notes 218–20, 225–27, 231–34 and accompanying text. The fifth edition of *Federal Public Land and Resources Law* included more materials, compared to earlier editions, illustrating issues affecting public lands in Eastern states and the effects of private rights claims on federal public resources. *See, e.g.*, COGGINS ET AL., *supra* note 6, at 232–55 (covering "takings" limitations on the exercise of congressional power on federal lands); *id.* at 255–83 (discussing limitations imposed by contracts for the use of federal lands and resources, including an excerpt from Mobil Oil Exploration & Producing Southeast, Inc. v. United States, 530 U.S. 604 (2000), a case arising from federal oil production leases off the coast of North Carolina); *id.* at 560–80 (discussing hydropower re-licensing under the Federal Power Act, an issue of nationwide importance); *id.* at 652–56 (excerpting Kerr-McGee Corp. v. Hodel, 630 F. Supp. 621 (D.D.C. 1986), a case involving phosphate mineral leasing in the Osceola National Forest in Florida); *id.* at 679–703 (discussing split estates, where mineral interests are separated from surface interests, an issue of significant concern in coal mining districts in Eastern states); *id.* at 727–35 (excerpting Sierra Club v. Marita, 46 F.3d 606 (7th Cir. 1995), involving forest management plans in two national forests in Wisconsin); *id.* at 906–18 (discussing the Migratory Bird Treaty Act of 1918, Ch. 128, 40 Stat. 755 (codified as amended at 16 U.S.C. §§ 703–11 (2000)), and excerpting Sierra Club v. Martin, 110 F.3d 1551 (11th Cir. 1997), a case which arose in two national forests in Georgia); *see also* E-mail from John D. Leshy to Michael C. Blumm (Dec. 15, 2005) (on file with authors) (describing efforts, beginning with the third edition of the casebook, to include more cases and materials regarding Eastern states and private rights while keeping an overall focus on federal public lands).

IV. AN ILLUSTRATION OF CASEBOOK EVOLUTION: THE TREATMENT OF THE WATER RESOURCE

Water is arguably the most important natural resource, since nearly all other resource uses—including mineral extraction and processing, energy production, timber, grazing, wildlife preservation, recreation, and land protection for future generations—depend upon the availability of water.[194] Water was the foundational resource for the first generation of casebooks, but as casebooks have evolved over the past half-century, so too has their approach to this critical resource. The changing treatment of the water resource is therefore a useful vehicle for illustrating the generational differences among the casebooks. The first generation of casebooks concerned themselves with the allocation of private rights in water and the means to assure the maximum beneficial development of the resource. Subsequent casebooks, responding to the rise in government regulation and the energy crises of the 1970s, moved well beyond the earlier view of water as a resource to be allocated for private use, giving attention to an broader variety of waters (such as wetlands and oceans), the use of water for recreation and scenic preservation, the control of water pollution, and the development of water as a source of energy. Because of its concentration on federal lands, the Coggins casebook addressed water issues particular to those lands, especially federal reserved rights.

The first generation of casebooks employed an extractive approach to water, with both the Martz and Trelease casebooks concerned almost exclusively with the allocation of private rights in water: how such rights were obtained, how they could be exercised, and how they could be lost. Martz devoted the first part of his book—nearly 450 pages—to the acquisition of water rights.[195] This part included cases and notes on the nature of private rights in water, federal and state ownership of water, the riparian and appropriation doctrines and accompanying administrative implementation, private rights in special water sources like salvaged and underground waters, and private and public water distribution agencies.[196] The casebook's

194. COGGINS ET AL., *supra* note 6, at 509. The leading treatise is the seven-volume WATERS AND WATER RIGHTS (Robert E. Beck ed., 1991 & Supp. 2006).

195. MARTZ, *supra* note 1, at 19–466.

196. *Id.* at 19–37 (property rights in natural water courses and diverted wa-

Western perspective led to far more attention to the appropriation system of water rights prevalent in Western states; even the discussion of riparian doctrine leaned heavily on cases from Western states employing hybrid systems of water rights.[197]

Like Martz, the Trelease casebook emphasized acquisition and exercise of water rights under state law,[198] also addressing issues of water distribution and federal water development projects.[199] The Trealease book did examine one topic that Martz did not, which would become more important for the second-generation authors: the federal government's power to regulate the use of water through licensing hydropower generating facilities.[200] Because of their primary concern for allocation of private rights, and because they wrote in the pre-Clean Water Act era, both Martz and Trelease devoted little space to water pollution control, considering it as essentially a matter of common law or state law, with discussion of the extant federal water pollution control regulation limited to a couple of pages.[201]

The second generation of natural resource law casebooks, written during and after the environmental regulatory revolution and the 1970s oil shocks, addressed many water issues besides allocation of private rights in water (if indeed they addressed allocation issues at all), including topics involving

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ter); *id.* at 37–68 (construction and effect of federal legislation and powers affecting water, such as the Mining Act of 1866, 14 Stat. 251 (codified as amended in scattered sections of 30 U.S.C and 43 U.S.C. (2000)), the Desert Land Act of 1877, 19 Stat. 377 (codified as amended at 43 U.S.C. §§ 321–39 (2000)), and federal Commerce Clause authority over navigable waters); *id.* at 69–90 (state allocation systems); *id.* at 91–147 (riparian doctrine); *id.* at 148–278 (the appropriation system); *id.* at 279–325 (administrative procedures and priorities among users); *id.* at 326–404 (special water sources); *id.* at 404–66 (interstate waters and distribution agencies).

197. *Compare id.* at 91–147 (riparian doctrine), *with id.* at 148–278 (appropriation doctrine), *and* 279–325 (administrative procedures and priorities among users). *See also supra* note 70 and accompanying text.

198. TRELEASE ET AL., *supra* note 12, at ix, 1–115 (acquisition of water rights); *id.* at 116–254 (exercise of water rights).

199. *Id.* at 255–82 (water distribution organizations); *id.* at 283–358 (interstate allocation and federal powers and programs).

200. *Id.* at 310–28, 348–57 (issues related to hydropower development).

201. *See* MARTZ, *supra* note 1, at 1023–30 (discussing water pollution control as a function of interstate compacts, state law, and one federal statute, devoting one page to the Federal Water Pollution Control Act of 1948); TRELEASE ET AL., *supra* note 12, at 242–54 (discussing water pollution control through common law riparian rights, nuisance law, state law, and referencing the recognition in the Federal Water Pollution Control Act of 1948 that states had the primary responsibility for preventing water pollution).

federal power to regulate and manage the water resource.[202] Reitze's book included no discussion of private water rights doctrines; instead, it explored specialized water issues that the first generation casebooks did not mention, such as wetlands, stream channelization, wild and scenic river protection, marine mammals, and the mainly international law of ocean pollution control and management of ocean resources.[203] The absence of some of these discussions in the earlier texts was hardly surprising, given that three of the topics were largely products of statutes passed a few years prior to the publication of Reitze's text.[204] The innovative treatment of water issues reflected the nature of Reitze's casebook as a response to rapid recent expansion of federal regulatory statutes and a shift away from the earlier casebooks' concern with private rights in natural resources.

Water was not a major part of Rodgers's casebook. To the extent that the Rodgers text addressed water, it was as one of

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202. Although the second-generation casebooks generally limited the attention they gave to the allocation of private rights in water under state law, the acquisition and exercise of property rights in water has continued to be a central concern of subsequent casebooks on water law. *See, e.g.*, GOULD & GRANT, *supra* note 53, at 15–208 (allocation, regulation, loss, transfer, and reuse rights under prior appropriation doctrine); *id.* at 209–97 (basis of rights and principle of reasonable use in riparian doctrine); *id.* at 298–386 (doctrines and problems of rights in groundwater); SAX ET AL., *supra* note 192, at 20–97 (tenets of riparianism and reasonable use); *id.* at 98–279 (acquisition and loss of appropriative rights and administration of appropriative rights through permit systems); *id.* at 358–459 (groundwater doctrines and management tools and techniques); TARLOCK ET AL., *supra* note 192, at vii–viii, 111–387, 486–531, 546–622 (considering the law of water rights allocation, exercise, statutory administration of private water rights, including rights in groundwater, and constitutional takings issues within an overall theme of water scarcity).

203. *See* REITZE, *supra* note 5, at 2-1 to -82 (federal and state wetlands law); *id.* at 3-1 to -20 (stream channelization, characterized as "a problem in land abuse"); *id.* at 8-1 to -25 (the preservation of wild and scenic rivers); *id.* at 18-1 to -50 (marine mammals); *id.* at 19-1 to -102 (ocean pollution); *id.* at 20-1 to -24 (ocean resources). Reitze mentioned the Clean Water Act only briefly the chapters on wetlands, surface mining, and ocean pollution, *see id.* at 2-4, 2-22, 12-23 to -24, 19-69, since he published another text on air and water pollution. REITZE, *supra* note 96.

204. REITZE, *supra* note 5, at 8-1 to 18-25 (discussing the National Wild and Scenic Rivers Act, Pub. L. No. 90-542, 82 Stat. 906 (1968) (codified as amended at 16 U.S.C. §§ 1271–87 (2000))); *id.* at 2-1 to -59 (discussing the Coastal Zone Management Act of 1972, Pub. L. No. 92-583, 86 Stat. 1280 (codified at 16 U.S.C. §§ 1451–65 (2000)) and related federal statutes affecting the management and use of wetlands); *id.* at 18-19 to -50 (discussing the Marine Mammal Protection Act of 1972, Pub. L. No. 92-522, 86 Stat. 1027 (1972) (codified as amended at 16 U.S.C. §§ 1371–1407 (2000))).

the fuel cycles. Departing from the focus of first generation casebooks, there was only the briefest discussion of riparian rights—to illustrate the issue of reasonable development of water resources—and no discussion of prior appropriation rights at all.[205] Even the short sections illustrating the law's preference for domestic consumption and conservation, and water allocation in practice, were introduced by a description of water's importance for hydropower production.[206] The majority of the casebook's treatment of water involved the use of water for the production of hydropower, exploring the administrative allocation of development rights and legislative choices concerning allocation of facility or project development rights.[207] The latter section included an eighteen-page excerpt from *TVA v. Hill*, the famous snail darter case, to demonstrate how courts have interpreted legislative choices affecting water resource allocation.[208] The Rodgers casebook's emphasis on the power production potential of water was a product of the book's overall concern with natural resources as sources of energy.

Among the first- and second-generation casebooks, the Laitos book came closest to a reasonably balanced approach to water-related topics, including sections on water pollution control, private rights in water, and federal water development and reserved rights, along with short discussions of wetlands regulation and coastal zone management issues in the final chapter on land use planning.[209] Nevertheless, except for a section devoted to acquisition of private rights in water under state law, Laitos's attention centered on government control of and power

205. RODGERS, *supra* note 14, at 130–36. Rodgers concluded his discussion of riparian rights by noting that "[t]he doctrines of prior appropriation and federal reserved rights, together with riparian rights, are major agenda items for contemporary courses in water law. *Id.* at 135.

206. *See id.* at 360–78 (concluding with a question as to whether evaporation and transpiration sufficiently complicate traditional allocation principles, such that allocation might be said to involve a nonrenewable resource that is shrinking over time, transitioning the water discussion into questions of hydropower development and legislative choice).

207. *Id.* at 379–400 (facility or project approval); *id.* at 400–40 (legislative choices regarding allocation of development rights).

208. *Id.* at 421–39 (excerpting Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978)).

209. LAITOS, *supra* note 15, at 154–98 (water pollution control, including ocean pollution); *id.* at 491–522 (state law of riparian rights); *id.* at 522–67 (state law of prior appropriation); *id.* at 569–603 (sources of water and their treatment under state law); *id.* at 604–43 (federal water law, including development, reserved rights, and interstate allocation); *id.* at 923–27 (wetlands); *id.* at 928–32 (coastal zone and shoreline management).

to regulate water for water quality protection, federal reservations, energy development, and the effect of environmental planning on the water resource.[210] As Rodgers had in his earlier text, Laitos included a section describing the development of water as a source of hydroelectric energy.[211]

Coggins, Wilkinson, and Leshy conformed to the overall theme of their casebook by describing federal rights to water and federal power to regulate water on public lands. The authors first briefly summarized the traditional state law doctrines of riparian and prior appropriation private rights in water, and then explained in some detail the principle of federal reserved water rights; adjudication of water rights on federal lands in state water rights adjudications; other means of protecting federal interests in water, such as the federal government claiming water rights under state law; and the federal power to license hydropower projects on navigable waterways.[212] The authors' concern for the effect of water or its absence on federal lands was evident in their description of federal reserved rights for different categories of reservations, including national forests, national parks, national monuments, national wildlife refuges, wilderness areas, and Bureau of Land Management lands.[213] Although the Coggins casebook was not the first to address hydropower licensing,[214] it gave the topic a fresh perspective by considering how the dam-licensing process enabled federal land management agencies to impose mandatory conditions on licenses to protect federal reservations and ensure fish passage through dams.[215] The discussion also included a short note on hydropower project decommis-

210. *Compare id.* at 491–567 (state law of water rights), *with id.* at 154–98 (federal water pollution control), *id.* at 486–91 (federal power over certain categories of water), *id.* at 604–16 (federal water development projects), *id.* at 616–29 (federal reserved rights), *id.* at 629–42 (interstate allocation of water by adjudication and congressional allocation), *id.* at 647–77 (federal regulation of hydropower development), *and id.* at 923–32 (federal protection of wetlands, floodplains, and coastal zones).

211. *Id.* at 647–77. *See supra* note 207.

212. COGGINS ET AL., *supra* note 6, at 510 (riparian doctrine); *id.* at 511 (prior appropriation doctrine); *id.* at 512–40 (federal reserved water rights); *id.* at 540–48 (adjudication of water rights); *id.* at 548–60 (other means of protecting federal interest in water); *id.* at 560–82 (hydropower licensing and federal lands).

213. *Id.* at 531–38.

214. The Trelease, Rodgers, and Laitos casebooks included sections on hydropower licensing, focused on federal preemption and hydropower development. *See supra* notes 200, 206–07, 211 and accompanying text.

215. COGGINS ET AL., *supra* note 6, at 560–80.

sioning and dam removal, which reiterated the third-generation casebooks' balanced treatment of resources by illustrating how the water resource that earlier generations had valued mainly for irrigation and energy-generating capacities could potentially gain more value by returning to its natural, free-flowing state.[216]

CONCLUSION (AND A PEEK AHEAD AT THE FOURTH GENERATION)

As natural resources law has evolved since the first casebook on the subject appeared in 1951, so too have the casebooks that authors developed to organize the subject for the classroom. The challenge has always been how to narrow, and then organize, a field of law which has grown to encompass thousands of judicial opinions, nearly three thousand federal statutes and agency regulations, agency manuals, ancient doctrines, entrenched attitudes, and evolving resource uses and associated values.[217] Casebook authors have responded by varying the types of natural resources they examined, their emphasis on issues of resource allocation or resource regulation and management, and their reliance on cases alone or using supplemental materials to provide context for the cases and statutes.

The first generation of casebooks organized natural resources law by concentrating on the allocation of private rights in the principal extractive resources: water, minerals, and oil and gas. Their concern was principally with obtaining and exercising private rights to these resources on public lands, with some attention to rights on private lands in the Trelease casebook. Both of the first-generation casebooks had a dominant Western perspective, and they limited their materials to traditional case excerpts and author-prepared notes and questions.

In response to the environmental regulatory revolution of the 1960s and 1970s and the energy crises of the latter decade, the second generation of casebooks dramatically expanded the scope of natural resources for study and the issues associated with those resources. These casebooks, particularly the Reitze

216. *Id.* at 580–82.

217. *See* George Cameron Coggins, *Overcoming the Unfortunate Legacies of Western Public Land Law*, 29 LAND & WATER L. REV. 381, 387–89 (1993); *see also* COGGINS & GLICKSMAN, *supra* note 7, at § 5 (describing the vast range of legal materials involving natural resource law).

book, paid less attention than their predecessors to the allocation of private rights in natural resources on public lands. The issue of natural resources regulation and management was an increasingly important part of these second-generation texts. By addressing a broader number of resources, with less emphasis on natural resources on public lands, and with the increased attention to natural resources as sources of energy, these casebooks also moved away from the dominant Western focus of the first-generation books. All of the second-generation books also moved beyond a nearly exclusive use of cases and author-prepared notes to include a range of background materials on history, cultural theory, science, and economics which inform the development and study of natural resources law.

The third generation, represented by the Coggins book, built upon the innovations of the second generation casebooks, while also foregoing some of the themes in those earlier texts. Like the later second-generation books, the Coggins casebook provided a thematic framework of general legal principles that formed a backdrop to the discussion of individual resources. But the Coggins book went beyond its predecessors in two significant areas: first, it provided a far richer and more stimulating historical introduction to how public natural resources law developed; second, it raised non-extractive resources to a position of equality with extractive resources. Its focus on public land resources led to its near-exclusive attention on Western natural resources, with little or no consideration of private lands unrelated to federal lands. Nevertheless, this casebook established the modern Western natural resources law canon and has been the standard text for natural resources law for the past quarter-century.

A fourth generation of natural resource casebooks, published between 2004 and 2006, offers new approaches to the difficult task of condensing the natural resources field into a single casebook. These books adopt a variety of approaches to the organization of natural resources law, evidencing a further evolution of the subject beyond the strictly Western public lands vision of the previous generation. They pursue a more comprehensive definition of natural resources through coverage of nationwide and worldwide issues as well as resources on private lands; they expand the use of non-case materials to give context for the consideration of individual resources; and they offer problems and case studies to stimulate classroom discus-

sion.

James Rasband, James Salzman, and Mark Squillace published *Natural Resources Law and Policy* in 2004, with the specific goal of giving greater coverage to resource management issues that are national and international in scope.[218] To this end, the authors included materials on biodiversity, endangered species on private lands, fisheries, marine mammals, Eastern water regimes, transboundary watercourses, and forestry in the East and on private lands.[219] In contrast to the earliest natural resources texts, the Rasband casebook gave roughly equal coverage to riparian water rights and Eastern permit systems as it does to the law of prior appropriation, adding sections on water federalism and international water law.[220] Following a trend established in earlier casebooks, the Rasband book includes several introductory chapters that explain the generic conflicts, legal doctrines, and administrative processes which apply to all natural resources law, as well as offering materials on history, geography, and ecology to provide backdrop for the law of individual resources.[221] The authors included a variety of problem exercises and case studies designed to make students grapple with concrete legal and policy challenges; they also created a casebook website containing additional materials, including links to relevant administrative and statutory material for each chapter.[222]

Natural Resources Law, a 2005 publication by Christine Klein, Federico Cheever, and Bret Birdsong, was subtitled "A Place-Based Book of Problems and Cases."[223] In this casebook,

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218. RASBAND ET AL., *supra* note 19, at v.

219. *Id.* at v, 310–28 (biodiversity); *id.* at 368–94 (taking of endangered species on private lands); *id.* at 427–505 (fisheries); *id.* at 506–52 (marine mammals); *id.* at 729–46 (riparian rights and Eastern water permit systems); *id.* at 1147–48, 1238–54 (timber in Eastern and private forests).

220. *Id.* at 729–46 (riparian rights and Eastern permit systems); *id.* at 746–78 (prior appropriation); *id.* at 794–865 (water federalism, including federal reserved rights and interstate allocation); *id.* at 866–78 (international water law).

221. *Id.* at v, 1–77 (discussing the nature of resources, related conflicts, and tools for resource management such as property rights and public disclosure); *id.* at 78–204 (describing the historical and constitutional geography of natural resources law); *id.* at 205–309 (describing the role of administrative agencies in natural resource management).

222. *Id.* at v, xi; *see, e.g.*, *id.* at 521–25 (case study on aboriginal whaling following materials on the International Convention on the Regulation of Whaling); *id.* at 1153–54 (problem exercise on tree spiking). The casebook web site is http://www.naturalresources.byu.edu.

223. KLEIN ET AL., *supra* note 19.

context is key—the law of individual resources is dependent upon their location.[224] Like the Rasband text, the Klein casebook set out deliberately to give a broad, national perspective, going beyond traditional public lands law to address topics relevant to students in both Eastern and Western states.[225] Among the topics included were tribal lands and resources, state lands, conservation on private lands, and transboundary resources such as wildlife, water, and wetlands.[226] The balanced geographical focus of the Klein casebook was evident in its equal treatment of the riparian doctrine and prior appropriation doctrine in its section on state water law and in the selection of four studies of place-based water regimes: the Colorado River, the Pacific Northwest, the Great Lakes, and the Florida Everglades.[227] Klein and her co-authors extensively employed now-standard historical and other contextual material but, unlike any earlier casebook, they included numerous photographs of the places and resources described in the cases and problems, in order to illustrate the stakes involved in natural resource disputes.[228]

Two forthcoming books (as of this writing), Eric Freyfogle's *Natural Resource Law: Private Rights and Collective Governance*[229] and *Cases and Materials on Natural Resources Law* by Jan Laitos, Daniel Cole, Mary Wood, and Sandi Zellmer,[230] represent even more significant departures from the third-

224. *Id.* at xxiii.

225. *Id.*

226. *Id.* at 581–624 (tribal lands and resources); *id.* at 625–84 (state lands and the public trust doctrine); *id.* at 685–724 (conservation transactions on private lands); *id.* at 727–824 (wildlife and the endangered species act), 825–930 (water); *id.* at 931–92 (wetlands).

227. *Id.* at 831–42, 862–72 (riparian doctrine and regulated riparianism through water codes); *id.* at 843–61 (prior appropriation); *id.* at 919–21 (sharing the Colorado River); *id.* at 921–24 (saving salmon in the Pacific Northwest); *id.* at 924–27 (resisting Great Lakes water export); *id.* at 927–29 (re-plumbing an ecosystem in the Florida Everglades).

228. *Id.* at xxiii; *see, e.g.*, *id.* at 210 (photograph of the Mineral King Valley preceding the excerpt from the seminal standing case of *Sierra Club v. Morton*, 405 U.S. 727 (1972)); *id.* at 511 (photograph of impoundment ponds from coalbed methane production, in the section on mineral development on public lands); *id.* at 661 (photograph showing evidence of the receding waters of Mono Lake, in the section on the public trust doctrine); *id.* at 805 (photograph of a Canada lynx, in a discussion problem on the lynx and national forest management); *id.* at 1001 (photograph of a house built on the South Carolina oceanfront following the settlement of the issues in *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992)).

229. FREYFOGLE, *supra* note 19.

230. LAITOS ET AL., *supra* note 19. The Laitos book was published in late 2006.

generation Coggins text. Freyfogle's casebook is the most different substantively, organizing the law of natural resources according to function and emphasizing issues of state property law, private lands, the allocation of use rights, and methods of collective governance, such as community organizations and irrigation districts.[231] Freyfogel's functional approach explores the division of nature into use rights, the allocation of those use rights, the resolution of conflicts over use rights, the integration of use rights into landscapes, and the adjustment and reallocation of use rights over time.[232] The book also considers which use rights spring from land ownership, and which are severed, available for separate acquisition. The focus is mostly on state law. Numerous natural resources fit into Freyfogel's functional approach, including water, wildlife, oil and gas, mining, and even ice and seaweed.[233] The emphasis on private rights harkens back to the first generation of natural resources law casebooks,[234] but the goal seems clearly to transform understanding of what private rights in natural resources should mean, not merely to facilitate understanding of private development rights.

Although all of the new fourth-generation books continue the trend of incorporating non-case background materials, Laitos and his co-authors move farthest from the original Langdellian pamphlet of cases to a vastly expanded, multimedia format.[235] The Laitos casebook encompasses traditional natural resources topics and explores resources under federal, tribal, state, and private ownership, including discussion of economic aspects of natural resources law.[236] It does so by providing materials aimed at the current generation of law students, including web-based resources, visual aids, maps, charts, diagrams, figures, pictures, articles from newspapers, and other secon-

231. E-mail from Eric T. Freyfogle to Michael C. Blumm (Oct. 18, 2005) (on file with authors) (describing forthcoming book and including preface, draft table of contents, and introduction to first chapter).

232. FREYFOGLE, *supra* note 19, at i.

233. *Id.* at ii, v.

234. *See supra* Part I.

235. E-mail from Jan G. Laitos to Michael C. Blumm (Aug. 8, 2005) (on file with authors) (describing the format of the new casebook); *see also* E-mail from West Academic (Oct. 3, 2005) (on file with authors) (publicity announcement describing the materials included in the new casebook).

236. E-mail from West Academic, *supra* note 235 (describing the substance of the forthcoming Laitos casebook).

dary publications.[237] This multimedia approach is perhaps an effort to address a growing perception that the modern law school classroom and the traditional Langdellian casebook approach are no longer optimal.[238]

Like their predecessors, the fourth-generation authors strive to organize the sprawling field of natural resources law by imposing structure on the cases and materials. Their choices range from an emphasis on the importance of place[239] to a focus on state property law and private lands issues as the central concern.[240] But all, to a greater or lesser degree, react to the Western public lands emphasis of Coggins, Wilkinson, and Leshy's *Federal Public Land and Resource Law*[241] by raising the profile of Eastern natural resources issues and the allocation and regulation of private rights to use natural resources on non-federal lands. The contribution of the new generation of casebooks is to clearly broaden the range of materials, approaches, and perspectives available from which to teach a course in natural resources law, and they ought to produce more natural resources law courses and teachers in the future.

237. E-mail from Jan G. Laitos, *supra* note 235 (describing the authors' goal "to make the book interactive with the students, different to look at"); *see also* E-mail from West Academic, *supra* note 235 (describing the Laitos casebook as "written with the student in mind" and as "speak[ing] the language more easily comprehended by the current generation of law students").

238. *See, e.g.*, Christopher G. Courchesne, *"A Suggestion of a Fundamental Nature": Imagining a Legal Education of Solely Electives Taught as Discussions*, 29 RUTGERS L. REC. 21, 25, 37–63 (2005) (describing the modern classroom at Harvard Law School as filled with "rows of bright laptop screens . . . checking email, fixed on the New York Times, rapt with resume adjustments, engrossed in games like Spider Solitaire" and proposing a structured discussion model as an alternative to the traditional Langdellian law school class and its emphasis on the case method of instruction).

239. *See supra* notes 223–24 and accompanying text.

240. *See supra* notes 231–33 and accompanying text.

241. *See supra* Part III.