Law • Science • Policy

# Archipelago

Mike Morse Senior Environmental Consultant MMorse@ArchipelagoNA.com 22 Free Street Portland, Maine 04101 Main office (207)558-0102

March 25, 2022

Sent Via Mail to:

Alex Sirois Code Enforcement Officer Town of Raymond 401 Webb Mills Road Raymond, ME 04071

Re: Shoreland Permit Applications – 18 Fernwood Road and 28 Whitetail Lane After-the-Fact / Proposed Vegetation and Tree Removal, Filling and Earth Moving

Dear Alex,

On behalf of Management Controls, LLC and Big Lake Marine Construction, LLC, Archipelago is pleased to submit the attached Shoreland Permit Application, Tree Removal Application, and associated materials for the after-the-fact permitting of previous tree and vegetation removal, as well as filling and earth moving, that was completed in association with a shoreland stabilization project at the above referenced properties. Additionally, further vegetation removal and earth moving is proposed to complete the shoreline stabilization effort at the southerly end of 28 Whitetail lane.

Please do not hesitate to contact me if you have any questions. I may be reached by telephone, 207-558-0102, or by emailing me at MMorse@ArchipelagoNA.com.

Sincerely,

like Morse

CC: Robert Durant Management Controls, LLC

G. Divide F by A to arrive at the total percent of expansion Requested to date.	F. Add C + E (This is the total amount of aq.Ft. expansion Previously approved including the Sq.Ft. expansion Requested to date.)	E. Total Sq. Ft. of expansion requested with this application.	D. Subtract C from B (this is the maximum amount of Sq. Ft. expansion with this application	C. Total Sq. Ft. of expansion approved from 1/1/89 to present.	B. Multiply A by 30% to arrive at maximum expansion allowed.	Floor Area A. Square Footage of pertion of structure which is less required 100 foot setbach from the nhwl.	EXPANSIONS OF EXISTING STRUCTURES WHICH A	Size of Lot: 8.57 / 2.03 Square Footage of lot to be covered b structures that have no vegetation)	Proposed project description: Proposed clearing, tree and vegetation remo Tree Removal X Disturbance of Soil/Vegetation X	Big Lake Marine Construction, LLC Contractor name, address & phone #: <u>Q-Team, Inc 86 Casco Road - R</u>	Mangement Control - 18 Fernwood Road, Raymont, ME Mailing Address: Big Lake Marine Construction - See Below Address of	Owner: Management Controls, LLC / Co. Applicant - Big Lake Marine Cons	Town of RAYMOND SHOR Dated: Fee: チンシ Permit #
G. Divide F by A to arrive at the total percent of expansion requested to date.	F. Add C + E (This is the total amount of Cu.Ft. expansion previously approved by including the Cu.Ft. expansion requested with this application.	E. Total Cu.P. of expansion requested with this application.	B. Subtract C from B (this is the maximum amount of Cu.Ft. expansion with this application.)	C. Total Cu.Ex of expansion approved from 1/1/89 to present.	B. Multiply A by 30% to arrive a maximum expansion allowed.	Volume A. Cubic Footage of portion of structure which is less than required 100 foot setback from nhw	ARE LESS THAN TUP FROM THE NOWL	by non-vegetated surfaces (this includes all walkways, decks, and Elevation above 100 year flood:	oval, filling and earthmoving	C - 856 Roosevelt Trail, Windham, ME 04062 - 207-595-0073 ?oute 11, Naples, Maine 04055 - 207-693-3831	of construction: 18 Fernwood Road & 28 Whitetail Lane	struction, LLC Phone:	RELAND ZONING PERMIT APPLICATION   Zone LRR2 Map # 1 Lot 20 & 22

certify that this project disturbs $\frac{1/4}{16}$ square footage and that I m aware of the Stormwater Management Law and have obtained all ermitting from the State of Maine Department of Environmental Protection. Sperty Owner/Authorized Agent $\frac{3/25/22}{24}$	authorize the CEO to do all necessary inspections during normal business ours.	acknowledge that all information submitted regarding construction meets ne 1999 BOCA building code.	<frontend541分<file missing="">&gt;&gt; Zoning Ordinance. I also understand that may need a soil and erosion control plan whenever there is disturbance soil.</frontend541分<file>	ssume full responsibility for the accuracy of all plans and supporting formation submitted with this application. I understand that I may be quired to move/remove any improvement if an exact determination of operty lines establishes that required setbacks were not met. The oposed use shall comply with the purposes and requirements of the	stmit#
	Comments or Conditions:	Square Footage left for future expansion: Volume left for future expansion:	Code Enforcement Officer Dated	Approval or Denial of Application Approved/Denied Approved Denied	PERMIT PAGE 2 Issue date

## Archipelago Law

Mike Morse Senior Environmental Consultant MMorse@ArchipelagoNA.com 22 Free Street Portland, Maine 04101 Main office (207)558-0102

March 23, 2022

Whom It May Concern:

Management Controls, LLC, authorizes Archipelago to sign to and submit permit applications on its behalf to the State of Maine Department of Environmental Protection, Town of Raymond, and U.S. Army Corps of Engineers. Such permit applications are intended for construction activities on properties located at 18 Fernwood Road and 28 Whitetail Lane, Raymond, Maine.

Al

3/23/2022

Signature

Date

Dr. John R. Coon, Esq. Benjamin E. Ford, Esq. Sandra L. Guay, Esq.

## Archipelago Law

Mike Morse Senior Environmental Consultant MMorse@ArchipelagoNA.com 22 Free Street Portland, Maine 04101 Main office (207)558-0102

March 23, 2022

Whom It May Concern:

Big Lake Marine Construction authorizes Archipelago to sign to and submit permit applications on its behalf to the State of Maine Department of Environmental Protection, Town of Raymond, and U.S. Army Corps of Engineers. Such permit applications are intended for construction activities on properties located at 18 Fernwood Road and 28 Whitetail Lane, Raymond, Maine.





Signature

Date

### **Project Narrative**

### Tree Removal

Management Controls, LLC hired Q-Team, Inc. to remove several trees, including but not limited to the trees necessary for Big Lake Marine Construction, LLC to gain access to the project with equipment. As a result of the work, approximately 21 trees were removed within 100' of the adjacent resource. Many of these trees were either partially dead, hazard trees or undermined by wave action and the remaining trees required removal to conduct the project. Eight saplings were cut to allow removal of the larger trees and facilitate project construction.

Replanting will occur in accordance with Shoreland Zoning Ordinance § 15(T). A revegetation plan has been submitted to the Planning Board and will be reviewed in coordination with their shoreline stabilization review. The proposed revegetation will occur along the same segment of shoreline as close as possible to where the previously existing vegetation was removed as part of the shoreline stabilization efforts. Some vegetation was located on the embankment which was subject to wave action. Vegetation cannot be planted in riprap, so proposed vegetation will be setback immediately behind the riprap slope. The revegetation efforts will take place upon approval and authorization to proceed by the Town and DEP, and after full completion of the shoreline stabilization.

The revegetation will utilize native noninvasive species as identified on the revegetation plans. Different species will be implemented to promote biodiversity in the plantings and no one species will make up 50% or more of the number of trees and saplings planted. The proposed planting will be located in substantially the same location as the removed vegetation. Once matured and sufficiently established, the proposed plantings will effectively screen the shoreline from the adjacent upland further than the original condition. The applicant will ensure that at least 80% of revegetation efforts do not die off for a minimum of 5 years, otherwise they will supplement their efforts to include further vegetation planting.

### Vegetation Removal

During construction, unexpected saturated soil conditions posed a significant threat of additional soil erosion and sedimentation discharge into Sebago Lake. After receiving advice from Portland Water District's Watershed Protection Staff, applicant's contractor expanded the project scope by extending filter fabric and riprap higher than originally intended in order to prevent catastrophic slope failure and soil discharge into the lake. While some vegetation did exist on the original slope, it was limited in both area and density, and likely growing at the very top of the slope or near the base of the slope on pockets of previously failed/slumped soil from the adjacent slope. This vegetation likely provided little to no benefit to slope stability, and the vegetation near the base of the slope and any accompanying soil would have likely eroded into the lake during typical high lake water events.

Under the Shoreland Zoning Ordinance § 15(C) and (T), vegetation may be removed in excess of § 15(Q) Clearing or Removal of Vegetation for Activities Other Than Timber Harvesting. Vegetation may be removed for this purpose provided that it is limited to removing only that which is necessary to conduct the project and provided that vegetation is replanted upon completion of the project, or during the succeeding growing season. Here, vegetation removal was required for construction equipment because barge access was not feasible.

As is necessary for nearly all such stabilization projects, trees were removed at or immediately behind the top of the slope in order to accommodate construction equipment while constructing structures extending over or below the normal high-water line and shoreline stabilization projects. Clearing was required adjacent to the shoreline for the entire 350' horizontal distance of the project. However, no clearing was necessary for perpendicular access to the shoreline.

The proposed additional stabilization will remove minimal vegetation along approximately 15' of the embankment to be stabilized with further riprap. No additional vegetation removal is proposed on the upland side of the slope, other than several ornamental landscaping plants.

Woody vegetation under 3' that was removed will be replaced along the top of the riprap slope; however, due to the steepness of the 2:1 slope and presence of riprap, natural or planted vegetation will not catch on the slope itself and will ultimately die off. The revegetation quantity and variety will be sufficient to prevent soil erosion and provide efficient and effective infiltration of stormwater and no one species will make up a majority of the revegetation efforts. The applicant will ensure that at least 80% of revegetation efforts do not die off for a minimum of 5 years, otherwise they will supplement their efforts to include further vegetation planting.

### Filling and Earth Moving

More than 10 cubic yards of filling and earthmoving has and will occur as a result of prior and proposed shoreline stabilization. The original actively eroding shoreline was too steep for non-structural stabilization treatment. To create a slope that could sustain the shoreline stabilization effort, the upper portion of the existing vertical and undercut embankment was pulled back to achieve a 2:1 slope. As a result of the project, approximately 350 linear feet of shoreline was stabilized using new riprap and filter fabric on an approximately 2:1, or a 50% grade. This is consistent with typical riprap slope stabilization construction.

An additional approximately 15 linear feet of unaltered shoreline at the southerly end of Whitetail Lane has exhibited signs of failure (slumping) and is proposed to be repaired. A similar method of pulling back the upper portion of the embankment and applying riprap will be implemented. This riprap extension will complete the project and will stabilize the remaining unstable section of shoreline. The extension and further soil disturbance is required to reduce the potential of slope failure into Sebago Lake, as well as further loss of land and premature failure of the existing adjacent riprap. Filling, grading, earth moving, and vegetation removal activities were previously conducted in such a manner to prevent erosion and sedimentation of surface waters to the maximum extent practical. Erosion and sedimentation controls were applied throughout all stages of construction in accordance with best management practices ("BMP") to control soil and sedimentation erosion. No soil discharge into the adjacent resource occurred throughout construction. All proposed site work will be completed in conformance with BMPs and installed prior to soil disturbance. An erosion control silt fence will be installed and all erosion control BMPs will be monitored to ensure proper function. All soil or silt that accumulates in the BMP will be removed and disposed of properly.

Project construction will be compartmentalized into daily segments, meaning that only the area intended for final construction within a day will be disturbed with equipment. Any exposed ground area is stabilized the same day as its exposure.

### DLN: 1002140162509

#### SHORT FORM WARRANTY DEED

KNOW ALL BY THESE PRESENTS THAT, **NORMAN W. PULLEN** and **JANET E. PULLEN**, both of Raymond, Cumberland County, Maine (collectively, the "Grantors"), FOR CONSIDERATION PAID, grant to **MANAGEMENT CONTROLS**, LLC, a limited liability company formed under the laws of the State of Florida, having a mailing address of PO Box 2058, Auburn, Maine 04211 (the "Grantee"), WITH WARRANTY COVENANTS, the following described real property located in the Town of Raymond, County of Cumberland and State of Maine:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

IN WITNESS WHEREOF, NORMAN W. PULLEN and JANET E. PULLEN have hereunto set their hands and seals this  $\$  day of  $\$  ulg , 2021.

WITNESS:

Service P. Merritt

Wina new Tulk NORMAN W. PULLEN

JANET E. PULLEN

STATE OF MAINE <u>Lymperlane</u>, SS.

July 1\_\_\_, 2021

Personally appeared the above-named **NORMAN W. PULLEN** and **JANET E. PULLEN**, and acknowledged the foregoing instrument to be their free act and deed.

Before me,

Notary Pub

LISA A. KUBIAK CHRISTIE Print Name: Notary Public, State of Maine My commission Expires June 21, 2027

### DOC :66934 BK:38666 PG:125

### <u>EXHIBIT A</u> Norman W. & Janet E. Pullen to Management Controls LLC Map 1 Lot 20, Whitetail Lane, Raymond Maine

A certain parcel of land, and any and all improvements located thereon, situated westerly of, but not adjacent to, the westerly side of Raymond Cape Road in the Town of Raymond, County of Cumberland, State of Maine as shown on a plan entitled "Pullen Property Open Space Subdivision Plan" dated November 29, 2006 and revised through March 28, 2007 recorded in Plan Book 207 Page 217 in the Cumberland County Registry of Deeds, being bounded and described as follows:

Commencing on the westerly sideline of Raymond Cape Road at land now or formerly of Alicia Ashe as described in a deed recorded in Book 2925 Page 278 in the Cumberland County Registry of Deeds;

Thence S 80° 57' 14" W, by and along land of Alicia Ashe, a distance of 1229.21 feet to the westerly sideline of the Open Space Lot and the **Point of Beginning**;

Thence continuing S 80° 57' 14" W, by and along land of Alicia Ashe, a distance of 289.88 feet to a point;

Thence continuing S 80° 57' 14" W, by and along land of Alicia Ashe, a distance of 15 feet, more or less, to the shore of Sebago Lake;

Thence northerly, by and along Sebago Lake, a distance of 300 feet, more or less, to land now or formerly of Robert O. Wetzel and Gretchen Wetzel as described in a deed recorded in Book 13173 Page 70 in the Cumberland County Registry of Deeds;

Thence N 81° 54' 10" E, by and along said land now or formerly of Wetzel, a distance of 15 feet, more or less, to a point to which a tie line bears N 16° 24' 13" W and a distance of 285.23 feet from the last-mentioned point;

Thence continuing N 81° 54' 10" E, by and along said land now or formerly of Wetzel, a distance of 345.77 feet to a point at the northwesterly corner of Lot 2;

Thence S 13° 35' 26" E, by and along the westerly sideline of Lot 2, a distance of 125.28 feet;

Thence S 78° 43' 17" W, by and along the sideline of Lot 2, a distance of 41.06 feet;

Thence S 13° 31' 12" E, by and along the westerly sideline of Lot 2, a distance of 69.11 feet to the northwesterly corner of the Common Open Space Lot;

Thence continuing S 13° 31' 12" E, by and along the westerly sideline of the Open Space Lot, a distance of 82.02 feet to the Point of Beginning.

The parcel contains 2.03 Acres and is shown as Lot 3 on said Plan recorded in Plan Book 207 Page 217. Bearings are Grid North.

Also conveying herein to the Grantee, its successors and assigns, in common with others, is the right of use of the 40 foot wide access and egress and utility easement for the placement of any and all utilities as well as for any other purpose for which a town way may be used, over the premises shown on the above referenced Plan from the Raymond Cape Road to the hammerhead turnaround and its terminus on Lot 3.

This conveyance is also subject to, <u>and benefitted by</u> a "Declaration of Protective Covenants, Reservations, Restrictions and Easements for 297 Raymond Cape Road Open Space Subdivision, Raymond, Maine" dated April 30, 2007 and recorded in said Registry in Book 25060, Page 173 (the "Declaration"), with said Covenants, Restrictions, etc., <u>being incorporated herein by</u> reference thereto and being appurtement to Lot 3 and therefore running with the land.

Grantee agrees to comply with, all easements, covenants, and obligations set forth in the aforementioned Plan, and as set forth in the Declaration. The Grantee shall be required to be a member of 297 Raymond Cape Road Homeowners Association, Inc. and to contribute its share of expenses as provided in the Bylaws for such homeowners association. The obligations of the Grantee referenced in this paragraph shall run with the land and shall be binding on all successors, heirs, and assigns.

Being a portion of the premises conveyed to the Grantors herein by Warranty Deed dated October 11, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8587, Page 125. Additional reference may be made to Warranty Deed of the Salvation Army to Norman W. Pullen and Janet E. Pullen dated December 14, 1976 and recorded in said Registry in Book 3965, Page 175. (space above reserved for recording information)

DLN#1001940056397

### **TRUSTEE'S DEED** Maine Statutory Short Form

**KNOW ALL PERSONS BY THESE PRESENTS**, that **Bryn J. Owen**, **Trustee of the Bryn J. Owen 2006 Revocable Trust dated July 21, 2006** with a mailing address of 40 Smithcliffs Road, Laguna Beach, California 92651, by the power conferred by law, and every other power, for consideration paid, grants to **Management Controls**, **LLC**, a Florida Limited Liability Company having a mailing address of 101 Merrow Road, Auburn, Maine 04210 the land in the Town of Raymond, in the County of Cumberland and State of Maine, described as follows:

A certain lot or parcel of land, together with the buildings and improvements thereon and all appurtenances belonging thereto, situated in Raymond, Cumberland County, State of Maine, and lying on the Westerly side of the Raymond Cape Road, so-called, and being more particularly bounded and described as follows:

Beginning on the Westerly side of said Raymond Cape Road at an iron at the Southeasterly corner of lot numbered 5 on plan of division of the land of Mary Lamb Riley by Harlan H. Sweetser, in May 1946, being the Northeasterly corner of land conveyed to Eugene Byron Morgan by Mary Lamb Riley, by deed dated January 14, 1946, and recorded in Cumberland County Registry of Deeds, Book 1805, Page 167; thence run North 78 degrees West by said lot numbered 5 and by other land formerly of Mary Lamb Riley, one thousand five hundred eighty (1,580) feet, more or less, to a stake at the top of the bank on the shore of Sebago Lake; thence run Southerly along the shore of the Lake two hundred eighty-four (284) feet, more or less, to a stake at land conveyed by Marjorie Lamb Riley to Albert E. Willis; thence run Southeasterly by said Willis land to said road at a stake one hundred ninety-three (193) feet Southerly from the point of beginning; thence run Northerly by said road one hundred ninety-three (193) feet to the point of beginning.

Being the Northerly part of lot numbered 6 on the aforesaid plan. Reference is further made to a Standard Boundary Survey for Robert & Gretchen Wetzel prepared by Lewis & Wasina, Inc., dated September 29, 1998 and recorded in Plan Book 199, Page 43.

Being the same premises conveyed to Bryn J. Owen, Trustee of the Bryn J. Owen 2006 Revocable Trust dated July 21, 2006, by virtue of a Trustee's Deed from Anne F. Hutchinson, Trustee of the Anne F. Hutchinson 2002 Family Trust dated March 25, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30495, Page 130.

WITNESS my hand(s) this 29 day of April, 2019.

Bryn J. Owen 2006 Revocable Trust dated July 21, 2006

Vien

By: Bryn J. Owe Its: Trustee

e Attached Centificate <u>A [19 Notary Initials]]]/</u> DATE.

STATE OF \_\_\_\_\_

Witness

Wg.

COUNTY OF \_\_\_\_\_,ss

April\_\_\_, 2018

Personally appeared the above named Bryn J. Owen Trustee of The Bryn J. Owen 2006 Revocable Trust dated July 21, 2006 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Trust.

Before me,

Notary Public/Attorney-at-Law

2

## CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California County of Orange

On <u>April 29,2019</u> before me, <u>Jem 6 Mersberger</u>, Notary Public,

personally appeared <u><u>Byn</u><u>J</u>.<u>Ouen</u>, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) (s/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.</u>

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jen M. Meisberger



### **ADDITIONAL INFORMATION (OPTIONAL)**

	DESCRIPTION OF THE
T	ATTACHED DOCUMENT
<u> </u>	(Title or description of attached document)
	····· <u>··</u> ·····························
Numt	(Title or description of attached document continued) per of pagesDocument Date
	(Additional information)

NOTARY PUBLIC
CONTACT INFORMATION

The UPS Store 668 N Coast Hwy Laguna Beach, CA 92651

> 949-494-4420 tel 949-494-9850 fax

store0120@theupsstore.com www.TheUPSStore.com/0120





Naples, Maine 693-3831

November 15, 2021

Re: Don & Linda Buteau Property

To Whom It May Concern;

Earlier this year, I met with the property owner, Don Buteau, about removing 2 storm-damaged trees and 1 dead pine tree outside of the 100-foot zone. We also discussed tree removal for an upcoming project within the 100-foot shoreland zone which, I was told by the property owner that the project, including the tree removal, was covered under a D.E.P. permit obtained by his contractor.

I later took a crew to the site to take down approximately 8-10 large trees within the 100-foot zone. Each of these trees were either partially dead or undermined by wave action, and it seemed perfectly reasonable to take them down as a part of a proposed larger project. Only a minimal number of small trees and saplings were cut to allow us access to remove the larger trees that had been undermined. We did not cut and/or remove any ground cover or underbrush.

We are now told that the contractor's permit was not adequate to cover all the work at the site, possibly including some or all of the tree removal that we did. We plan to use this as a learning experience, and in the future, always require positive proof that adequate permits have been pulled that will cover any work that we are asked to do.

Sincerely,

ann Josseli Aaron Gosselin

Q-Team Tree Service 207-693-3831





We did remove the 6 trees marked above. The 4 on the left were dying (as evident by their partially dead tops) and the 2 on the right were undermined by wave action. We also removed 2 additional undermined trees that were to the right of those shown in the photo and possibly 1 or 2 others that we cannot identify in the photo. We did not remove any of the underbrush or small trees, shown in the photo, along the lake.



Mike Morse Senior Environmental Consultant MMorse@ArchipelagoNA.com 22 Free Street Portland, Maine 04101 Main office (207)558-0102

## **Restoration Plan**

## 18 Fernwood Road & 28 Whitetail Lane, Raymond Management Controls, LLC (Owner) Big Lake Marine Construction Q-Team, Inc., d/b/a Q-Team Tree Service DEP NOV #2021-082-L Town of Raymond NOV's (12/16/21, 12/21/21, 1/4/22, & 1/28/22)

### Background:

Management Controls, LLC ("MCL") owns two adjacent properties on Sebago Lake in Raymond, Maine. Shoreline areas of the two properties were actively eroding and discharged soil into Sebago Lake during times of higher water levels. On behalf of MCL, Big Lake Marine Construction ("BLMC") filed DEP Permit by Rule applications and initiated construction of a project to install erosion control measures (filter fabric, riprap, erosion control mulch, and replacement vegetation planting) along the shoreline of Sebago Lake. Q-Team, Inc. did tree removal during the project. During construction, unexpected saturated soil conditions posed a significant threat of additional soil erosion and sedimentation into Sebago Lake. After receiving advice from Portland Water District's Watershed Protection staff, Big Lake Marine Construction expanded the project scope by extending filter fabric and riprap higher than originally intended to prevent catastrophic shoreline failure and soil discharge into the lake.

As a result of the project, approximately 400 linear feet of shoreline was stabilized using riprap and filter fabric. Height of the riprap varies throughout the project site with a range of a lower elevation at approximately 262.5' to a higher elevation of approximately 274.5' (all elevations are NAVD88, with NHWL as elevation 265.89'- the same as elevation 266.5' NGVD29). On average, the majority of the riprap-treated areas extend to an elevation approximately 6.5' above the normal high-water line (NHWL).

The DEP and Town of Raymond (Town) NOV's cite the MCL and contractors for violations of their respective regulations. This Restoration Plan (Plan) is intended to respond to the various NOV's directed to MCL and the contractors and to detail the actions they will take to address the violations- a combination of after-the-fact permitting and on-site restoration efforts.

### Plan Details:

<u>Riprap stabilization</u>- Both the DEP and Town NOV's addressed the riprap, and the Town's NOV's address it redundantly through numerous Town Ordinance citations. For the purpose of condensing these citations into a single and comprehensive restoration plan, we address the riprap stabilization herein for all related DEP and Town NOV citations.

Construction was halted by the Town of Raymond Code Enforcement Officer and the project was not completed. The Contractor's engineer has determined that additional larger stone must be placed at the toe of the slope and an additional layer of riprap added over the top of the current riprap slope in order to meet engineering design specifications and sufficiently stabilize the shoreline. Our review of the construction method and regulatory requirements suggests that the installed stabilization and additional construction modifications should qualify for after-the-fact permitting through both the DEP (Individual NRPA permit) and the Town.

Slope: The original actively eroding shoreline was too steep for non-structural stabilization treatment. For the section of shoreline where 2019 pre-construction survey data is available (the Fernwood Road property), the eroding slope varied across the property from 0.6:1 (H:V), or 162% slope, to 1:1, or ~100% slope. Vegetative or other non-structural treatment was not a viable option due to the slope steepness. The finished riprap slope is approximately 2:1, or a 50% grade. This is consistent with typical riprap slope stabilization construction.

Vegetative slope stabilization is recommended for slopes that are 3:1 or shallower, which does not exist within the project area (except for the boat launch, discussed below). Failure to establish viable vegetation on a steep slope could be a liability to both the landowner and the water quality of Sebago Lake.

Barge access: The Town's NOV's for the project cite the owner and Contractor 1 for constructing the shoreline stabilization without the use of a barge owned by Contractor 1. Contractor 1 has indicated that use of a barge to construct the project was not feasible for several reasons. Construction occurred during a period of lower lake water level conditions. Lake water depth was not sufficient for a barge to approach the shoreline closely enough to perform the work, particularly a barge loaded with equipment and materials. Additionally, size restrictions of the excavation equipment on the barge rendered it incapable of constructing the majority of the project from the barge. Where feasible, the barge was used for construction of the project. Site conditions supported use of the barge and associated equipment to conduct maintenance to the existing riprap on the Whitetail Lane property, and it was utilized for this purpose accordingly. Last, Contractor 1 has no dedicated material-loading access location on

the lake and use of the existing boat launch ramp was not possible due to shallow water depth. As such, it was not feasible to construct the majority of the project via a barge, and therefore equipment primarily operated at the top of the embankment and materials were supplied for the project via upland access on the subject properties over existing clearings.

Considering that it appears the project could qualify for permitting by the DEP and Town, we intend to apply for such permits as part of the resolution of the violations.

Timing: Given the extensive information required for such applications, our application submission goal is no later than April 30, 2022.

### Other observations or cited violations:

 Hot tub- A hot tub and associated stone structure was constructed or installed by a former landowner and is not a violation that is caused or created by the current landowner. Regardless, MCL intends to remove this structure as soon as site conditions support removal and authorization to do so has been granted by the DEP and Town.

Timing: removal during spring 2022, upon authorization to proceed from DEP and Town.

- 2. Stone jetty- It is likely that a jetty has existed at this location since prior to the DEP and Town regulations affecting such structures. There is no evidence to suggest otherwise. As is common with any structure, occasional maintenance activities are necessary. In this case, winter ice action and/or wave action had relocated some of the stone and deposited it on the lakebed adjacent to the structure. As part of this project, stone was relocated back onto the jetty as a structure maintenance and repair activity. No new stone jetty was created or expanded. Accordingly, no restoration associated with the stone jetty is proposed within this Plan.
- 3. Shoreline access stairs, Fernwood Rd lot- A second set of steps was installed by a previous landowner and was present when the current owner acquired the property. As part of the project the stairs were reinstalled and improved to provide stable access to the shoreline on the southerly side of the stone jetty. This second set of steps, which incorporates a section of metal stairway is proposed to be removed and the area treated with filter fabric and similar riprap as placed adjacent to the steps. Since placement of riprap is proposed at the location of these steps, the timing of this work will be in conjunction with authorization by the DEP and Town to proceed.

Timing: the metal stairway will be removed during Spring 2022, provided that doing so does not destabilize the site and authorization to remove it has been provided from the DEP and Town. The remainder of the steps will be removed and stabilized once approval is received from the DEP and the Town- estimated Fall 2022.

4. Tree and vegetation removal- The cutting or clearing of vegetation is regulated by the Town, subject to shoreland zoning laws. In accordance with the NRPA, 38 M.R.S. §480-Q.23, the cutting or clearing of vegetation is an exempt activity and is therefore not regulated by the DEP under the NRPA. The following is intended to satisfy Town Shoreland Zoning Ordinance (Ordinance) replanting standards when replanting is required for such projects.

Aerial drone photos provided by the Portland Water District and photos taken by BLMC prior to and during construction (attached collectively as Exhibit A) of the project reveal that some vegetation did exist on the original slope, however, it was limited in both area and density, and it likely was growing at the very top of the slope or was growing opportunistically at or near the base of the slope on pockets of soil that previously failed/slumped from the adjacent slope. This vegetation near the base of the slope and any accompanying soil would have likely eroded into the lake during typical high lake water events.

Shrubs and other vegetation cannot be planted within the riprap slope. To account for shrub removal necessary to conduct the project, native shrub species are proposed to be planted at or near the top of the riprap slope and also within an erosion control mulch berm that has been placed as a layer of protection adjacent to the top of the riprap slope. Consistent with shoreland zoning replanting density requirements, shrub planting will be spaced 3 feet on center within the areas depicted on the attached plan that are identified as shrub planting areas. The shrub planting area will be a strip approximately 5 feet in width and it will extend across the majority of the affected shoreline from the northerly extent of the project to the northerly side of the boat launch ramp. The proposed shrub planting area and density exceeds the original shrub conditions over the majority of the project area.

The Town further identified an area of grass lawn that was disturbed during construction and existing riprap maintenance at the Whitetail Lane property, and further identifies several ornamental shrubs removed from the top of the slope between the structure on this same property and the shoreline. The lawn area has been temporarily stabilized for winter conditions using erosion control mulch, and this area will be replanted with grass lawn as conditions permit during Spring 2022, and by no later than June 1, 2022. Existing lawn or landscaped ornamental shrub garden disturbance is not ordinarily regulated by municipalities. Regardless, MCL intends to replant this area with similar ornamental vegetation as part of a separate general landscaping improvement project. Non-native invasive plant species will not be utilized.

As is necessary for nearly all such stabilization projects, a limited number of trees were also removed at or immediately behind the top of the slope in order to accommodate construction equipment while constructing the stabilization project. A number of these trees were already compromised with substantial root exposure as a result of shoreline erosion. Tree removal for this purpose is allowed with the approval of the Planning Board provided that it is limited to removing those necessary to conduct the project and provided that trees are replanted upon completion of the project, or during the succeeding growing season as necessary due to timing (ref. Ordinance Section 15.C.12 & 15.T). Tree and other vegetation removal associated with the shoreline stabilization project were limited to those necessary to construct the project.

In the project area identified on the plan as Area A, beginning at the northerly end of the riprap on the Fernwood Road property and extending to the metal shoreline access stairway, 3 trees less than 12" DBH (diameter breast height, or 4.5' above the ground) and one tree estimated to be approximately 10"- 12", were removed for the project. Additionally, 2 trees that are estimated to be approximately 10"- 12" DBH were removed in the location directly between the house and the shoreline, and these trees are considered to have been "hazard trees" due to their failing health and close proximity to the house. To avoid injury to person or property, hazard trees may be removed provided that replanting of similar native tree species occurs (ref. Ordinance section 15.R). Based on aerial photographs (attached as Exhibit A) and site conditions, it is likely that these 6 trees were removed in excess of the shoreland vegetation removal standards. However, such removal should be permissible in order to construct the project and to remove hazard trees, as long as similar native tree species are replanted, as is proposed here. Locations for the replanted trees are consistent with the general location of the trees that were removed. Note that we have accounted for one additional small tree removed at the northerly extent of the project area that has not been identified by the Town as having been removed.

In the project area identified on the plan as Area B, from the southerly edge of the aluminum shoreline access stairway to the northerly edge of the boat ramp feature, it is estimated that a total of 12 trees and 8 saplings were removed in order to conduct the project. Of the trees removed, 1 appears to have been dead and 4 larger trees should have qualified as being hazard trees as they posed a serious and imminent risk to bank stability. These trees were required to be removed in order to construct the project.

Not all of these trees and saplings removed appear to have been removed in excess of the shoreland zoning provisions, however. The density of the surrounding trees suggests that likely fewer than, or no more than half of the trees removed in Area B exceeded the tree removal standards and would require replanting. Note that it may be that far fewer than half of the trees removed in this area exceeded the standards, but without knowing the exact locations of these trees it is impossible for us or the Town to quantify the number of trees removed in excess of the standards. As a good faith effort to resolve these matters and to re-establish a more robust vegetative buffer, we propose replanting 12 trees in Area B.

Four additional trees are proposed to be replanted at the Whitetail Lane property between the boat launch ramp and the southerly property line- one to replace a large severely rotted hazard tree that was removed for safety purposes. A second tree will be replanted near the location where another tree had been removed at the top of the embankment at the southerly end of the Whitetail Lane property (again, this tree is not identified in the Town's NOV, but MCL and contractors propose to replace it nonetheless). The tree was removed in advance of additional shoreline stabilization in that area (note: this area will be included for riprap treatment in the Individual permit application as well). Two other trees will be planted along the southerly edge of the boat launch ramp to replace a tree that was removed to conduct maintenance stabilization to an existing riprap area.

The provisions in this plan exceed the minimum guidelines prescribed by DEP (*Information Sheet: Guidelines for Restoration Plan for Shoreland Clearing Violations*, October 2007).

Timing: MCL and contractors are prepared to conduct replanting during the spring 2022, however, doing so prior to the DEP and Town permit approvals is not practical. Should modifications to the riprap stabilization be required then the areas subject to this replanting could be disturbed again with heavy equipment in order to implement the modifications. As such, timing for replanting is delayed until fall 2022, provided that the Town and DEP have issued permits by that time. It is important to complete planting no later than September 15, 2022, in order to provide for greater plant survivability during the impending winter or else withhold planting until Spring 2023.

- 5. Boat launch enlargement/expansion (Whitetail Lane property)- Photographic evidence (attached as Exhibit B) suggests that a boat launch has existed at this location for many years prior to the project. Boat launching ramps are functionally water-dependent structures under the Town's Ordinance. The project replaced the original structure with a crushed stone ramp of similar material as the adjacent shoreline riprap. Contractor 1 has stated that the boat launch structure was widened by approximately 6 additional feet in a southerly direction after removal of a large tree stump immediately south of the original launch resulted in a large void and unstabilized soils. This Plan proposes to remove the crushed stone ramp material currently in place and replace it with a precast paver material at a width that is consistent with the estimated original launch area width, approximately 10- 12 feet wide. If this modification supports a sufficient reduction in the adjacent side slope grade, then native shrub vegetation will be planted on the adjacent side slopes within an application of erosion control mulch.
- 6. Beach construction- Both DEP and the Town allege that either fill was placed below the NHWL to create a beach (approximately 120 feet long and 15 feet wide), or a beach was constructed otherwise. This is incorrect. No beach was created with the recent project and no fill was placed below the NHWL to construct a beach. On-site evidence clearly

demonstrates this fact as no new fill below the NHWL exists aside from the riprap, and no "beach", so called, was constructed or created.

During construction, equipment reached into the dry lake bed and removed some of the larger stone for use as base riprap on the embankment. On the Whitetail Lane property, several medium or large sized existing riprap stones near the base of a stairway had separated from the riprap slope. This stone was relocated to the riprap slope as a necessary and exempt maintenance activity (Ref. 38 M.R.S.A. §480-Q.2) to ensure long term shoreline slope stability. Except for the maintenance activity at the Whitetail Lane property discussed above, removing naturally occurring stone from below the NHWL requires a permit from the DEP, and we propose to include this activity within a forthcoming Individual permit application to the DEP. Whereas no beach was constructed or created with this project, no beach construction permit is required from the Town.

## **Exhibit A**

Aerial Drone Photos

(Courtesy of Portland Water District)















Soil erosion present beneath vegetation foliage



## 18 Fernwood Rd & 28 Whitetail Ln Tree Removal Identification Plan 1



Drone photos courtesy Portland Water District

Plan by: Mike Morse, Archipelago Rev. March 24, 2022 18 Fernwood Rd & 28 Whitetail Ln Tree Removal Identification Plan 2



Drone photograph courtesy of Portland Water District

Plan by: Mike Morse, Archipelago Rev. March 24, 2022

## 18 Fernwood Rd. & 28 Whitetail Ln. Tree Removal Identification Plan 3



Drone photograph courtesy Portland Water District

Plan by: Mike Morse, Archipelago Rev. March 24, 2022



### **Additional Planting Plan Notes**

- Tree and shrub substitutions may be allowed only with prior notification to the Town of Raymond Code Enforcement Officer. Substituted trees and shrubs should be native species of similar characteristics. Non-native cultivars should be avoided. Eastern hemlock should be avoided due to recent infestation by the Hemlock wooly adelgid. American beech should be avoided due to a general lack of availability and poor survivability of transplanted specimens.
- 2. Tree planting locations are intentional, but approximate; minor tree location adjustments are expected to be implemented during installation as a result of soil conditions, groundwater elevation, discovery of refusal (e.g. stone/ledge, tree stumps, etc), underground utilities, or due to other unforeseen conditions. Planting locations are intended to be within the same general vicinity where removed trees were located. Tree plantings should be located a minimum of 10' from other existing trees that are a minimum of 12" DBH (diameter breast height). Shrub species should be planted no closer than 3' on center from other trees or shrubs.
- 3. Trees should be nursery stock and be a minimum 2" in diameter (DBH).
- 4. Survivability- a minimum of 80% of the trees will be viable living plants after 5 years of planting. If fewer than 80% of the plants remain, additional planting of similar native species will occur. A plant survivability report will be submitted to the Town and DEP annually, by no later than June 30<sup>th</sup>. The report will detail the overall health of the plants subject to this plan and steps undertaken to ensure compliance with this provision. If vegetation is required to be replanted, a summary of the species of vegetation that failed and the vegetation being planted will be included in the report. Alternate species and size of vegetation can be utilized for replanting with prior authorization from the Code Enforcement Officer. Replacement planting will be completed before June 30<sup>th</sup>, if replanting is required under this provision.
- 5. If soil conditions require application of soil amendments to accommodate the plantings, the installation contractors may incorporate such amendments provided that there is no risk of the amendments entering into the adjacent waterbody through surface water runoff.
- 6. Trees should be planted according to tree planting guidelines provided by the landscape nursery.



Post Construction Riprap







