



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: March 16, 2007
Comment Deadline: April 16, 2007
Corps Action ID #: SAW-2007-00895-241

The Wilmington District, Corps of Engineers (Corps) has received an application from the City of Greensboro seeking Department of the Army authorization to permanently impact approximately 0.20 acre of wetlands adjacent to Reedy Fork Creek and approximately 240 linear feet of Reedy Fork Creek stream channel. Furthermore, the project includes proposed temporary impacts of 0.75 acre within Lake Townsend. The proposed impacts are associated with the planned replacement of the Lake Townsend Dam concrete spillway, raw water intake structure and pump station located approximately 0.5 mile north of the intersection of Lake Townsend Road and Bryan Park Road, immediately northeast of the existing dam, in Greensboro, Guilford County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands

Applicant: City of Greensboro
2602 South Elm-Eugene Street
Greensboro, NC 27406

Agent: Brown and Caldwell
Attn: Shearin Dramby
5410 Trinity Road, Palisades II, Suite 320
Raleigh, NC 27607

Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act.

Location

The proposed project site is located approximately 0.5 mile north of the intersection of Lake Townsend Road and Bryan Park Road, immediately northeast of the existing dam, in Greensboro, Guilford County, North Carolina. Coordinates (in decimal degrees) for the site are

36.1890 north, 79.7320 west (North American Datum 1983). The site is adjacent to Lake Townsend and Reedy Fork Creek in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Existing Site Conditions

Lake Townsend Dam is a 1,635 acre impoundment constructed on Reedy Fork Creek in 1968, with a drainage basin area of 105 square miles and normal pool capacity of 6.6 billion gallons. It currently provides 70 percent of the City of Greensboro's water supply. The dam is a class C high hazard earthen dam, with a gated concrete spillway along with a water intake structure and spillway. General land use in the vicinity of the proposed project property consists of mostly recreational (parkland, open space), forested and some single family residential. The project impact area is immediately northeast of the existing dam spillway. Based on information provided by the applicant, the existing spillway, intake, and pump station are deteriorating due to Alkali Silicate Reaction (ASR), which is causing severe cracks in the concrete. Hydrologic and hydraulic analyses conducted by the applicant, indicate that the existing spillway hydraulic capacity is inadequate to pass the state mandated $\frac{3}{4}$ Probable Maximum Precipitation (PMP) spillway design flood (SDF). The analyses also indicate the existing emergency spillway configuration and soils are not suitable for use in passage of the SDF and that erosion failure of this spillway is likely for this event, resulting in an uncontrolled release of reservoir storage and potential loss of the water supply reservoir. The current intake does not provide for exclusion of fish and other aquatic species and was not designed to maintain low intake velocities sufficient for the escape of aquatic species.

The proposed project site includes open fields, upland forest and wetlands dominated by green ash (*fraxinus pennsylvanica*), sycamore (*Platanus occidentalis*) and sweet gum (*Liquidambar styraciflua*) and understory vegetation including red maple (*Acer rubrum*), Japanese honeysuckle (*Lonicera japonica*) and roundleaf greenbriar (*smilax rotundifolia*). One jurisdictional stream, Reedy Fork Creek, is present within the project site boundary. The stream channel has been impacted immediately downstream of the existing dam and is approximately 250 feet wide, at the foot of the stilling basin wall. The stream narrows to approximately 50 feet immediately downstream of the stilling basin. Reedy Fork Creek is shallow (1-3 feet) with a sand and cobble bed for approximately 200 feet beyond the stilling basin and then deepens to over 4 feet due to multiple beaver impoundments and log jams downstream.

Applicant's Stated Purpose

As stated by the applicant, the purpose of the project is to replace the existing Lake Townsend Dam including the primary spillway, raw water intake, and pump station due to deteriorating conditions.

Project Description

The applicant proposes to replace approximately 1,300 feet of the existing Lake Townsend Dam including the primary spillway, raw water intake, and pump station due to deteriorating

conditions. The site is located immediately downstream of the existing Lake Townsend Dam spillway. The project is proposed to replace the existing facilities, with no change in operational capacity, normal water surface elevation, volume, downstream flow in Reedy Creek, or the City's raw water intake and treatment plant capacities. As proposed, the replacement raw water intake and pump station would be built first, structurally separate from the dam to avoid interruption in the City's potable water supply during dam construction. The replacement spillway would be designed to meet the existing target minimum flows of 7.0 cubic feet per second (cfs) when the lake is at or above full pool and 2.0 cfs when the lake is below full pool. The temperature of the discharge water is not proposed to change. In order to minimize downstream impacts, the spillway would be designed to release colder and more oxygenated water, if necessary. A construction access road, approximately 5,000 feet in length, is proposed to be constructed from Doggett Road and would require regrading approximately 4,000 feet of existing access road. The remaining 1,000 feet of road would be constructed through wooded areas with portion of the road alignment along existing trails. A construction staging area is planned between the proposed toe of the dam and the existing roadway. Two upland borrow areas are proposed; one is located south and one is located north of the emergency spillway. Construction debris and excavated soils not used for construction would be disposed of at an approved on-site or off-site location. With reference to the attached project plans the following proposed jurisdictional impacts associated with the project have been identified:

Temporary Open Water Impact (0.75 acre of Lake Townsend) is shown on *Sheets 1,3 and 4*. These impacts would result from excavating and backfill activities necessary for the construction of the intake structure.

Stream Impact #1 (240 linear feet of Reedy Fork Creek stream channel) is shown on *Sheet 2*. This impact would result from the construction of the new spillway.

Wetland Impact #1 (0.20 acre of wetlands adjacent to Reedy Fork Creek) is depicted on *Sheet 2*. This impact would result from the construction of the new spillway.

The total permanent jurisdictional impacts associated with the proposed project total 0.20 acre of wetlands and 240 linear feet of stream channel. The project also includes temporary jurisdictional impacts of 0.75 acre of open water, associated with the water intake structure.

On-site avoidance and minimization of impacts to aquatic resources have been incorporated in the project design. The applicant is currently exploring potential on-site compensatory mitigation opportunities. If on-site mitigation is not feasible, then the applicant proposes to mitigate project impacts through payment to the North Carolina Ecosystem Enhancement Program (EEP).

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for

certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Ms Cyndi Karoly by April 9, 2007.

Essential Fish Habitat

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project will not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. A final determination on the effects of the proposed project will be made upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service."

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation,

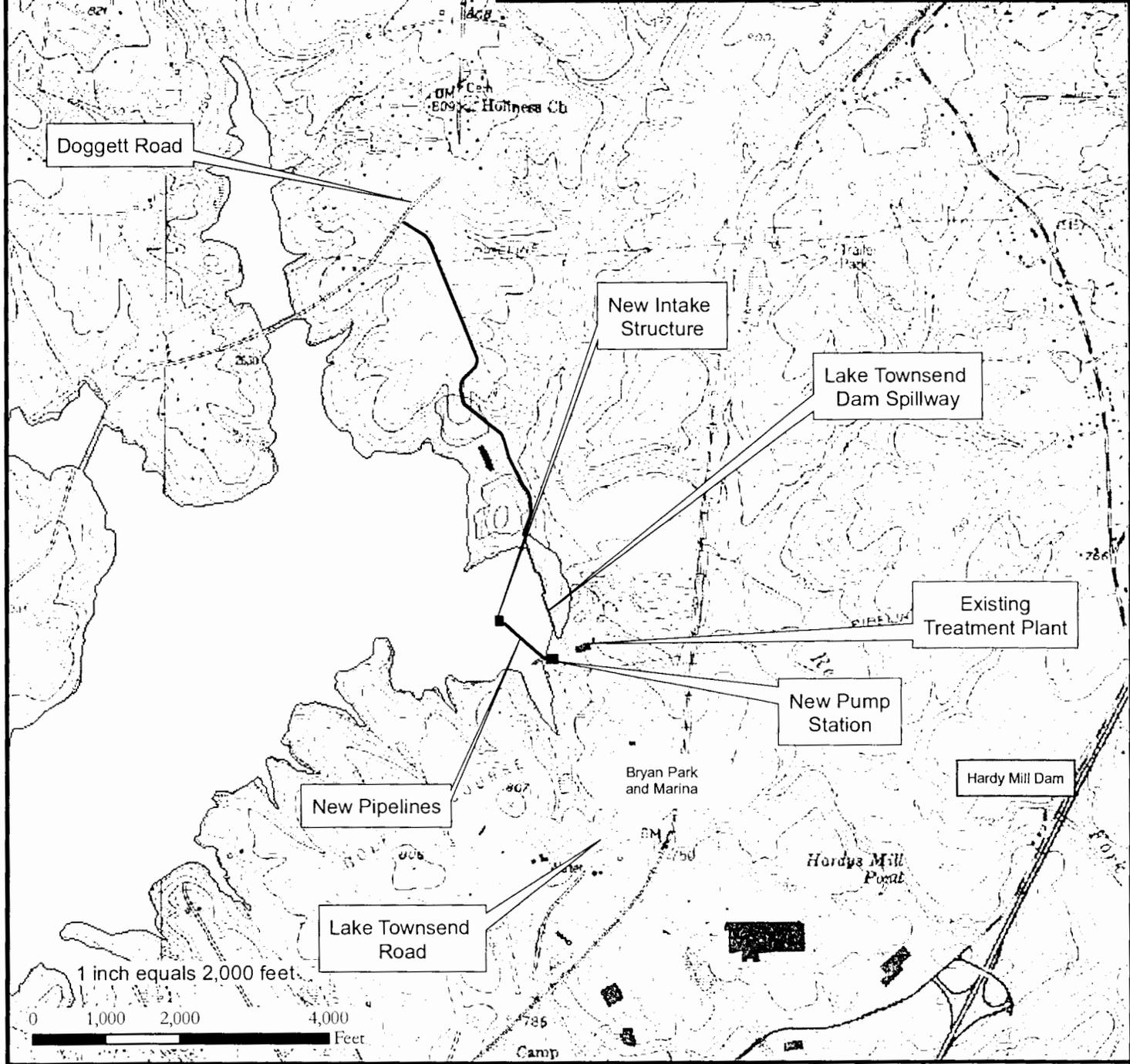
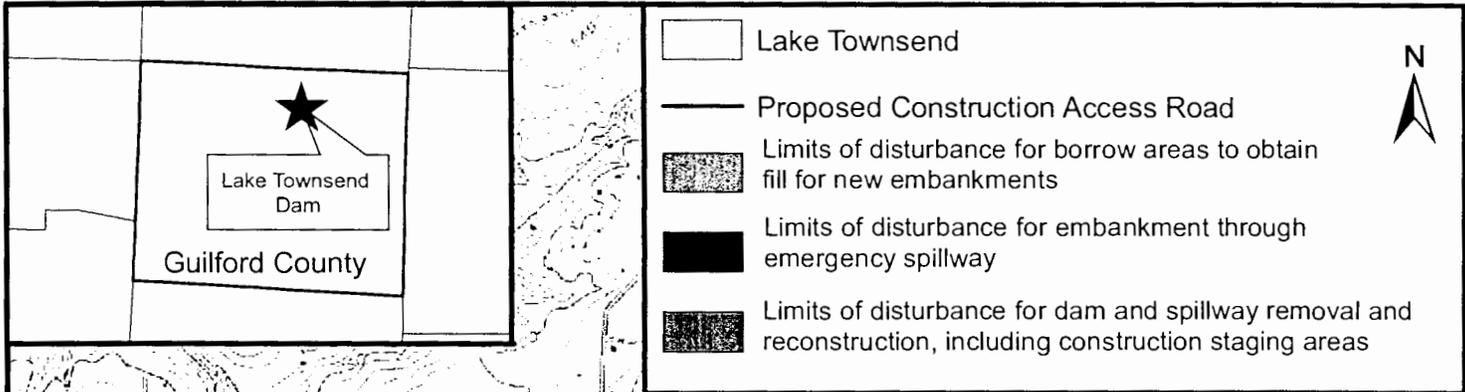
economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, 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 the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public: Federal, State and local agencies and officials, including any consolidate State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, April 16, 2007. Comments should be submitted to Andrew Williams, Raleigh Regulatory Field Office, 6508 Falls of the Neuse Road, Suite 120, Raleigh, NC 27615.



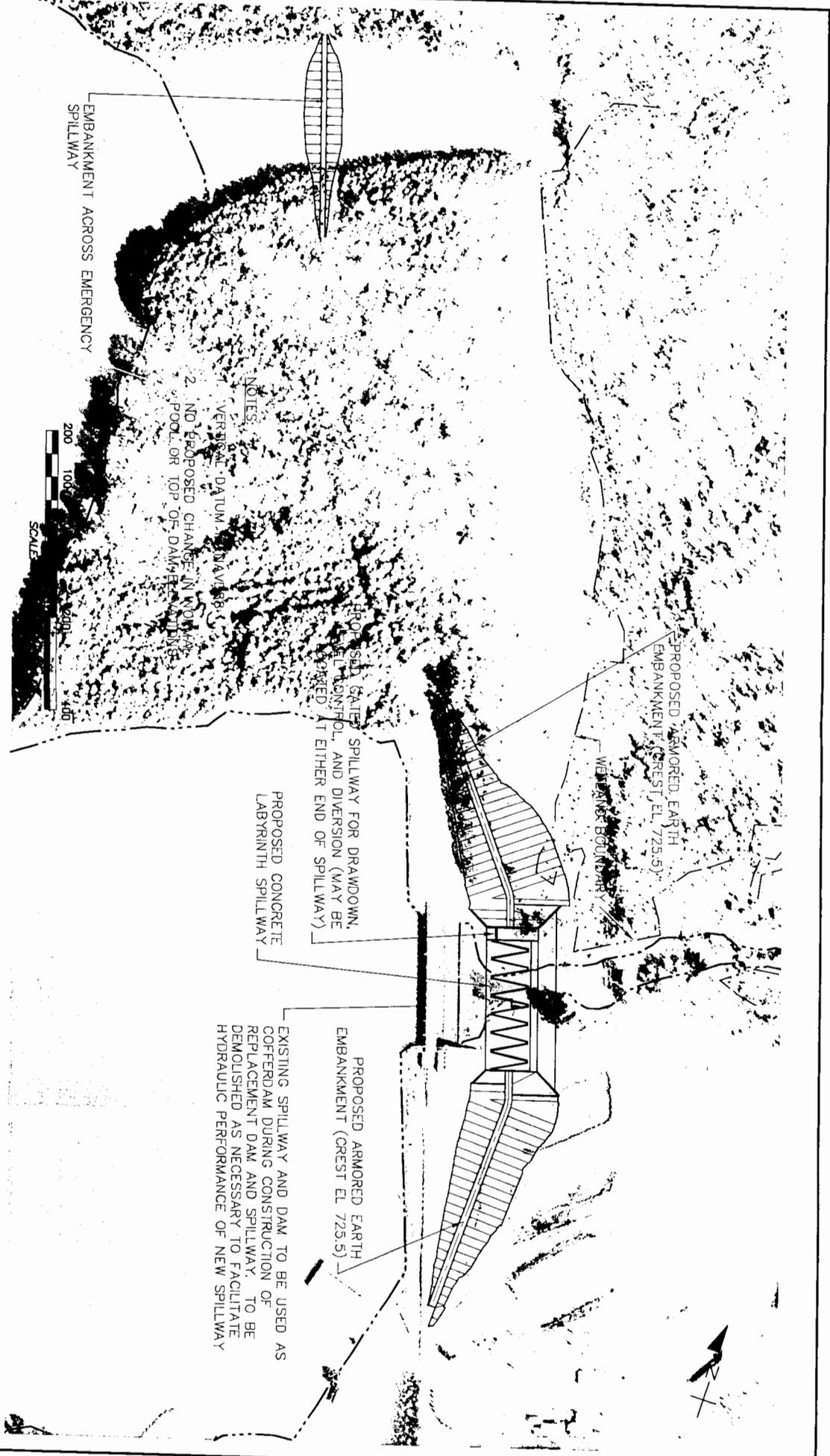


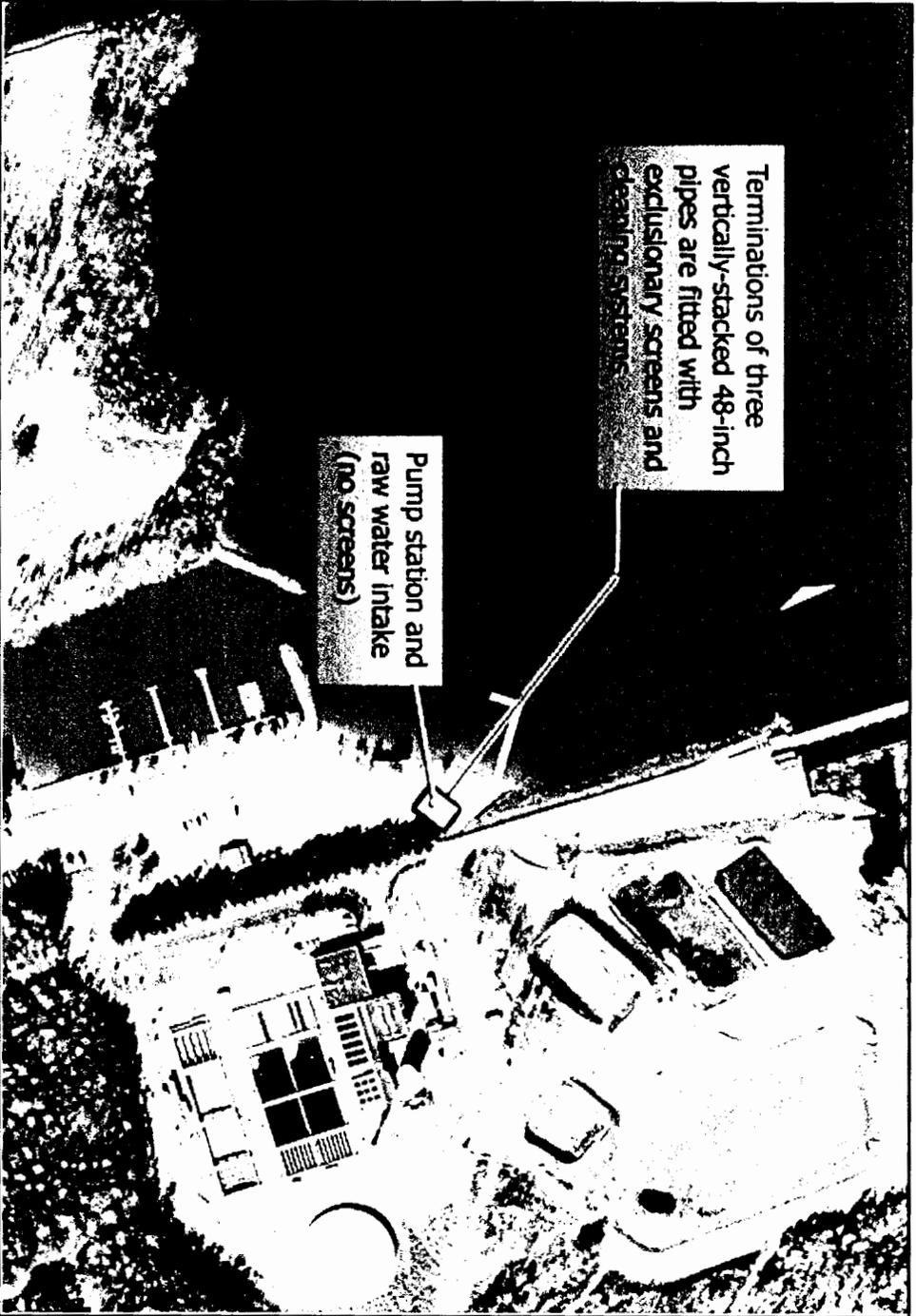
City of Greensboro
 Water Resources Department
 2642 S. Film-Hygiene Street
 Greensboro, NC 27406

Dam and Spillway Alternative 2: (Preferred) Single Spillway, Armor Embankment, Downstream Location

LAKE TOWNSEND DAM REPLACEMENT PROJECT

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 Sheet 2 of 5





WATER Resources
City of Greensboro

City of Greensboro
Water Resources Department
2602 S. Elm-Eugene Street
Greensboro, NC 27406

Alternative 3: (Preferred) Shoreline
Intake Multilevel Pipeline
LAKE TOWNSEND DAM
REPLACEMENT PROJECT

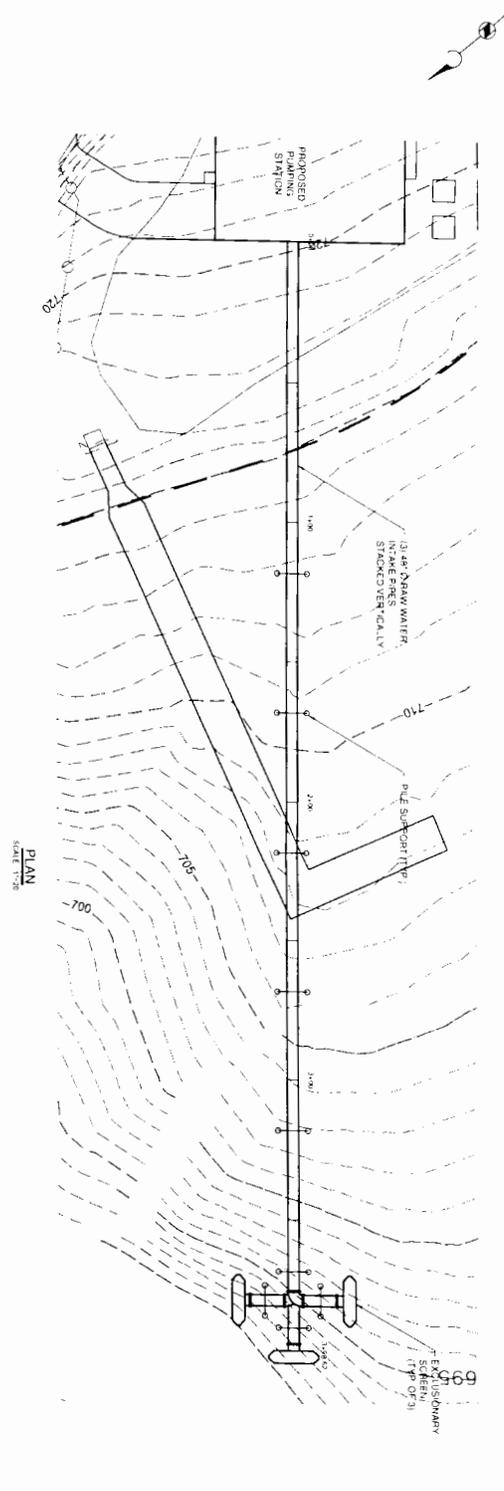
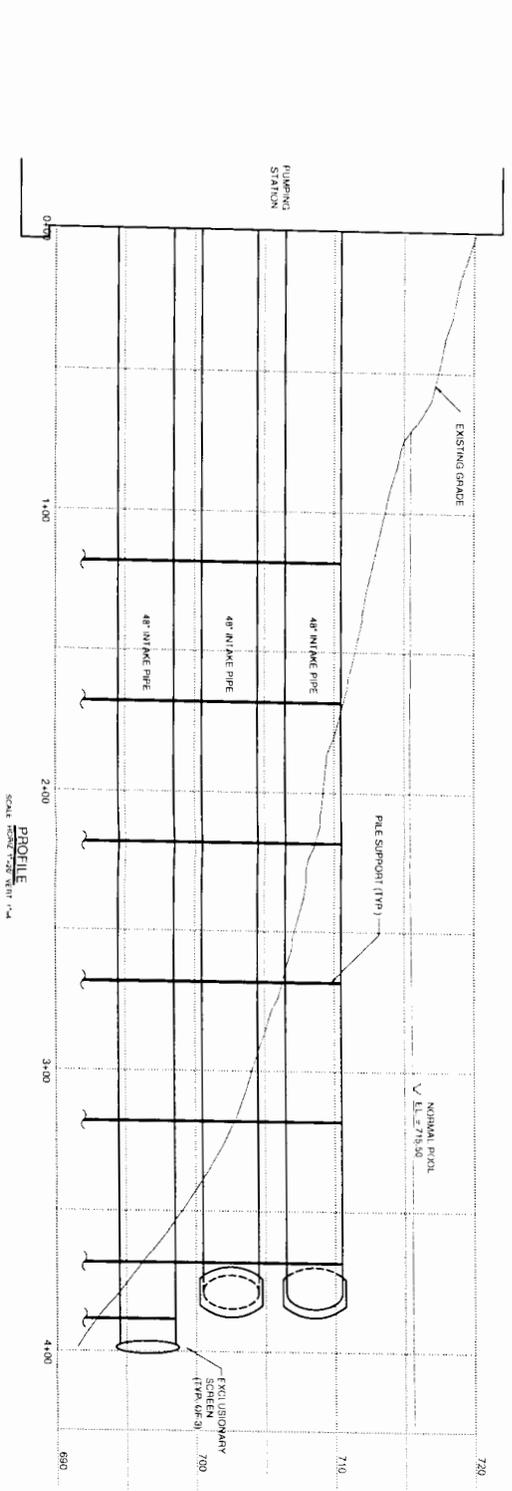
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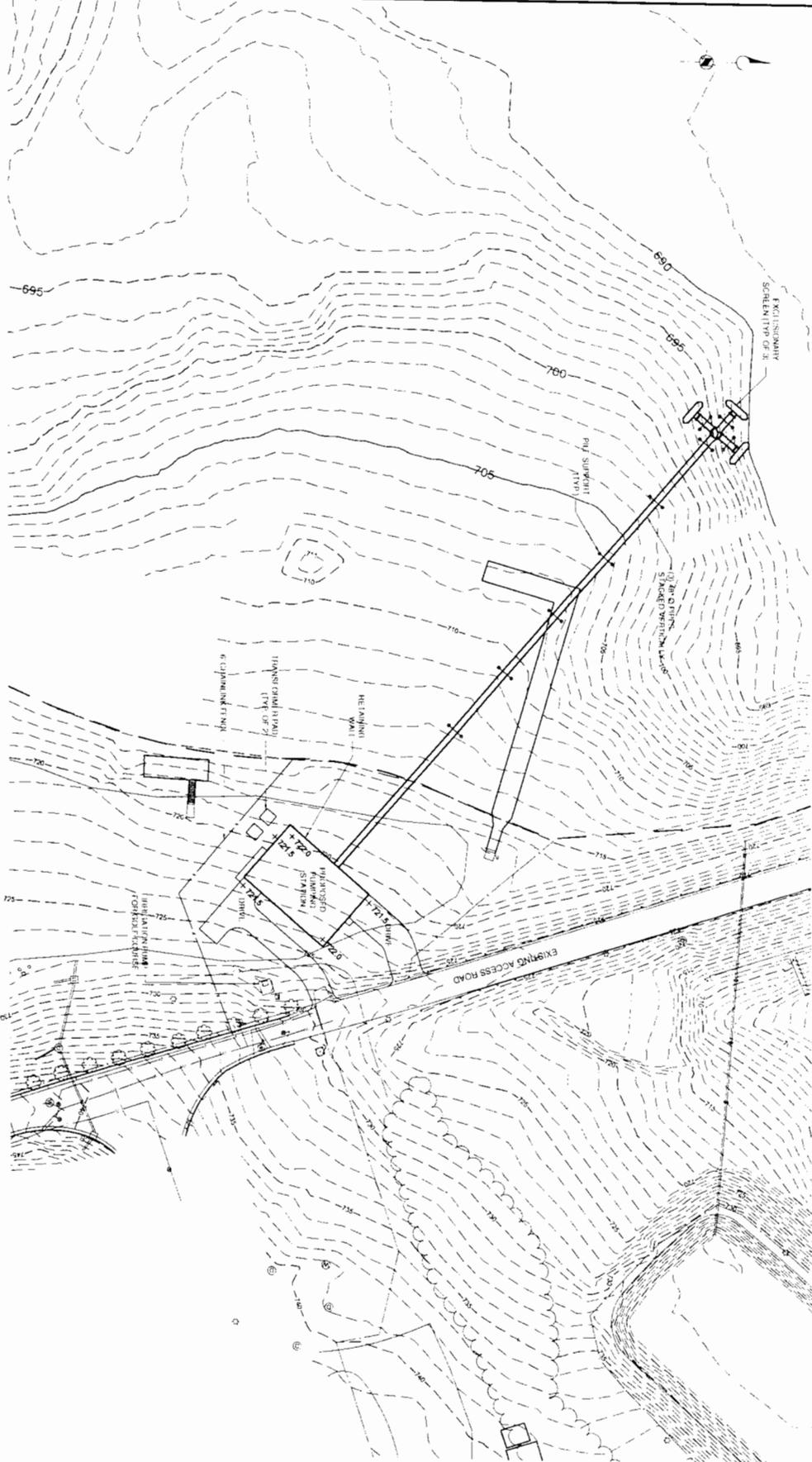
Preferred Alternative 3: Shoreline Intake Multilevel Pipeline, Profile View
 LAKE TOWNSEND DAM REPLACEMENT PROJECT

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City of Greensboro
Water Resources Department
2602 S. Elm-Eugene Street
Greensboro, NC 27406



PUMP STATION SITE
PLAN
SCALE: 1" = 300'

Preferred Alternative 3: Shoreline Intake Multilevel Pipeline, Plan View

LAKE TOWNSEND DAM REPLACEMENT PROJECT

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