



HALEY WARD®

ENGINEERING | ENVIRONMENTAL | SURVEYING

June 3, 2024

AIM Development USA, LLC Bucksport Mill, LLC
Attn: Dave Bryant-Project Manager
2 River Road
Bucksport, Maine 04416
dbryant@aim-recycling.com

Re: Toddy Pond Dam | Orland, Maine

Dear Dave:

Pursuant to your request, a structural evaluation was undertaken on the morning of May 22, 2024, for the referenced structure. The purpose of our evaluation was to review the Dam structure and ancillary components and render an opinion on their current condition. Specifically, are there concerns/issues that would require immediate attention by AIM Development USA, LLC (AIM), and any recommendations we believe AIM needs to consider ensuring that the Dam remains functioning as designed. Our evaluation was visual in nature and limited to those areas/components accessible at the time. No sampling, testing, or analysis was done as part of the services rendered. Information provided for our review includes the Hazard and Conditions Report dated October 12, 2021, compiled by the State of Maine's Office of Dam Safety and the Emergency Action Plan (EAP) compiled for Bucksport Mill, LLC dated December 2022. Photographs were taken for documentation.

Our observations and a review of the information provided show the Dam to be a concrete gravity structure approximately 196 feet long with a center concrete head gate that supports the gate mechanism. On each side of the head gate structure are spillways that allow for uncontrolled overflow from Toddy Pond. The spillways and gate discharge on to a concrete apron the directs flow into the stream/river below. Attached to the Dam is a concrete fishway that allows passage of fish from the stream into Toddy Pond. Downstream of the Dam is a concrete bridge structure (deck, abutments, wingwalls) that ties into both the apron walls and fish passage. At the time of our evaluation, there was a fence that prevented access to the head gate mechanism and the pool area of Toddy Pond.





Based on our observations, it is our opinion the Dam as currently operated is functioning as intended and shows no sign of imminent failure. While there are sections of the concrete components that are deteriorated, it has not created any instability to the overall structure. Furthermore, when comparing the photos taken as part of the 2021 inspection report to current conditions, it is our opinion items identified in that report do not appear to have changed or gotten any worse. However, we do recommend the following items be undertaken as part of maintenance and improvement operations:

1. Retain the services of a commercial diver to complete an underwater inspection of the dam structures and head gate, especially around the known leaking areas.
2. Complete coring of various concrete elements and test for ASR deterioration
3. Develop a design to repair deteriorated concrete elements and address the leakage around the head gate.
4. Remove vegetation and debris on the upstream face of the Dam and stabilize with stone riprap.

We hope this information serves your needs presently. If there are any questions, or should you require further assistance, please contact us at (207) 989-4824.

Sincerely,
Haley Ward, Inc.

Peter J. Tuell, P.E.
Senior Project Manager | Vice President

PJT/kmg
Enc.



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 1	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Fishway Retaining Wall	
Photo By: PJT	

Photo No. 2	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Fishway Concrete Structure	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 3	 05/22/2024 07:43
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Bridge With Abutments and Wing Walls	
Photo By: PJT	

Photo No. 4	 05/22/2024 07:44
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Spalled Section of Fishway Retaining Wall	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 5	 05/22/2024 07:45
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Fishway and Concrete Wing Wall Showing Signs of Deterioration	
Photo By: PJT	

Photo No. 6	 05/22/2024 07:45
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Fishway Showing Some Deterioration	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 7	 A photograph showing a concrete fishway structure with multiple rectangular openings. Water is flowing through the openings, creating white rapids. The structure is surrounded by lush green vegetation and trees. A timestamp "05/22/2024 07:46" is visible in the bottom right corner of the photo.
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Fishway at Entrance to the Stream	
Photo By: PJT	

Photo No. 8	 A photograph showing a concrete spillway structure with a large rectangular opening. Water is flowing through the opening, creating white rapids. The structure is surrounded by lush green vegetation and trees. A timestamp "05/22/2024 07:47" is visible in the bottom right corner of the photo.
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Spillway, Apron, Retaining Wall, and Head Gate with Elevated Deterioration	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 9	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Spillway, Apron and Retaining Wall With Elevated Deterioration	
Photo By: PJT	

Photo No. 10	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Concrete Dam Section with Deterioration	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 11	 05/22/2024 07:48
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine 	
Description: Concrete Cutoff Wall with Deterioration	
Photo By: PJT	

Photo No. 12	 05/22/2024 07:49
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Vegetation on Upstream Side of Impoundment	
Photo By: PJT	



AIM DEVELOPMENT USA, LLC
TODDY POND DAM

Photo No. 13	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Elevated Deterioration of Head Gate and Structure	
Photo By: PJT	

Photo No. 14	
Photo Date: May 22, 2024	
Site Location: Toddy Pond Dam, Orland, Maine	
Description: Elevated Deterioration of Head Gate Structure at Base	
Photo By: PJT	

Commercial Divers Inc.

Inspection Report

Page: _____ of _____ Pages

Date: _____

Report Filed By: _____

Time: _____ AM: ____ PM: ____

Facility: _____ Location In Facility: _____

Area of Inspection: _____

Location: _____ Customer: _____

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Notes:

Commercial Divers Inc.

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