

**American Bar Association
Section of Environment, Energy, and Resources**

Riparianism: New Challenges for an Old Doctrine

**The Rise of Environmental Regulation
and the Decline of the Common Law Riparian Doctrine¹**

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Less than 40 years ago, an attorney for a municipal government or a manufacturing company in the United States, asked for a checklist to be completed to develop a new surface water supply -- a river intake, for example, or even a new reservoir -- would have assembled quite a short list by today's standards, and regulatory authorizations probably would have constituted a minor consideration. With variations from place to place, a typical checklist of that time probably would have included:

- (1) acquiring or compensating for damages for taking or impairing private riparian rights, in the East, or appropriative rights, in the West, and any necessary litigation (often by eminent domain);
- (2) obtaining any permits required by State law;

¹ Portions of this paper are based on an article by the same author, "Issues in Developing Municipal Water Supplies: Federal Authorities Governing Municipal and Industrial Water Resource Development," presented at the ABA Section on Natural Resources, Energy and Environmental Law's 17th Annual Water Law Conference, Feb. 25-26, 1999. The discussion of *City of Waterbury v. Town of Washington*, 260 Conn. 506, 800 A.2d 1102 (2002), is derived in part from Somerville & Mauck, Eastern States Report, in *The Water Resources Committee Report*, ENVIRONMENT, ENERGY AND RESOURCES LAW: THE YEAR IN REVIEW 2002, at 163-65 (ABA 2003).

- (3) obtaining a permit from the Army Corps of Engineers under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403), if the water intake or other structures would be built “in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States”;
- (4) arranging financing; and
- (5) contracting for the work.

State permit requirements in the East, where they even existed in the mid-1960’s, generally were less demanding than in the West, of course. The primary federal interest, under Section 10 of the 1899 RHA, was protection of navigation.

The same tasks would appear on a similar checklist today, except that Section 10 and its focus on navigation have retreated far into the background. But today the agenda also includes, at a minimum, compliance with Sections 404 and 401 of the Clean Water Act (CWA) and its close companion, the National Environmental Policy Act (NEPA). In many cases it also includes compliance with one or more of the Endangered Species Act (ESA), the Coastal Zone Management Act (CZMA), the National Historic Preservation Act (NHPA), shelves of agency regulations and inter-agency agreements on topics ranging from environmental documentation to wetland impact mitigation, and a variety of over-arching federal Executive Orders and policies touching matters as diverse as “no net loss” and “environmental justice.” The Federal Power Act (FPA) adds its own unique set of complications to any proposal that involves a federally-regulated hydroelectric facility. State permit systems focusing specifically on water withdrawals and generally on environmental protection have become far more common and elaborate. Conflicting water allocation claims arising from reserved federal or tribal water rights may add another layer of difficulty. No less today than 40 years ago (but perhaps also no more), parochialism regularly generates interstate conflicts over the allocation or use of common streams, further complicating and lengthening the daunting task of planning and developing new sources to meet growing needs for public, domestic, and industrial water supplies.

Remarkably, as recently as the mid-1960’s the landscape of American water resource development law in many ways still resembled that in effect at the turn of the Century more closely than the highly-regulatory legal environment of today. Henry Philip Farnham’s massive three-volume *Law of Waters and Water Rights*, published in 1904, devotes nearly 1450 pages to the major topic of “Rights Between Public and Individual.”² Its 26 chapters address, *inter alia*, navigation; ownership of the beds and shores of tidal and non-tidal waters; riparian rights (70 pages); canals, docks, and wharves; separately, “Bridges, Fords, Levees and other Public Improvements”; ferries; drainage; and fisheries (90 pages, focusing on individual rights to fish and sovereign authority over fisheries, including nearly 20 pages discussing States’ powers to enact and enforce “regulations” affecting fisheries). “Municipal Water Supply” is discussed for just over

² Mr. Farnham was Associate Editor of *Lawyers’ Reports Annotated* (LRA), a forerunner of *American Law Reports* (ALR). His Preface describes the depth of research displayed in his treatise: “All American reports have been examined page by page, and all English cases which have been referred to by digests, text writers or judges as involving the question of water rights have been read, and every case which throws any light upon any branch of the subject of water [which he counted at “nearly 17,000 cases”] is referred to in these volumes.”

100 pages, focusing on topics -- financing, eminent domain, rates and the like -- that today are addressed primarily by treatises on municipal corporations. (Indeed, today's pre-eminent water law treatise, *Waters and Water Rights* (R. Beck, ed., 1991-2001) devotes no *separate* attention to municipal water supply issues at all.)

The 1904 treatise covers the law of nuisance, as a public law matter, in a mere 23 pages; scarcely two pages of it are devoted to "Pollution of stream"! In the subsequent discussion of a second major topic, "Rights Between Individuals," however, Farnham spent 30 pages on the topic of stream pollution -- reflecting the greater role played in that era by common law adjudications among private parties, as compared to the predominant role of public, statutory and administrative regulatory authorities today. In fact, Farnham only mentioned the occasional exercise of *legislative* authority to "prohibit the creation of nuisances by the pollution of water course" in passing; and of course the sources of law cited throughout his treatise are overwhelmingly state and not federal.

Probably the most dramatic change in American water law in the first six and a half decades of the twentieth century was the development of the federal common law doctrine of equitable apportionment. That doctrine recognizes that in most cases, at least, interstate rivers are a common resource that must be shared among the States through or along which they flow: there must be an "equitable apportionment of benefits between the two states resulting from the flow of the river." *Kansas v. Colorado*, 206 U.S. 46, 118 (1907). Reflecting the "sovereign" status of the States in our federal system, the Court has declined to restrict withdrawals by users in an upstream State "unless the threatened invasion of rights is of serious magnitude and established by clear and convincing evidence." *Connecticut v. Massachusetts*, 282 U.S. 660, 669 (1931). More recent equitable apportionment decisions, however, have focused more on "the protection of existing economies" and placed the burden of proof on a State that sought an apportionment that would threaten existing uses in another State. In *Colorado v. New Mexico* (I), 459 U.S. 176 (1982), the Court considered Colorado's claim to a share of a small interstate River whose waters already were "fully appropriated by users in New Mexico," *id.* at 177; and it said this:

We recognize that the equities supporting the protection of existing economies will usually be compelling. The harm that may result from disrupting established uses is typically certain and immediate, whereas the potential benefits from a proposed diversion may be speculative and remote. Under some circumstances, however, the countervailing equities supporting a diversion for future use in one State may justify the detriment to existing users in another State. This may be the case, for example, where the State seeking a diversion demonstrates by clear and convincing evidence that the benefits of the diversion substantially outweigh the harm that might result....

Id. at 187. That decision concluded with a remand to the Court's Special Master "for specific factual findings relevant to determining a just and equitable apportionment of the water of the Vermejo River between Colorado and New Mexico." *Id.* at 190. After the remand, the Court held in *Colorado v. New Mexico* (II), 467 U.S. 310 (1984), that Colorado had not met its burden of proving, by clear and convincing evidence, either that reasonable conservation measures in New Mexico could compensate for some or all of its proposed diversion, or that any injury to New Mexico would be outweighed by the benefits to Colorado from the diversion. It concluded by rejecting "the notion that the mere fact that the Vermejo River originates in Colorado automatically

entitles Colorado to a share of the river's waters," *id.* at 323 -- despite the fact that "approximately three-fourths of the water in the Vermejo River system is produced in Colorado," *id.* It reasoned:

Both Colorado and New Mexico recognize the doctrine of prior appropriation, ... and appropriative, as opposed to riparian, rights depend on actual use, not land ownership.... It follows, therefore, that the equitable apportionment of appropriated rights should turn on the benefits, harms, and efficiencies of competing uses, and that the source of the Vermejo River's waters should be essentially irrelevant to the adjudication of these sovereigns' competing claims.

Id. It remains to be seen whether the same conclusion -- that the source of the waters in an interstate river is "essentially irrelevant" -- would also apply to the competing claims of States that adhere to the riparian doctrine and not the law of prior appropriation.

In the beginning and for most of its history, equitable apportionment has been more important in the Western United States than in the East. The U.S. Supreme Court first asserted its authority to apportion interstate waters under federal common law in *Kansas v. Colorado*, 185 U.S. 125 (1902); and in the 97 years since then, disputes among western States that adhere to the prior appropriation doctrine as a matter of state property law have dominated its (limited) docket of equitable apportionment cases, and a few suits between riparian and appropriation States have accounted for most of the remainder.

Reflecting that history, the Supreme Court soon developed the principle (as expressed in *Colorado v. New Mexico* (I), 459 U.S. at 184) that "[t]he laws of the contending States concerning intrastate water disputes are an important consideration governing equitable apportionment. When ... both States recognize the doctrine of prior appropriation, priority becomes the 'guiding principle' in an allocation between competing States." The underlying reasoning probably was articulated most eloquently in the case that clearly established the principle, *Wyoming v. Colorado*, 259 U.S. 419, 470 (1922):

We conclude that Colorado's objections to the doctrine of appropriation as a basis of decision are not well taken, and that it furnishes the only basis which is consonant with the principles of right and equity applicable to such a controversy as this is. The cardinal rule of the doctrine is that priority of appropriation gives superiority of right. Each of these states applies and enforces this rule in her own territory, and it is the one to which intending appropriators naturally would turn for guidance. The principle on which it proceeds is not less applicable to interstate streams and controversies than to others. Both states pronounce the rule just and reasonable as applied to the natural conditions in that region, and to prevent any departure from it the people of both incorporated it into their Constitutions. It originated in the customs and usages of the people before either state came into existence, and the courts of both hold that their constitutional provisions are to be taken as recognizing the prior usage rather than as creating a new rule. These considerations persuade us that its application to such a controversy as is here presented cannot be other than eminently just and equitable to all concerned.

When the equitable apportionment doctrine crossed the Mississippi and made its way into Eastern water law, in 1931, that reasoning appeared to provide a compelling argument in favor of downstream States that sought to block interbasin water transfers for upstream municipal supplies,

because such transfers are *per se* unreasonable under the Eastern riparian rights doctrine. The Supreme Court rejected that argument, however, in *Connecticut v. Massachusetts*, 282 U.S. 660 (1931), and *New Jersey v. New York*, 283 U.S. 336 (1931) -- the first and so far the only times that the Court has applied the law of equitable apportionment to interstate rivers in the East. In *Connecticut v. Massachusetts*, the Court denied Connecticut, the downstream State, an injunction forbidding interbasin transfers from the Connecticut River Basin to the Boston metropolitan area. In *New Jersey v. New York*, it likewise rejected New Jersey's argument for application of the riparian rights doctrine to bar Delaware River Basin withdrawals for New York City's municipal supplies. Justice Holmes' Opinion for the Court in that case quickly brushed aside New Jersey's argument for strict application of the two States' shared common law riparian doctrine as a matter of federal common law:

A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished.

283 U.S. at 342-43. He concluded by observing that "[t]he removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds." 283 U.S. at 343.³

When Professor Robert Emmet Clark began publishing the first edition of the modern *Waters and Water Rights* treatise, in 1967, the early dawn of modern federal environmental regulation was just beginning to color the eastern horizon of the legal landscape. He observed that "[i]n all fields of law, legislation is more important than it was fifty years ago," to be sure; and he noted the existence of new statutes affecting flood control, pollution abatement, watershed protection and groundwater management, among others. Yet the focus remained heavily on state law. There was no Clean Water Act in 1967, for example, and the Corps of Engineers' regulatory authority over navigable waters still emphasized protection of navigation. The primary federal statute regulating water pollution was the Refuse Act of 1948.

We live in a very different world today. A multitude of new federal and state Acts and their accompanying acronyms, dramatic shifts in federal and state policies, new federal and state regulatory authorities, and in many cases new regulatory agencies to enforce them, have risen up in the name of environmental protection -- and they now stand squarely in the path of any proposal to develop new or additional public or private water supplies. The path is not yet impassable, perhaps; but the difficulty of passing through the ever-more-challenging gauntlet of regulatory

³ The Court probably recognized that a decision to apply strictly the riparian rights doctrine would have far more conclusive consequences in an interstate context than within a single State. That is because the power of eminent domain may be exercised to acquire riparian rights necessary to allow interbasin transfers for public supply in a single state (*see, e.g., Purcellville v. Potts*, 179 Va. 514, 524-25, 19 S.E.2d 700, 704 (1942)), but no State has the power to authorize municipal condemnation of property rights in another State.

reviews; the lead time required for planning, permitting, and related environmental studies; the enormous fiscal costs of armies of consultants (not to mention legal costs); and the risk that a proposal ultimately will fail to clear the regulatory gauntlet, often after years of study and millions of dollars of public funds -- all of these issues have taken on vastly greater importance than they held even a mere thirty years ago.

I do not advocate the view that regulation of public water supply development for the purpose of environmental protection is an evil, nor do I suggest that it would be desirable (if it were possible) to return to the legal structure in place in 1904 or 1967. My thesis is a more modest one: it is high time for a serious, thoughtful, and comprehensive re-evaluation of the enormously detailed, complex, costly, and time-consuming regulatory structure that has been erected -- often haphazardly and at breakneck speed -- in a period of scarcely three decades. Environmental protection seems to operate like a ratchet: it moves in only one direction. Whether in Congress or State legislatures, in official agency regulations or memoranda or policies, or in meetings where agency field officers and permit applicants discuss appropriate permit conditions, the previous action fixes the "floor" for the next one brought up for consideration. Relaxation of the intensity of existing regulations is rarely an issue. In a vast majority of situations, the only question is whether the previous decision went far enough, or whether more stringent regulation is needed -- or merely desirable -- to further the goal of environmental protection.

Leap by leap and little by little, these accretions have grown steadily, but with little attention to their place in the overall body of environmental law and policy and even less attention to the greater societal context in which the increasing body of laws and regulations do their work. This is not to suggest for a moment that environmental protection is unimportant, only that "environmental protection" should not be conceded the power of a magic talisman, sweeping all contrary or competing interests away from its path to a new and greener Utopia. Chief Justice Burger referred to a related phenomenon in *Aberdeen & Rockfish R. Co. v. SCRAP*, 409 U.S. 1207, 1217 (1972), ruling as a single Circuit Justice on a motion to stay a preliminary injunction pending appeal: "Our society and its governmental instrumentalities, having been less than alert to the needs of our environment for generations, have now taken protective steps. These developments, however praiseworthy, should not lead courts to exercise equitable powers loosely or casually whenever a claim of 'environmental damage' is asserted." *Cf. Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d 553, 276 Cal.Rptr. 410, 801 P.2d 1161, 1175 (1990) ("[R]ules regulating the protection of the environment must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development and advancement.") Likewise, the importance of environmental protection (and our long and unfortunate history of environmental neglect) should not blind us to other legitimate and sometimes-competing social needs -- the need, for example, to provide basic governmental services (such as adequate supplies of drinking water that is pure and safe for human consumption), when they are needed, at costs that are not so inflated that they stifle economic growth and development, at one end of the social spectrum, and force low-income households to choose between necessities of life such as food, water, and medicines, at the other.

The U.S. Supreme Court's two eastern equitable apportionment decisions, *Connecticut v. Massachusetts* and *New Jersey v. New York*, are discussed above. Numerous interstate water controversies have arisen in the East, however, without ever reaching the Supreme Court's argument docket. Some eastern States have resolved River allocation controversies by Interstate Compact. Older examples include the Delaware Basin Compact, which was negotiated in the wake of *New Jersey v. New York*, and the Susquehanna Basin Compact.

Two much more recent interstate river compacts, whose success remains uncertain, are the closely related Alabama-Coosa-Tallapoosa (ACT) and Apalachicola-Chattahoochee-Flint (ACF) River Basin Compacts. The ACT and ACF basins rise mostly in northern and western Georgia. Both drain to the Gulf of Mexico, through Mobile Bay in Alabama and through Apalachicola Bay in the Florida panhandle, respectively. The ACT Compact is between the States of Georgia and Alabama; the ACF Compact includes Florida as well. Georgia wants to assure sufficient municipal and industrial water supplies for the Atlanta region, irrigation water for farmers in southern Georgia, and stable lake levels at major reservoirs in Georgia. Alabama seeks to ensure sufficient municipal and industrial supplies for its own future growth as well as water for hydropower generation and commercial navigation on the lower Chattahoochee. Florida's primary concern is maintenance of marine life, and particularly the commercial oyster harvest, in Apalachicola Bay.

Each of the compacts created a Basin Commission consisting of the Governors of the participating States and a federal representative, who does not have a vote but does have the power to veto any water allocation formula agreed to by the voting members. Each of the two Compacts provided a December 31, 1998, deadline for the participating States to agree to a formula for allocating the surface waters of the subject basin among themselves; but the States have agreed repeatedly to extend both deadlines. All Commission decisions must be unanimous, including the critical selection of water allocation formulas.

The Compacts were themselves a sort of culmination of comprehensive, basin-wide studies that began in 1992 and involved multitudes of State and federal agencies, private industries, advocacy groups, and other stakeholders. The entire series of events was triggered largely by a proposal to reallocate 207,000 acre-feet of storage in Lake Sidney Lanier, a Corps of Engineers project in north Georgia, from hydroelectric generation to public water supplies for the Atlanta metropolitan area. The State of Alabama (later joined by Florida) challenged the Corps' reallocation decision in a civil action in the U.S. District Court for the Northern District of Alabama. The comprehensive planning efforts were part of a litigation "settlement," which included a standstill agreement that allowed continuation of existing offstream uses plus reasonable increases but disavowed any claims to vested rights created by increases during the term of the studies.

The current ACT-ACF controversy originated in the efforts of metropolitan Atlanta and other rapidly-growing areas of northern Georgia to secure sufficient public water supplies to meet their future needs.⁴ The resulting, highly contentious, interstate and inter- and intra-basin water allocation battle is not unlike others that have occurred in the Eastern as well as the Western United States, as growing consumptive uses in increasingly-urban upstream areas appear to conflict with a wider variety of offstream and instream uses in downstream areas of a common river basin. The original, December 1998 deadlines for adopting basinwide water allocation formulas obviously were too optimistic; it remains to be seen whether the States will ever be able

⁴ Remarkably, the 207,000 acre-foot storage reallocation that triggered the litigation was expected to meet the increased water needs of metropolitan Atlanta only through a brief, 20-year planning period ending in the year 2010 -- virtually mandating that responsible agencies initiate new, longer-term plans long before the storage reallocation project could ever be implemented (as hindsight has demonstrated).

to agree to a method for dividing up the water resources of the two basins, or whether the water supplies of the ACT and ACF basins ultimately will be allocated by the United States Supreme Court or perhaps by other judicial or regulatory proceedings.

One other interstate water controversy appears likely to be resolved in the U.S. Supreme Court's upcoming term. *Virginia v. Maryland*, No. 129, Orig., does not raise issues of equitable apportionment but whether a public utility or other water users in Virginia must obtain permits from the Maryland Department of Environment to withdraw water from the Potomac River. The River boundary between the states is the low water mark on the Virginia side, but Virginia claims that a 1785 Compact between the states, an arbitration award made in 1877, and the Potomac River Compact of 1958, preclude any requirement that Virginia obtain permits from Maryland to build improvements appurtenant to the Virginia shore. Supreme Court Special Master Ralph I. Lancaster, Jr., has recommended that the Court rule in favor of Virginia on all issues.

Other Eastern water controversies have proved similarly intractable. An interstate water war between metropolitan southeastern Virginia, on one side, and the State of North Carolina together with various allies in rural Southside Virginia, on the other, spanned more than a decade and a half in the 1980's and 1990's. At issue was a pipeline built by the City of Virginia Beach to Lake Gaston, an existing hydroelectric project reservoir, with a maximum permitted capacity to divert just 1.2% of the flows of the highly-impounded interstate Roanoke River (with have *no* impacts on its regulated minimum flows). That dispute generated no fewer than 13 published federal court decisions and two denials of *certiorari*, plus two published State court decisions;⁵ and of course the published judicial decisions represent only the tip of a far larger iceberg of administrative, judicial, and political wrangling. In addition to North Carolina and Virginia Beach, parties to federal litigation over the project included the Army Corps of Engineers, which issued a permit to Virginia Beach; the U.S. Secretary of Commerce, who "overrode" a consistency objection (an effective veto of the project) issued by North Carolina under the Coastal Zone Management Act (CZMA); the Federal Energy Regulatory Commission (FERC), which amended a license for the Lake Gaston hydroelectric project to authorize the City's water withdrawals; and the

⁵ Federal cases: *City of Virginia Beach, Virginia v. Roanoke River Basin Association*, 776 F.2d 484 (4th Cir. 1985); *State of North Carolina v. Hudson*, 665 F. Supp. 428 (E.D.N.C. 1987) (*Hudson I*); *State of North Carolina v. Hudson*, 731 F. Supp. 1261 (E.D.N.C. 1990) (*Hudson II*), *aff'd*, *Roanoke River Basin Association v. Hudson*, 940 F.2d 58 (4th Cir. 1991) (*Hudson III*), *cert. denied*, 502 U.S. 1092 (1992); *State of North Carolina v. City of Virginia Beach*, 951 F.2d 596 (4th Cir. 1991); *City of Virginia Beach v. U.S. Department of Commerce*, 805 F. Supp. 1323 (E.D.Va. 1992), *reversed in part*, *City of Virginia Beach, Virginia v. U.S. Department of Commerce*, 995 F.2d 1247 (4th Cir. 1993); *Roanoke River Basin Association v. Hudson*, 991 F.2d 132 (4th Cir. 1993); *City of Virginia Beach, Virginia v. Brown*, 858 F. Supp. 585 (E.D.Va. 1994); *In Re: City of Virginia Beach*, 42 F.3d 881 (4th Cir. 1994); *State of North Carolina v. City of Virginia Beach*, 882 F. Supp. 77 (E.D. N.C. 1995), *vacated as moot*, No. 95-1793 (4th Cir. Aug. 28, 1998); *North Carolina v. Commerce Department (Brown)*, 42 E.R.C. 1255 (D.D.C. 1995); and *State of North Carolina v. Federal Energy Regulatory Commission*, 112 F.3d 1175 (D.C. Cir. 1997), *cert. denied*, 522 U.S. 1108 (1998). State cases: *City of Virginia Beach v. Board of Supervisors of Mecklenburg County*, 246 Va. 233, 435 S.E.2d 382 (1993); and *Tidewater Association of Home Builders, Inc. v. City of Virginia Beach*, 241 Va. 114, 400 S.E.2d 523 (1991).

National Marine Fisheries Service (through its parent, the U.S. Department of Commerce), in a Freedom of Information Act (FOIA) suit seeking records that allegedly demonstrated misconduct in the development of its comments on Virginia Beach's Corps permit application.

Virginia Beach's pipeline was completed in late 1997, and it now pumps up to 60 mgd from Lake Gaston to southeastern Virginia. Another proposed municipal water supply project in tidewater Virginia, across Hampton Roads from Virginia Beach on the "Lower Peninsula" (a region that includes the Cities of Newport News, Williamsburg and Hampton as well as York and James City Counties) did not fare so well under the heat of federal, though not out of state, opposition. James City County sought a permit from the Corps under Section 404 of the CWA (33 U.S.C. § 1344) to build a new reservoir on Ware Creek, a tributary of the York River. The Corps proposed to issue a permit, finding that the reservoir would cause substantial environmental harm but that a permit nevertheless should be issued because the County had demonstrated a need for the water and an absence of viable alternatives. The U.S. Environmental Protection Agency, however, exercised its "veto" authority over Corps Section 404 permits, under Section 404(c) of the CWA -- a statute that is *explicitly* intended to *protect* municipal water supplies, as well as shellfish beds, fishery areas, wildlife, and recreational areas.⁶ James City County challenged the veto. The U.S. District Court for the Eastern District of Virginia ruled in its favor, finding that the County needed the water and had no alternative, and EPA appealed. The Fourth Circuit agreed that James City County needed additional water supplies and had no alternative, but it nevertheless vacated the judgment and remanded the case to EPA to decide whether to veto the project based solely on the gravity of its environmental harms. *James City County v. U.S.E.P.A.*, 955 F.2d 254, 258 (4th Cir. 1992). EPA again vetoed the Corps permit. The County returned to court, but this time the Fourth Circuit upheld the EPA decision, and the Supreme Court refused further review. *James City County v. U.S.E.P.A.*, 12 F.3d 1330 (4th Cir. 1993), *cert. denied*, 513 U.S. 823 (1994).

These cases are symptoms and symbols of a far more significant and pervasive reality: today, the legal protections for surface water sources are greater than they have ever been; and the regulatory gauntlet facing any water supply project is more daunting than it ever has been. A number of statutes and regulations are briefly summarized or paraphrased in this outline. Most of them are extensive and complex; this outline provides only bare highlights. Many of them also apply to an enormous variety of regulated activities. This outline emphasizes their implications for public water supply projects, but the same principles apply equally in other contexts. Conversely, many of the case authorities arose in other contexts. An effort has been made to emphasize public water supply development cases where possible, but cases based on different facts are no less authoritative on that account.

⁶ Under Section 404(c), the EPA Administrator has the authority to veto a Corps permit "whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." 33 U.S.C. § 1344(c).

I. The common law riparian rights doctrine⁷

- A. Many authorities could be quoted for the basic law of riparian rights.⁸ For present purposes, the following statement from *Purcellville v. Potts*, 179 Va. 514, 520-22, 19 S.E.2d 700, 702-03 (1942), will do as well as any other. (Citations are omitted.)

“The well settled general rule on this point is that each riparian proprietor has *ex jure naturae* an equal right to the reasonable use of the water running in a natural course through or by his land for every useful purpose to which it can be applied, whether domestic, agricultural or manufacturing, provided it continues to run, after such use, as it is wont to do, *without material diminution* or alteration and *without pollution*; but he cannot diminish its quantity materially or exhaust it (except perhaps for *domestic* purposes and in the *watering of cattle*) to the prejudice of the lower proprietors, unless he has acquired a right to do so by grant, prescription or license.”

....

While a riparian owner is entitled to a reasonable use of the water, he has no right to divert it for use beyond his riparian land, and any such diversion and use is an infringement on the rights of the lower riparian proprietors who are thereby deprived of the flow. Such a diversion is an extraordinary and not a reasonable use....

....

“It has been held with practical unanimity that a municipal corporation, in its construction and operation of a water supply system, by which it impounds the water of a private stream and distributes such water to its inhabitants, receiving compensation therefor, is not in the exercise of the traditional right of a riparian owner to make a reasonable domestic use of the water without accountability to other riparian owners who may be injured by its diversion or diminution. ‘The use of the waters of a stream to supply the inhabitants of a municipality with water for domestic purposes is not a riparian right.’ ... ‘The weight of authority * * * holds a municipal corporation civilly liable for diverting the waters of a private watercourse for the purposes of a public water supply, either with or without legislative authority.’ ... ‘A municipal corporation will be

⁷ Inasmuch as this panel’s focus is eastern water law, I shall not examine the prior appropriation doctrine followed in the arid states of the American West. An excellent initial source for explanation of the prior appropriation doctrine is 2 R. Beck, ed., *Waters and Water Rights* Ch. 11-17 (Repl. Vol. 2001).

⁸ The leading treatise on American water law today is Professor Robert Beck’s multi-volume *Waters and Water Rights*. Volume 1, Chapters 6-9, provides a lengthy and detailed discussion of the riparian doctrine, including modern “Regulated Riparianism” (Ch. 9).

liable for diverting the waters of a stream or watercourse and depriving lower riparian owners of the use thereof.’”

See also, e.g., Higday v. Nickolaus, 469 S.W.2d 859, 866 (Mo. App. 1971) (applying reasonable use rule to groundwater).

“[T]he rights of a riparian owner [have been] delineated as follows:

“First. The right to be and remain a riparian proprietor and to enjoy the natural advantages thereby conferred upon the land by its adjacency to the water.

“Second. The right of access to the water, including a right of way to and from the navigable part.

“Third. The right to build a pier or wharf out to navigable water, subject to any regulations of the State.

“Fourth. The right to accretions or alluvium.

“Fifth. The right to make a reasonable use of the water as it flows past or laves the land.”

Thurston v. Portsmouth, 205 Va. 909, 911-12, 140 S.E.2d 678, 680 (1965), quoting *Taylor v. Commonwealth*, 102 Va. 759, 773, 47 S.E. 875 (1904). *See also, e.g., Crommelin v. Fain*, 403 So. 2d 177, 183 (Ala. 1981), quoting 93 C.J.S. Waters § 9, pp. 608-10 (1956): riparian owners have “the common law right to

“the natural flow of the water of [the] stream through or along [their] land, in its accustomed channel, undiminished in quantity and unimpaired in quality, except as the accustomed flow may be changed by the act of God, and except as may be occasioned by the reasonable use of the stream by other like proprietors.”

Each of the listed rights (and in recent years particularly the third, the right of wharfage) has been the topic of much litigation. This paper focuses entirely on the fifth listed right, the right of reasonable use.

The *Thurston-Taylor* formulation does not refer to the riparian owners’ right “to have the natural flow of the water of the spring to their lands, undiminished in volume except as affected by reasonable and necessary use by the upper owner in the exercise of his riparian rights,” *Hite v. Town of Luray*, 175 Va. 218, 225, 8 S.E.2d 369, 372 (1940) (quoting opinion below); but obviously that right is closely related to the right of reasonable use. *See also, e.g., Panther Coal Co. v. Looney*, 185 Va. 758, 764-65, 40 S.E.2d 298, 301-02 (1946):

In *Trevett v. Prison Ass’n*, [98 Va. 332, 36 S.E. 373 (1900)] is this: “In 1 Wood on Nuisances, (3rd Ed.), section 427, it is said: ‘The right of a riparian owner to have the water of a stream come to him in its natural purity is as well recognized as the right to have it flow to his land in its

usual flow and volume. But in reference to this, as with the air, it is not every interference with the water that imparts impurities thereto, that is actionable, but only such as impart to the water such impurities as substantially impair its value for the ordinary purposes of life, and render it measurably unfit for domestic purposes; * * *.’

* * *

“It was said by the court in *Merrifield v. Worcester*, 110 Mass. 216, 219, 14 Am. Rep. 592: ‘Cultivating and fertilizing the lands bordering on the stream, and in which are its sources, their occupation by farmhouses and other erections, will unavoidably cause impurities to be carried into the stream. As the lands are subdivided, and their occupation and use become multifarious, these causes will be rendered more operative, and their effects more perceptible. The water may thus be rendered unfit for many uses for which it had before been suitable; but so far as that condition results only from reasonable use of the stream in accordance with the common right, the lower riparian proprietor has no remedy.’”

In *MacNamara v. Taft*, 196 Mass. 597, 83 N.E. 310, 312, 13 L.R.A. (N.S.) 1044, this is said: “It is only when the owner in the stream below is materially affected in his right to use the water, by reason of its impurity as it enters his premises, that he has a remedy against the upper proprietor by whose use the quality of the water is impaired. For a slight impairment of quality, necessarily resulting from a reasonable use of the stream or of the land abutting on it, there is no liability. But the rules and principles so fully stated in *Parker v. American Woolen Co.*, *ubi supra* [195 Mass. 591, 81 N.E. 468, 10 L.R.A. (N.S.) 584], forbid the unnecessary discharge of polluting substances into a stream in quantities that appreciably affect the purity of the waters when they reach the premises of a riparian proprietor below, and render them materially less fit for domestic or other uses to which they might be put there than when they came to the land of the owner who is charged with polluting them.”

There are state-to-state variations in the common law riparian rights doctrine, of course. One of the major differences among the states is between the “natural flow” and “reasonable use” rules of riparian rights. *See, e.g., Harrell v. Conway*, 224 Ark. 100, 102-03, 271 S.W.2d 924, 926 (1954)

... the adherents to the riparian theory are themselves divided into two schools of thought. As is pointed out in the Restatement of Torts, in the Introductory Note preceding § 850, the riparian theory may be subdivided into the doctrine of natural flow and the doctrine of reasonable use, the two being inconsistent with each other. According to the natural flow theory, each riparian owner is entitled to have the watercourse maintained in its natural state, not sensibly diminished in quantity or impaired in quality. Under this theory a riparian owner may withdraw water for domestic uses but not for such artificial uses as the irrigation of crops or the operation of a factory.

Under the reasonable use theory each landowner is entitled to make any reasonable use of the water, provided that such use does not unreasonably interfere with the beneficial use of the stream by others. Under this theory a riparian owner may use the water for irrigation or for any other purpose, the reasonableness of the use being the only measure of riparian rights.

See also, e.g., City of Waterbury v. Town of Washington, 260 Conn. 506, 580, 800 A.2d 1102, 1149-50 (2002): “The natural flow theory provides that ‘each riparian owner on a waterbody is entitled to have the water flow across, or lie upon, the land in its natural condition, *without alteration by others of the rate of flow or the quantity or quality of the water.*’ (Emphasis added.) J. Dellapenna, 1 *Waters and Water Rights* (R. Beck ed., 1991) § 7.02(c), p. 233.” A more elaborate explanation of the distinction and its historical and sociological bases is provided in *Harris v. Brooks*, 225 Ark. 436, 441-43, 283 S.W.2d 129, 132-33 (1955).

The distinction between the natural flow and reasonable use interpretations of the riparian rights doctrine is often overlooked or obscured, however. *See Harrell v. Conway*, 224 Ark. at 103-04, 271 S.W.2d at 927, quoting *Thomas v. LaCotts*, 222 Ark. 171, 257 S. W. 2d 936 (1953), and observing that it “first state[s] the natural flow theory and immediately follow[s] it up with an expression of the reasonable use theory.”

- B.** Is the riparian rights doctrine still relevant in today’s legal environment? The probable answer is that while it has not yet passed entirely into the shadows, its relevance has been greatly diminished by a vast array of modern statutes that vest enormous regulatory power in state and federal agencies. An owner who wants to challenge a permitted water withdrawal as a violation of his riparian rights may do so, to be sure; but as a practical matter, such attacks generally are likely to be little more than a nuisance and at most a source of delay. The “action” today is at the regulatory agencies (and in judicial review of their decisions, but to a somewhat lesser extent due to highly deferential standards of review); and of course riparian rights are sufficient -- but far from necessary -- to confer standing to challenge a regulatory authorization. (*See, e.g., Mattaponi Indian Tribe v. Commonwealth*, 261 Va. 366, 541 S.E.2d 920 (2001).)

Regulatory permits do not insulate water users from challenges based on riparian rights; but the simple fact, I predict, is that cumulative regulatory requirements almost invariably will be more stringent than the limitations of the reasonable use doctrine of riparian law. Much as federal and state regulation of water pollution have effectively displaced the common law of nuisance, federal and state law directly and indirectly regulating water withdrawals are at least in the process of supplanting the common law of riparian rights in flowing waters. A major reason for this prediction is that statutory programs address instream as well as offstream uses; they protect environmental amenities as well as developmental interests, whereas the riparian doctrine -- particularly under the more modern “reasonable use” approach -- focuses much more heavily on offstream, developmental uses. A regulatory permit may or may not be accepted as evidence of reasonableness in a riparian rights adjudication, but I am not aware of any cases testing that proposition. Of course that may simply reflect the increasing desuetude of the riparian doctrine, as the strategic decisions of lawyers in water use controversies bear out

the accuracy of my prediction that application of the riparian doctrine to water allocation disputes today is effectively in the process of dying -- or perhaps even already dead.

The more layers of regulation, the more likely my prediction is to be true. Conversely, in States that have minimal regulation, where federal agencies must bear the burden of regulation for environmental protection, riparian rights litigation may yet prove a more fruitful means of opposing unwanted water withdrawal projects. On the other hand, federal agencies generally have far more experience in environmental regulation, and they are perhaps somewhat less likely to be responsive to political influences -- or at least to local influences -- suggesting that state regulation may not be critical to the validity of the premise suggested herein. In all events, there are numerous layers of federal environmental regulation of water use projects, as discussed in section II. State laws are examined, in turn, in section III.

II. An overview of the federal regulatory environment

- A.** Section 404(a) of the Clean Water Act, 33 U.S.C. § 1344, requires a permit from the U.S. Army Corps of Engineers for any “discharge of dredged or fill material into the navigable waters” of the United States. That is the key permit for most new surface water withdrawal projects. Many of the other federal regulatory authorities discussed in this outline only apply to local water supply projects as “overlays” on the Corps permit process.

Army Department regulations applicable to Section 404 (and other Corps permit applications) are published in 33 C.F.R. Parts 320-330, and in 33 C.F.R. Part 230 (NEPA regulations). Additional substantive criteria applicable to Section 404 Permit applications are found in the U.S. Environmental Protection Agency’s (EPA’s) “Section 404(b)(1) Guidelines,” published at 40 C.F.R. Part 230. *See* 33 C.F.R. § 323.6(a).

Through a remarkable process of statutory and regulatory alchemy, the term “navigable waters” has come to include “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” -- *i.e.*, “wetlands.” 33 C.F.R. § 328.3(b); *see* 33 C.F.R. §§ 328.1, 328.3(a)(3); 40 C.F.R. § 230.3(s)(3); *see also, e.g., United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985).

A “discharge” of “fill material” includes virtually any construction in “navigable waters,” such as a dam or an intake structure. *See* 33 C.F.R. § 323.2(f). Section 404 permits therefore are required for a large majority of all water supply projects. Section 404 does not apply (except perhaps incidentally) to groundwater projects, and it largely may be avoided with certain “innovative” approaches (*e.g.*, wastewater reuse).

The permitting process ordinarily begins months (and often years) before an application actually is filed. Extensive pre-application consultation with the Corps and other agencies (including the “scoping” process, which is designed to identify the alternatives and environmental issues to be addressed in NEPA documentation) is customary and expected.

Section 404 and other permitting or licensing processes almost invariably involve a series of public notices and comment periods, typically following the filing of an application and again

following the publication of a draft EIS or EA. (The terminology is explained in the NEPA discussion, *infra*.) Another notice and comment period may be allowed following publication of a final EIS, and in unusual cases following publication of a final EA. Public hearings may be ordered in the discretion of the Corps' District Engineers, who are responsible for most 404 Permit decisions. Public hearings usually are ordered in controversial cases, and public water supply projects often are highly controversial.

- B. As discussed above, Section 404(c) of the Clean Water Act gives the EPA the power to prohibit issuance of a Section 404 Permit if it “determines, after notice and opportunity for public hearings, that the discharge . . . will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.” Regulations applicable to the exercise of EPA’s Section 404(c) “veto” authority are published at 40 C.F.R. Parts 230-233.
- C. Section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), requires a State water quality certification (a 401 Certification) as a precondition to issuance of a Corps permit under Section 404(a). The State in which the discharge will originate must certify that the discharge will comply with other specified sections of the Act, which govern water pollution and water quality standards.

A 401 Certification also is required for other federal licenses or permits “to conduct any activity . . . which may result in any discharge into the navigable waters.” *Id. See, e.g., Public Utility District No. 1 v. Washington Department of Ecology*, 511 U.S. 700 (1994) (*PUD No. 1*) (Federal Energy Regulatory Commission hydroelectric license). *Cf. Virginia Electric and Power Co.*, 72 F.E.R.C. ¶ 61,075 at 61,393-94 (1995) (“assuming, *arguendo*,” that an amendment of Virginia Power’s hydroelectric license, to accommodate the construction and operation of the City of Virginia Beach’s Lake Gaston pipeline project, “is subject to the provisions of section 401(a)(1)”).⁹

⁹ On petitions for review, the U.S. Court of Appeals for the District of Columbia Circuit refused to accept FERC’s “*arguendo*” assumption and remanded the matter to FERC with instructions to determine “whether § 401(a)(1) applies to this license amendment to require a certification from North Carolina.” *State of North Carolina v. FERC*, Nos. 95-1494, 95-1500 (D.C. Cir. Sept. 11, 1996) (unpublished order). On remand, FERC held that North Carolina’s certification was not required, reasoning (*inter alia*) that the “‘activities’ that necessitate[d]” its license amendment were the construction of Virginia Beach’s water supply facilities and withdrawals of water, and not the ongoing operation of its licensee’s hydroelectric project; and that the water supply project would not cause any discharges through the hydroelectric dams.

The Court of Appeals affirmed that decision. Ironically, this time the Court began its analysis much as FERC had done before the remand, by “assum[ing] *arguendo*” that “the flow of water through the Power Project dam turbines is a ‘discharge’” within the meaning of the CWA. It held, however, that “neither the withdrawal of water from the Lake nor the reduction in the volume of water passing through the dam turbines ‘results in a discharge’ for purposes of Section 401(a)(1).” The Court explained that “the word ‘discharge’ contemplates the addition, not the withdrawal, of a substance or substances.... A decrease in the volume of water passing through the dam turbines cannot be considered a ‘discharge’ as that term is defined in the CWA.” *State of*

(footnote continued on next page)

In *PUD No. 1*, the U.S. Supreme Court extended States' Section 401 regulatory/veto powers to maintenance of the *quantity* of water in a stream, on the ground that stream flow reductions could violate a State's water quality standards by rendering the stream less useful for fish habitat, a "designated use" of that stream under the State's water quality standards. Previous decisions had confined Section 401 to regulation of discharges of pollutants or -- at most -- maintenance of traditional water *quality* parameters, *i.e.*, the "chemical, physical, and biological integrity" of the water (33 U.S.C. §§ 1251(a), 1314(a)(2)), as measured by the numerical criteria in the States' water quality standards promulgated under Section 303 of the CWA, 33 U.S.C. § 1313. *See, e.g., Power Authority of the State of New York v. Williams*, 60 N.Y. 315, 457 N.E.2d 726, 469 N.Y.S.2d 620 (1983). *See also Commonwealth of Pennsylvania v. City of Harrisburg*, 133 Pa. Cmwlth. 577, 578 A.2d 563 (1990). *PUD No. 1* thus adds another arrow to the quivers of opponents to public water supply projects; there are a variety of exceptions to this rule, but water generally cannot be withdrawn from either a reservoir or a free-flowing stream for municipal use without diminishing to some degree the quantity of water flowing in the stream.

Section 401(a)(2) provides that if the Administrator of the EPA determines that a discharge "may affect ... the quality of the waters of any other State" (*i.e.*, States downstream of proposed projects), he shall so notify the downstream State, the licensing or permitting agency, and the applicant. (In practice, of course, downstream States do not wait passively but lobby EPA to make such determinations.) The downstream State then has 60 days to notify EPA and the licensing or permitting agency that it has determined that the "discharge will affect the quality of its waters so as to violate any water quality requirement in such State," and that it objects to issuance of the license or permit and requests a public hearing on such objection. The licensing or permitting agency then must hold such a hearing and must "condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit." 33 U.S.C. § 1341(a)(2). *Cf. Arkansas v. Oklahoma*, 503 U.S. 91 (1992) (upholding an EPA requirement that an upstream pollution discharge comply with a downstream State's water quality standards).

Various state regulatory programs have grown up independently and around Section 401. In Virginia, for example, a state Water Protection Permit is required for surface water withdrawals and the State Permit "shall constitute the certification required under § 401 of the Clean Water Act." Va. Code § 62.1-44.15:5. The State Permit comes with its own set of agency regulations and enforcement powers not attached to a conventional 401 Certification.

- D.** Coastal States with federally-approved Coastal Zone Management Plans have the authority to review federal license or permit applications for consistency with those Plans, under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. § 1456(c)(3)(A). As

(footnote continued)

North Carolina v. FERC, 112 F.3d 1175, 1187-88 (D.C. Cir. 1997), *cert. denied*, 522 U.S. 1108 (1998) (citing *Save Our Community v. U.S. EPA*, 971 F.2d 1155, 1165 (5th Cir. 1992), which held (as restated in *North Carolina v. FERC*) "that removal of water from wetlands is not a 'discharge' for purposes of Section 404 of the CWA" (112 F.3d at 1188)).

discussed below, a State “consistency objection” functions as a veto of a federal license or permit application, subject to review by the U.S. Secretary of Commerce.

Section 307(c)(3)(A) of the CZMA provides:

After final approval ... of a state’s management program, any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state’s approved program

The meaning and interpretation of virtually every phrase in this passage, and of its syntax, are controversial. What is “a required Federal license or permit”? What are “enforceable policies”? What is the meaning of “affecting any land or water use or natural resource of the coastal zone”; is there a threshold of significance, or does any effect, no matter how minuscule, require a consistency certification? If the “affecting” test is met, does the Act require an applicant to certify that its “activity” complies with the enforceable policies of other States’ management plans?

If the State objects to the applicant’s consistency certification, the federal agency is disabled from approving the application unless the State’s objection is set aside on “appeal” to the U.S. Secretary of Commerce. The Secretary does *not* review a State’s consistency objection on the merits, to determine whether the State has accurately determined that the application is inconsistent with its Coastal Plan. The CZMA does not provide a federal remedy for an inaccurate or arbitrary objection; it only authorizes the Secretary to override an objection on the ground that the activity is “consistent with the objectives of this chapter or is otherwise necessary in the interest of national security” (*id.*), *despite* the State’s finding that the activity is inconsistent with its Coastal Plan. Any challenge to the State’s finding of inconsistency therefore must be taken to the State courts. *Cf., e.g., Roosevelt Campobello International Park Comm’n v. U.S. EPA*, 684 F.2d 1041, 1056 (1st Cir. 1982) (challenges to States’ decisions under Section 401 of the Clean Water Act may only be brought in State courts).

The terms “consistent with the objectives of this chapter” and “necessary in the interest of national security” are defined in Department of Commerce regulations at 15 C.F.R. §§ 930.121 and 930.122.

Whether the CZMA authorizes a State to review a project located in another State for consistency with its Coastal Plan, and to veto a federal permit for such a project if it finds an inconsistency with its plan, has been a controversial issue in several cases. The Corps of Engineers has consistently held that the CZMA does not authorize interstate consistency reviews and declined to recognize consistency objections from States other than the State where a proposed project is located. The U.S. Department of Commerce has taken the opposite view, except for a brief period in 1992 and 1993 when it deferred to the views of the U.S. Department of Justice. The Justice Department agreed with the Corps from 1989 to 1993, but in December 1993 it “withdrew” its prior opinions and announced that it no longer had any opinion in the matter. The issue has not yet been decided by any federal court. *See City of Virginia Beach, Virginia v. Brown*, 858 F. Supp. 585 (E.D. Va. 1994)

(dismissing a challenge to the Secretary of Commerce's recognition of North Carolina's consistency objection to Virginia Beach's Lake Gaston pipeline project, which is located entirely in Virginia, as moot, following the Secretary's decision sustaining Virginia Beach's appeal).

Secretaries of Commerce have issued lengthy, detailed opinions in several dozen CZMA appeals. Those decisions are not published. Copies are available, however, from the U.S. Department of Commerce.

- E. Section 9 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 401, requires a permit from the Corps of Engineers and approval from Congress (in the case of interstate waters) or the State legislature (for "rivers and other waterways the navigable portions of which lie wholly within the limits of a single State"), to construct "any . . . dam, or dike over or in any . . . navigable river, or other navigable water of the United States."

Corps regulations (33 C.F.R. § 321.2) define the key terms of Section 9.

A "dike or dam" is "any impoundment structure that completely spans a navigable water of the United States and that may obstruct interstate waterborne commerce."

The term *navigable waters of the United States* means those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce. (This is *not* the same definition, however, that applies under Section 404, discussed *supra*.)

- F. Other federal regulatory approvals may be required, depending on the circumstances. For example:
 - 1. Projects that involve water withdrawals from a hydropower project licensed by the Federal Energy Regulatory Commission will require FERC's approval. Depending on the terms of the existing license, a formal license amendment may or may not be required. *See generally Virginia Electric and Power Co.*, 68 F.E.R.C. ¶ 61,227 at 62,075 n.1 (1994) (FERC's authorization of a proposed public water supply project required amendment of a hydroelectric project license because "the application entails a substantial new use of project waters").

In some circumstances, developers of a water supply project may *choose* to include hydropower generation facilities, thus bringing the project under the Federal Power Act and requiring a FERC license. For example, the reservoir project applicant in *City of Fort Smith, Arkansas*, 44 F.E.R.C. ¶ 61,160 (1988), *affirmed*, *National Wildlife Federation v. FERC*, 912 F.2d 1471 (D.C. Cir. 1990), appears to have included hydropower generation facilities in its water supply project to obtain the federal power of eminent domain granted FERC licensees by the FPA, 16 U.S.C. § 814, to reach areas in another State, upstream of its dam, that would be flooded by its reservoir. *Compare Fairfax County Water Authority*, 54 F.E.R.C. ¶ 62,142 (1991), involving an after-the-fact issuance of a FERC license for a municipal water supply-hydropower project that began operation in 1973. The Water Authority

included hydropower generation facilities to meet a portion of its own need for electrical supply to the project, not to bring the project within FERC's jurisdiction.

2. The federal Migratory Bird Treaty Act, 16 U.S.C. § 703, makes it “unlawful at any time, by any means or in any manner, to ... take ... any migratory bird, [or] any ... nest, or egg of any such bird ...,” except under regulations made by the Secretary of the Interior. The regulations are published at 50 C.F.R. Parts 10, 13, and 21. The U.S. Fish and Wildlife Service (USFWS) has argued in some cases that destruction of nests or habitat is a “taking” within the meaning of the MBTA and requires a permit, but the courts so far have rejected that claim. *See Seattle Audubon Society v. Evans*, 952 F.2d 297 (9th Cir. 1991). *Compare* discussion of ESA Sections 9(a)(1) and 3(19), *infra*. In water supply projects, this issue could arise from land clearing or construction required for new impoundments or pipelines.
- G. The biggest (or at least the most expensive) “overlay” to the Section 404 permit process is the National Environmental Policy Act (NEPA). NEPA has enormous direct and indirect influence over the substantive and procedural course of federal agency actions under the statutes discussed above, and many others as well.

NEPA requires federal agencies to include environmental considerations in agency decisionmaking. To implement this mandate, it requires publication of environmental impact analyses for all “major Federal actions.” Such analyses may be provided either in an Environmental Impact Statement (EIS) or in an Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI).

An EIS is required for all “major Federal actions significantly affecting the quality of the human environment.” NEPA Section 102(2)(C), 42 U.S.C. § 4332(2)(C). An EIS consumes much more time and expense than an EA and FONSI, so permit applicants and federal agencies may prefer to avoid preparing a full EIS. Disputed cases usually turn on the question whether the action will have “significant” environmental effects, because the courts generally hold that federal regulatory permits are “major” federal actions. *See, e.g., River Road Alliance, Inc. v. Corps of Engineers*, 764 F.2d 445, 450 (7th Cir. 1985), *cert. denied*, 475 U.S. 1055 (1986); *North Carolina v. Hudson*, 665 F. Supp. 428, 438 & n.10 (E.D.N.C. 1987). *But see Macht v. Skinner*, 916 F.2d 13 (D.C. Cir. 1990); *Winnebago Tribe of Nebraska v. Ray*, 621 F.2d 269, 272-73 (8th Cir.), *cert. denied*, 449 U.S. 836 (1980); and *Save the Bay, Inc. v. U.S. Corps of Engineers*, 610 F.2d 322 (5th Cir.), *cert. denied*, 449 U.S. 900 (1980).

Federal agencies routinely require applicants to conduct the necessary environmental investigations and to submit Environmental Reports with permit applications; but the agencies remain responsible for compliance with NEPA, including the contents of the EIS or EA and FONSI. The requirement to prepare an EIS (or at least an EA) often means lengthy and expensive investigations, and seemingly interminable consultations

There is no possible substitute for employment of qualified environmental professionals for this work. In potentially controversial cases, experienced counsel who are familiar with federal permit requirements and judicial review also should participate in project development from the outset, to minimize the risk of costly missteps or oversights.

NEPA regulations promulgated by the President's Council on Environmental Quality (the CEQ) provide that agencies should prepare EA's to assist in making the decision whether to prepare an EIS and to aid in compliance with NEPA if an EIS is not required. *See* 40 C.F.R. §§ 1501.4(b) - (e), 1508.9. As a practical matter, in most cases the agency makes an initial decision whether to prepare an EIS or only an EA and FONSI, and proceeds accordingly, subject to being persuaded otherwise in notice and comment proceedings.

Whether an agency elects to prepare an EIS or an EA and FONSI, it normally circulates a draft document for review and comments from the public and other federal and state agencies. (Circulation of Draft EIS's is required by the CEQ's NEPA regulations; circulation of draft EA's and FONSI's is optional.)

Each federal agency has its own NEPA regulations, and all are bound by the CEQ's NEPA regulations, which are published at 40 C.F.R. Parts 1500-1508.

Where possible, applicants should make use of "lead agency" agreements among agencies by filing simultaneous applications. *See generally* 40 C.F.R. § 1501.5.

NEPA is a procedural statute; it does not command substantive outcomes. If the agency follows the necessary procedures and considers environmental factors, NEPA does not require the most "environmentally sound" outcome if other factors support a different action. *E.g.*, *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223 (1980).

- H.** Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, requires each federal agency, in consultation with either the Department of the Interior (USFWS) or the Department of Commerce (the National Marine Fisheries Service (NMFS)) (depending on which of the Services has jurisdiction of the species at issue), to "insure that any action authorized . . . by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of a designated "critical habitat" of such a species. That prohibition creates a potential environmental "fatal flaw" applicable to even the most necessary public projects. *See TVA v. Hill*, 437 U.S. 153 (1978) (the "snail darter case"). The Supreme Court held in *Hill* that Section 7 "admits of no exceptions" and that "Congress intended endangered species to be afforded the highest of priorities" and "to halt and reverse the trend toward species extinction, whatever the cost," *id.* at 173, 174, 184; and it affirmed an injunction against impoundment of a reservoir project that already had been virtually completed at a cost of more than \$100 million. (Section 7 was amended in 1978 to create an administrative exemption procedure, available only in limited circumstances. *See* 16 U.S.C. § 1536(h).)

Section 9(a)(1) of the ESA, 16 U.S.C. § 1538(a)(1), makes it unlawful for "any person subject to the jurisdiction of the United States" to "take" any endangered species, and Section 3(19) of the ESA, 16 U.S.C. § 1532(19), defines "take" as including, *inter alia*, "harm." An Interior Department regulation in turn defines "harm" as "an act which actually kills or injures wildlife," *including* "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3. The U.S. Supreme Court upheld that regulation as a permissible interpretation of the Act in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687 (1995).

Under the Interior Department regulation upheld in *Sweet Home*, the prohibitions of Section 9 go much further than the prohibitions of Section 7. Section 7 acts only on federal agencies, and it is limited to threats to the continued existence of an entire species and destruction or damage to designated “critical habitat”; but Section 9(a)(1) reaches any act by any person that “actually kills or injures” any individual member of a protected species, including acts that affect such individuals indirectly through “habitat modification or degradation.” Violations of Section 9 also subject the violator to civil and even criminal penalties (for “knowin[g]” violations), under 16 U.S.C. § 1540(a) and (b).

Despite the extensive reach of Section 9 and the severe consequences of violations, the ESA more frequently affects federally permitted projects through the Section 7 consultation process.

USFWS and NMFS (alternatively or collectively, the “Service(s)” or the “consulting agencies”) have promulgated detailed regulations implementing the consultation requirements of Section 7. *See* 50 C.F.R. Part 402. Endangered and threatened species are listed in 50 C.F.R. §§ 17.11, 17.12, 222.23(a), and 227.4. Critical habitats are listed in 50 C.F.R. §§ 17.95 and 17.96 and 50 C.F.R. Part 226.

The ESA regulations require formal consultation between federal permitting agencies and either USFWS or NMFS with respect to “any action [that] *may affect* listed species or critical habitat.” 50 C.F.R. § 402.14(a) (emphasis added). In cases that involve “major construction activities” in areas where listed species or critical habitat “may be present,” either the federal action agency or an applicant for a federal permit or license must prepare a “biological assessment” prior to the initiation of formal consultation. *See* 50 C.F.R. §§ 402.12, 402.14(c). (The term “major construction activities” is defined by reference to NEPA and means activities that require preparation of an EIS. *See* 50 C.F.R. § 402.02 and NEPA discussion *supra*.)

A biological assessment is designed to evaluate the potential effects of a proposed action and to determine whether any species that are listed or proposed for listing as endangered or threatened are “likely to be adversely affected by the action.” 50 C.F.R. § 402.12(a). The contents of a biological assessment “are at the discretion of the Federal [permitting] agency.” *Id.*, subsection (f). That regulation lists several items that “may be considered for inclusion,” however, including the results of an on-site inspection and/or a literature review, the views of recognized experts on the species, an analysis of the effects of the proposed action (including “cumulative” effects), and an analysis of alternatives to the proposed action. *Id.*

After completion of the biological assessment, and in all cases involving proposals that may affect a listed species, the permitting agency should initiate formal consultation under 50 C.F.R. § 402.14. Formal consultation is not required, however, if the results of the biological assessment (for “major construction activities”) or informal consultation indicate, and the Service agrees, “that the proposed action is not likely to adversely affect any listed species or critical habitat.” *Id.*, subsection (b).

Formal consultation has a 90-day time limit. That limit can be extended by mutual agreement of the permitting and consulting agencies, but an applicant can veto any extension that exceeds 60 days. *Id.*, subsection (e).

Within 45 days after the end of formal consultation, the Service must provide its “biological opinion” to the permitting agency and the applicant. The biological opinion is a critical step in

the consultation process, because it must provide “[t]he Service’s opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat.” *Id.*, subsection (h). A “jeopardy opinion” also must describe “reasonable and prudent alternatives, if any.” *Id.*

“Formal consultation is terminated with the issuance of the biological opinion,” *id.*, subsection (l), and further action is the responsibility of the permitting agency. “Following the issuance of a biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service’s biological opinion.”

A jeopardy opinion is not binding on another federal agency, which may reject the Service’s views and conclude that its action is not likely to jeopardize the continued existence of a listed species or damage any critical habitat. Courts do review such agency decisions closely, under the “arbitrary [or] capricious” standard of review, however, to effectuate the requirements of the ESA. *See Roosevelt Campobello International Park Comm’n v. U.S. EPA*, 684 F.2d 1041, 1049-55 (1st Cir. 1982) (upholding permitting agency’s authority to determine, contrary to NMFS biological opinion, that it had taken all necessary action to ensure that its action would not jeopardize the continued existence of a listed species, but vacating and remanding for failure to “use the best scientific . . . data available,” as required by Section 7); *Sierra Club v. Froehlke*, 534 F.2d 1289, 1303-05 (8th Cir. 1976) (holding that “[c]onsultation under Section 7 does not require acquiescence” and affirming Corps’ decision that a reservoir project would not jeopardize the continued existence of a listed species); *National Wildlife Federation v. Coleman*, 529 F.2d 359, 371-75 (5th Cir.), *cert. denied*, 429 U.S. 979 (1976) (holding that “Section 7 does not give the Department of the Interior a veto over the actions of other federal agencies” but that the Department of Transportation had “failed to take the necessary steps ‘to insure’” that a highway would not jeopardize a listed species or modify its habitat). *Cf. Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987) (reviewing Corps of Engineers’ refusal of USFWS’ request to “reinitiate the consultation process” for arbitrariness).

Federal permitting agencies have always been reluctant to reject USFWS or NMFS jeopardy opinions, because a project’s opponents always have the option of presenting that action to a federal court as evidence of agency arbitrariness. The existence of several reported decisions involving action agencies’ rejections of jeopardy opinions may indicate that other agencies are willing to exercise their own fact-finding abilities and expertise to leaven some of the excesses that occasionally are exhibited by the USFWS and NMFS. The U.S. Supreme Court’s decision in *Bennett v. Spear*, 520 U.S. 154 (1997), however, may lead them to re-evaluate the wisdom of doing so.

Bennett involved a Federal Bureau of Reclamation irrigation project. In 1992, the Bureau notified the USFWS that continued operation of the project might jeopardize two listed species of endangered fish. The USFWS investigated and issued a Biological Opinion which concluding that continued operation of the project would likely jeopardize the fish. It also recommended alternative means of operation, including maintenance of minimum water levels in the reservoirs, which would avoid such “jeopardy.” The Bureau agreed to adopt the recommended operational procedures. Several users of irrigation water from the project then filed suit challenging the Biological Opinion because its recommendations would reduce the amount of water available to them, but they did not challenge the Bureau’s decision to adopt that recommendation.

The Government argued that the petitioners lacked standing because any injury they suffered was not fairly traceable to the Biological Opinion, “because the ‘action agency’ (the Bureau) retains ultimate responsibility for determining whether and how a proposed action shall go forward.” The Court acknowledged its rule that standing will not rest on an injury which is “‘th[e] result [of] the *independent* action of some third party not before the Court’ ” (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992); emphasis added in *Bennett*), but it explained that the rule “does not exclude injury produced by determinative or coercive effect upon the action of someone else.” 117 S. Ct. at 1164, 137 L.Ed.2d at 299. It found that the Bureau was only “technically free” to disregard the Biological Opinion, because the law imposed a “substantial risk” on the Bureau and its employees if it disregarded a Biological Opinion and caused the endangered species to be harmed, including the possibility of substantial civil and criminal penalties and imprisonment. Because the Biological Opinion was “virtually determinative” of the Bureau’s decision to change its method of operation, the Court held that the petitioners had Article III standing to challenge the Opinion. 117 S. Ct. at 1165, 137 L.Ed.2d at 300. The Court’s apparent desire in that case to allow the plaintiffs to challenge the source of their misfortune may work a substantial -- and, arguably, undesirable -- shift in agency powers under the ESA.

The ESA may be enforced by citizen suits “to enjoin any person, including the United States and any other governmental instrumentality or agency (to the extent permitted by the eleventh amendment to the Constitution)” from violating its requirements or prohibitions. 16 U.S.C. § 1540(g). See, e.g., *TVA v. Hill*, *supra*. See also *Bennett v. Spear*, *supra*, which reversed a Ninth Circuit ruling that “only plaintiffs who allege an interest in the preservation of endangered species fall within the zone of interests protected by the ESA” (*Bennett v. Plenert*, 63 F. 3d 915, 919 (9th Cir. 1995), and held that § 1540(g) applies to plaintiffs who “are seeking to prevent application of environmental restrictions rather than to implement them.... [T]he ‘any person’ formulation applies to all the causes of action authorized by § 1540(g) -- not only to actions against private violators of environmental restrictions, and not only to actions against the Secretary asserting underenforcement under § 1533, but also to actions against the Secretary asserting overenforcement under § 1533.”

- I. Section 2 of the Fish and Wildlife Coordination Act (FWCA), 16 U.S.C. § 662, speaks directly, by its title, to “Impounding, diverting, or controlling of waters.” When any “body of water” is proposed to be “controlled or modified for any purpose whatever, including navigation and drainage,” the proposing or permitting federal agency must consult with the USFWS and the state wildlife resources agency, with a view to the conservation, development and improvement of wildlife resources. *Id.*, subsection (a).

Subsection (b) requires other Federal agencies to give “full consideration” to the views of the Interior Department (*i.e.*, USFWS) and state fish and wildlife resource agencies. Subsection (b) has been construed as limited, at least in part, to federal construction projects (*Sierra Club v. Sigler*, 532 F. Supp. 1222, 1242-43 (S.D. Tex. 1982), *reversed in part on other grounds*, 695 F.2d 957 (5th Cir. 1983)), but the Corps’ regulations similarly require “full consideration to the views of those agencies on fish and wildlife matters in deciding on the issuance, denial, or conditioning of individual or general permits.” 33 C.F.R. § 320.4(c).

“[F]ull consideration,” however, does not mean slavish adherence, and fish and wildlife agencies do not have the power to compel the Corps to deny a permit. See, e.g., *Sierra Club v. Callaway*, 499 F.2d 982, 993 (5th Cir. 1974) (rebuking district court for holding, under NEPA,

that the Corps normally must “defer” to project evaluations provided by commenting agencies with special expertise and holding that such agencies are not “vested with authority to veto the evaluation of the Corps”); *North Carolina v. Hudson*, 731 F. Supp. 1261, 1269 (E.D.N.C. 1990), *aff’d*, *Roanoke River Basin Association v. Hudson*, 940 F.2d 58 (4th Cir. 1991), *cert. denied*, 502 U.S. 1092 (1992). Compare *North Carolina v. Hudson*, 665 F. Supp. 428, 438 & n.10 (E.D.N.C. 1987) (vacating Corps’ initial decision because it “did not adequately respond” to comments of USFWS and NMFS).

- J.** The concept of “Environmental Justice” is increasingly important to the federal government, and it provides another weapon that can be used to fight a project. President Clinton’s Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7,629 (Feb. 16, 1994), orders each Federal agency, “[t]o the greatest extent practicable and permitted by law, ... [to] make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.” Although designed primarily to address the cumulative effects of intensive, usually industrial activities in disadvantaged urban areas, environmental justice also has power to bring federal regulators to the aid of minority groups who claim disproportionate harms from rural activities, such as new public water supply projects.
- K.** Section 10(j) of the Federal Power Act, 16 U.S.C. § 803(j), requires FERC to give special deference to recommendations of state and federal fish and wildlife agencies. (Section 10(j) was enacted in 1986, in response to complaints of various environmental advocacy groups and perceptions of some Members of Congress that FERC was insufficiently attentive to environmental needs.) FERC has held, however, that amendment of an existing hydroelectric license to accommodate a new public water supply project “is not a ‘licensing action’ subject to those parts of the FPA, such as section 10(j), that apply at licensing,” at least as long as the changes do not “authoriz[e] a significant new project work, such as a new turbine/generator, an increase in the height of the project dam, or the like.” *Virginia Electric and Power Co.*, 72 F.E.R.C. ¶ 61,075 at 61,399 & n. 41 (1995).
- L.** Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f, requires federal agencies to “take into account the effect” of federal licenses “on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register” of Historic Places, which is created under Section 101 of the Act, 16 U.S.C. § 470a. Typically, this requires an applicant to provide at least a “Phase I” archaeological survey in connection with a Section 404 or other permit application. In cases of “adverse effect” on historic resources, negotiations normally ensue with the federal agency, the State Historic Preservation Officer (SHPO), and other interested parties, with the goal of entering into a Memorandum of Agreement (a Section 106 MOA) specifying the appropriate treatment of such resources. Section 106 is an important “checkoff,” but it normally is not a veto. Regulations under Section 106 are published at 36 C.F.R. Part 800.
- M.** Judicial review of federal permit actions normally is conducted on the agency’s administrative record, under 5 U.S.C. § 706 (the Administrative Process Act). See, e.g., *Buttrey v. United States*, 690 F.2d 1170, 1184 (5th Cir. 1982), *cert. denied*, 461 U.S. 927 (1983). Some courts appear almost routinely to admit evidence outside administrative records in NEPA actions, however; and others will do so if special circumstances are demonstrated (such as a need to

explain technical evidence in the record, or to demonstrate that the agency failed to address or investigate a relevant issue). *See, e.g., Asarco, Inc. v. U.S. EPA*, 616 F.2d 1153, 1158-61 (9th Cir. 1980); *County of Suffolk v. Secretary of the Interior*, 562 F.2d 1368, 1384-85 (2d Cir. 1977), *cert. denied*, 434 U.S. 1064 (1978).

On review, an agency's decision to proceed without an EIS and/or to issue a license or permit, and its conditions, will be sustained unless it is shown to be arbitrary or capricious. *See, e.g., Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989).

III. State permit systems

Time does not allow a thorough exploration of the variety of State regulatory permitting systems, even in the East; and it may fairly be said that there is no such thing as a typical statute of this nature. Each is unique. Professor Joseph W. Dellapenna has identified water withdrawal permit statutes in the "riparian" states of Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Hawaii, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Mississippi, New Jersey, New York, North Carolina, Virginia, and Wisconsin. *See Dellapenna, The Law of Water Allocation in the Southeastern States at the Opening of the Twenty-First Century*, 25 U. Ark. Little Rock L. Rev. 9, 32 & nn. 113-130 (2002), citing Ala. Code §§ 9-10B-1 to -30 (LEXIS Repl. 2001); Ark. Code Ann. §§ 15-22-201 to -622 (LEXIS Repl. 2000); Conn. Gen. Stat. §§ 22a-365 to -380 (1995); Del. Code Ann. tit. 7, §§ 6001 - 6031 (Michie Repl. 2001); Fla. Stat. Ann. §§ 373.012 to .619 (West 2000 & Supp. 2001); Ga. Code Ann. §§ 12-5-20 to -31, 12-5-43 to -53 (LEXIS 2001); Haw. Rev. Stat. §§ 174C-1 to -101 (Repl. 1993 & Supp. 2001); Iowa Code Ann. §§ 455B.261 to .281 (West 1997 & Supp. 2002); Ky. Rev. Stat. Ann. §§ 151.010 to .600, 151.990 (LEXIS Repl. 2001); Md. Code Ann., Envir. §§ 5-501 to -514 (Michie Repl. 1996); Mass. Gen. Laws ch. 21G, §§ 1 - 19 (1994); Minn. Stat. Ann. §§ 103G.001 to .315 (West 1997); Miss. Code Ann. §§ 51-3-1 to -55 (1999); N.J. Stat. Ann. §§ 58:1A-1 to -17 (West 1992); N.Y. Envtl. Conserv. Law §§ 15-1501 to -1529 (McKinney 1997); N.C. Gen. Stat. §§ 143-215.11 to .22K (2001); Va. Code Ann. §§ 62.1-242 to -253 (Michie Repl. 2001); and Wis. Stat. §§ 30.18, 30.28, 30.292 to .298, 281.35 (1999-2000). *See also* Mass. Gen. Laws ch. 21, §§ 8B - 8D (interbasin transfers); Ohio Rev. Code Ann. §§ 1501-30 to -35; 32 Pa. Stat. §§ 631 - 641; Tenn. Code Ann. §§ 69-8-201 to -212 (inter-basin transfers); Va. Code §§ 62.1-44.5, 62.1-44.15:5. *Cf.* Mo. Rev. Stat. §§ 256.400 to .430 (required registration, but no permit requirement). Professor Dellapenna also identifies several states that "have applied a regulated riparian system to groundwater without applying it to surface waters," including Illinois, Indiana, and South Carolina. 25 U. Ark. Little Rock L. Rev. at 32 & n.131, citing 525 Ill. Comp. Stat. Ann. §§ 45/1 to 45/7 (West 1993 & Supp. 2002); Ind. Code §§ 14-25-4-1 to -21 (1998); S.C. Code Ann. §§ 49-5-10 to -150 (Law. Co-op. 1987 & West Supp. 2001). *See also* La. Rev. Stat. Ann. §§ 38:3076, 38:3099.1 to .4.

The above paragraph may or may not include a comprehensive listing of water withdrawal permit statutes in riparian law jurisdictions, but it certainly is not a complete list of statutes that affect or influence water withdrawal permit decisions. *See, e.g.,* Del. Code Ann. tit. 7, §§ 7001 - 7013 (Coastal Zone Act), 7201 - 7217 (subaqueous lands). Various policy statutes, in particular -- both general (environmental policy) and specific (water resources policy) -- influence permit decisions. Numerous States have recognized, by statute or otherwise, that human consumption is the highest and best use of water, to be preferred in cases of irreconcilable conflict. *See, e.g.,* Va. Code §§ 62.1-10 ("Public water supply uses for human consumption shall be considered the highest priority"), 62.1-11, 62.1-44.36; Ky. Rev. Stat. Ann. § 151.210(1) ("Any owner of land

contiguous to public water shall at all times have the right to the use of water therefrom to satisfy his needs for domestic purposes, which shall include water for household purposes, drinking water for poultry, livestock and domestic animals. The use of water for such domestic purposes shall have priority and be superior to any and all other uses”); *Waterford v. Water Pollution Control Board*, 5 N.Y.2d 171, 175, 156 N.E.2d 427, 428, 182 N.Y.S.2d 785, 787 (1959) (discussing Water Pollution Control Board regulation). *Accord, e.g., Connecticut v. Massachusetts*, 282 U.S. 660, 673 (1931) (“Drinking and other domestic purposes are the highest uses of water. An ample supply of wholesome water is essential”); *Colorado v. New Mexico* (I), 459 U.S. at 193-94 (O’Connor, J., concurring in the judgment). *Cf.* Md. Code Ann., Environment § 5-502(d) (domestic and municipal uses for sanitation, drinking water, and public health and safety given priority during water supply emergencies); Iowa Code § 455B.266 (similar but more elaborate assignment of priorities during shortages). Probably the strongest legislative declaration of priority for human consumption is found in Code of Ala. § 9-10B-2(2), which provides that “[t]he use of waters of the state for human consumption is recognized as a priority use of the state and it is the intent of this chapter that no limitation upon the use of water for human consumption shall be imposed except in emergency situations after the Office of Water Resources has considered all feasible alternatives to such limitations.” *See also id.*, § 9-10B-2(6): “[n]o person’s beneficial use of the quantitative waters of the state shall be restricted ... except where such beneficial use is within an area of the state designated as a capacity stress area pursuant to this chapter.”

A rare example of a recent case applying common law riparian rights doctrine, but nevertheless grounded more deeply in modern statutory programs, is found in *City of Waterbury v. Town of Washington*, 260 Conn. 506, 800 A.2d 1102 (2002). The *Waterbury* case involved the City’s use of the Shepaug River as a public water supply source; the trial and appellate courts described the case as “pit[ting] those that view the Shepaug River as an ‘abundant and low cost supply of potable water’ against those who wish to maintain ‘the natural condition of a beautiful and nearly pristine river’” 260 Conn. at 512, 800 A.2d at 1111 (quoting opinion below). Waterbury has drawn water from Shepaug since approximately 1917. It completed the Shepaug Dam and Reservoir in 1933. *Id.* at 513, 514, 800 A.2d at 1112. The controversy behind the *Waterbury* decision arose after Waterbury changed its system operations following completion of a treatment plant in 1988. The system description is complicated and need not be detailed here; the key fact is that after 1988 the Shepaug River became the City’s preferred source, to avoid the costs of pumping water from its other existing sources. *See id.* at 516-17, 589 & n.46, 800 A.2d at 1113-14, 1154 & n.46.

Waterbury sought a judgment declaring, *inter alia*, that it had not unreasonably polluted, impaired or destroyed the public trust, contrary to Conn. Gen. Stat. §§ 22a-16 (see below), and that it had not created a public or private nuisance or violated any existing riparian rights. The Town of Washington and other critics of its system counterclaimed for a declaratory judgment and injunctive relief, asserting claims that (in relevant part) were essentially mirror images of the City’s declaratory judgment claims. The trial court found that Waterbury was in violation of the Connecticut Environmental Protection Act (CEPA), Conn. Gen. Stat. §§ 22a-14 - 22a-20, and “entered an elaborate order for injunctive relief.” 260 Conn. at 519, 800 A.2d at 1115.

On appeal, the Connecticut Supreme Court agreed that the Shepaug River was impaired by operation of the Shepaug Dam but not that the impairment was unreasonable. “[T]he meaning of the concept of impairment of a watercourse should be judged in relation to its natural flow rate,” said the Court; “the legislation has implicitly acknowledged that any diminution of natural flow has environmental consequences.” *Id.* at 548, 800 A.2d at 1131. Whether impairment is unreasonable

is a far more complex question, however; and *Waterbury* appears at most to address that issue in the context of a resource whose condition or utilization is addressed by a separate statutory or regulatory scheme.¹⁰ “[W]hen the legislature has enacted an environmental legislative and regulatory scheme specifically designed to govern the particular conduct . . . , that scheme gives substantive content to the meaning of the word ‘unreasonable’ as used in the context of an independent action under CEPA.” *Id.* at 557, 800 A.2d at 1137. Because the Shepaug River is a “stocked river” at some points -- though not necessarily in the reach affected by *Waterbury*’s water system -- the test of reasonableness under the CEPA is provided by a separate statute and regulations governing minimum flows in such streams, *i.e.*, Conn. Gen. Stat. § 26-141a. (Section 26-141a authorizes the Commissioner of Environmental Protection to promulgate “regulations setting forth standards concerning the flow” of water in streams stocked with fish by the Commissioner whenever a “dam or other structure . . . impounds, or diverts, the waters of” such a stream. *See* Regulations of Connecticut State Agencies §§ 26-141a-1 - 26-141a-8.) That holding required a remand for a new trial, and potentially -- as a matter of trial court discretion -- a “remand” to the Department of Environmental Protection.

The Court also commented -- apparently as a matter of first impression, but without elaboration -- that enactment of the Connecticut Water Diversion Policy Act, Conn. Gen. Stat. §§ 22a-365, *et seq.* (cited above, in the first paragraph of this section III), “transformed the state into a ‘regulated riparian’ jurisdiction.” 260 Conn. at 580 n.44, 800 A.2d at 1149 n.44. *See also id.* at 590, 800 A.2d at 1155 (citing, *inter alia*, J. Dellapenna, 1 *Waters and Water Rights* (R. Beck ed., 1991) § 9.03(b)(1)): “The major change effectuated by this transition is that, now, a state agency will determine, in advance, what diversions are allowed and to what extent, rather than having trial courts apply common-law riparian rights principles and resolve disputes through litigation.” *Waterbury* did not rely on Water Diversion Policy Act on appeal; but the Court nevertheless held that “[i]n light of [its] conclusion that whether a watercourse has been unreasonably impaired may depend on the relevant regulatory scheme established by the legislature, at the new trial it will be incumbent upon the trial court to examine the entire statutory scheme affecting the alleged impairment. Therefore, the court also should address the effect of the diversion act on the CEPA claim.” 260 Conn. at 572 n.41, 800 A.2d at 1145 n.41.

The Court then turned to *Waterbury*’s claim that it had established a prescriptive easement to use the waters of the Shepaug River sufficient to defeat the downstream defendants’ claims for violation of riparian rights. The Court agreed with *Waterbury* that it had obtained a prescriptive easement: under the natural flow theory of riparian rights, in effect in Connecticut until abrogated by enactment of the Water Diversion Policy Act, erection of the Shepaug Dam “satisfied the open and visible requirement” as a matter of law, even if (as the trial court found) operation of the dam was not “‘open and visible as a cause of low flow.’” *Id.* at 583, 577-78 (quoting opinion below), 800 A.2d at 1151, 1148. The extent of *Waterbury*’s easement, however, remained open for determination on remand. The extent of a prescriptive easement is “‘limited by the previous enjoyment.’” *Id.* at 585, 800 A.2d at 1152, quoting *S.O. & C. Co. v. Ansonia Water Co.*, 83

¹⁰ The Court first examined and rejected the trial court’s holding that “unreasonable” means only “more than de minimis, or not ‘so negligible that [it] would be asserted only for reasons of spite or for harassment.’” *Id.* at 549, 800 A.2d at 1132 (citing *Manchester Environmental Coalition v. Stockton*, 184 Conn. 51, 57-60, 441 A.2d 68 (1981)). *See* 260 Conn. at 549-56, 800 A.2d at 1131-35.

Conn. 611, 627, 78 A. 432, 437 (1910). Under the circumstances, Waterbury's easement could not exceed the level of use permitted by an 1893 statute and a 1921 agreement with the Town of Washington, "because that level of use corresponds to its use under its claim of right; but ... [it] may be less ... if Waterbury's actual use for the period of adverse use was less than that level." *Id.* at 585, 800 A.2d at 1152. Prescription could not protect increased uses after completion of Waterbury's treatment plant in 1988, however, because the defendants sued to vindicate their riparian rights within the statutory 15-year prescriptive period following the change in operations. *Id.* at 589 n.47, 800 A.2d at 1154 n.47.¹¹

IV. Typical environmental issues and permit conditions

A. Selection of the least environmentally damaging practicable alternative.

EPA's Section 404(b)(1) Guidelines provide that "no discharge ... shall be permitted if there is a practicable alternative ... which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 C.F.R. § 230.10(a).

Opponents of water supply projects invariably argue to the Corps, EPA, and other federal and state agencies, and in proceedings for judicial review of a permit decision, that the applicant and the permitting agency have refused to select the best available alternative. It is not difficult for a creative mind to think of alternative water sources, located in "somebody else's back yard," that at least arguably are superior in some respects to the selected project. A project sponsor's only remedy is to engage in a thorough, objective selection process from the outset, including potential opponents to the extent they are willing to participate, and then to be prepared to defend the choice of alternatives through lengthy (and expensive) administrative and judicial reviews.

In recent years, public water supply project opponents have argued ever more strenuously that growing areas really do not need additional water supplies at all, but merely to conserve and share existing supplies; and that if additional water supplies are needed, they can be obtained from "innovative" approaches such as wastewater reuse or desalination of seawater or brackish groundwater. In this author's experience, at least, federal agencies generally are sympathetic to such arguments but realistic enough not to embrace their more extreme manifestations. Well in advance of seeking federal permits for a new public water supply project, therefore, sponsors would be well advised to begin incorporating aggressive water conservation measures into their daily operations and long-term plans and to investigate the feasibility of making non-potable uses (such as irrigation, power plant cooling, and other industrial processes) of recycled wastewater. Federal and State resource agencies, seeking to minimize the wetlands and stream flow impacts of new water supply projects, almost invariably demand that project sponsors

¹¹ The governing statute is Conn. Gen. Stat. § 47-37, which requires only that the prescriptive use be "continued uninterrupted for fifteen years." As discussed in *Waterbury*, however, judicial accretions to the statute require that the prescriptive use also be open, visible, and made under a claim of right throughout that period. *See* 260 Conn. at 576-77, 800 A.2d at 1148.

minimize their customers' water demands by such measures; and sponsors may be able to develop a degree of trust from the agencies by taking the initiative in those and other areas.

- B.** Wetlands destruction or alteration. We know today that wetlands serve a variety of important biological functions, and preservation of wetlands is a high priority of the Section 404 Permit system. *See, e.g.*, 40 C.F.R. § 230.41. Few substantial water supply reservoirs can be built and filled without substantial wetlands impacts, but the extent of the impacts varies with the terrain. Reservoir sites in deep, steep-sided streams or ravines usually yield a substantially greater ratio of storage to wetlands than do sites in broad river valleys. The magnitude of wetlands impacts invariably will be a major factor in selecting a preferred alternative and running the gauntlet of regulatory approvals.
- C.** Stream flow - impacts on water quality. Industrial and municipal wastewater treatment plants depend on river flows for assimilation of their discharges. Discharge limits in NPDES (pollution control) permits typically are keyed to the minimum regulated flow, in regulated river systems; or to the 7Q10 (the lowest seven-day average river flow that statistically is expected to occur in any ten years), in unregulated streams. Permits for new dams and reservoirs invariably require specified instantaneous minimum releases to protect water quality and promote waste assimilation. (Minimum release requirements normally are higher in the summertime, because warmer water holds less dissolved oxygen.) Substantial reductions in regulated minimum flows or in the 7Q10 may lead to violation of water quality standards and restrictions on existing discharges, or to restrictions on water withdrawals during low flow conditions. Even minor reductions in *average* flows, which do *not* reduce regulated minimums or 7Q10's, can be highly controversial. *See, e.g., North Carolina v. Hudson*, 665 F. Supp. 428, 438-40 (E.D.N.C. 1987) (up to 1.2% reduction in average flow; no impact on minimum flows).
- D.** Stream flow - impacts on fisheries, fish spawning, etc. Permits for reservoir projects typically impose higher minimum stream flow requirements in the spring, when fish use the water below the reservoir for spawning. This has been a major issue in numerous water projects. *See, e.g., id.*; and *North Carolina v. Hudson*, 731 F. Supp. 1261 (E.D.N.C. 1990), *aff'd*, *Roanoke River Basin Association v. Hudson*, 940 F.2d 58 (4th Cir. 1991), *cert. denied*, 502 U.S. 1092 (1992) (impacts of public water supply withdrawals on reservoir releases provided for striped bass spawning). *See also PUD No. 1, supra*, 114 S.Ct. 1900, 128 L.Ed.2d 716 (allowing State regulation of minimum stream flows, to protect fish habitat, under Section 401 of the Clean Water Act).
- E.** Minimum instream flow (MIF) conditions, varying seasonally and especially during fish spawning seasons. This topic generally is discussed above. A recent trend in project permitting is to require that all withdrawals must cease when stream flows fall below a specified threshold, such as 30% of the annual average flow. That can be an expensive condition for industrial users, and it could be disastrous for a public water supply. The more stringent the MIF requirements, the greater will be the need for reservoir storage to maintain public water supplies during severe droughts -- and the greater will be the resulting impacts on wetlands at the reservoir site. The process easily can become a whipsaw, with the project sponsor torn between advocates of wetlands preservation and advocates of stream flow protection; and the two camps are likely to join in arguing that the project should not be built at all.
- F.** Cumulative impacts. The CEQ's NEPA regulations require permitting agencies, in deciding whether a proposed action would "significantly" impact the environment and therefore requires

an EIS, to determine “[w]hether the action is *related to* other actions with individually insignificant but cumulatively significant impacts” and explains that “significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” 40 C.F.R. § 1508.27(b)(7) (emphasis added). That is an “anti-piecemealing” regulation, and it has been interpreted in that fashion in several judicial decisions. *See, e.g., Webb v. Gorsuch*, 699 F.2d 157, 161 (4th Cir. 1983) (“Generally, an administrative agency need consider the impact of other proposed projects when developing an EIS for a pending project only if the projects are so interdependent that it would be unwise or irrational to complete one without the others”). *See generally Kleppe v. Sierra Club*, 427 U.S. 390, 408-14 (1976); *Trout Unlimited v. Morton*, 509 F.2d 1276, 1285 (9th Cir. 1974). Invariably, however, project opponents cite the *definition* of “cumulative impacts,” in 40 C.F.R. § 1508.7 (“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions”), as imposing a substantive obligation to consider the impacts of other, *unrelated* future actions. That argument appears valid when an agency is determining the *scope* of an EIS (*see* 40 C.F.R. § 1508.25(c)), but Section 1508.27 demonstrates that it is not valid when the issue is *whether to prepare* an EIS.

- G. Compensatory conservation. An alternative to a stringent MIF regime, which may be more palatable to a public water supply provider, is to require increasing levels of conservation measures based on declining levels of stream flow.

H. Mitigation

- 1. Wetlands mitigation - sequencing: avoid, then minimize, then compensate.

Under a Memorandum of Agreement between EPA and the Corps of Engineers (published at 55 Fed. Reg. 9210, March 12, 1990), one of the highest priorities in evaluation of alternatives is to choose the one that avoids wetlands impacts to the maximum extent practicable. “Compensatory mitigation may not be used as a method to reduce environmental impacts in the evaluation of the least environmentally damaging practicable alternatives for the purposes of requirements under [40 C.F.R.] Section 230.10(a).” *Id.*

After the least damaging alternative is chosen, “appropriate and practicable steps to minimize the adverse impacts will be required through project modifications and permit conditions.” *Id.*

Finally, “Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required.” *Id.*

- 2. Compensatory mitigation - wetlands restoration or “creation.”

The EPA-Corps Memorandum of Agreement goes on to provide that: “Compensatory actions (*e.g.*, restoration of existing degraded wetlands or creation of man-made wetlands) should be undertaken, when practicable, in areas adjacent or contiguous to the discharge site (on-site compensatory mitigation). If on-site compensatory mitigation is not practicable, off-site compensatory mitigation should be undertaken in

the same geographic area if practicable Simple purchase or ‘preservation’ of existing wetlands resources may in only exceptional circumstances be accepted as compensatory mitigation.”

3. Provision of reservoir storage to maintain minimum streamflows/optimum flows for fish spawning. See *North Carolina v. Hudson*, 731 F. Supp. 1261, 1265-66 & 1271-72 (E.D.N.C. 1990), *aff’d*, *Roanoke River Basin Association v. Hudson*, 940 F.2d 58, 62-64 (4th Cir. 1991), *cert. denied*, 502 U.S. 1092 (1992).

These issues largely come down to recognition of the fact that there are competing uses of river flows, wetlands, and other resources. This competition generally is most acute under drought conditions, when limited availability of instream water supplies typically coincides with peak public water supply demands.

Competing uses of river flows include both instream uses (including human uses, such as hydropower generation, waste assimilation, and recreation, as well as “natural” or biological uses such as fish habitat) and offstream uses (human consumption, manufacturing, agricultural irrigation, etc.).

The goal obviously should be to recognize, reconcile and accommodate all legitimate interests to the maximum extent possible. That goal often is highly difficult to achieve in the “real world,” where advocates of competing interests tend to emphasize their own goals to the exclusion of all others. The reality is that those who want to develop new public water supplies often face an amazing gauntlet of regulatory hurdles. The process includes numerous federal and state regulatory agencies with a vast array of authorities for review of public water supply projects, and numerous opportunities for public involvement and comment and resulting delays. Water is a highly emotional issue for those who live or work in the vicinity of the source; and in most controversial cases, litigation can be expected at the conclusion of the permit process. Long lead times (often up to a decade, or even more) and extensive stamina are necessary. Many opponents of public water supply projects are skilled practitioners of “the concept of ‘winning through slowly losing’ -- using litigation to so delay and inflate the cost of a project as to make it not worth the effort.” *Pollution Control 20 Years After Earth Day: A Retrospective on Federal Environmental Programs*, 21 *Env’t. Rep.*, Current Developments (BNA) 123, 130 (1990). And many project sponsors have learned through bitter experience that the mere assertion of an environmental issue (however bogus) by a “responsible” spokesman (such as a state or federal agency) can have the same dilatory effect as recognition of a genuine issue, even where the record is more than sufficient to demonstrate that the asserted issue is illusory.