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September 20, 2006

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MEPA

Mr. Richard Bourre'  
Assistant Director  
Attn: MEPA Office  
100 Cambridge Street, Suite 900  
Boston, Massachusetts 02114

Subject: City of Taunton  
Raw Water Pump Station and Intake Replacement  
Request for Advisory Opinion (RAO)

Dear Mr. Bourre':

On behalf of the City of Taunton (the City), CDM (Camp Dresser & McKee Inc.) is pleased to submit a Request for Advisory Opinion (RAO) for the Raw Water Pump Station and Intake Replacement at the existing Taunton Water Treatment Plant (WTP) in Lakeville, MA.

### Description of the Project Area

The Taunton WTP is located at 91 Precinct Street in Lakeville, overlooking Elders Pond (see Figure 1). The City has been withdrawing water from Elders Pond for drinking water purposes since late 1800's. The existing raw water pump station was built in 1965. There are two existing raw water intakes; one was constructed in 1894 and the other in 1964. The WTP was constructed in 1981 and currently supplies water to Taunton, Lakeville, North Dighton, Bridgewater Correctional Complex, and portions of Berkley, Lakeville, Middleboro, Norton, and Raynham.

A CDM Wetland Scientist conducted a site visit on August 16, 2006, and determined that there are no Bordering Vegetated Wetlands associated with Elders Pond in the project area. Wetland resources are limited to Land Under Water and Inland Bank. The replacement raw water pump station will be partially constructed within the 100-foot Buffer Zone of Inland Bank. There are no state listed rare or endangered species within or adjacent to the project area according to Massachusetts Natural Heritage Atlas, 11th Edition (effective July 1, 2003).



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## **Proposed Work**

The Raw Water Pump Station and Intake Replacement Project at the Taunton WTP consist of the following:

- (a) ***Replacement of the Low Lift Raw Water Pump Station and Intake*** - The pumps at the existing pump station were replaced when the water treatment plant (WTP) was constructed in 1981 and have deteriorated to the point where the pumps operate below the design capacity of 12 million gallons per day (mgd) and replacement parts for the variable frequency drive (VFD) motors are unavailable. The original pump station was built in 1965 and has exceeded its useful life, see attached Figure 2 for location. The new pump station will have a footprint of approximately 50' x 50' with three 7 mgd pumps. The new pump station will not increase the capacity of the plant, but will allow the plant to meet peak hourly flows during the summer with two pumps operating and one standby pump.

The two existing intakes at the shoreline have silted up over time and are well beyond their useful life. A replacement intake will be installed to provide water to the plant. This intake will extend between 100 feet and 200 feet from the shoreline (see Figure 2). The replacement intake will be designed to meet the WTP capacity of 12 mgd. The final layout of the replacement intake will depend on the results of a bathymetric survey being conducted in September 2006. The replacement intake will be more efficient and will also minimize security risks as the existing intakes are right at the shoreline. The existing intakes will be abandoned in place.

- (b) ***Replacement of Sedimentation Sludge Collection System*** - The existing chain and flight sludge collection system is also original (constructed in 1981) to the WTP and is no longer operable. Replacement of the sedimentation sludge collection system will consist of replacing the existing chain and flight system in kind. While the sedimentation basins are empty for the replacement of the sludge collection system, various repairs will be done to the sedimentation basin concrete lining and joints. All work associated with the replacement of the sedimentation sludge collection system will be contained within the existing sedimentation basins.
- (c) ***Replacement of Existing Standby Generator*** - The existing generator has exceeded its useful life and replacement parts are no longer available. The existing generator will be replaced with a new generator to handle loads from both the existing WTP and replacement pump station. All work associated with the replacement of the generator will be contained within the Generator Building.



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### **Summary of Environmental Impacts**

The water level in Elders Pond is regulated and varies between an historic low of 80 feet and a maximum elevation of 85 feet. Impacts to the lake bed and banks will be limited to short-term construction impacts. The area of temporary impact will be between 3,000 square feet and 6,000 square feet altered from the installation of the new 100 to 200-foot intake. The new intake pipe will most likely consist of 36-inch diameter high-density polyethylene (HDPE) pipe with an intake screen at the pipe end. Subsurface geotechnical investigations will be completed along with the bathymetric survey in September 2006. Results of these investigations will ultimately determine the intake pipe material, method of construction, and means of intake pipe support.

The new intake pipeline will be installed using a barge-mounted clamshell excavator or through alternate technologies that may be employed by the General Contractor.

This project is not anticipated to impact access to the shoreline of Elders Pond. All of the proposed work on land at the existing WTP will be within the existing site boundaries. The current use of this area will not change as a result of this work. All areas disturbed during construction will be restored to preconstruction conditions upon completion of the work.

### **MEPA Review Applicability**

We are asking for concurrence that the proposed project as described above does not trigger the filing of an ENF, and other MEPA review if the Secretary so requires, since the project qualifies as a Replacement Project and as stated in 301 CMR 11.01(2)(b), the review thresholds in 301 CMR 11.03 (1-12) do not apply to Replacement Projects. A Replacement Project is defined as "any Project to repair, replace, or reconstruct a previous use of or Project on a Project site that does not:

- (a) increase potential environmental impacts or need additional or changed environmental Permits; or [301 CMR 11.02(2)]"*

The City will be required to obtain a Chapter 91 Water Dependent License for the replacement intake since Elders Pond is classified as a Great Pond [310 CMR 9.02]. The City will also be required to obtain a 401 Water Quality Certificate from MassDEP for work within an Outstanding Resource Water (ORW), since a public water supply is classified as an ORW under 314 CMR 4.04(3), as well as approval under the Army Corps of Engineers Programmatic General Permit (PGP) for greater than 5,000 square feet of excavation of sediments for the replacement intake. In addition, the City will prepare a Notice of Intent and



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will request review by the Lakeville Conservation Commission under the Limited Project provisions of the Wetlands Protection (WPA) 310 CMR 10.00. It is our opinion that the potential impacts and mitigation associated with this project can be adequately addressed during the permitting process.

*(b) result in any substantial (10% or more) Expansion of the use or Project, provided that the previous use or Project has not been discontinued for more than three years and that the Expansion does not meet or exceed any review thresholds [301 CMR 11.02(2)].*

The proposed project does not result in any expansion of use since the additional capacity of the pump station, increased from 12 mgd to 14 mgd, will not increase the capacity of the water treatment plant, but will allow the plant to meet peak hourly flows during the summer with two pumps operating and one standby pump.

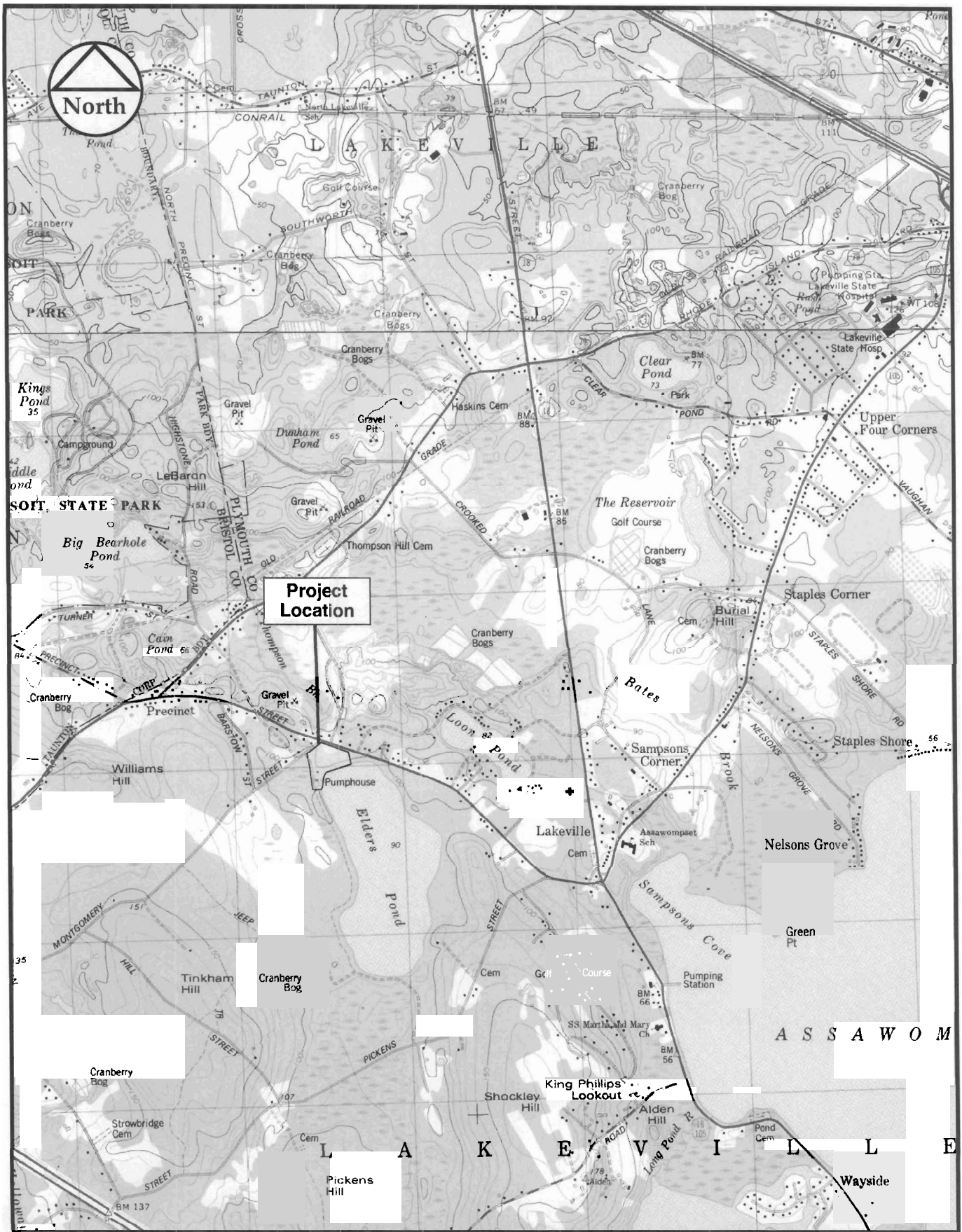
We look forward to your written concurrence that this project does not trigger the filing of an ENF, and other MEPA review if the Secretary so requires, since it is a Replacement Project. If you have any questions or comments, please call me at (617) 452-6597 or Gregg Giasson, Project Manager at (401) 457-0304.

Very truly yours,

Magdalena Lofstedt, PWS  
Environmental Scientist  
Camp Dresser & McKee Inc.

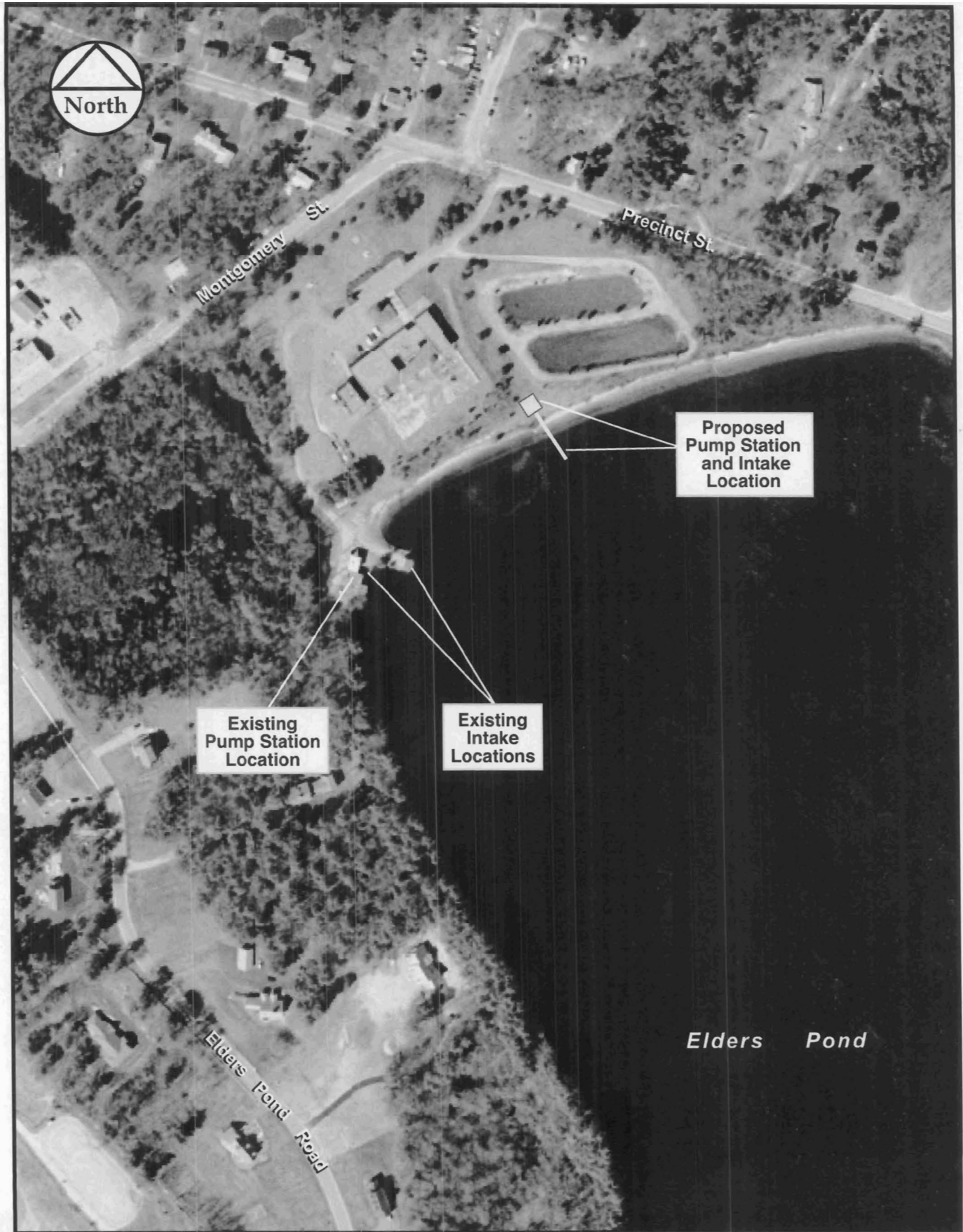
Enclosures: Figure 1: Project Location  
Figure 2: Aerial Photo of Project Site  
Photographs 1 through 4

cc: Cathal O'Brien, Taunton Water Treatment Plant  
Gregg Giasson, CDM



Town of Lakeville, Massachusetts  
Raw Water Pump Station and Intake Replacement

**Figure 1**  
**Project Location**

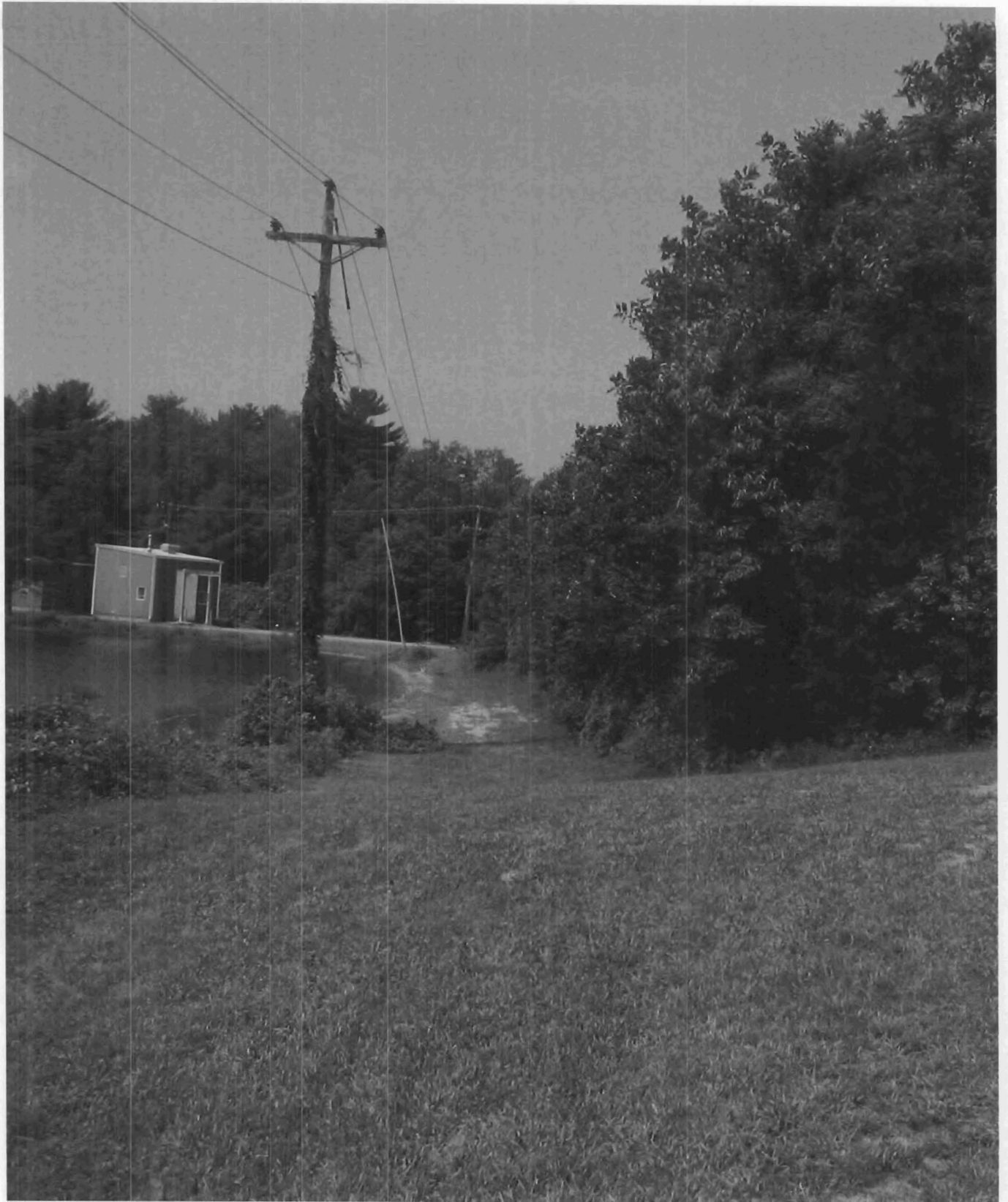


Source: MassGIS, Commonwealth of Massachusetts EOE

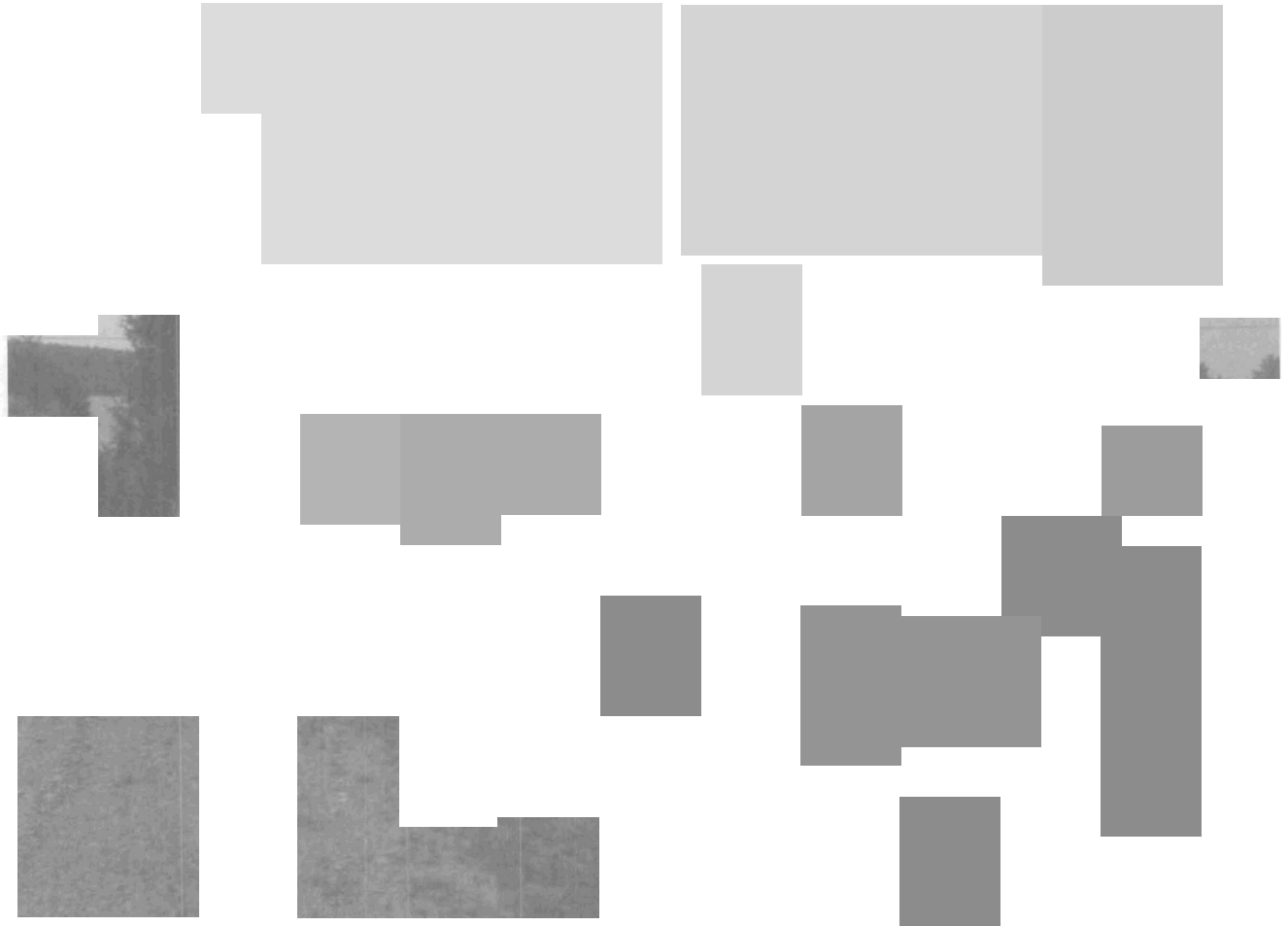
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**CDM**

**Figure 2**  
**Aerial Photo of Project Site**



Proposed Raw Water Pump Station location looking towards existing Pump Station.



View of proposed Raw Water Pump Station location and Elders Pond from the lagoons, looking south.





View from proposed Raw Water Pump Station looking west towards the Sedimentation Basin at Water Treatment Plant.



View of proposed Raw Water Pump Station location looking north towards the lagoons.