

Request for Proposals
THOMAS POND DAM REPAIRS

Background

The Thomas Pond Dam (Dam) is located on the Casco Raymond line and controls the water flow from Thomas Pond/Dingley Brook into Sebago Lake. It is located near the intersection of Hawthorn Rd. and Raymond Cape Rd. The Dam is listed in the national Inventory of Dams as NID: ME00073¹ and by Maine as MIDAS number 3392. Thomas Pond is currently estimated to be 533 acres in size with an average depth of 22', containing roughly 10,500 acre-feet of water².

In 1990 the State of Maine Department of Environmental Protection declared the Dam abandoned and transferred ownership and operation of the concrete structure of the Dam to the Thomas Pond Improvement Association (TPIA). Access to the Dam is via easements granted by the property owners on both sides of the Dam.

The Dam was (re)built in 1935 and substantially repaired circa 1991 by Bancroft Contracting. Over the 33 years since the last repair the Dam has developed some cracks and portions of the concrete show damage from erosion. This damage is mostly in the spillway area of the Dam. The wing walls appear to be in good condition.

Water flow over the Dam is controlled by the use of stop logs, either 4x4 or 2x4 with a rebar running through them to provide points to grab the stop logs for removal. There is always a minor amount of seepage through the Dam as well. There are two rows for stop logs, and TPIA normally uses the downstream area, but while work is being performed on the Dam TPIA anticipates using the upstream stop log area.

The spillway area of the Dam is 6' wide x ~8' high, and the floor area is roughly 6' wide x 5' long. Stop logs can be placed in the top 50" of the spillway and sit on top of a log that is permanently bolted to the Dam surface. The stop logs fit into cut-outs which are ~7 1/4" deep by 5 1/4" wide. Typical lake elevation is 17"-20" below the top of the Dam from mid-May to mid-October, and from 24"-30" below the top of the Dam from mid-November to early-May.

Below the area where stop logs are installed is approximately a 4' high wall that is covered in metallic plate. There is a 6" diameter conduit pipe to bypass³ the stop logs roughly 11" from the Raymond sidewall and 12" from the floor of the Dam.

TPIA is seeking proposals through this RFP to repair the damage to the Dam and implement measures to ensure the long-term health of the concrete structure. TPIA is interested in proposals for repairs that will keep the Dam in good condition for a minimum of 20 years with minimal or no maintenance. If periodic maintenance is required or recommended, Proposers should provide TPIA with a recommendation for maintenance practices.

¹ <https://nid.sec.usace.army.mil/#/dams/system/ME00073/summary>

² http://www.gulfofmaine.org/kb/files/9680/MaineLakes_Geography_Morphometry.xls

³ To the best of our knowledge, this bypass has not been used in at least 20 years, and TPIA has no plans to use it.

Request for Proposals
THOMAS POND DAM REPAIRS

Point of Contact

The Thomas Pond Improvement Association point of contact for this RFP is Robert Chapin, President. He may be reached for more information, to answer questions, or to arrange a site visit, at dam-repair@thomaspond.org or (571) 217-1700. email contact is preferred.

Companies interested in responding are encouraged to provide TPIA with contact information as soon as possible. While TPIA does not anticipate making changes to this RFP after it is released, it reserves the right to do so. If TPIA does make updates to the RFP or changes to the schedule, it will notify interested parties who have provided it with contact information.

RFP Responses

RFP responses are due on 11/4/2024. Responses must be submitted via email to dam-repair@thomaspond.org.

Scope of Work

TPIA is requesting the following scope of work be performed where the condition of the concrete could impact the life expectancy of the Dam. TPIA is not requesting purely cosmetic repairs. Work is limited to the concrete around the spillway of the Dam where water passes over the stop logs, through the spillway and stilling basin, and to the culvert under Cape Road. No work on the wing walls is anticipated under this RFP. All known areas of damage are included in, or described with, the photographs included in this RFP.

1. **Concrete repairs** - removal of damaged concrete as needed and repair.
2. **Crack repairs** - filling/sealing of any cracks in the Dam. There appear to be three types of cracks, (1) seeping cracks, (2) cracks in concrete surface, and (3) cracks between apparent concrete pours. Responses must address each type as needed.
3. **Protective measures** – If appropriate, installation of protective coverings, such as polyurethane or metallic sheeting or plates in areas of the Dam most subject to damage from water or ice.

TPIA has a vendor for protective aluminum sheet sleeves inside the downstream stop log cut-outs. Proposers will be responsible for affixing these sleeves via construction adhesive or other means once other repairs to the stop log cut-out area is completed.

4. Replacement or smoothing of “fixed” bottom stop log in downstream slot.

None of the damage is believed to threaten the structural integrity of the Dam at this time. If Proposers determine that there is a reasonable possibility of a structural problem affecting the integrity of the Dam that will not be repaired through this RFP, they should let TPIA know immediately.

Specification of Work

Concrete & Crack Repairs

Proposers may propose any methods and materials for achieving the repairs and protective measures that they deem will achieve TPIA's objectives of a long-term (20+ year) solution that protects the structural integrity of the Dam.

For each area of degradation shown in this section proposers must describe the specific method(s) and material(s) (cut sheets ok) that they will to use, and whether or not the repair involves removal of damaged or patched concrete. Responses need not be lengthy, but must be sufficiently detailed to allow evaluation by TPIA. If proposers determine that a specific area's degradation is cosmetic only, they may so note and need not propose any repairs to that area. If proposers determine that the same repair method applies to multiple deficiencies, they may describe the method one time and reference each area to which it applies.

For seeping cracks and gaps responses must include filling any voids behind the concrete surface and the method that will be used to do this (e.g., filling with cement or mortar, polyurethane injection, or other). TPIA anticipates this will require removal of temporary hydraulic cement patches applied by TPIA in an effort to prevent further deterioration until the work can be completed professionally.

Note: Additional photos of the condition of the Dam may be viewed at <https://thomaspond.org/dam-damage>

A.

Damaged corner of the Dam and associated cracks, at the bottom of the spillway on the abutment on the Casco side of the Dam.



Not easily visible, but there is about a 1'x1'x6"D "hole" right below the damaged area. While we aren't sure, it appears this may be an intentional feature of the dam since the sides appear even.

Request for Proposals
THOMAS POND DAM REPAIRS



The Casco side is the area of greatest visible damage. The associated crack appears to run back to inside the stop log holder and the void was large enough to put a hand into before we put in hydraulic cement. There is continuous seepage through this crack.

B.
Crack with seepage near stop logs on the Raymond side of dam



C.
Dry crack in the Dam between the two stop log slots on the Raymond side. Less than 2' from the top of the dam

Request for Proposals
THOMAS POND DAM REPAIRS



D.

Dry cracks in Raymond side of Dam abutment facing Dingley Brook. No similar cracks observed on Casco side.



E.

More concrete damage and seepage on the abutments. This closeup is on the Casco side. The concrete damage mostly appears to be surface erosion. Both the Casco and Raymond sides have this type of wear near areas where the water flows over the stop logs.



Request for Proposals
THOMAS POND DAM REPAIRS



The Raymond side (photo on website) shows little erosion in the stop log cut-out.

Repairs to the downstream Casco-side stop log cut-out shall not reduce the width or depth of the cut-out.

F.

Concrete degradation at the back of the stop log cut-out on the Casco side. (both photos) The hydraulic cement patch is visible to the lower left in the photo.



G.

Wear, crack/seam and efflorescence on the Dam surface on the Raymond abutment.



Request for Proposals
THOMAS POND DAM REPAIRS



H.

Unpatched vertical crack on the Raymond side by the stilling basin (same crack as above picture) leading up to the ledge. Appears to be where two concrete forms met.

I.

Rough concrete surface on Raymond (right) and wear around the ledge Casco (below) abutments in the stilling basin area.

Also one exposed piece of rebar – is that an issue that also needs to be addressed for safety reasons?



Request for Proposals
THOMAS POND DAM REPAIRS

J.

Vertical crack, less than 1" in width, on the Raymond side abutment where it meets the support structure for the road and culvert (the downstream side of the stilling basin), patched with hydraulic cement. Well above water level.

No pre-patch photo is available.



K.

Floor of spillway area of Dam. The "step" shown here is 15" high x 6' wide x ~5' long. The surface where the water hits is worn rough, but appears to be free of cracks.

There is some erosion on the Casco side near the corner (below) but not on the Raymond side (bottom right photo).

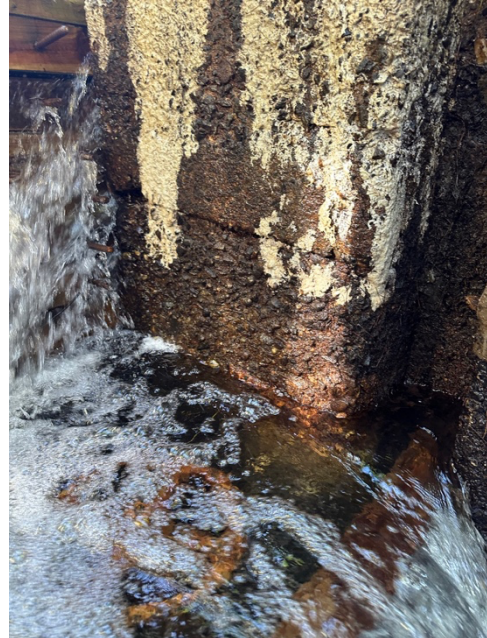


Request for Proposals
THOMAS POND DAM REPAIRS



L.

Cracks about 32" below the top of the dam on both the Casco (left) and Raymond (right) sides of the dam in the area between the two stop log holder cut-outs.



M.

Unpatched vertical crack/seam on the Casco side abutment where it meets the support structure for the road and culvert (the downstream side of the stilling basin). Well above water level.

Other Work Items

1. Replace, sand, or otherwise ensure a flat surface/good seal, for the next 20+ years for the bottom stop log and stop logs above it in downstream stop-log slot. This log appears to be a 4x4 that abuts each dam wall, approximately 86" – 87" in length. The mechanism holding it in place is not visible on top of the board. The board does not appear to be rotted.
2. Affix aluminum sleeves in downstream stop log cut-outs

Request for Proposals
THOMAS POND DAM REPAIRS

3. Installation and location of any other protective measures not otherwise described in responses to above potential work items

Proposed Timeline

TPIA anticipates the following rough timeline, all dates are subject to change:

Estimated Date	Milestone
9/30/24	RFP Released
9/30/24 – 11/3/24	Q&A and Site Visit period
11/4/24	Deadline for Proposal Submission
11/5/24 – 11/19/24	Review of Submissions
11/20/24 – 12/31/24	Contractor Selection and Contract Negotiation
1/9/25 – 1/16/25	TPIA Board Approval
2/8/25 or 2/15/25	Special Meeting of the TPIA Members Approval <i>Note: required for contract execution</i>
June 2025	Town Warrant Approvals
July 1, 2025	Town funding available (all funds in hand)
July 1 – October 15, 2025	Preferred period of time for work performance

Other Provisions and Contract Considerations

Validation of dimensions

Proposers are responsible for verifying all dimensions included in this RFP or used in their estimates.

Validity Period

Proposals must be valid for a minimum of 90 days after submission. This time is required to allow TPIA to fully review the proposal and hold both a board meeting and then a special meeting of its members to approve the work.

Contract Method

TPIA is seeking a firm fixed price contract. Proposers should provide a contract template that will form the basis of any agreement between TPIA and the selected company.

Proposed Cost

Proposers must specify the complete costs of performing the work, including taxes and fees.

Permits

Proposers must (a) specify if permits will be required from either Casco or Raymond for performance of the work, and (b) whether the proposal includes the Proposer obtaining the required permits. Per Maine DEP, NRPA permits are not required so long as the work fits within requirements outlined in 38 M.R.S. § 480-Q 2.E.

Job Duration

Proposers must specify an expected and maximum duration for the performance of the work. Work shall not begin until all materials required are on hand.

Interruption to Water Flow

Proposers must clearly identify if, and for how long, performance of the work will require complete interruption of water flow over and through the dam. If no permits are required but water flow must be interrupted, TPIA shall obtain written permission from the Commissioner of the Maine Department of Environmental Protection prior to the commencement of work.

Request for Proposals
THOMAS POND DAM REPAIRS

Proposers are advised that water flows over the Dam are typically lowest in July, August, and September. However, water flow can be adjusted to a minimum of 1.2 cfs (~540 gallons/minute) any time of year for a few days if needed without requiring DEP permission.

There is a 6" dry standpipe on the Casco side of the Dam that may potentially be used with permission of Casco in conjunction with a pump and hose as one way to maintain the required minimum water flow around the work area.

Expected Start/ Latest Start Dates

Proposers must specify the expected start date and latest start date. For scheduling purposes, Proposers should assume that TPIA will execute a contract no sooner than 2/15/25 and no later than 5/1/2025.

Traffic & Erosion Control

If determined required by Proposers, proposals must specify, and include all costs for, any traffic control, erosion control, or police details.

Excluded Work Items

Proposers must specify any items with potential costs which the proposal excludes.

Change in Dimensions

Proposers must inform TPIA if the proposed work will result in a change in the height or width of the spillway where water flows over the stop logs, and at what elevations the width is changed, and provide final measurement of the changed spillway width.

Warranty

Proposers must provide a warranty for materials and workmanship on the completed work with a minimum period of 1 year. Proposers should describe the details of the warranty they will provide. Longer and more comprehensive warranties will be viewed favorably.

Job Safety

Proposers are responsible for all safety training and precautions and perform all work at their own risk. Proposers must promptly notify TPIA if there is any injury on the project.

Insurance

Proposers must carry all insurance required by the State of Maine with a minimum liability policy amount of \$5,000,000. Proposers must name TPIA and two property abutters as named insured prior to the start of work and for the duration of the project.

Proposer Qualifications, Licenses & References

Proposers must submit a list of qualifications and licenses held by the firm and principals on the project, and three references (preferably for similar work).

Impact on Abutters

TPIA has easements granting access to the Dam from the abutters on each side. Any damage to abutting property must be repaired to return the property to the pre-work condition after completion of the work. Any restoration must be included in the scope of work.

It appears to TPIA that heavy/bulky materials and equipment can be moved onto the dam on the Casco side without having to go over a guardrail, or they may be passed over the fence surrounding the Dam from the shoulder of the road by appropriate equipment, should that be necessary. Proposers are advised to consider any impact on abutter property in development of their proposals.

Request for Proposals
THOMAS POND DAM REPAIRS

Evaluation Criteria

TPIA will evaluate responses to determine the best value and fit for its needs on the basis of cost, completeness of solution, timeline to begin and complete repairs, vendor reputation and responsiveness, vendor flexibility, warranty, and other factors it may find relevant. As a small not-for-profit with a very limited budget, TPIA expects cost to be the primary factor in deciding between similar proposals.

Contract Award

TPIA reserves the right to award zero or one contract under this RFP and to negotiate any changes to the proposed scope of work solely with a selected vendor or with multiple finalists. TPIA reserves the right to modify the RFP and will notify potential Proposers that provide contact information of any changes during the proposal submission period.

Sketch of the Dam

