RESERVOIR PERMITTING

Regulatory Obstacles & Mitigation Updates

By:
Laura W. Benz, Esq.

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I. INTRODUCTION

Developing a reservoir and securing the necessary federal and state approvals has become increasingly difficult over time. While once possible to obtain permits for development amenity lakes, the U.S. Army Corps of Engineers' (the "Corps") now prohibits permits for projects designed to only serve private aesthetic purposes, regardless of compensatory mitigation. The Corps does recognize the imminent need to plan for water supply reservoirs so as to expand the resources available for citizens under future extreme drought conditions. To construct a water-supply reservoir and secure the necessary approvals from federal and state regulators requires detailed planning, considerable technical expertise, stamina, and persistant political will. Before the required permits are issued, all facets of a proposed water-supply reservoir will receive scrutiny from state and federal agencies as well as the public, repeadely throughout the permitting process. In addition, the regulations governing the permitting process and the interpretations of those regulations are continually evolving, thereby making it difficult to predict precisely what information will be needed to secure the proper permits and whether the information provided will be required to be continually updated before being deemed sufficient for the permit's issuance. At times the process can seem like a three-dimensional minefield; however, with proper planning and economic analysis, sound engineering, diligent environmental science, experienced legal counsel, and political savvy, the necessary permits to develop a water-supply reservoir can be obtained.

II. DEVELOPING A WATER SUPPLY RESERVOIR

A. Service Area, Need, and Project Purpose.

An initial step in developing a new water-supply source is to define the service area for the project. Each state's statutory regime is different, but service areas for water supplies and distribution are usually defined through intergovernmental agreements. In Georgia, a local government or water authority's service area is typically defined by the Service Delivery Strategy as adopted by the county and its municipalities pursuant to O.C.G.A. §36-70-20 et seq. For regional projects, the territories of the participating entities are combined to establish the overall service area for the project. The Georgia

Department of Natural Resources, Environmental Protection Division (GA EPD) will not review a project that does not comply with the Service Delivery Strategy (SDS), with the exception provided by HB 406 which allows reservoirs to be constructed without consistency for SDS provided the SDS is amended after construction.

Once the service area is defined, population projections and water-usage data are used to estimate the area's future water-supply needs. As water-supply planning typically encompasses a fifty-year horizon, estimates based upon multiple variables over this period of time are as much art as science. In the end, the numbers must be supported by abundant data and must be consistent with studies prepared for comparable areas. The completed needs analysis is submitted to the state's agency for environmental protection for review, which in Georgia is GA EPD. Subsequent to March 12, 2010, GA EPD will review the applicant's population projections in conjunction with the 2030 population projections published by the Governor's Office of Planning and Budget (OPB), prepared by the Carl Vincent Institute. GA EPD requires any population projections past 2030 are extrapolated implementing the most recent OPB projections. For county governments seeking concurrence with population projections, this is a simple exercise. However, for those municipal or water authorities applicants not wholly implementing county population projections, an independent anlaysis must be completed implementing the same methodology as the publicly released OPB figures. GA EPD and the Corps have requested that all applicants provide updated population and need analysis regardless of whether an applicant has an expended significant resources based upon reliance on its existing EPD verification or where the applicant is within the permitting process. Over the past several years, depending on the prefrence of the current EPD Director, EPD may or may not issue a letter concurring with the population projections. If a concurrence letter is issued, it may not address water usage and future total demand. If EPD remains silent on the total unmet demand within the planning period, then usage will be vetted and approved by the IRT.

Although typically GA EPD is recognized as the authority for population and usage calculations within the IRT, U.S. EPA has released and requires compliance with its guidelines set forth in "EPA Region IV Guidelines for Water Efficiency Measures for Water Supply Projects in the Southeast," dated

June 21, 2010.[1] Under its authority under the Clean Water Act, EPA requires that appropriate documentation demonstrating substantial compliance with the water effiency guidelines is provided prior to any additional suppemental permit documentation being reviewed by the agency. EPA asserts that compliance with its water efficiency guidelines will provide, to the maximum extent practicable, that the applicant is implementing sustainable water management practices through effective management, efficiency pricing, and efficient water use while implementing a watershed planning, thereby reducing unmet future water supply demands.

To further document the need for a project, the Corps requires that the needs analysis be submitted to the appropriate Regional Planning Commission for review and approval. Within the permitting process, the Corps requires a formal letter from the Regional Planning Commission concurring with the population projections. However, even after the state and Regional Planning Commission concur with the need for a project, the needs analysis will still receive comments and be thoroughly evaluated and receive additional scrutiny from interested parties during the permitting process. For those Applicants who have initiated the permitting process, additional requests to re-examine previously verified population and need calculations can be extremely problematic. A significant revision in population or usage could result in a modification of future demand projections, thereby requiring Applicants to re-visit the potential alternatives to satisfy a modified project purpose and resulting in applicant's not being able to completely rely on the verification letters provided as sufficient to get through the permitting process.

In the initial development of the project, once service area and need are established, identification of the project purpose follows. The project purpose must be defined so as that an applicant is not in the position to direct, or attempt to direct, or appear to direct, the Corps evaluation required under the Guidelines. Simply put, in accordance with the 2004 Partnering Agreement between the Corps, US Fish and Wildlife Service, EPA and GA EPD, the purpose is to identify a reliable source of water supply to meet the identified needs of the service area throughout the planning period.

[1] http://www.epa.gov/region4/water/wetlands/documents/guidelineso_wate_efficienc_measures.pdf

Alternatives Analysis.

Once need and purpose are adequately established, the next step is the identification of alternatives capable of meeting the need. One of the key provisions of the 404(b)(1) guidelines is the "practicable alternatives test", which provides that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact to the aquatic ecosystem".[2] During the permit process, the burden will be on the project sponsor to demonstrate that it has selected the least environmentally damaging practicable alternative capable of satisfying the project purpose.[3] Consideration must first be given to alternatives that avoid impacts to jurisdictional waters. Avoidance alternatives include groundwater, water conservation, water recycling and reuse, and use of existing sources. If satisfactory avoidance alternatives are not available, the analysis continues with the identification of surface-water alternatives and the means of reducing the environmental impact of surface-water alternatives. The following factors are utilized for the analysis of alternatives:

- The ability of the alternative to supply the identified need;
- Water-quality considerations;
- Impacts to downstream flows;
- Impacts to Jurisdictional Waters;
- Impacts to Threatened and Endangered Species;
- Impacts to Cultural Resources;
- Impacts on the Human Environment; and
- Cost.

Water shortages associated with the 2007-2008 drought and recent rulings concerning Lake Lanier decided in the tri-State water litigation are resulting in heightened scrutiny of previously disregarded alternatives. Jurisdictions with water needs may now more closely examine such alternatives

[2] 40 CFR 230.10(a)

[3] 40 C.F.R. § 230.10(a).

as water re-use, desalination and long distance pumping from existing sources. The final allocation of water from Lake Lanier and Lake Allatoona, may result in water providers with much greater unmet water demands than anticipated just a few years ago.

At the completion of the analysis, the project sponsor reviews the available alternatives and selects its preferred alternative, the least environmentally damaging practicable alternative capable of meeting the project purpose.

C. Mitigation.

Impacts to jurisdictional waters of the preferred alternative must be accurately determined and an effort made to avoid or minimize those impacts. The applicant must obtain the Corps' verification of jurisdictional waters proposed to be impacted. Until the Corps provides the requried written verification the applicant will be required to update the information and format of the information to meet the Corps' most recent guideance, even if the delay is wholly attributable to the Corps' failure to act. In addition, until an applicant receives the verification, it will be subject to any changing guidance as to what constitutes a jurisdictional water. The costs and significance to the project of these two variables makes it imperative that the applicant receives verification as quickly as possible. Typically a juridictional waters verification is valid for a period of five years to allow the necessary permitting process to be completed.

Once a permit is issued, the verification associated with the permit stands throughout the life of the permit. An acceptable wetland and stream mitigation plan must then be developed to address the unavoidable impacts associated with the project. While the US Army Corps of Engineers provides a calculation to determine the appropriate amount of compensatory mitigation for impacts equal to or less than 10 acres of wetlands and 5,000 linear feet of stream under its Standard Operating Procedure ("SOP"), the quantity of impacts typically associated with a water-supply reservoir, is outside the scope of the mitigation SOP.[4] Several federal agencies have been working to develop a large project SOP that

[4] *See* "Standard Operating Procedure for Calculating Compensatory Mitigation Requirements for Adverse Impacts to Wetlands Open Waters and or Streams" April 22, 2004, http://www.sas.usace.army.mil/permit.htm. By its terms, the SOP is only applicable to projects with wetlands impacts of 10 acres or less and streams impacts of 5,000 linear feet or less.

would address project impacts exceeding the scope of the standard SOP, however no formal guidance has been released to the public. In March 2008, the *Compensatory Mitigation for Losses of Aquatic Resources: Final Rule* (commonly referred to as the "Mitigation Rule")[5] was approved and became effective on June 9, 2008. Applictions submitted after June 9, 2008 must abide by the new rule, whereas many pending applications have been deemed "grandfathered" under the prior guidance. Within the new rule, there is mitigation preference hiearchy: (1) the purchase of mitigation bank credits, (2) participation in an in-lieu fee program, (3) permittee responsible mitigation under a watershed approach and onsite and/or in-kind permittee responsible mitigation, and (4) off-site and/or out of kind permittee-responsible mitigation.

Under the Rule, the Corps has a strong preference for compensatory mitigation to be provided by available mitigation bank credits. The Corps maintains a database referred to as "RIBITS" which serves as the depository for all banking instrument documentation as well as a summary of available commercial mitigation credits. Upon review of the available credits in RIBITS, an applicant will need to complete an analysis for selection of credits in accordance with the Savannah District, US Army Corps of Engineers' Regulatory Guidelines to evaluate proposed mitigation bank credit purchases in the State of Georgia."[6] Appropriate documentation must be provided to the Corps from the bank demonstrating available credits have been allocated to the project. It is the sole responsibility of the applicant to contract and secure the necessary credits. If a mitigation bank fails to produce the credits shown available in RIBITS for any reason, it is the Corps' position that it is a private contractual dispute between the applicant and the bank which the Corps will not become a party.

If sufficient credits are unavailable within the appropriate watershed, the second preference set forth by the Rule is payment into the in lieu fee (ILF) program. For those applicants within the Savannah District Corps' jurisdiction, the in lieu fee program became a viable alternative on the effective date of the approval of the Georgia Land Trust's In Lieu Fee Program Instrument, November 28, 2013. As proposed

[5] 33 C.F.R. § 325, 33 C.F.R. § 332 and 40 C.F.R. § 23.
[6] http://www.sas.usace.army.mil/Portals/61/docs/regulatory/MB_creditpurchaseguide.pdf

there are only limited advanced credits available in six of the seventeen watersheds in Georgia. The remainder of Georgia watersheds were deemed by the ILF and IRT to have sufficient or soon to be available mitigation credits to satisfy the current demand. As with most Corps' guidance, it is within the discretion of the District Engineer as to whether in lieu fee would be an appropriate mitigation solution for those watersheds without current advanced credits. The cost per credit for payment into the in lieu fee program is based on an estimated commercial mitigation bank credit when supply is low. In addition an 8% administrative cost and 5% temporal loss cost will be added to the total payment due. The purpose of these fees is to allow the purchase of commercial mitigation bank credits when they become available should a project not be able to be completed within three growing seasons and provide the financial resources to manage the program.

The third preference for mitigation is permittee-responsible mitigation. This alternative will require an applicant meet the majority of commercial mitigation banking standards, incloding the financial assurances. For reservoir projects, this means that applicants must provide a non-wasting endowment to provide the necessary funds to care for the mitgation sites in perpetuity and additional financial assurances for the other phases of the project.

The Mitigation Rule contains considerable additional standards applicable to mitigation plans but still does not address the quantity of mitigation for large projects. In the absence of formal guidance documentation, the Corps has determined that the SOP without a scaling factor is appropropriate. Once the mitigation plan is submitted, the 404 permit application can begin to receive substantive comments.

III. PERMITTING A WATER SUPPLY RESERVOIR

A. Section 404 Permits under the Clean Water Act

Section 301 of the Clean Water Act prohibits the discharge of any pollutant by any person into waters of the United States unless such discharge is made in compliance with the Act, [7] including Section 404. "Fill material" is on the list of pollutants and its definition includes the construction of dams and

[7] 33 U.S.C. § 1311(a).

impoundments.[8] Section 404 of the Clean Water Act authorizes the Secretary of the Army to issue permits for the discharge of dredged or fill material into navigable waters.[9] A water-supply reservoir requires an "individual permit" which receives a high level of scrutiny and is evaluated on a case-by-case basis.[10] Although additional permits and approvals are needed in connection with the development of a water-supply reservoir, these permits are generally considered concurrently with the Corps processing of applications filed pursuant to Section 404 of the Clean Water Act.

Once an application is deemed complete, the Corps issues a public notice concerning the project and establishes a 30-day comment period during which interested state and federal agencies and members of the public are invited to submit written comments on a proposed project.[11] At a minimum, the U.S. Environmental Protection Agency (US EPA), U.S. Fish & Wildlife Service (US FWS) and Georgia Environmental Protection Division (GA EPD) will submit detailed comments concerning all aspects of the proposed project. Comments from multiple state agencies and interested members of the public will likely be submitted as well. All comments received are evaluated by the Corps and submitted to the applicant in order to prepare a response.[12] It is crucial at this stage to thoroughly evaluate all comments and make a reasonable determination whether additional information will be needed to assist the Corps in reviewing the project. It is particularly important to attempt to satisfy any concerns raised by US EPA and US FWS because those agencies can elevate the permit application to a higher level of review pursuant to Section 404(q) of the Clean Water Act,[13] while GA EPD can withhold its required 401 water quality certification or associated water withdrawal permits. In addition, the Corps also has the discretion to conduct a public hearing,[14] a formal proceeding where the Corps would serve as a moderator to discuss the project. It is the Corps internal policy to determine whether a public hearing request will be granted

[8] 40 C.F.R. § 323.2. "Placement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States; the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, or other uses; causeways or road fills; dams and dikes."

[9] 33 U.S.C. § 1344.

[10] 33 C.F.R. § 325.8.

[11] 33 C.F.R. § 325.2(a)(2); 33 C.F.R. § 325.3(a); 33 C.F.R. § 325.2(d)(2).

[12] 33 C.F.R. § 325.2(a)(3).

[13] 33 U.S.C. §1344(q).

[14] 33 C.F.R. § 325.2(a)(5).

or denied and inform the public of its decision, shortly after the comment period has ended. Often times an applicant will hold a public information meeting to facilitate information sharing with interested parties and invite Corps personnel to attend, thereby providing a forum for discussion that would not warrant the Corps holding a more formal public hearing.

B. Other Permits and Approvals.

As a prerequisite to issuing a Section 404 Permit, the Corps must ensure compliance with numerous laws not part of Section 404:

- National Environmental Policy Act (NEPA) requiring an environmental impact statement or an environmental assessment;[15]
- Coastal Zone Management Act, if applicable;[16]
- National Historic Preservation Act through the state's agency;[17]

  A cultural resource survey must be prepared and submitted with the Section 404 application. A complex cultural resource issue, e.g., a potential archeological site, has the potential to delay permitting efforts if the issue is not dealt with appropriately.
- Endangered Species Act through U.S. Fish and Wildlife;[18]

  If a proposed project has the potential to impact a threatened or endangered species, or the habitat of a threatened or endangered species, consultation must be initated with the US FWS under the Endangered Species Act.[19] Endangered-species issues add considerable complexity to the permitting process, and it is essential they are handled with expertise. In the near future impacts to species may be able to be mitigated through the purchase of credits at an endangered species mitigation bank.

[15] 33 C.F.R. § 325.2(a)(4).
[16] 33 C.F.R. § 325.2(b)(2).
[17] 33 C.F.R. § 325.2(b)(3).
[18] 33 C.F.R. § 325.2(b)(5).
[19] 33 C.F.R. § 325.2(b)(5).

- Water-Quality Certification as required under Section 401 of the Clean Water Act through the state's environmental protection division.[20] Under OCGA 12-7-17, water supply reservoirs are exempt from requiring a stream buffer variance, however the associated compensatory mitigation is not. This stream buffer variance can be obtained post-404 permit, typically concurrently with the construction of the dam.

C. Permit Evaluation.

Once all comments and responses are received, the Corps' evaluation of the permit begins. Initially, the Corps will review the applicant's project purpose and needs analyis. After the Corps concurs with the purpose and need, a thorough evaluation of alternatives follows. The process for evaluating project alternatives is contained in US EPA's Section 404(b)(1) Guidelines.[21] The Guidelines require the applicant to establish that the proposed project is the least environmentally damaging practicable alternative capable of achieving the project purpose. "Practicable" is itself a subjective term involving costs, existing technologies, and logistics.[22] The Corps presumes there are alternatives to the project unless the applicant, using sound engineering, environmental science, and economics, proves otherwise. In conducting the alternatives analysis, the Corps considers all avoidance alternatives, minimization alternatives, and mitigation alternatives.

Once the Corps is satisfied with the selection of the preferred alternative, a thorough public interest review is conducted. The general policies governing the public interest review are broad and numerous,[23] and their subsets are so complex that any applicant hoping for a simple punchlist will be disappointed. Ultimately, the Corps will review the application to evaluate whether the project serves the public interest by balancing factors which include environmental, cumulative, secondary, and indirect impacts. The Corps' discretion is defined as follows:

> The specific weight of each factor is determined by its importance and relevance to the particular proposal. Accordingly, how important a factor is and how much consideration

[20] 33 C.F.R. § 325.2(b).
[21] 40 C.F.R. § 230.10(a).
[22] 40 C.F.R. § 330.10(a)(2).
[23] 33 C.F.R. § 320.4.

> it deserves will vary with each proposal. A specific factor may be given great weight on one proposal, while it may not be present or as important on another. However, full consideration and appropriate weight will be given to all comments, including those of federal, state, and local agencies, and other experts on matters within their expertise.[24]

As much as an applicant might want a series of bright-line rules, the evaluating criteria remain ambiguous and variable in weight.

After completion of the public interest review, the Corps evaluates its permit options. Assuming the Corps is preparing to make a favorable decision, the Corps then develops conditions to the permit and begin the permit-issuance process. Given the complexity of reservoir projects several example standard conditions to reservoir permits are update FEMA maps; borrow material from the dam must come from uncontaminated sources from within the reservoir pool; operating, maintaining and protecting the reservoir and its watershed in accordance with GA DNR Environmental Planning Criteria, Chapter 392-3-16; and placing a Corps' approved Declaration of Covenants and Restrictions on all compensatory mitigation property to list a few. Although reservoirs have similarities, each reservoir poses its own unique obstacles and permit conditions.

V. CONCLUSION

In order to successfully develop and secure permits for a water-supply reservoir, the applicant cannot afford to submit the application without a thorough understanding of the process and extensive efforts to prepare necessary supporting documentation. Discussions with the staff of the Corps as well as representatives of numerous other agencies are generally helpful as well. Every phase of engineering and science must be conducted diligently and competently so the project can be intelligently reviewed by any one of several regulators. The need for the project must be well documented, the selection of the preferred alternative must be well supported by the alternatives analysis, and an acceptable mitigation plan must be developed. In addition, the applicant must satisfactorily address any possible impacts upon cultural resources or threatened and endangered species. The applicant must also be able to successfully

[24] 33 C.F.R. § 320.4(a)(3).

address any challenge that arises within the permitting process. The successful completion of all these steps is essential to obtaining a favorable and defensible Section 404 Permit decision.