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# TROUTMAN SANDERS LLP

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A T T O R N E Y S   A T   L A W  
A LIMITED LIABILITY PARTNERSHIP

TROUTMAN SANDERS BUILDING  
1001 HAXALL POINT  
RICHMOND, VIRGINIA 23219  
TELEPHONE: 804-697-1200  
FACSIMILE: 804-697-1339

## **BUILDING NEW WATER SUPPLY CAPACITY: WHAT WORKS AND WHAT DOESN'T**

**James E. Ryan, Jr.**  
**George A. Somerville**  
**M. Scott Hart**

## **BUILDING NEW WATER SUPPLY CAPACITY: WHAT WORKS AND WHAT DOESN'T**

This paper discusses five large water supply projects. The Lake Gaston Pipeline project (City of Virginia Beach) was built while permit litigation was being resolved in the courts. The Wilson, North Carolina, reservoir project was permitted and built, despite very large wetlands losses compared to its water yield. The Ware Creek Reservoir Project (James City County, Virginia) was vetoed by the U.S. Environmental Protection Agency (“EPA”) and will not be built. The Harrisonburg, Virginia intake and pipeline project, cleverly designed to avoid wetlands impacts and consumptive uses of water, has been permitted and will be built. The King William Reservoir Project (City of Newport News, acting for Lower Virginia Peninsula Region) recently received the last of its required permits: the § 404 permit from the U.S. Army Corps of Engineers (Corps).

Each of these projects illustrates important lessons that every water utility in need of additional water supply capacity should learn before starting work. To set the context for discussion of these projects, it is necessary to list the permits required to build new water supplies and outline the processes by which such permits are obtained.

### **I. Permits and Permit Process**

#### **A. U.S. Army Corps of Engineers Section 404 Permit.**

**1. Overview of Section 404 Permit Program.** The Corps has been the federal government’s waterways improvement agency for more than one hundred and fifty years. Some of its current regulatory authorities are derived from the 1899 Rivers and Harbors Act, 33 U.S.C. § 401 *et seq.* During the 1972 rewrite of the Federal Water Pollution Control Act [33 U.S.C. § 1251 *et seq.*], the Corps managed to hold on to a part of the federal permitting authority. While the newly-formed U.S. Environmental Protection Agency (“EPA”) was given control over the National Pollutant Discharge Elimination System (NPDES) permit system, the Corps won primary responsibility for the Section 404 permit program and is authorized, after notice and opportunity for a public hearing, to issue permits for the discharge of dredged or fill material.

The EPA has important roles in several aspects of the Section 404 program, including development of the environmental guidelines by which permit applications must be evaluated, review of proposed permits, prohibition of discharges with unacceptable adverse impacts, establishment of jurisdictional scope of waters of the United States, interpretation of Section 404 exemptions, and power to veto any 404 permit issued by the Corps.

Waters of the United States protected by the Clean Water Act include rivers, streams, estuaries, the territorial seas, and most lakes, ponds, and wetlands. Wetlands are a particularly important and sensitive segment of the Nation's waters and, therefore, merit special attention.

It is important to note that the Section 404 program does not prohibit activities in wetlands, but establishes a permit process which recognizes both developmental pressures and environmental concerns. This balancing of developmental and environmental factors is encompassed in the Section 404 Guidelines. The practicable alternative test is further defined in statutory guidelines, administrative decisions and litigation relating to Section 404.

**2. Types of Permits.** The Corps issues individual permits and general permits.

a. Individual permits can be either standard permits or letters of permission. A standard permit is one which has been processed through the Corps' public interest review procedures, including public notice and receipt of comments from interested parties. This is the form of permit usually required for any major water supply project. A letter of permission will be in letter form and identify the permittee, the authorized work and location of the work, the statutory authority, any limitations on the work, a construction time limit and a requirement for a report of completed work. *See* 33 C.F.R. § 325.5.

b. General permits include regional permits, nationwide permits and programmatic permits. The most important category of general permits are the nationwide permits which are, in fact, permits-by-rule. If certain conditions specified by the rule are met, the specified activities can take place without the need for an individual or regional permit. The Nationwide permits are specified in 33 C.F.R. Part 330.

**3. Public Interest Review.** The Corps' permit decisions are based upon an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process. Among the factors to be considered are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

For activities involving Section 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines.

Subject to the preceding sentence and any other applicable guidelines and criteria (see §§ 320.2 and 320.3), a permit will be granted unless the district engineer determines that it would be contrary to the public interest.

**4. Permit Process.** Within 15 days of receipt of an application the district engineer will determine whether the application is complete (see 33 C.F.R. § 325.1(d)(9)) and issue a public notice as described in 33 C.F.R. § 325.3. The district engineer will consider all comments received in response to the public notice in his subsequent actions on the permit application. The district engineer will follow Appendix B of 33 C.F.R. Part 230 for environmental procedures and documentation required by the National Environmental Policy Act of 1969. A decision on a permit application will require either an environmental assessment or an environmental impact statement unless it is included within a categorical exclusion. The district engineer will also evaluate the application to determine the need for a public hearing pursuant to 33 C.F.R. Part 327. The district engineer will follow procedures for considering effects of the proposed activity on historic properties and threatened and endangered species, and

shall call upon the State to act on any request for a Section 401 water quality certification and concurrence in any Coastal Zone Management Act certification. After these actions have been completed, the district engineer will determine in accordance with the record and applicable regulations whether or not the permit should be issued. He shall prepare a statement of findings (SOF) or, where an EIS has been prepared, a record of decision (ROD), on all permit decisions, and give his decision on the application. For non-controversial permits, this process should take about 180 days. There is no statutory deadline within which the district engineers must act.

**B. The National Environmental Policy Act of 1969**, 42 U.S.C. § 4332 *et seq.*, requires each federal permitting agency to consider the effects of any proposed regulatory action on the quality of the human environment. Where a significant effect is found, the agency must prepare an environmental impact statement.

Local governments no longer have unfettered authority to choose which water project to build. Instead, they must follow the methodology for identifying, screening and evaluating available alternatives specified by the NEPA regulations of the President's Council on Environmental Quality ("CEQ"). According to these regulations, the discussion of alternatives "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. The regulation requires a presentation of "the environmental consequences of the [water supply project] and [other] alternatives in comparative form," including a rigorous exploration and objective evaluation of "all reasonable alternatives," discussion of "reasonable alternatives not within the jurisdiction of the lead agency," "the alternative of no action," and "appropriate mitigation measures not already included in the proposed action or alternatives." The CEQ also has published a memorandum entitled "Questions and Answers About the NEPA Regulations," 46 Fed. Reg. 18026 (March 23, 1981), which states:

In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are *practical or feasible* from the technical and economic standpoint and using common sense, rather than simply *desirable* from the standpoint of the applicant.

The EPA has defined feasibility in its veto decision of a shopping center, as follows:

“Under the [CEQ] Guidelines, an alternative must be capable of satisfying the basic, or overall purpose of the proposed project . . . . The applicant’s proposal is obviously the starting point for identifying the basic project purpose. . . . Whether an alternative site is or is not the best site within the trade area from a specific applicant’s business perspective is not the issue. The practicable alternatives test requires only that other sites be feasible, not that they be equal or better.”

**C. Section 401 of the Clean Water Act: The State’s Veto Power.** An applicant for a federal license or permit “to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters” must obtain “a certification *from* the State in which the discharge originates or will originate . . . .” and provide it to the federal licensing or permitting agency. (Emphasis added.) 33 U.S.C. § 401(a)(1). A 401 certification must state that the “discharge” in question “will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act” (33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317). At the risk of severe over-simplification, the listed sections deal generally with water quality standards and effluent limitations. If the State refuses to grant the certification, the federal agency cannot issue the requested license or permit. The State has up to one year to act or waives its authority so to do.

**D. Coastal Zone Management Act Consistency: More State Control.**

Section 307(c)(3)(A) of the Coastal Zone Management Act, 16 U.S.C. § 1456(c)(3)(A) (“Section 307,” for short) gives States with federally-approved Coastal Zone Management Programs the authority to review federal license or permit applications for consistency with those Programs. That review is commenced by the applicant’s required certification, to the federal agency and the State, that its proposed activity is consistent with the State’s Coastal Program. The State may concur with the certification or object to it. An objection vetoes the federal license or permit application, subject to review by the U.S. Secretary of Commerce. If the State does nothing for six months after it receives the certification, however, its concurrence is “conclusively presumed.”

**E. Section 106 of the National Historic Preservation Act,** 16 U.S.C. § 470f, requires “the head of any Federal department or independent agency having authority to license any undertaking . . . , prior to the issuance of any license” (which includes permits), to “*take into account* the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register” of Historic Places, and to “afford the Advisory Council on Historic Preservation (“ACHP”) a reasonable opportunity to comment with regard to such undertaking.” (Emphasis added.) This requirement is incorporated into Corps’ permit regulations.

ACHP regulations (36 C.F.R. Part 800) under § 106 (1) prescribe an elaborate study and consultation process for other federal agencies to fulfill this duty; and (2) allow the permitting agency, the State Historic Preservation Officer (SHPO), and the ACHP (if it chooses to participate in the consultation) to enter into a memorandum of agreement (“MOA”) specifying appropriate preservation measures. Before proceeding with an MOA, however, the investigation or consultation must identify any “historic properties” (defined in the regulations as “any prehistoric or historic district, site, building, structure, or object included in, or *eligible for inclusion in, the National Register*”); and determine whether the undertaking will have an adverse effect on historic properties. “If an adverse effect on historic properties is found, the Agency Official [*i.e.*, the Corps’ district engineer] shall notify the [ACHP] and *shall consult* with the State Historic Preservation Officer *to seek ways to avoid or reduce the effects* on historic properties.” (36 C.F.R. § 800.5(e).)

**F. Endangered Species Act.** Section 7 of the Endangered Species Act, 16 U.S.C. § 1536, requires the Corps, as permitting agency, to “*insure*” that its permit action is *not likely to jeopardize the continued existence* of any [listed] endangered species or threatened species *or result in the destruction or adverse modification*” of any designated “critical habitat.” (§ 1536(a)(2).) That duty must be performed “in consultation with and with the assistance of the Secretary” of the Interior (*id.*), which gives the U.S. Fish & Wildlife Service a large voice in such decisions.

Formal consultation is limited to 90 days. The 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.*, § 402.14(e); 16 U.S.C. § 1536(b)). If an extension of formal consultation is requested but not agreed to, “the Director will issue a biological opinion using the best scientific and commercial data available.” (50 C.F.R. § 402.14(f).)

“Promptly *after* conclusion of consultation” (16 U.S.C. § 1536(b)(3)(A)), or “within 45 days after concluding formal consultation” (50 C.F.R. § 402.14(e)), the Service must provide its biological opinion (“BO”) to the permitting agency and the applicant. A BO must provide the following (among other things):

(a) a “detailed discussion of the effects of the action on listed species or critical habitat.” *Id.*, § 402.14(h)(2)

(b) “[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” (a “jeopardy biological opinion” or “jeopardy opinion”). *Id.*, § 402.14(h)(3).

A jeopardy opinion must describe “reasonable and prudent alternatives, if any.” *Id.* If “the Service concludes that an action . . . and the resultant incidental take of listed species will not violate section 7(a)(2),” it must provide with the biological opinion a statement concerning “incidental take” that “[s]pecifies those reasonable and prudent measures that the Director considers necessary or appropriate to minimize such impact” and “[s]ets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or any applicant to implement” such “reasonable and prudent measures.” *Id.*, § 402.14(i)(1)(ii), (iv). Such “[r]easonable and prudent measures, along with the terms and conditions that implement them, cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes.” *Id.*, § 402.14(i)(2).

“Formal consultation is terminated with the issuance of the biological opinion.” *Id.*, § 402.14(l). “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.” *Id.*, § 402.15(a). “If a jeopardy biological opinion is issued, the Federal agency shall *notify* the Service of its final decision on the action.” *Id.*, § 402.15(b).

A USFWS biological opinion, even a “jeopardy opinion,” is not binding on other federal agencies. Numerous case decisions agree, *e.g.*, *Sierra Club v. Froehlke*, 534 F.2d 1289, 1303-05 (8th Cir. 1976) (affirming Corps decision that a reservoir project would not jeopardize the continued existence of a listed species; “Consultation under Section 7 does not require acquiescence” in the USFWS’ opinion). *But cf. Bennett v. Spear*, 520 U.S. 154 (1997) (finding that the Federal Bureau of Reclamation was only “technically free” to disregard a jeopardy opinion, because the law imposes a “substantial risk” on the Bureau and its employees if it disregarded a Biological Opinion and caused an endangered species to be harmed, including the possibility of substantial civil and criminal penalties and imprisonment).

**G. Other Federal Authorities.** Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended, 16 U.S.C. § 1432; the Marine Mammal Protection Act of 1972, 16 U.S.C. § 1361 *et seq.*; Section 7(a) of the Wild and Scenic Rivers Act, 16 U.S.C. § 1278 *et seq.*; President’s Executive Orders on Environmental Justice and other topics; and others.

**H. State Water Withdrawal Permit Requirements.** *See, e.g.*, O.C.G.A. § 12-5-31; and Va. Code Ann. § 62.1-44.15:5.

**I. Other State Permit Requirements.** Many states have local consent statutes under which one local government cannot build a water supply project in another jurisdiction without the latter’s consent. *See, e.g.*, Va. Code § 15.2-2134.

## **II. Water Supply Development Case Examples**

**A. Lake Gaston Pipeline Project.** Virginia Beach, Virginia has completed its sixty million gallon per day (60 mgd) Lake Gaston Pipeline Project. This Project provides water for South Hampton Roads (the Cities of Norfolk, Virginia Beach and Chesapeake) and was designed to meet the region’s needs through 2040. The Project takes water from Lake Gaston on the Roanoke River near the point where that river flows out of Virginia into North Carolina. The water is pumped eighty-six (86) miles to the Hampton Roads area for treatment and distribution.

The pumping station was built in Virginia Power's Lake Gaston Project reservoir, a hydropower reservoir system licensed by the Federal Energy Regulatory Commission ("FERC"). Despite strenuous, well-funded opposition from North Carolina and in-basin residents against this large interbasin transfer of water, this Project was completed in 1997 because its environmental effects were negligible.

The "host" jurisdiction, Brunswick County, Virginia, fought the Lake Gaston Project in court for years despite Virginia Beach's efforts to reach an agreement with the County. Ultimately, when the courts sustained the Corps' permit and rejected the County's attempts to block the Project through denial of zoning and local consent permits, the County settled its dispute with Virginia Beach.

Both the Corps and the FERC had to prepare environmental impact statements on the Lake Gaston Project. This resulted from the refusal of Virginia Power to seek FERC approval of the pumping station when Virginia Beach applied for its Corps permit. Years later, after the Corps permit had been issued and sustained in the courts, Virginia Power applied to FERC; opponents argued that conditions had changed to the extent that a new environmental impact statement was required, and FERC acquiesced in this request.

North Carolina fought this project at every stage of its development, even though Virginia Beach proposed to take only one percent (1%) of the normal flow of the Roanoke River where it left Virginia. North Carolina insisted that it had the right to act upon an application for a Section 401 water quality certification, which it proposed to deny. The courts rejected this argument. North Carolina refused to concur in Virginia Beach's certification that the Project would be consistent with North Carolina's plan under the Coastal Zone Management Act. This resulted in an appeal to the federal Department of Commerce and further federal litigation on which Virginia Beach prevailed.

Though the Project has been delivering water to Virginia Beach since 1997, North Carolina continues to fight a rear-guard action against its continued use in the FERC proceeding for relicensing the Lake Gaston Project.

**B. Wilson, North Carolina.** Buckhorn Reservoir, an impoundment approximately twelve miles west of the city, is the City of Wilson's largest water supply reservoir. In 1997, the

City received a permit from the Corps' Wilmington, North Carolina District to raise the Buckhorn Dam by twelve feet. This project triples the size of the Buckhorn Reservoir. Most significantly, this reservoir expansion floods an additional 1,309 acres of wetlands in the Neuse River basin. The expanded Buckhorn Reservoir will contain approximately 7.5 billion gallons of raw water (23,000 acre feet) and yield an estimated 30.3 million gallons per day of water supply for the City of Wilson.

Wilson states that this expanded supply will satisfy its projected water needs through 2040. The population of the City of Wilson in 1997 was estimated to be 41,103, up from 38,400 in 1990.

When compared to the James City County and Newport News cases, discussed below, one can see that the Wilmington District was extraordinarily generous to the City of Wilson.

**C. James City County, Virginia** surrounds the City of Williamsburg on the York-James Peninsula. Although the County contains no large cities, it is the second fastest-growing county in Virginia and has many summer visitors. In 1981, the County had approximately 24,000 residents. By 1987, the County's population had grown to approximately 31,000 residents. Projections indicated that, by the year 2030, the County's population will grow to over 50,000. The County's population then consumed 9.3 million gallons of water per day ("mgd"), and the Corps and EPA agreed with the County that by the year 2030 its water needs would be 18.2 mgd.

James City County twice received § 404 permits from the Corps (Norfolk District) to build the Ware Creek Reservoir Project, and twice the EPA vetoed these Corps permits. This project would have flooded approximately 400 acres of wetlands to produce approximately 10 mgd of water supply capacity. In sustaining the veto of this "local" project, the federal Fourth Circuit Court of Appeals upheld the EPA veto even though it found that (on the available record) the County had no available alternative.

The EPA based its veto argument on the preamble to 40 C.F.R. Part 231, which was quoted in *James City County v. EPA*, 12 F.3d 1330, 1337 (4<sup>th</sup> Cir. 1993), cert. denied, 513 U.S. 823 (1994):

Section 404(c) does not require a balancing of environmental benefits against non-environmental costs such as the benefits of the foregone project. This view is based on the language of 404(c) which refers only to environmental factors. The term “unacceptable” in EPA’s view refers to the significance of the adverse effect--e.g. is it a large impact and is it one that the aquatic and wetland ecosystem cannot afford.

. . . Even when there is no alternative available, and “vetoing” the site means stopping a project entirely, the loss of the 404(c) resource may still be so great as to be “unacceptable.”

44 Fed. Reg. 58,076, 58,078 (Oct. 9, 1979).

The Court said “we think [the EPA] veto based solely on environmental harms was proper.” Without the Corps’ permit, this project was dead.

**D. Harrisonburg, Virginia** is in the upper reaches of the Shenandoah Valley of Virginia. Recently, Harrisonburg obtained all State and federal permits to build a pumping station on the Shenandoah River to add 10 mgd to its water supply capacity. These permits were relatively easy to obtain because no reservoir had to be constructed, no wetlands were involved, and the point of withdrawal is approximately twenty-five miles downstream of the point where treated wastewater from the City is discharged into this River system. Therefore, while the Corps had jurisdiction over the work in the River, the environmental effects upon the River system were not significant. The water just goes round and around with little loss, and downstream interests are not significantly affected. Because there were no significant effects, no agency looked closely at the City’s need for the amount of water to be taken.

**E. Newport News, Virginia** is a large city situated on the north side of Hampton Roads opposite Norfolk. Newport News is home to very large industrial and military installations, including Newport News Shipbuilding which builds all the Navy’s nuclear aircraft carriers. Newport News operates the third largest water supply system in Virginia and currently serves a residential population of 421,000. Its service area includes all or parts of the Cities of Newport News, Hampton, Williamsburg, Poquoson, and the Counties of York and James City. By 2040, this population is expected to be 600,000. Under orders from the Virginia Department of Health to expand its water supplies, the City began work in 1990 to build a new water supply reservoir to serve its system’s needs until 2040. Learning from the Virginia Beach experience,

Newport News entered into a host agreement to build a reservoir in King William County. This King William Reservoir project would be located in a relatively small, deep creek bottom, and be filled with water pumped from the nearby Mattaponi River during periods of high river flow rates. The Reservoir would lie between, and approximately three miles from, the Mattaponi and Pamunkey Indian Reservations. These Indians are the descendants of the Powhatan Confederation which met the original English settlers at Jamestown.

The King William Reservoir Project would flood more than 430 acres of wetlands in the Chesapeake Bay watershed. Newport News has proposed to replace these flooded wetlands on a 2:1 basis. These and other environmental impacts were thoroughly studied in draft and final environmental impact statements prepared by the Corps' Norfolk District. Within six months thereafter, the Virginia State Water Control Board granted a Virginia Water Protection Permit for the Project, approving the wetlands impacts. Judicial review of this State permit ensued, with Project opponents including the Chesapeake Bay Foundation, Alliance to Save the Mattaponi River and Mattaponi Indian Tribe. The Virginia Supreme Court ultimately dismissed all challenges to this State permit.

In both State and federal permit comment periods, the Mattaponi Tribe argued that any taking of water from the River would damage its shad fishery and threaten the demise of the Tribe. In response, the Norfolk District Engineer engaged the Corps' Institute for Water Resources ("IWR") to assess the City's need for the Project. After receiving the IWR's report, which took a very strong demand-side approach to estimating future water needs, the Norfolk District Engineer dismissed the many studies conducted by the Corps and other experts over the preceding twenty years, and found that the City did not need the water from this Project. In so doing, he suggested that the Peninsula Region should be prepared to tolerate voluntary and mandatory water use restrictions for several years in each decade of the fifty-year planning period.

The Governor of Virginia declared that the Norfolk District Engineer's conclusion was completely at odds with the policies of the Virginia Health Department and other Virginia

agencies, and expressed his written support for this Project. As a result of the Governor's stance, the Norfolk District Engineer was shorn of his authority to make a decision on this project, and the matter was elevated to the Corps' North Atlantic Division in New York. *See* 33 C.F.R. § 325.8 (b)(2).

The Commanding General of the Corps' North Atlantic Division ultimately rejected the Norfolk District Engineer's recommendation, finding that: (1) the need for the water from the Project had been substantiated on the record; and (2) "the Project is the least environmentally damaging practicable alternative" available to provide the needed water. However, before the § 404 permit could be issued, the General declared that the City had to complete three tasks: (1) a wetlands mitigation plan (a detailed mitigation plan had earlier been submitted, but requires final approval); (2) a Section 106 memorandum of agreement to assess and manage the reservoir's impact on the nearby Indian Tribes and their reservations; and (3) the Coastal Zone Management Act concurrence process, which required issuance of a Virginia Marine Resources Commission ("VMRC") permit to install the water intake structure in the bottom of the Mattaponi River.

The principal issue in the VMRC permit proceeding was the effect of the intake structure on eggs and larvae of shad and other fishes. After the VMRC initially denied the intake permit, the City won the right to a rehearing and obtained the permit. The City's proposed intake design was made even more conservative and, in this second proceeding, this improved design and operation was supported by a panel of seven nationally-recognized fisheries scientists. This permit was the last precondition to receipt of the State's concurrence in the City's CZMA certification.

After the Section 106 memorandum of agreement was consummated and the conceptual wetlands mitigation plan finalized, the Corps issued the § 404 permit for the Project. While Project opponents are expected to appeal this decision, the City is confident that it will prevail and that the Project will be built.

## **What Works And What Doesn't**

**A. Act Now:** Under the best case, the permitting process will take two years, and it can take a decade or more. There can be no assurance that water projects can be approved quickly when prolonged droughts threaten the ability of water systems to meet all needs. Further, industrial development officials put water availability at the top of their site selection criteria; without an adequate supply of water for industrial use, development of industries that bring jobs and pay taxes to support schools and other public services will be stymied. Finally, experience teaches that it becomes harder each year to build new water supply capacity. Wilson, North Carolina was lucky – in our view – because it acted early to expand its Buckhorn Reservoir. The sympathetic Wilmington, North Carolina Corps District granted this permit despite the loss of 1,309 acres of wetlands. Had Wilson started later, it is likely that it would be sharing the experience of James City County and Newport News.

**B. Get Experienced Consultants.** Development of new supplies requires expert guidance on all issues that will arise in the permit process. Experienced wetlands scientists will be needed, as will engineers that can develop and defend water need projections. Experienced attorneys are need to help navigate the numerous and complex regulatory processes and develop permit records that can withstand judicial review.

**C. Stand Up for Your Needs.** The Corps' water resources think tank – the Institute for Water Resources – has recently taken a strong turn against development of new water supplies. In the Newport News case, the IWR based its needs assessment on West Coast use rates of 55 gallons per person per day. During a prolonged drought, under mandatory conservation with penalties, and using a relatively new (and thus not leaky) water distribution system, Virginia Beach was not able to approach this use rate. Such a position by the Corps is contrary to federal law and regulatory policy.

Section 101(g) of the Clean Water Act provides:

It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act. It is further the policy of Congress that nothing in this Act

shall be construed to supersede or abrogate rights to quantities of water which have been established by any State.

33 U.S.C. § 1251(g).

The Corps' regulations echo this national policy:

Water is an essential resource, basic to human survival, economic growth, and the natural environment .... Actions affecting water quantities are subject to Congressional policy as stated in section 101(g) of the Clean Water Act which provides that the authority of states to allocate water quantities shall not be superseded, abrogated, or otherwise impaired.

33 C.F.R. § 320.4(m).

The Corps' regulatory program "is not to be used to 'second guess' decisions made by State and local governments on such matters as zoning or land use" in the absence of issues of overriding national significance. Corps' Regulatory Guidance Letter 82-08, Department of Defense, U.S. Army Corps of Engineers, June 6, 1982 ("RGL 82-08").

**D. Avoid Building a New Reservoir where Capacity Can be Bought in an Existing Reservoir.** Wetlands impacts are the key federal and State regulatory hurdle to building new water supplies, and either the Corps or the EPA can stop a new project for wetlands impacts – even if the local community has no alternative to meet its water needs, according to the U.S. Court of Appeals for the Fourth Circuit. Virginia Beach was successful ultimately because it built its pumping station on a large existing reservoir and purchased the right to take water from this reservoir. Essentially no wetlands were affected by this project.

**E. Try to Avoid Major Interbasin Transfer Issues.** In most states, there is no legal prohibition on interbasin transfers. Indeed, if one examines existing water systems, one will probably find dozens of existing interbasin transfers. Where new projects involve interbasin transfers, however, the projects usually become more controversial and experience more opposition. Where a project developer can use water from the same basin, like Harrisonburg, project permitting will be much simpler to accomplish.

**F. Try to Avoid Interstate Rivers.** Surface water withdrawals seem to spark strong territorial reactions from those who might be adversely affected. States have so often fought over interstate streams that the U.S. Supreme Court's reporters overflow with State vs. State water case decisions. Virginia and Maryland were, until recently, locked in a Supreme Court dispute over water rights in the Potomac River near Washington, D.C. The State of North Carolina fought Virginia Beach's Lake Gaston Project in almost every available forum – even though the amount of water at issue was only one percent (1%) of the normal flow in the river.

**G. Try to Avoid Well-funded and Powerful Opponents.** One should avoid opponents, like States, which have taxing powers and the financial ability to mount challenges to water projects. Large, well-funded organizations, like the Chesapeake Bay Foundation and the Sierra Club, can also fight long battles.

**H. Try to Avoid Sympathetic Opponents.** Indian tribes may be affected by proposed water projects and make very sympathetic opponents. Public opinion can turn against a project that may injure Indian interests. At the national level, Indian tribes are major donors to Democratic Party candidates, so one can expect difficulty during a Democratic administration with any project that may affect Indian interests. In addition, federal agencies are bound by Presidential executive orders on environmental justice, so one should generally avoid any disparate impact on minority communities.

**I. Get Support from the Local Government Where the Structures will be Built.** Virginia Beach's Lake Gaston Project had continuing opposition from Brunswick County where the water pumping station is now located. Besides the nuisance of this local government opposition, every document and news article on the project seemed to note that the water would be taken over the County's objection. Newport News learned from this unfortunate example and entered into a "host" partnership agreement with King William County, under which the County would receive water and future payments and other revenues if the Reservoir were built.

**J. Get Support from the State.** It seems inevitable that any significant water project will become controversial within the State. Exceptions, like Harrisonburg's and Wilson's projects, do occur. The water project developer's first priority must be to convince the State to

permit and support its project. Federal agencies are bound by law to respect – and even to defer on some issues to – the State. Besides those laws quoted above, the federal Water Supply Act of 1958, 43 U.S.C. § 390b, says:

(a) Declaration of policy. It is declared to be the policy of the Congress to recognize the primary responsibilities of the States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes and that the Federal Government should participate and cooperate with States and local interests in developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control, irrigation, or multiple purpose projects.

The permit decision of the Corps' North Atlantic Division, which expressly deferred to the determination by the Commonwealth of Virginia that the King William Reservoir Project was needed to meet the Region's long-term water needs, underscores the imperative of having the State's support.

**K. Get Federal Permitting Agencies to Work on the Same Timeline.** Virginia Beach needed the Corps' § 404 permit to build its pumping station in "waters of the United States" and FERC's approval to build this pumping station in Virginia Power's licensed Lake Gaston Project. It was not politically possible to get the Corps and FERC working on the same schedule, and both the Corps and FERC ultimately conducted lengthy and exhaustive assessments of the environmental impacts of the proposal. These proceedings ran end-to-end, and not concurrently. Had it been possible to get these agencies to start at the same time, several years would have been saved. One agency could have taken the lead role in preparing the environmental impact statement, and both agencies could have relied on that statement in making their determinations.

### **III. CONCLUSION**

Water supply projects are heavily regulated and almost always become controversial. With careful planning, however, it is possible to reduce substantially the time and amount of resources needed to build such projects. This paper presents some of the considerations involved in such planning.