

INSTITUTE OF GOVERNMENT
WATER RESOURCES LAW BULLETIN #5

Water Use and Water Allocation Law in North Carolina
Affecting Local Water Supply Agencies (August 2006)

FRONT SHEET

This bulletin is a basic legal guide for local water supply agencies that are considering the development of water supply sources. It summarizes their statutory and common law rights to store and use water, and the state and federal regulatory approvals that must be obtained.

This is one of a series of bulletins concerning competing uses of surface water and ground water in North Carolina. The series will focus on the legal and management regimes that address these competing uses. Other publications in this series are planned, among other things, concerning.

- An Introduction to North Carolina surface and ground water rights law and regulation.
- The impact of North Carolina's Drinking Water Regulations on recreational activities at water supply reservoirs.
- Interstate issues concerning water resources.
- Re-licensing of hydro-electric dams by FERC.
- North Carolina water quality law.
- Rights to use the surface of rivers, lakes and reservoirs.
- Uses of shorelines, submerged lands and surface water.
- Rights to use artificial watercourses.
- Navigable waters, public trust and common heritage issues.
- The Regulated Riparian Model Water Code.
- Current issues in water law: 2007.
- The geography and climatology of North Carolina Water Law.

Beyond these issues of competing water use, there may remain a final question: does water itself have legal rights?

- An essay on issues of water law without regard to use: issues of quiet enjoyment, conservation and "the rights of water".

WATER USE AND WATER ALLOCATION LAW IN NORTH CAROLINA AFFECTING LOCAL WATER SUPPLY AGENCIES

Introduction

Public water suppliers in North Carolina operate their water supply system under a combination of common law decisions, and of legislation that is supplemented in some respects by administrative rules.

All of the suppliers find their rights to withdraw and use water in a combination of basic statutory powers to acquire property and manage water supply systems, and of common law water rights decisions of North Carolina courts. Other statutes and rules impose regulatory requirements on water use and withdrawal, and the common law decisions impose limitations on the exercise of these rights.

In some parts of the state, some public water suppliers may be entitled to secure allocations to withdraw and use certain amounts of impounded water. These allocations are authorized by a combination of statutes and administrative rules.

All public water suppliers need to consult this array of statutes, rules and common law decisions when they begin to plan new or expanded water supply sources.

(1) Basic Statutory Powers to Acquire Property and Manage Systems; Routine Regulatory Approvals; and Common Law Water Rights Decisions.

(a) Statutory Powers to Acquire Property and Manage Systems. – When a city, county, or public authority or district in North Carolina prepares to develop or expand a water supply source, it will acquire sites for the source, relying on its statutory property acquisition powers¹ - - whether the source is a well, reservoir, quarry, or run-of-river intake. If necessary, it may exercise the power of eminent domain² under the procedures set forth in Article 3 of GS Chapter 40A. Sometimes, in addition to acquiring the site for the water supply source itself, the water supplier will find it worthwhile to acquire riparian lands or water rights from other landowners up and down a river in order to prevent or settle potential disputes over a new or expanded water supply source.³

Public water supply sources and other system properties will be managed under a detailed set of statutes, rules and ordinances. For cities and counties, the statutory provisions are contained in the Municipal and County Enterprise Statutes.⁴ For other suppliers the statutory provisions are contained in their authorizing legislation.⁵

The Municipal and County Enterprise Statutes are comprehensive enabling laws that contain the legal authority necessary for cities and counties to acquire, construct, maintain and operate

¹ Cities will rely on G.S. 160A-11 or city charter provisions. Counties will rely on G.S. 153A-11. Water and sewer authorities will rely on G.S. 162A-6; sanitary districts, on G.S. 130A-55; etc.

² G.S. 130A-319.

³ Heath, "Water Use Law in Action." 28 Popular Government No. 5-6, p. 13 (March-April, 1962).

⁴ G.S. 153A-274 through 153A-292. G.S. 160A-311 through 160A-322.

⁵ For example, for water and sewer authorities, G.S. Chapter 162A, Art. 1, (G.S. 162A-1 *et seq.*); for sanitary districts, G.S. Chapter 130A, Art. 2, Part 2 (G.S. 130A-47 *et seq.*); etc.

public water supply and wastewater systems, and to finance these systems through rates, fees and borrowing. They also provide legal remedies to enforce rate payment, including authority to disconnect service for nonpayment. In addition, they empower cities and counties to require owners of developed property located within a reasonable distance of water and sewer lines to connect to the lines.

The enterprise statutes also apply to other utility enterprises such as stormwater and solid waste management systems, city electric and gas utilities, airports, public transport systems, and off-street parking.^{5a} Alternative financing tools are also available through special assessments and service district taxes.^{5b}

(b) Regulatory Approvals. – Most water suppliers will find it necessary to secure permission from one or more state or federal agencies to develop a new or expanded source. Routinely in North Carolina this will include plan review and approval by the NC Department of Environment and Natural Resources (DENR) under the North Carolina Drinking Water Act.⁶ (A private utility regulated by the North Carolina Utilities Commission may also require a certificate from that commission.)⁷ A project involving an interbasin transfer of water of 2 mgd or more would usually require approval of the Environmental Management Commission (EMC) under North Carolina’s interbasin transfer legislation.⁸ The Dam Safety Act requires minimum releases from reservoirs as set by administrative rule to maintain downstream aquatic habitat and water quality.^{8a} In the twenty coastal area counties a project located in an “area of environmental concern” under the Coastal Area Management Act (CAMA) may need to obtain a CAMA development permit.⁹ In parts of southeastern and south central North Carolina the Capacity Use Areas Act requires water users to obtain permits from the Environmental Management Commission for water withdrawals in “capacity use areas” that have been declared by the Commission.^{9a} The latest round of permits has required cutbacks in well water withdrawals in order to forestall further impairment of the aquifers that serve the area.^{9b}

Any of several federal agencies may also be involved. The U.S. Army Corps of Engineers may require a water supplier developing a reservoir or riverine intake to secure a dredge or fill permit under Section 404 of the Clean Water Act.¹⁰ A supplier located in one of the tributaries of the Tennessee River in western North Carolina may need to secure a permit from the Tennessee Valley Authority (TVA) under Section 26A of the TVA Act.¹¹ A supplier seeking to obtain water from a waterpower reservoir licensed by the Federal Energy Regulatory Commission

^{5a} G.S. 153A-274. G.S. 160A-311.

^{5b} G.S. 153A-185 through 153A-206. G.S. 153A-300 through 153A-310. G.S. 160A-216 through 160A-238. G.S. 160A-535 through 160A-544.

⁶ G.S. 130A-317.

⁷ G.S. 62-110.

⁸ G.S. 143-215, 22I.

^{8a} G.S. 143-215.23 through G.S. 143-215.37. 15A N.C.A.C. 2K.0501 through .0504.

⁹ G.S. 113A-113(b)(3), 113A-118 and 113A-103(5).

^{9a} G.S. 143-215.11 through 143-215.22.

^{9b} John N. Morris, Are North Carolina’s Water Allocation Laws Up to the Challenge?, N.C. Bar Association Foundation Annual Meeting, Environmental Law and Natural Resources Section. Wrightsville Beach, N.C., May 12, 2001.

¹⁰ 33 USC 1344.

¹¹ 16 USC 831y-1.

(FERC) may need to secure a license or approval from FERC or from a FERC licensee, under the Federal Power Act.¹²

An environmental assessment (EA) and an environmental impact statement (EIS) may be associated with any or all of these state or federal approvals. Where federal approvals are involved, the EA or EIS will be one required by the National Environmental Policy Act (NEPA).¹³ Where state approvals are involved the EA or EIS will be a state document required by the North Carolina Environmental Policy Act (NC-EPA).¹⁴ The development of Cane Creek Reservoir by the Orange Water and Sewer Authority in the 1980s triggered lengthy 404 permit proceedings and EIS processes under both NEPA and NC-EPA, the first of their kind affecting public water supply developments.¹⁵ These experiences put North Carolina public water suppliers on notice that lengthy and expensive permit proceedings with associated EIS documents - - sometimes both federal and state permits and EIS documents - - may be required in connection with future water supply projects.

The relationship between a new or expanded water supply source and local land use regulation is another factor to consider. If a new source is to be located within the territorial limits of a jurisdiction other than the water supplier, zoning approvals may be required from other local governments.¹⁶ This is illustrated by a water supply plan of the Orange Water and Sewer Authority to develop an expanded quarry supply source. In this instance concurrent zoning approvals may be required from two cities and one county.

This review of the statutory property acquisition powers of North Carolina water suppliers, and of associated permits and EIS processes, is by no means comprehensive or rigorous. It should give the flavor, however, of what the typical water supply agency may encounter by way of regulatory approvals when the supplier starts down the trail of developing a new water supply source. Sections 3 and 4 of this bulletin describe the state and federal regulatory approvals in greater detail.

(c) Water Supply Planning. – Every local government and community water system that provides public water service is required by statute to prepare and revise at 5-year intervals a local water supply plan. The “community systems” covered are those that regularly supply 1,000 or more service connections or 3,000 or more individuals. DENR’s Division of Water Resources reviews and coordinates these plans, which it also uses as building blocks for a State Water Supply Plan. The local plans include data concerning present and projected population, industrial development, water supplies, conservation and re-use programs, and emergency response procedures.^{16a}

¹² 16 USC 797, 808.

¹³ 42 USC 4332.

¹⁴ G.S. 113A-4, 113A-8.

¹⁵ *In re Appeal from Environmental Management Commission*, 53 N.C. App. 135, 280 S.E.2d 520 (1981). See also *Orange Water and Sewer Authority v. Estate of Armstrong*, 34 N.C. App. 162, 237 S.E.2d 486 (1977); *Orange Water and Sewer Authority v. MDNC*, 590 F. Supp. 1123.

¹⁶ If the county has zoned the area where a new source is to be located, county zoning approval may be required for a source planned by a city or water and sewer authority or sanitary district or other special district or authority. City extraterritorial zoning may require city zoning approval for a source planned by another local government in the area. The complexity of the suburban zoning may result in interlocal agreements between a county and one or more of its cities that govern development in the suburbs and rural fringe. (Witness Orange County’s current rural corridor planning process.)

^{16a} G.S. 143-355(l) and (m).

(d) The Common Law of Water Rights. – Common law judicial decisions concerning water rights constitute another layer of water use law in North Carolina - - the doctrine of riparian rights for rivers and streams, and the doctrine of overlying rights for ground water. In theory, there may be one set of rules for “underground streams” (analogous to the riparian rights doctrine) and a separate set of rules for “percolating ground water.” Underground water, however, is presumed to be percolating unless proven otherwise, and no appellate North Carolina decision has identified an underground stream in North Carolina.¹⁷ For all practical purposes, therefore, we can assume that the relevant law is that which governs percolating ground water - - the doctrine of overlying rights.

Riparian Rights to Streams: “In its original form, the riparian rights doctrine placed primary emphasis on the right of all owners of land bordered or crossed by a stream to have its waters flow to them in their normal course, undiminished in quantity or quality. As needs for water increased, emphasis shifted to the right of each riparian owner to make a reasonable use of the water as it flowed by or through his property.”¹⁸

When cities and other public water suppliers withdraw water from a stream to supply their residents, the supplier often diverts some part of the streamflow to the detriment of some riparian landowners in one of three ways.

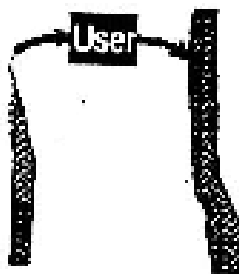


Figure 1

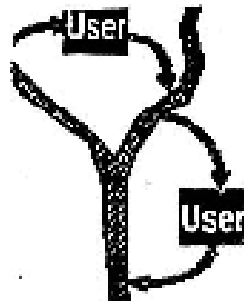


Figure 2



Figure 3

Figure 1 involves a classic interbasin transfer from one river basin to another. Figure 2 involves a diversion from one tributary of a mainstream to another tributary. Figure 3 involves a simple diversion from a stream and discharge of treated wastewater downstream. In all three situations riparian owners downstream from the point of withdrawal may be adversely affected by the diversions.¹⁹

North Carolinians are accustomed to rhetoric about the evils of interbasin transfers, but in legal theory a common law cause of action may be available to the affected riparian owners in Figures 2 and 3, as well as to those in Figure 1 (the only “interbasin transfer,” strictly speaking). Indeed, a common law action may be more likely to survive a motion to dismiss in Figure 2 and 3 than in

¹⁷ *Jones v. Home Building and Loan Association*, 252 N.C. 626, 114 S.E. 2d 638 (1960). See also *Master v. The Texas Company*, 194 N.C. 540 (1927).

¹⁸ Marquis, Freeman and Heath, “The Movement for New Water Rights Laws in the Tennessee Valley States”, 23 *Tenn. L.Rev.* 806-807 (1955).

¹⁹ Heath, “Interbasin Transfers and Other Diversions: Legal Issues Involved in Diverting Water”. 55 *Popular Government* 34, 35 (Fall 1989).

Figure 1, the interbasin transfer case. This is because, in the average situation, a withdrawal from a relatively small stream in Figure 2 or 3 is more likely to injure downstream riparian owners than a withdrawal from a large mainstream in Figure 1, which may well be less injurious than the same withdrawal from a smaller tributary or individual stream.

This background leads us to the common law rule that governs suits against water suppliers who withdraw water from a stream to meet the needs of their citizens. Although some states have applied common law rules that make all diversions from streams illegal,²⁰ North Carolina and a majority of eastern states apply a reasonable use-material injury test to all three situations described above.²¹ That is, there is no cause of action against a water supplier unless the withdrawal involves an unreasonable use and a material injury to the complaining riparian owner. The diversion or interbasin transfer alone is not actionable.

A series of damage suits against municipal water suppliers in North Carolina has produced judicial statements that municipal water supply withdrawals from streams are not a legitimate exercise of riparian rights.²² These cases, in fact, all involved substantial damage awards, and the court has usually limited the application of the rule to situations involving “accountability to other riparian owners who may be injured by its diversion or diminution” (emphasis added.)²³

I am aware of no reported North Carolina case that has approved injunctive relief against the initiation or continuation of a local public water supply’s stream withdrawal. Indeed, in one early case the state Supreme Court indicated its likely reaction to a request for such an injunction by observing that a private water company supplying the inhabitants of the City of Durham was a “quasi-public corporation, in its fullest sense, and that neither the public interest nor the public safety would permit its abatement as a nuisance.”²⁴ Instead, the court approved an award of permanent damages “equivalent to the acquisition of an easement by condemnation.”²⁵

To summarize this brief review of the implications of riparian rights concepts for public water supply withdrawals from streams:

- *The common law decisions on riparian rights are not supportive of municipal water supply withdrawals from rivers or streams. Indeed, municipalities that own riparian lands are not entitled to claim riparian rights to withdraw water for “reasonable use” in a municipal water supply system.

- *The only remedy clearly available at common law against municipal water supply withdrawals, however, is a damage award, and this remedy is probably available only in cases where the plaintiff can prove a material injury. Injunctive relief is probably not available to the injured plaintiff.

- *Section 2 of this memorandum will take note of North Carolina legislation that seeks to strengthen the legal status of municipal water supply withdrawals from storage reservoirs.²⁶

²⁰ See *Stratton v. Mt. Hermon Boys School*, 216 Mass. 83 (1913).

²¹ *Harris v. Norfolk and W. Ry. Co.*, 153 N.C. 542, 69 S.E. 623 (1910).

²² E.g., *Pernell v. City of Henderson*, 220 N.C. 79, 21 S.E. 2d 902 (1941); *Cook v. Town of Mebane*, 191 N.C. 1, 131 S.E. 407 (1926).

²³ *Pernell v. City of Henderson*, 220 N.C. 79, 81, 69, S.E. 2d 623, 624 (1910).

²⁴ *Geer v. Durham Water Co.*, 127 N.C. 349, 354, 37 S.E. 474 (1900).

²⁵ *Id.*

²⁶ See 2(b) below, 1971 Stored Water Act (G.S. 143-215.44 *et. Seq.*).

Overlying Rights to Ground Water: The earliest American decisions on percolating ground water, the “English Rule”, gave the owners of land overlying a ground water formation absolute ownership of the percolating ground water. In Rouse v. Kinston the North Carolina Supreme Court joined a number of American jurisdictions in rejecting the English absolute ownership rule in favor of what has come to be known as “The American Rule of Reasonable Use”.

Unlike the riparian rights reasonable use rule, however, the percolating ground water rule is not simply a sharing rule, nor does it emphasize only the use of the waters. Instead, it focuses on the use of the waters in connection with the use of the overlying land. Under the North Carolina ground water reasonable use rule, a landowner who makes a socially acceptable use of land and acts according to the standards of her trade or business has made a reasonable use of her land and is not liable for incidental damage to a neighbor’s well or ground water.²⁷

Thus, a mining company whose digging of a gravel pit dries up a neighbor’s well, but whose activity is conducted in line with applicable standards of the mining industry, is not liable to the owner of the well.²⁸

The ground water reasonable use rule has an anti-diversion element similar to the riparian rights doctrine. If a city runs its water line several miles to its well that dries up a neighbor’s irrigation well, the city is liable for damages. The city may not divert ground water away from an aquifer to its water supply customers without potential liability.²⁹

(2) Allocations to Withdraw and Use Stored Surface Water

(a) Introduction. – Beginning in the late 1950s the construction of several multipurpose reservoir projects was planned or underway in North Carolina - - reservoirs that included among their purposes storage for potential water supply use. The U.S. Army Corps of Engineers had completed Buggs Island (John Kerr) Reservoir on the Roanoke River in 1952. The Corps was moving ahead with plans for several other impoundments, including Wilkesboro (Kerr Scott) Reservoir on the Yadkin River upstream from North Wilkesboro; Jordan Dam on the Cape Fear River in Chatham County; and Falls Lake at Falls of the Neuse in Durham County. Congressional authorizing legislation for these projects contemplated that water supply storage (“conservation storage”) could be included in the reservoirs if local or state governments contributed to the cost of this storage.³⁰ For example, Winston-Salem and Wilkesboro contributed about \$1 million for conservation storage fifty miles upstream on the Yadkin River at Wilkesboro Reservoir.³¹ The State of North Carolina helped to finance conservation storage at Jordan Dam, with a view to recovering its contributions over a period of years from communities whose water supplies would benefit from this storage.

²⁷ Heath, “Ground Water Quality Law in North Carolina” (with Dean Moss). 52 Popular Government 39 (Winter 1987). Heath, “Trends in Ground Water Law in the Carolinas and Virginia”, Southern Regional Ground Water Conference (1985). Heath and Coffield, *Cases and Materials on Ground Water Law*. Institute of Government, Chapel Hill, 1970.

²⁸ *Bayer v. Nello Teer Co.*, 256 N.C. 509, 124 S.E. 2d 552 (1962).

²⁹ *Rouse v. City of Kinston*, 188 N.C. 1, 123 S.E. 482 (1924).

³⁰ 42 USC 390b, 72 Stat. 319 (1958).

³¹ Heath, “Water Resources”, Popular Government 22, 27 (June 1959).

As these reservoir projects moved into completion, water lawyers began to consider the legal implications of reservoir storage for water supply use. Their thinking moved along the following lines.

First, a community or a state agency that helped to finance water supply storage in a reservoir ought to be able to use the stored water to meet its water supply needs and to make reliable legal arrangements covering its water supply system. The community or state agency has an equitable interest in the stored water, which should be translated into a secure legal interest that will help realize its expectations.

Second, the common law of riparian water rights standing alone, or in combination with the powers of local governments to acquire property, would not reliably support these expectations. Indeed, they might thwart the water supply purposes associated with these projects. Western prior appropriation water rights law provides a solid basis for expectations based on water rights, since an appropriation in a western state ordinarily authorizes withdrawal of a designated quantity of water, at a designated time and place, for designated purposes. A riparian right in an eastern state, however, at most gives a riparian owner a right to make an undefined “reasonable use” of a stream, and local public water suppliers are not entitled to exercise even those “reasonable use” riparian rights.

Third, therefore new legislation should be enacted that would provide a reliable foundation for the legal arrangements needed to authorize the public water supply projects planned in connection with reservoirs like Wilkesboro and Jordan.

(b) Legislation. – Beginning in 1959 the General Assembly enacted a series of statutes to ensure that local water suppliers who pledge or contribute funds for water supply storage would have reliable legal rights to withdraw and use the stored water in their systems. These statutes included the Corps of Engineers Local Participation Act of 1959, a 1967 authorization for the Environmental Management Commission (then, the Board of Water and Air Resources) to transfer to local governments the state’s interest in water supply storage, and the Stored Water Act of 1971. Although the first two statutes applied only to storage in federal impoundments, the third statute applies to water stored at all impoundments. In addition, in 1967 the General Assembly enacted the Dam Safety Law, which included provisions concerning the water quality impact of dams, as well as dam safety requirements.

The 1959 Corps of Engineers Local Participation Act: In 1959 the General Assembly enacted local participation legislation prompted by the impending construction by the Corps of Engineers of Wilkesboro Reservoir on the Yadkin River.³² This statute enables local governments to take advantage of water supply storage in federal reservoirs constructed pursuant to the Federal Water Supply Act of 1958, by issuing bonds to meet their proportionate share of the cost of water supply storage in Corps reservoir projects. (The federal legislation provides that impoundments constructed by the Corps of Engineers or the Bureau of Reclamation can include storage capacity to meet future municipal or industrial needs if state or local interests give assurances that they will pay the cost of that storage capacity.³³) The 1959 North Carolina statute grew out of efforts to enable Winston-Salem and Wilkesboro to realize potential water supply benefits in Wilkesboro Reservoir. Spokesmen for the Corps had made it clear that if state or local interests did not give assurances to contribute approximately \$1 million to provide for low flow augmentation storage, there would be no dam.³⁴

1967 Authorization to Transfer State Interests: In 1967 the General Assembly took the next logical step by specifically authorizing the state, acting through the EMC, to give assurances of nonfederal cooperation for water supply storage in federal projects, and to assign or transfer to any local government any interest held by the state in water supply storage at federal projects, upon assumption of repayment obligations.³⁵ The same legislation authorized the EMC to reassign or transfer interests in storage held by local governments, if indicated by an investigation of long-term needs of local governments.³⁶

If the 1959 legislation originated in the interests of upstream Yadkin River water suppliers, the 1967 legislation originated in state planning for water supply associated with Jordan Dam on the Cape Fear. The 1967 statute has facilitated the arrangements that have been made to develop and allocate water supply storage in Jordan Reservoir in particular. The State of North Carolina supplied the original assurances to the Corps in connection with Jordan and has since negotiated over water supply allocations with Cary, Apex, Chatham, Orange Water and Sewer Authority, Lillington, Fayetteville and other local interests.

1967 Dam Safety Act: In 1967 the General Assembly enacted the Dam Safety Act, which combined two principal features - - first, a state law regulating the safety of dams that preceded later federal legislation on this subject; and, second, a statute that addressed the water quality impact of dams.^{36a} Local water supply agencies need to be aware of both features of the act. The storage provisions require the Environmental Management Commission to adopt rules that specify minimum stream flows to be maintained below dams, and authorize DENR to impose conditions to meet and maintain stream classifications, water quality standards and aquatic habitat requirements.^{36b}

³² N.C. Sess. L. 1959, Ch. 308.

³³ 42 USC 390b, 72 Stat. 319 (1958).

³⁴ Heath, "Water Resources", 25 Popular Government 22, 26 (June 1959)

³⁵ G.S. 143-354 (a)(10), (11).

³⁶ G.S. 143-354 (a)(11).

^{36a} G.S. 143-215.23 to 143-215.37.

^{36b} G.S. 143-215.31.

1971 Stored Water Act (“Right of Withdrawal in Impounded Water.”): In 1971 the General Assembly enacted a logical follow-up to the 1959 and 1971 statute, the Stored Water Act³⁷ - - after a thorough study of the need for such legislation by Professor Douglas Gill in a UNC Water Resources Research Institute report³⁸ and a Legislative Research Commission (LRC) report that recommended the enactment of this legislation.³⁹ The Stored Water Act provided a vital missing link to strengthen the legal basis for withdrawals of stored water for the benefit of municipal water supply systems.

The LRC summarized the problem addressed by the Stored Water Act as follows:

“North Carolina is moving through a period of transition from an agricultural to an industrial era. Linked with this transition is a steady tread to urbanism: the growth of older towns and small cities and the spread of suburbia. And the trend to urbanism in North Carolina means that the special services demanded by the compact community are coming to be required at more places and in greater variety and quantity than ever before.

One of these special services demanded by the compact community is adequate supplies of water, when and where needed. Although North Carolina is blessed with generally abundant sources of water, this abundance is not always accessible to those who need it, a problem compounded by dry and wet weather cycles. A measure commonly, and increasingly, adopted to help bridge this gap is to impound rivers and store their waters for use as needed.

Traditionally, impoundments for water supplies and related purposes have usually been tapped by pipelines for transmission of the stored water to intended users. But it is not uncommon these days for stream channels to be utilized to perform this transmission function. Two examples will serve by way of illustration.

Storage is included in a federal multipurpose reservoir to help meet the water supply needs of cities located downstream from the reservoir. Or, storage is provided in an industrial impoundment for stream flow augmentation to help assimilate mill wastes that are discharged into the stream below the reservoir. In both cases it is desired to use the stream channel as a means of delivering stored water from storage to use.

Such schemes may have obvious economic advantages over pipeline transmission, but certain legal obstacles may thwart the realization of these advantages, especially where the intended user is a public water supply.”⁴⁰

The Gill Report identified three possible threats of interference with these uses of stream channels for transmitting stored water - - first, intervening riparian owners might object to the use of the channel for artificial water carriage; second, intervening owners might intercept the released water before it reaches its destination; and third, riparian owners below the point of intended use may raise enforceable legal objections against a proposed withdrawal for water supply purposes. Under existing riparian rights law, the report concluded, the first threat is

³⁷ G.S. 143, Art. 21, Part 5 (G.S. 143-215.44 *et seq.*).

³⁸ Gill, “The Use of Stream Channels to Deliver Stored Water: The Possibility of Interference by Third Parties”. UNC Water Resources Research Institute Report No. 32 (1969).

³⁹ NC Legislative Research Commission, Report of the Legislative Research Commission to the 1971 General Assembly: “Rights of Withdrawal of Impounded Water”. (Raleigh, NC, Sept. 1970).

⁴⁰ *Id.*, at pp 1-2.

probably insubstantial, but the second and third are significant.⁴¹ The LRC report recommended that these threats be met by the enactment of the Stored Water Act.⁴²

The LRC Report summarized the main provisions of the Stored Water Act in a section-by-section analysis as follows:

“S § 143-215.44

This section states the basic proposition of the bill that “a person who lawfully impounds water shall have a right of withdrawal of excess volume of water attributable to the impoundment.” It then defines the key terms “right of withdrawal,” “excess volume of water,” “impound,” and “person.” From a reading of these definitions it becomes clear that:

(1) Whoever has stored water for the purpose of downstream use has a legally protected right to withdraw an equivalent volume of water. Because that right is declared to be “superior to all other interests in the water,” the person who stored the water can prevent freeloaders who did not help pay for the storage from poaching on this water. (Definition of “right of withdrawal.”) Read together with GS § 143-215.46 (below), this provision secures the protection sought by the bill, for example, against withdrawals by intervening landowners of augmented flows released from storage before the augmented flows reach the intended beneficiary further downstream.

(2) The protection secured by the bill applies not only to one who independently builds a reservoir without assistance from others, but also to one who finances a portion of the storage in the reservoir or who guarantees the cost of storage. (Definition of “impound.”)

(3) The protection secured by the bill applies to all manner of public projects (federal, state, or local), as well as to private projects. (Definition of “person.”)

GS § 143-215.45

This section makes it clear that rights of withdrawal protected by the bill may be transferred or assigned to others, and that the transferee then stands in the shoes of the transferor. One important purpose of this section is to facilitate arrangements involving state, federal and local governments for storage of water in multipurpose federal reservoirs, wherein the state government acts as middleman to help initiate and coordinate long-term water supply plans.

GS § 143-214.46

This section is one of the central provisions of the bill. It makes plain that water withdrawals may be made under the bill either directly from an impoundment or from a watercourse below the impoundment, “or both” (i.e., at some combination of points along the impoundment or downstream from the impoundment).

⁴¹ Gill, *op. cit.* fn. 38, p.v.

⁴² Legislative Research Commission, *op. cit.* fn. 39, p. 10.

GS § 143-215.49

The bill is intended, among other things, to strengthen the legal position of a municipal or other local public water supply agency. In order to make this completely clear, and if necessary to override intimations of some previous decisions, this section specifies that a local water supplier may assert a right of withdrawal for water supply purposes as well as other purposes. This would not contravene explicit limitations of the bill such as the provision in GS § 143-215.47 that makes rights of withdrawal subject to the prohibition against unauthorized transbasin diversions.⁴³

In summary, the Stored Water Act created a new statutory “right of withdrawal” of water for those who create reservoirs, for a volume of water equivalent to the storage. (Persons and entities who help finance the storage or guarantee its cost are given the same rights.) The new right applies both to withdrawals directly from a reservoir or from a watercourse below the reservoir. The act protects the holders of rights of withdrawal against those who might intercept releases of stored water and downstream owners who might legally object to the withdrawals by the holder. It validates and strengthens the legal position of a municipal or other local public water supplier. It applies not only to federal reservoirs but to other impoundments built by or partly financed by a holder, including a local water supplier. Altogether, it goes a long distance toward firming up the legal rights of those who develop or take part in developing surface water supply storage.

(c) Administrative Rules and Allocations: Jordan Dam. – The EMC adopted a set of rules in 1988 to implement the authority granted to it by the 1967 legislation authorizing the state to assign to local governments any interest held by the state in water supply storage at federal reservoirs.⁴⁴ The rules apply to allocation of water supply storage in Jordan Reservoir.

The storage capacity at Jordan Reservoir includes:⁴⁵

*538,400 acre-feet of flood control storage.

*74,700 acre-feet of sediment storage.

*140,4000 acre-feet of conservation storage, which includes 94,000 acre-feet of low flow augmentation storage, and 45,800 acre-feet of water supply storage (equivalent to a 100 mgd supply).

The low flow augmentation storage at Jordan is used to maintain a minimum river flow at Lillington of about 600 cfs (388 mgd). Prior to construction of Jordan Dam the lowest streamflow ever recorded by the USGS at Lillington was 7.1 mgd or 11 cfs. The 600 cfs at Lillington is basically a target flow. Actual minimums may fall somewhat below the target under extreme drought conditions. Nonetheless, the minimum flow target at Lillington represents a significant contribution to communities from Lillington downstream, including Fayetteville - - free of charge. In a sense it amounts to the practical equivalent of a very substantial water allocation.

⁴³ Id. Pp. 19-22.

⁴⁴ NCAC, Title 15A, Subch. 29, .0500.

⁴⁵ The material on the page is summarized from DENR Division of Water Resources, “Jordan Lake Water Supply Storage Allocation, Fact Sheet” (Raleigh, 2000).

The Jordan allocation rules provide for EMC to assign water supply allocations in two stages: Level I and Level II. (Level I allocations are based on 20-year need projections for communities ready to begin withdrawals within five years after allocation. Level II allocations are based on needs up to thirty years.) 50% of the water supply storage is to be kept unallocated in order to meet future needs. Not over 50% of the total water supply yield can result in out-of-basin diversions, i.e., interbasin transfers. EMC is to review the allocations at five-year intervals, for possible reassignment, if recipients do not begin withdrawals within five years.

In 1988 initial allocations from Jordan constituted 42% of the water supply pool - - well within the 50% maximum.

(d) Interlocking Federal and State Arrangements at Multi-purpose Reservoir Projects with Water Supply Storage in North Carolina. The Corps of Engineers has constructed multi-purpose reservoirs in North Carolina that include water supply storage at the following sites:

- Jordan Dam in Chatham County on the Cape Fear River
- Falls of the Neuse Dam in Wake County on the Neuse River
- Kerr Scott Dam in Wilkes County on the Yadkin River
- John Kerr Dam in Halifax County (originally known as Buggs Island) on the Roanoke River

The Corps of Engineers has contracts for water supply storage in these reservoirs with the State of North Carolina at Jordan Dam on the Cape Fear, and with municipal water suppliers at the dams on the Neuse, Yadkin, and Roanoke Rivers. The State of North Carolina in turn has entered agreements with municipal water suppliers allocating storage at Jordan Reservoir.

In each case the Corps water supply contracts allocate storage space in the reservoir. The Corps owns the submerged areas and some adjacent reservoir properties, but does not claim to own the water in the reservoirs or the augmented flows downstream from the dams.⁴⁶

The 1971 North Carolina Stored Water Act⁴⁷ picks up where the Corps contracts leave off, by giving those who paid for water supply storage in reservoirs a statutory legal “right of withdrawal” for a volume of water equivalent to the storage they helped to pay for. This right of withdrawal can be exercised either directly from the reservoir or downstream from the augmented streamflow. The 1971 Act was motivated in part by an interest in protecting Winston-Salem’s right to withdraw water from the Yadkin River downstream from Kerr Scott Reservoir where Winston-Salem had helped finance water supply storage. But the 1971 Stored Water Act applies not only to that project but to any reservoir where a water supplier has invested in storage capacity. It thus protects the equities of those who invested in water supply storage.

The North Carolina Environmental Management Commission is the body which makes allocations from Jordan Reservoir and which reviews (and approves or disapproves) interbasin transfers larger than 2 mdg throughout the state. In some cases involving Jordan Dam, the

⁴⁶ The first three paragraphs of this section are based on conversations in Wilmington, N.C., April 27, 2001, with Allen Piner and James Stirling of the U.S. Army Corps of Engineers, Wilmington District Engineer’s Office.

⁴⁷ N.C. Gen. Stat. 143-215.44 to 143-215.50. See text with footnotes 38-43, above.

Environmental Management Commission has both approved allocations from storage and approved interbasin transfers.⁴⁸

(e) Actions of the Federal Energy Regulatory Commission Permitting Joint Use of Licensed Water Power Projects for Water Supply. The Federal Power Commission (now, the Federal Energy Regulatory Commission) in the mid-1960's began attaching conditions to water power project licenses that allowed the Commission, on application of a water supplier, to require a project licensee to allow the applicant to make "joint use" of the project upon payment of reasonable compensation to the licensee. (The author developed this proposal when he served as Assistant to the Chairman of FPC in 1964.) For example, a water supplier could withdraw water from a licensed reservoir with the Commission's approval, in return for reimbursement at least of damages or expenses to the licensor. A 1967 article by Professor Joseph Sax reviews this history.⁴⁹ This is also the subject of a Court of Appeals decision in *Rumford Falls Power Company v. Federal Power Commission*.⁵⁰ In effect, this action allowed for possible reallocation of resources by a commission that assumed continuing authority to appraise the public importance of shifting resource allocation needs, and possibly depressing the price that a new user would pay below the market price that a licensee might be able to extract.

This license conditioning practice has possible application to a number of water power projects licensed by FERC to companies such as Duke Power, Carolina Power, Virginia Electric Power, and North Carolina Aluminum.

A 1996 FERC decision approved the application of an Alabama water supplier, the Central Elmore Water Authority, to withdraw water for municipal water supply from an Alabama Power Company licensed reservoir.⁵¹

(3) State Regulatory Laws and Processes

(a) The North Carolina Drinking Water Act.

The North Carolina Drinking Water Act is a combination of old-line state water supply laws, and the state's response to the federal Safe Drinking Water Act. Both aspects of the North Carolina act apply to surface water and ground water supplies.

Old-line State Water Laws: These laws have been on the statute books since the early 1900's. They reflect the public health interest in maintaining a state-level program that will protect the quality of sources of public water supplies. One key element of this program is codified in G.S. 130A-317, the statute that requires local governments and other water suppliers to submit engineer-prepared plans and contracts for construction or alteration of public water systems to DENR for approval. The Division of Environmental Health is the unit in DENR that reviews these plans and contracts. That review focuses on compliance with drinking water rules, interconnection arrangements, and maintenance and operation arrangements.

⁴⁸ This paragraph is based on a conversation in Wilmington, N.C., April 26, 2001, with John Morris, Director of the North Carolina Division of Water Resources.

⁴⁹ Joseph Sax, "Licenses Restricting Private Rights in Public Resources". 7 *Natural Resources Journal* 339 (April 1967).

⁵⁰ *Rumford Falls Power Co. v. Federal Power Commission*, 355 F.2d 683 (CA 1, 1966).

⁵¹ *Alabama Power Co. Project No. 349-0*. 74 FERC 157, 161; 1996 W.L. 70296 (FERC, 1996).

Another key element of the old-line program is codified in G.S. 130A-320, which authorizes the Commission for Health Services to adopt rules governing watershed sanitation that address recreational activities, keeping of livestock, maintenance of residences and businesses, sewage disposal, establishment of cemeteries, and other factors that might endanger a public water supply (For an analysis of the application of this statute and its implementing rules, see Heath, The Impact of North Carolina Drinking Water Regulations on Recreational Activities at Water Supply Reservoirs. Water Resources Law Bulletin #3. Institute of Government. 2006.)

The State's Response to the Federal Safe Drinking Water Act. In 1974 Congress enacted the United States Safe Drinking Water Act⁵² after widespread publicity concerning pollution of the water supplies of New Orleans and other cities. Congress concluded from EPA's failure to address these problems effectively under the Federal Water Pollution Control Act amendments of 1972 that additional legislation was needed, and it enacted the Safe Drinking Water Act.

A basic principle of the Safe Drinking Water Act is that all public water supply systems, both surface and ground water, must abide by "maximum contaminant limits" or "levels" set by EPA for a list of contaminants.⁵³ (When Congress became dissatisfied with EPA's progress in the 1980's, it enacted a list of more than eighty contaminants to be addressed under a rather tight timetable.) Among the more imaginative enforcement provisions of the act is a requirement that violators publicize their own violations. (North Carolina's version of this procedure is codified at G.S. 130A-324.) Both the federal and state acts define "public water systems" as systems that serve 15 or more service connections or regularly serve 25 or more individuals.

States were encouraged to seek "primacy" in administering the drinking water program by adopting legislation and rules that met the requirements of the federal act. In EPA's judgment North Carolina's Drinking Water Act and state program qualified for primacy. One continuing benefit to the state from the federal Safe Drinking Water program is that it ordinarily carries with it annual federal grants that make a significant contribution to the state and its public water supply systems.

(b) The Capacity Use Areas Act. The Capacity Use Areas Act or Water Use Act of 1967 was enacted in 1967 as a direct response to ground water problems in southeastern North Carolina. Those problems resulted from the discovery and development of commercially significant phosphate deposits in Beaufort County by the Texas Gulf Sulphur Company. The continuous pumping of large quantities of underground water in order to keep the mining pit dry lowered artesian pressure for miles around the pit in a rich ground water aquifer. This adversely affected many small wells and caused concern about potential salt-water contamination of the aquifer from brackish water in the nearby Pamlico Sound. These concerns prompted Governor Dan Moore to appoint a blue ribbon panel that provided the technical background essential to support a regulatory proposal that became the Capacity Use Areas Law.⁵⁴

Modeled after an earlier New Jersey statute, the Capacity Use Areas Law empowered the Board of Water and Air Resources (now the Environmental Management Commission) to declare a

⁵² 42 U.S.C.A. §§300f to 300j-26.

⁵³ 42 U.S.C.A. §300g-1.

⁵⁴ Board of Consultants, N.C. Dept. of Water Resources, Evaluation of Potential Impact of Phosphate Mining on Ground Water Resources of Eastern North Carolina (1967).

capacity use area when it finds, after study and hearings, that the withdrawal of water or the discharge of water pollutants is having an unreasonable adverse effect upon such waters.⁵⁵ After a capacity use area is declared and implemented by rulemaking, water users must obtain permits to withdraw over 100,000 gallons per day within the area.⁵⁶ Although the original act was motivated strongly by ground water problems and the first capacity use area mainly addressed ground water problems, the statute literally can be applied to both ground water and surface water issues.

The initial capacity use area proceeding covered only the Texas Gulf Sulphur Mining area. In more recent years, the process has been applied to a much broader region in southeastern and south central North Carolina to cope with ground and surface water demands that place a heavy burden on available water resources. In the intervening years, the Commission considered, but did not adopt, a capacity use area in the Yadkin River Basin in response to plans of the Duke Power Company to withdraw cooling water for a projected nuclear power plant, the Perkins Plant.⁵⁷

(c) The Well Construction Act. The Well Construction Act empowers the Environmental Management Commission to adopt rules concerning well location, construction, repair, and abandonment for wells of over 100,000 gallons per day capacity.⁵⁸ It requires permits for wells with a design capacity of at least 100,000 gallons per day, and for any wells found by the Commission to be located in a geographical area where such permission is necessary for the protection of ground water resources.⁵⁹ It also requires Commission approval for recharge, injection or disposal wells.⁶⁰ The Act does not apply to a well constructed by an individual on land owned or leased by him, appurtenant to a single family dwelling and intended for domestic use.⁶¹ It does apply to wells constructed for individuals by contractors.

In 2006 the General Assembly, prompted by widespread publicity of inadequate inspection and testing of residential wells, expanded the Act's coverage to include private and transient wells. ("Private wells" are defined in the act as those that serve 14 or fewer connections or regularly serve 24 or fewer individuals. "Transient wells" are defined as those that supply a non-community water system that does not regularly serve at least the same 25 persons over six months per year.)

The 2006 amendments essentially add regulation of wells that are not regulated as "public water systems" under the federal and state drinking water acts. Under the amended well construction act local health departments will regulate private and transient wells and are expected to finance this new program largely from local permit fees. The 2006 amendments also empower the Commission for Health Services to regulate the manner in which private and transient wells are sampled and tested.

⁵⁵ G.S. §143-215.13(d) (2005). An alternative basis for declaring a capacity use area is that aggregate withdrawals require coordination and regulation or exceed renewal or replenishment of such waters. N.C. Gen. Stat. §143-215.13(b) (2005).

⁵⁶ N.C. Gen. Stat. §143-215.15(a) (2005).

⁵⁷ High Rock Lake Ass'n v. Envtl. Mgmt. Comm'n., 276 S.E. 2d 472 (1981).

⁵⁸ N.C. Gen. Stat. §87-87 (2005).

⁵⁹ N.C. Gen. Stat. §87-88(a) (2005).

⁶⁰ N.C. Gen. Stat. §87-88(j) (2005).

⁶¹ N.C. Gen. Stat. §87-85(13) (2005).

Taken together, the Well Construction Act and Capacity Use Areas Act give the Environmental Management Commission a combination of general authority over wells and the ability to develop water management tools for problem areas that meet the criteria for capacity use areas. The Commission has adopted lengthy and complex rules that implement the Well Construction Act.

Inquiries concerning administration of the Capacity Use Areas Act can best be addressed to the Director of the DENR Division of Water Resources. Inquiries concerning the administration of the Well Construction Act can best be addressed to the Director of the DENR Division of Environmental Health.

(d) Interbasin Transfer Laws. North Carolina's Interbasin Transfer Legislation has evolved an increasingly stringent set of restrictions on interbasin transfers of water from one major river basin to another in excess of two million gallons per day, under the general oversight of the Environmental Management Commission.⁶² A 2007 Campbell University Law review article has traced the evolution of these laws in detail.⁶³

The present statute potentially applies not only to water supply projects, but also potentially to wastewater and stormwater discharges that move at least two million gallons of water per day from one of the 38 listed river basins to another. It requires the approval of the Environmental Management Commission (EMC) for any covered transfer based on detailed findings of fact relating to each of nine statutory standards - - some of which involve beneficial effects of a proposed project, and others that involve detrimental effects.⁶⁴ The EMC may issue a certificate approving a transfer if it concludes by a preponderance of the evidence based on its findings of fact that the benefits of the proposed transfer outweigh the detriments. (Other required findings are that there are no reasonable alternatives, that mitigation requirements have been met, and that the transfer does not exceed the applicant's shortfall.) Continuing mitigation of detriments is required, as well as drought management and conservation plans. Those familiar with modern administrative law will recognize that the findings required by this statute are an invitation to extended proceedings on any issues contested by any family to an IBT proceeding.

There is a water withdrawal registration requirement that applies to withdrawals of 1000,000 gpd or more. It also applies to ground water as well as surface water withdrawals.⁶⁵ It does not apply to certain agricultural activities.

Almost every legislative session sees proposals for further tightening of the IBT law. Public water supply agencies should carefully check the current state of the IBT law before assuming that the preceding description of the law is still accurate.

In 2007 the General Assembly debated the IBT Law at length and added to the law a detailed set of procedural requirements, after considering, but rejecting proposals to entirely prohibit future IBT's. The new procedural requirements are very complex -- including formal notices and public hearing requirements for out-of-state as well as in-state interests, new environmental

⁶² N.C. Gen. Stat. §§143-215.22A to -215.22L (2005).

⁶³ Milton S. Heath, Jr., *The Evolution of Modern North Carolina Environmental and Conservation Policy Legislation*, 29 Campbell Law Review 535, 568-573 (Spring 2008).

⁶⁴ G.S. 143-215.22I(g).

⁶⁵ G.S. 143-215.22H.

impact processes. Past experience indicates that meeting these new requirements will cost applicants for approval of future IBT's many millions of dollars in attorneys' and expert witnesses' fees, and will create significant rights of errors in attempting to comply with the procedures. (Opponents of IBT petitions will also face heavy transactional costs.) The net effect will probably be to deter all but the most needy potential applicants from applying for approval of future IBT's. The 2007 amendments completely rewrote the IBT Law as N.C.G.S. 143-215.22L.

(e) The North Carolina Public Utilities Law.

G.S. Chapter 62 regulates the rates and service of public utilities, including water and sewer utilities. It requires that regulated utilities obtain certificates of convenience and necessity for construction or operation of plants or systems from the Utilities Commission.⁶⁶ It also gives the Commission a variety of other regulatory powers concerning utility franchises, bonds, additions and repairs, and general supervision of service.⁶⁷

Chapter 62 basically regulates private utility systems. It expressly exempts municipalities and water and sewer authorities from regulation⁶⁸, and the Commission by interpretation has excluded other local government entities from regulation, such as counties and metropolitan water and sewer districts.⁶⁹ The State Supreme Court has held that sanitary districts are not regulated by the Utilities Commission.⁷⁰ Also, the Commission may exempt certain consumer owned and non-profit membership water and sewer utilities from regulation.⁷¹

4) Federal Regulatory Laws and Processes

(a) Section 26a of the Tennessee Valley Authority Act.

Section 26a of the TVA Act requires that any plans for construction of any dam or other structure in the Tennessee River or any of its tributaries be approved by the TVA Board of Directors in order to ensure the "unified development and regulation" of the river.⁷² This is a supplemental requirement that "shall not be construed to be a substitute for the requirements of any other law". By regulation, TVA has interpreted "structures" to include not only major facilities (such as dams and bridges) but also water supply intakes and waste discharge pipes. Declining water levels during the current drought have prompted TVA officials to indicate that TVA may apply water allocation standards to requests for Section 26a permits for water lines and withdrawals.

Although no part of the main stream of the Tennessee River is located in North Carolina, a number of its tributaries are located at least in part in North Carolina. These include the Watauga, French Broad, Little Tennessee, and Hiwasee Rivers, and their tributaries. (Those

⁶⁶ G.S. 62-110.

⁶⁷ G.S. 62-32, 62-42, 62-110.3, 62-113.

⁶⁸ G.S. 62-3(26)d.

⁶⁹ Conversation with Dean Cunningham of the Office of State and Local Government Finance, Department of State Treasurer. April, 2006.

⁷⁰ Halifax Paper Co. v. Roanoke Rapids San. Dist. 232 N.C. 421, 61 S.E.^{2d} 378 (1950).

⁷¹ G.S. 62-110.5.

⁷² 16 U.S.C.A. §831y-1.

tributaries include Cullasaja, Nantahala, Tuckasegee and Cheoah Rivers on the Little Tennessee, and Elk River, Roan Creek and Doe River on the Watauga.)

The effect of Section 26a on water supply planning that might involve construction of a dam or any other structure along any of those tributaries is that the water supplier should be prepared to apply for approval by the TVA Board of Directors. Section 26a provides its own remedy - - construction or operation of any such dam can be enjoined by federal district court.⁷³

(b) FERC Hydro-electric Dam Licensing and Re-licensing.

In 1920 Congress enacted The Federal Power Act, creating The Federal Power Commission (FPC) with authority to license and regulate water power projects along the waters of the United States and public lands. 41 Stat. 1063, 16 U.S.C. §§ 791a et seq. The FPC has since been renamed as the Federal Energy Regulatory Commission (FERC), and The Federal Power Act has been amended many times. Today, the 86-year old Commission remains one of the oldest regulatory agencies of the federal government. The Commission's regulatory authority was expanded during the 1930's and 1940's under the Natural Gas Act and the Public Utilities Holding Companies Act (PUCA, partly repealed in 2005). In the early 1960's the commission interpreted the water power licensing jurisdiction to include pump storage as well as hydroelectric generation projects.

Originally the Commission consisted of the Secretaries of Agriculture, Interior and War. In the early 1930's it was reorganized by Congress as a 5-member Commission, appointed to serve full-time by the President and confirmed by the Senate.

The water power licensing provisions of the Power Act contemplate a series of steps in the licensing and re-licensing process. The original license for a hydro-power project usually had a term of fifty years. Many of the original licenses in states like North Carolina have been expiring during the early 2000's.

A pair of experienced practitioners have summarized the re-licensing process in the following terms:

“Under the FPA, FERC has exclusive authority to license nonfederal hydropower projects located on navigable waterways. There are about 2,500 FERC-licensed hydropower projects in the United States. These projects comprise about half of the nation's developed hydroelectric capacity. The other half are federally owned projects that do not require FERC licensing...Hydro re-licensing is a complex, expensive, and lengthy regulatory process. At a minimum it takes five years to re-license a project. On average it takes ten years, and can take up to twenty years...

“Not earlier than five and one-half years or later than five years prior to license expiration a licensee must notify FERC if it will seek a new license to continue operating a project. After giving notice, the licensee must consult with federal, state, and local resource agencies, Indian tribes, national and regional nongovernmental organizations, and the public. The licensee must file its re-license application at least two years prior to expiration of the existing license.

⁷³ 16 U.S.C.A. §831y-1, third paragraph.

“It is not uncommon for the licensee to meet with consulted entities as often as two days per month over a five-year period to identify issues, plan studies, analyze study results, and identify alternatives for how the project should be operated. Often there will be as many as thirty entities at a consultation meeting, and distribution of the many study plans, study reports, and other licensing materials can include more than one hundred organizations and individuals.

“As a result of this consultation, the licensee must conduct scores of costly studies regarding the projects impacts on water quality and quantity, fisheries and aquatic habitat, terrestrial and botanical resources, archaeological and historic resources, recreation, land management, and aesthetics...

“Once the licensee has filed its re-license application, FERC’s role is to conduct an independent analysis, in accordance with requirements of the FPA and the National Environmental Policy Act (NEPA), to determine whether to issue a new license and to establish its conditions. This analysis includes the preparation of an environmental assessment (EA) or an environmental impact statement (EIS), and possibly a new round of consultation and studies.

“In deciding whether and under what conditions to issue a license, FERC must consider power and development purposes (such as flood control, water supply, and irrigation). FERC also has to give equal consideration to energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife resources; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. These other aspects of environmental quality include water quality and quantity, botanical resources, historical and archaeological resources, land use and shoreline management, and aesthetics...

“The result of the re-licensing process is the issuance of a FERC license with multiple conditions designed to protect, mitigate adverse impacts to, and enhance the resources potentially impacted by the project. The cost of implementing these measures, the cost of the re-licensing process, and the cost of lost generation and loss of flexibility in operating the project, are increasingly causing projects to be only marginally economic, if not uneconomic -- a result FERC has recognized.⁷⁴

In North Carolina FERC has already completed the re-licensing process on the Roanoke, Little Tennessee, and Hiwassee river basins. Settlement documents have been forwarded to FERC for the Catawba and Yadkin river basins, with downstream South Carolina connections in the Pee-Dee and Santee-Wateree basins.⁷⁵

⁷⁴ Sarah A. Verville and Matthew D. Manahan, Water Quality Certification and Relicensing: Sharing Legal Strategies, Hydro Review. April 2006, 10-17.

⁷⁵ Steven Smutko, Negotiating About Power: Hydropower Relicensing in North Carolina. 70 Popular Government 15-23. Spring-Summer 2005.