


**STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION**

FROM:  Matt Urban
Wetlands Program Manager

DATE: June 2, 2017

AT (OFFICE): Department of
Transportation

SUBJECT Dredge & Fill Application
Wakefield, M312-13

Bureau of
Environment

TO Gino Infascelli, Public Works Permitting Officer
New Hampshire Wetlands Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT District 3 for the subject minimum impact project. This project is classified as minimum per Env-Wt 303.04 (f) (m). The project is located on NH Route 153 in the Town of Wakefield, NH. The proposed work consists of replacing in kind twin 28"x20"x50' corrugated metal twin arch pipes with 28"x20"x50' polymer coated steel arch pipes at the same invert elevation.

This project was not reviewed at the Natural Resource Agency Coordination Meeting. A copy of the minutes has been included with this application package. A copy of this application and plans can be accessed on the Departments website via the following link:
<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm>

Mitigation is not required for the temporary impacts associated with this project.

The lead people to contact for this project are Lane Evans, Highway Maintenance District 3 (524-6669 or lane.evans@dot.nh.gov) or Matt Urban, Wetlands Program Manager, Bureau of Environment (271-3226 or matt.urban@dot.nh.gov).

A payment voucher has been processed for this application (Voucher #4090551) in the amount of \$200.

If and when this application meets with the approval of the Bureau, please send the permit directly to Matt Urban, Wetlands Program Manager, Bureau of Environment.

MRU:sel
Enclosures

cc:
BOE Original
Town of Wakefield (4 copies via certified mail)
Edna Feighner, NH Division of Historic Resources (Cultural Review Within)
Carol Henderson, NH Fish & Game (via electronic notification)
Maria Tur, US Fish & Wildlife (via electronic notification)
Mark Kern, US Environmental Protection Agency (via electronic notification)
Michael Hicks, US Army Corp of Engineers (via electronic notification)
Kevin Nyhan, BOE (via electronic notification)



WETLANDS PERMIT APPLICATION

Land Resources Management

Wetlands Bureau

Check the status of your application: www.des.nh.gov/onestop



RSA/Rule: RSA 482-A/ Env-Wt 100-900

<i>Administrative Use Only</i>	<i>Administrative Use Only</i>	<i>Administrative Use Only</i>	File No.:
			Check No.:
			Amount:
			Initials:

1. REVIEW TIME:

Indicate your Review Time below. Refer to Guidance Document A for instructions.

Standard Review (Minimum, Minor or Major Impact)

Expedited Review (Minimum Impact only)

2. PROJECT LOCATION:

Separate applications must be filed with each municipality that jurisdictional impacts will occur in.

ADDRESS: **Rte 153**

TOWN/CITY: **Wakefield**

TAX MAP:

BLOCK:

LOT:

UNIT:

USGS TOPO MAP WATERBODY NAME: **Province Lake**

NA

STREAM WATERSHED SIZE:

NA

LOCATION COORDINATES (If known): **N 43 40' 58.70" W 070 58'53.19"**

State Plane

Latitude/Longitude UTM

3. PROJECT DESCRIPTION:

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below.

Work will consist of removing two failing twin 28"x 20"x 50' corrugated metal arch pipes and replacing them in kind with two 28"x 20"x 50' polymer coated steel arch pipes at the same invert elevation.

4. SHORELINE FRONTAGE

NA This lot has no shoreline frontage.

SHORELINE FRONTAGE: **10-feet**

Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line.

5. RELATED PERMITS, ENFORCEMENT, EMERGENCY AUTHORIZATION, SHORELAND, ALTERATION OF TERRAIN, ETC.

2017-01179 Shoreland PBN


6. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: NHB **17** - **0364**

b. Designated River the project is in ¼ miles of: _____; and
date a copy of the application was sent to the Local River Management Advisory Committee: Month: ___ Day: ___ Year: ___

NA

7. APPLICANT INFORMATION (Desired permit holder)			
LAST NAME, FIRST NAME, M.I.: Rollins William			
TRUST / COMPANY NAME: NHDOT, District 3		MAILING ADDRESS: 2 Sawmill Road	
TOWN/CITY: Gilford		STATE: NH	ZIP CODE: 03249
EMAIL or FAX: william.rollins@dot.nh.gov		PHONE: 603-524-6669	
ELECTRONIC COMMUNICATION: By initialing here: AR , I hereby authorize NHDES to communicate all matters relative to this application electronically			
8. PROPERTY OWNER INFORMATION (If different than applicant)			
LAST NAME, FIRST NAME, M.I.:			
TRUST / COMPANY NAME:		MAILING ADDRESS:	
TOWN/CITY:		STATE:	ZIP CODE:
EMAIL or FAX:		PHONE:	
ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize NHDES to communicate all matters relative to this application electronically			
9. AUTHORIZED AGENT INFORMATION			
LAST NAME, FIRST NAME, M.I.:		COMPANY NAME:	
MAILING ADDRESS:			
TOWN/CITY:		STATE:	ZIP CODE:
EMAIL or FAX:		PHONE:	
ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize NHDES to communicate all matters relative to this application electronically			
10. PROPERTY OWNER SIGNATURE:			
See the Instructions & Required Attachments document for clarification of the below statements			
By signing the application, I am certifying that:			
<ol style="list-style-type: none"> I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application. I have reviewed and submitted information & attachments outlined in the Instructions and Required Attachment document. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.47. I have submitted a Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) to the NH State Historic Preservation Officer (SHPO) at the NH Division of Historical Resources to identify the presence of historical/ archeological resources while coordinating with the lead federal agency for NHPA 106 compliance. I authorize NHDES and the municipal conservation commission to inspect the site of the proposed project. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining. 			
 Property Owner Signature		ALAN HANSCOM DISTRICT ENGINEER Print name legibly	2/23/2017 Date

MUNICIPAL SIGNATURES

11. CONSERVATION COMMISSION SIGNATURE

The signature below certifies that the municipal conservation commission has reviewed this application, and:

1. Waives its right to intervene per RSA 482-A:11;
2. Believes that the application and submitted plans accurately represent the proposed project; and
3. Has no objection to permitting the proposed work.

	Print name legibly	Date
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DIRECTIONS FOR CONSERVATION COMMISSION

1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
2. Expedited review requires the Conservation Commission signature be obtained **prior** to the submittal of the original application to the Town/City Clerk for signature.
3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will reviewed in the standard review time frame.

12. TOWN / CITY CLERK SIGNATURE

As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

	Print name legibly	Town/City	Date
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DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3,I

1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
5. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

1. Submit the single, original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.

13. IMPACT AREA:

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact

Permanent: impacts that will remain after the project is complete.

Temporary: impacts not intended to remain (and will be restored to pre-construction conditions) after the project is complete.

JURISDICTIONAL AREA	PERMANENT Sq. Ft. / Lin. Ft.	TEMPORARY Sq. Ft. / Lin. Ft.
Forested wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Scrub-shrub wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Emergent wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Wet meadow	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Intermittent stream	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Perennial Stream / River	/	475 / 110
Lake / Pond	/	150 / 5
Bank - Intermittent stream	/	/
Bank - Perennial stream / River	/	/
Bank - Lake / Pond	/	250 / 10
Tidal water	/	/
Salt marsh	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Sand dune	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Prime wetland	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Prime wetland buffer	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Previously-developed upland in TBZ	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - Lake / Pond	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - River	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
Docking - Tidal Water	<input type="checkbox"/> ATF	<input type="checkbox"/> ATF
TOTAL	/	875 / 125

14. APPLICATION FEE: See the Instructions & Required Attachments document for further instruction

Minimum Impact Fee: Flat fee of \$ 200

Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking) 875 sq. ft. X \$0.20 = \$ 175

Temporary (seasonal) docking structure: sq. ft. X \$1.00 = \$

Permanent docking structure: sq. ft. X \$2.00 = \$

Projects proposing shoreline structures (including docks) add \$200 = \$

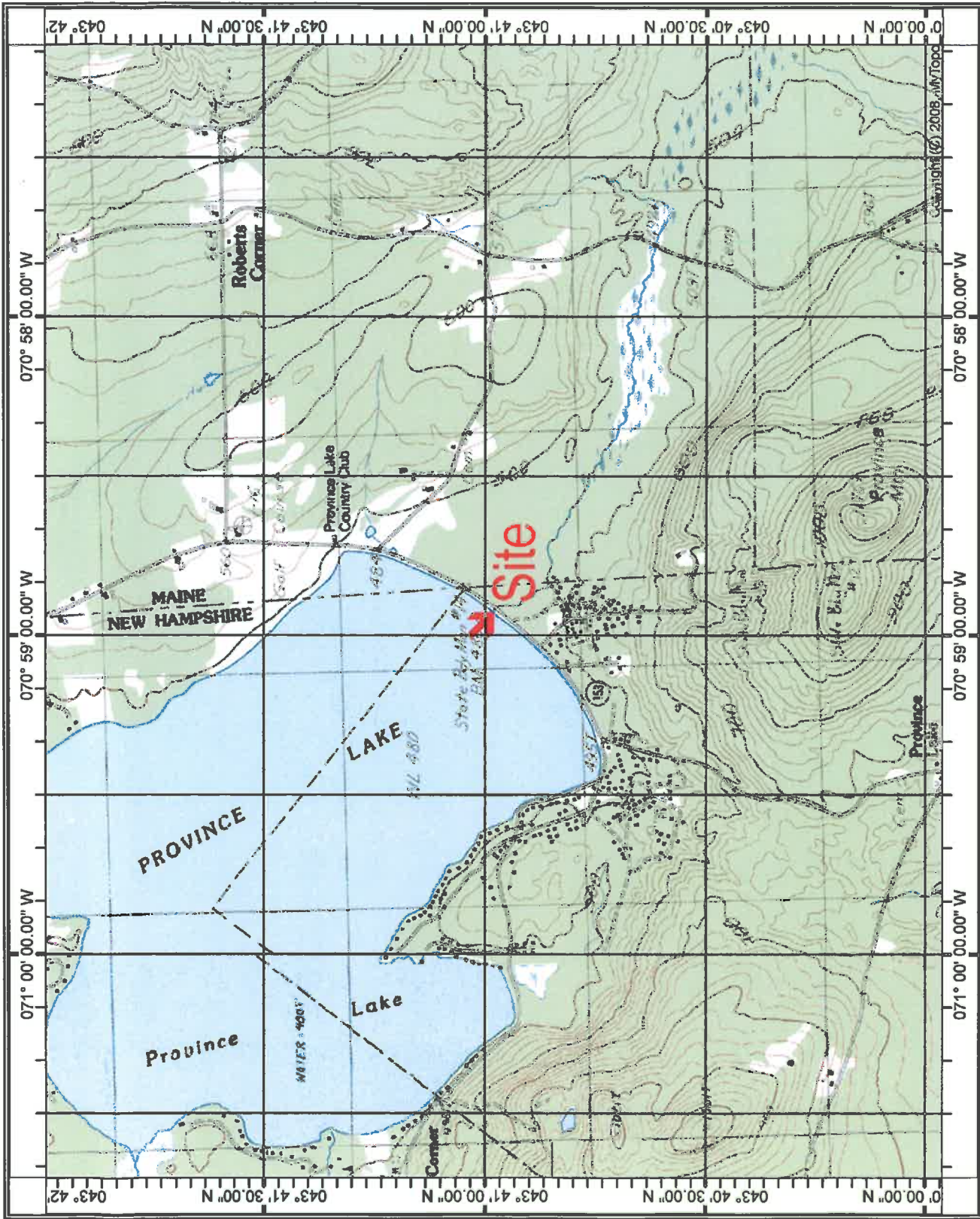
Total = \$ 175

The Application Fee is the above calculated Total or \$200, whichever is greater = \$ 200

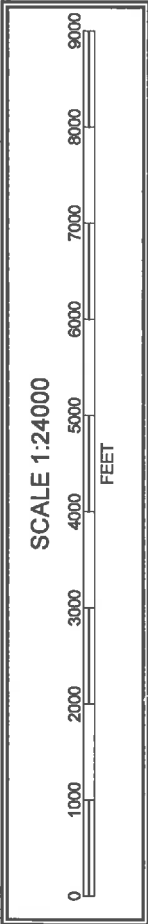
shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov



M312-13
 Rte 153, Wakefield
 Pipe replacement





**WETLANDS PERMIT APPLICATION – ATTACHMENT A
MINOR AND MAJOR - 20 QUESTIONS**
Land Resources Management
Wetlands Bureau



Check the Status of your application: www.des.nh.gov/onestop

RSA/ Rule: RSA 482-A, Env-Wt 100-900

Env-Wt 302.04 Requirements for Application Evaluation - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

The existing pipes are failing, replacement of the pipes are required to maintain the safety and integrity of the highway and maintain the water way between Province Lake and South River within the un-named wetland complex on the other side of the State owned roadway.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

There were no alternative plans considered. We did consider several different types of culvert materials to be used, replacing these pipes will provide the least impacts to the environment.

These corrugated metal pipes were replaced approximately 10 years ago, but the inlet end of the culverts are showing significant signs of wear and rot. There is not enough cover for a High Density Polyethylene (HDPE) Culvert.

We propose to change the material of the culverts from corrugated metal to a polymer coated steel culvert, which will last much longer than the existing pipes without needing to be changed. The work will be a replacement in kind; there will only be temporary impacts to the South River and Province Lake.

3. The type and classification of the wetlands involved.

L2UB2 - Lacustrine, Littoral, Unconsolidated Bottom, Sand

R2UB3 - Riverine, Lower Perennial, Unconsolidated Bottom, Mud

BANK

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

The South River (within the un named wetland) flows westerly through the culvert into Province Lake.

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

Province Lake has not been identified as a rare surface water of the State.

6. The surface area of the wetlands that will be impacted.

475 sq feet of R2UB3 - Temporary Impacts

150 sq feet of L2UB2 - Temporary Impacts

200 sq feet of Bank - Temporary Impacts

7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
 - b. State and federally listed threatened and endangered species;
 - c. Species at the extremities of their ranges;
 - d. Migratory fish and wildlife;
 - e. Exemplary natural communities identified by the DRED-NHB; and
 - f. Vernal pools.

There is a record for the threatened rare coastal plain grass-leaved-goldenrod (*Euthamia carolinia*) in the immediate vicinity of the project. We have communicated with NHB to coordinate flagging of this threatened plant prior to the start of the project. Through the NHB search no other State or Federally listed threatened or endangered species were identified within the vicinity of the project, however through a US Fish & Wildlife Service IPaC search a hit for Northern Long-eared bat (NLEB) (*Myotis septentrionalis*) and Small whorled pogonia (*Isotria medeoloides*) were found. No tree clearing is needed for the proposed work; a 4(d) Streamline Consultation form has been submitted to US ACOE for coordination with US Fish and Wildlife for the NLEB. Further coordination with NH DRED on the Small whorled pogonia has determined that the habitat within the project area is not suitable for Small whorled pogonia and that there is a very low likelihood that the plant would be present in the area. Therefore there is a very low likelihood of affecting the plant with the proposed limits of work. (Both coordination emails with NH DRED have been attached after either the NHB or IPaC search results.)

There are no species known to be at the extremities of their ranges located in the project area.

There will be temporary/ short term disruption for migratory fish and wildlife using the twin pipes to move from the river and wetland to the pond. The pipes will be replaced within a day. The pipes will be reinstalled at the same invert elevation as the existing pipes.

There were not exemplary natural communities identified by DRED-NHB.

There were no vernal pools identified and/or delineated in the project area.

8. The impact of the proposed project on public commerce, navigation and recreation.

There will be minimal impact to public commerce as the project will be completed in approximately 8-hours with alternating two way traffic through the work zone. There will be no impact to navigation and recreation.

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

The project will not significantly interfere with the aesthetic interests of the general public. The proposed improvements will be more pleasing to the eye than the structure in poor condition.

10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

The project will not interfere with or obstruct public rights of passage or access.

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

The project will not have an impact on abutting landowners. This project will better serve the abutting properties if they need to travel on the road.

12. The benefit of a project to the health, safety, and well being of the general public.

The project will provide a safer, longer lasting structure and roadway. The culvert repair will maintain the safety and integrity of the state route.

13. The impact of a proposed project on quantity or quality of surface and groundwater. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

The surface water currently runs off the road, over natural vegetation, and into the lake and river & wetland. Upon completion of the project, surface water will drain in the same manner. No additional impervious surface will be added within the limits of work. A Shoreland PBN has been submitted to NHDES Shoreland Program to permit the earth disturbance to access and replace the pipes. New road surface will be replaced within the existing roadway footprint. The proposed work will have no adverse effects on the quality or quantity of surface and ground water. Best Management Practices will be used to prevent any adverse effect to water quality during construction.

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

There is no record of flooding in this area and no potential for increased flooding as a result of the project. We will be replacing the existing pipes with the same size pipes at the same invert elevation. The flow of water will remain the same since the size and placement of the pipe will remain the same. Even though the pipes will be smoother, the energy through the pipe will remain the same resulting in similar sedimentation as existing and will not change erosion characteristics at the project site.

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

Surface waters will not be reflected or redirected as a result of this project. South River, the wetland, nor Province Lake have enough surface water for wave energy to be an issue. The Department's choice to use a polymer coating in the replacement pipes is in order to extend the life of the structure.

16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

The work consists of replacing twin culverts in kind, there are no similar structures in the vicinity owned by other parties that require repair.

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

The function of the culverts is to carry water from a higher elevation to a lower elevation. This project will not interfere with that function. The project will be constructed during low flow season utilizing best management practices. The value of the wetland as a habitat for living organisms will be not be changed as result of this project.

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

This project is not located in or near any Natural Landmarks listed on the National Register.

19. The impact upon the value of areas named in acts of Congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

There are no areas named in acts of congress or presidential proclamations as national rivers, national wildness areas, or national lakeshores that will be impacted as a result of this project.

20. The degree to which a project redirects water from one watershed to another.

The project as proposed will not redirect water from one watershed to another.

Additional comments

shoreland@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

Memo



NH NATURAL HERITAGE BUREAU
NHB DATACHECK RESULTS LETTER

To: Lane Evans, New Hampshire Department of Transportation
2 Sawmill Rd
Gilford, NH 03249

From: Amy Lamb, NH Natural Heritage Bureau

Date: 2/6/2017 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau

NHB File ID: NHB17-0364

Town: Wakefield

Location: Rte 153, Wakefield

Description: Replace failing twin Corrugated Metal Pipe highway culverts.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: There is a record for the rare plant coastal plain grass-leaved-goldenrod (*Euthamia caroliniana*) in the immediate vicinity of the project. Please send an electronic copy of construction plans and photos of the culvert outlet taken during the growing season (if available). Please address how impacts to the rare plant will be avoided.

Plant species

coastal plain grass-leaved-goldenrod (<i>Euthamia caroliniana</i>)	State ¹	Federal	Notes
	T	--	Threats include water level manipulations of ponds, pond shore development, heavy recreational use, and herbiciding. Increased nutrient levels, e.g., from septic runoff, is also a threat.

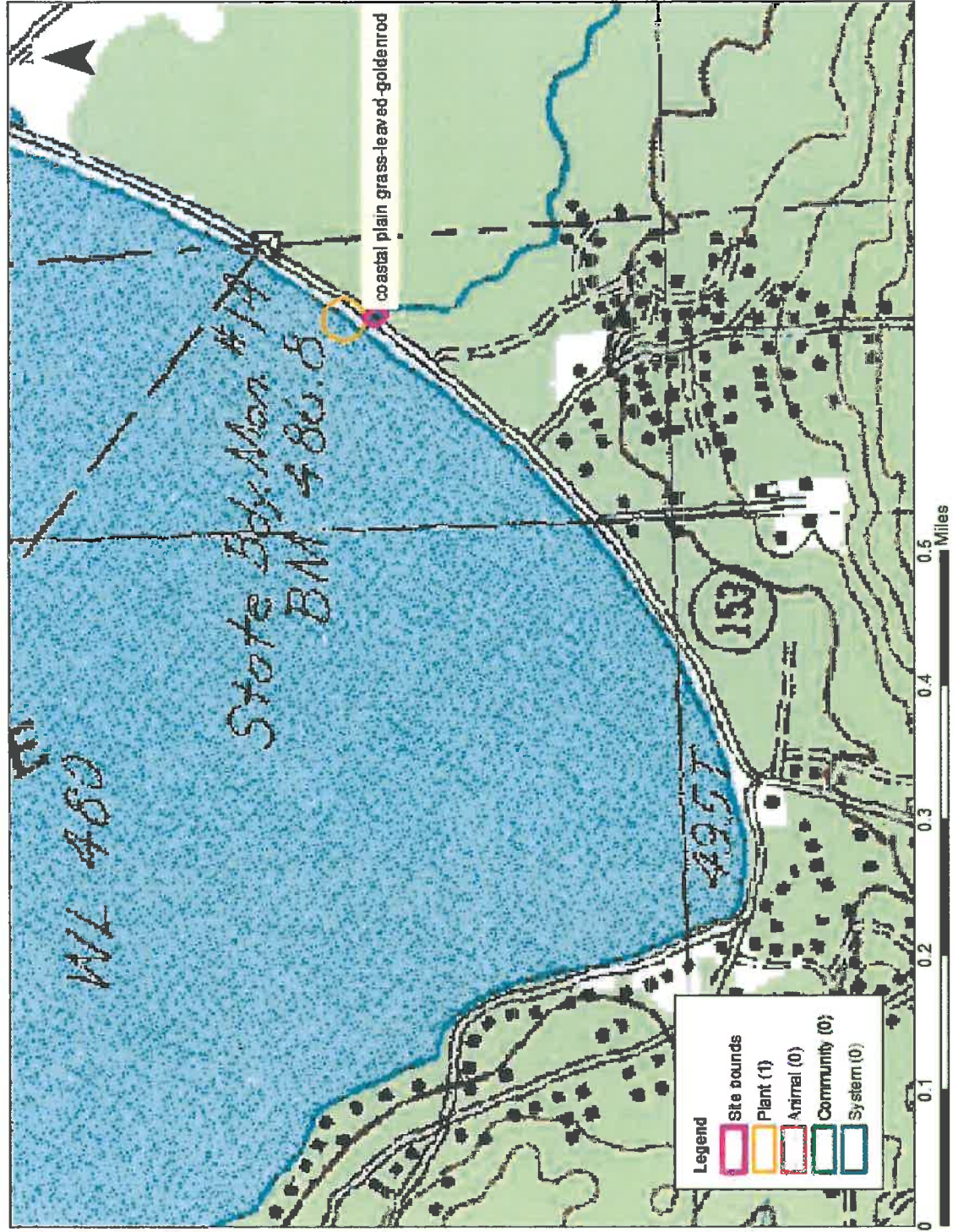
¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Resources and Economic Development
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DRED/NHB
172 Pembroke Rd.
Concord, NH 03301

NHB17-0364



New Hampshire Natural Heritage Bureau - Plant Record
coastal plain grass-leaved-goldenrod (*Euthamia caroliniana*)

Legal Status

Federal: Not listed
 State: Listed Threatened

Conservation Status

Global: Demonstrably widespread, abundant, and secure
 State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).

Comments on Rank:

Detailed Description: 2009: Over 500 flowering/fruiting stems on upper edge of beach; vigor normal.

General Area: 2009: Occurs in a bulblet umbrella-sedge open sandy pond shore transitional to a sweet gale - alder shrub thicket (poorly formed). Associates are *Spiraea alba* var. *latifolia*, *Cephalanthus occidentalis*, *Digitaria ischaemum*, *Bidens frondosa*, *Cyperus dentatus*, *Mentha arvensis*, and several species with a cover <1%.

General Comments: 2009: Beach is well used by locals and visitors from a local camp.

Management

Comments:

Location

Survey Site Name: Province Lake

Managed By:

County: Carroll

Town(s): Wakefield

Size: .4 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Rte. 153 in Wakefield runs along site at SE end of lake.

Dates documented

First reported: 2009-10-01

Last reported: 2009-10-01

Large, Sarah

From: Lamb, Amy
Sent: Wednesday, February 08, 2017 9:28 AM
To: Evans, Lane
Subject: RE: NHB review: NHB17-0364

Hi Lane – just following up – Kim says that the concrete squash pipe should be fine.

-Amy

Amy Lamb
Ecological Information Specialist
(603) 271-2215 ext. 323

NH Natural Heritage Bureau
DRED - Forests & Lands
172 Pembroke Rd
Concord, NH 03301

From: Lamb, Amy
Sent: Tuesday, February 07, 2017 11:59 AM
To: Evans, Lane
Subject: RE: NHB review: NHB17-0364

Hi Lane,

Thank you, please do contact me once you know the project schedule.

I have passed your comments on to Kim explaining why you will be sticking with the double culverts. I will let you know if she has any follow-up questions/recommendations. I can see that the area you are working with is very low and you don't have much to work with.

Maybe I will walk over to Maine while I am up there flagging out plants (you can't say that very often).

Thanks,
Amy

Amy Lamb
Ecological Information Specialist
(603) 271-2215 ext. 323

NH Natural Heritage Bureau
DRED - Forests & Lands
172 Pembroke Rd
Concord, NH 03301

From: Evans, Lane
Sent: Tuesday, February 07, 2017 11:51 AM
To: Lamb, Amy
Cc: Rollins, William
Subject: RE: NHB review: NHB17-0364

Hi Amy,

Thank you ... As soon as I know when we are going to schedule the project, I will contact you so that you can flag the plants for us ahead of time. We usually use the July thru October time frame for these types of projects dependent on what other projects we may have going on this coming summer.

We have very little cover over the culverts in this area so a single larger culvert will not work, we are planning on using a concrete squash pipe to maximize the cover over the pipes so that we don't have to lower the invert elevation and increase impacts to the area.

Thanks...

Lane

From: Lamb, Amy
Sent: Tuesday, February 07, 2017 11:25 AM
To: Evans, Lane
Subject: RE: NHB review: NHB17-0364

Hi Lane,

Thank you for sending along the photos and plan. It is hard to say how close the coastal plain grass-leaved goldenrod is to the work area, but I would be happy to come up to the site and flag the plants out for you. You said the work will be done during low water; are you thinking around August? If so, that would be a good time to ID the plants.

Also, I wanted to pass along some requests from Kim Tuttle at Fish & Game. Can the double pipes be replaced with a single larger pipe instead? Her preference would be a reinforced concrete pipe (and not smooth bore plastic).

Thank you,
Amy

Amy Lamb
Ecological Information Specialist
(603) 271-2215 ext. 323

NH Natural Heritage Bureau
DRED - Forests & Lands
172 Pembroke Rd
Concord, NH 03301

From: Evans, Lane
Sent: Tuesday, February 07, 2017 10:48 AM
To: Lamb, Amy
Cc: Rollins, William
Subject: RE: NHB review: NHB17-0364

Hi Amy,

Looking at your site map it appears that the plants of concern are located slightly to the east of our proposed work site, although it is hard to tell how close it is.

The work proposed is to replace two failing twin culverts at this location, with approximately 200 square feet of temporary impacts to the immediate area at the outlet of the culverts and 150 square feet of temporary impacts to the bank area next to the culverts on the outlet side as depicted in the attached drawing for sections 2 & 3.

We are planning on completing this project during low flow conditions so there will be no manipulation of the water level, we will not be using any herbicides in conjunction with this project, our project will not have any effect either way on the recreational use of this area by the public.

Our plan is to have only temporary impacts to the immediate areas at both the inlet and outlet ends of the culvert pipes. I should mention that these pipes are failing and need to be replaced in order to maintain the safety and integrity of the highway.

Attached please find photos of the area in question and a diagram of the proposed impacts.

Please let me know if you need anything else and what else we can do to protect this area of concern.

Lane Evans
District -03 Safety & Environmental Coordinator
603-528-9382 (office)
603-419-9411 (Cell)

From: Lamb, Amy
Sent: Monday, February 06, 2017 4:12 PM
To: Evans, Lane
Subject: NHB review: NHB17-0364

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best,
Amy

Amy Lamb
Ecological Information Specialist

NH Natural Heritage Bureau
DRED - Forest & Lands
172 Pembroke Rd
Concord, NH 03301
603-271-2215 ext. 323



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

April 26, 2017

Consultation Code: 05E1NE00-2017-SLI-1416

Event Code: 05E1NE00-2017-E-02793

Project Name: Wakefield M312-13

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2017-SLI-1416

Event Code: 05E1NE00-2017-E-02793

Project Name: Wakefield M312-13

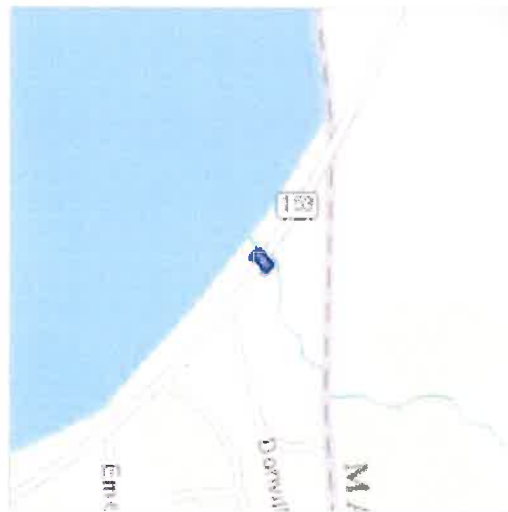
Project Type: TRANSPORTATION

Project Description: Removing failing twin 28"x20"x50' corrugated metal arch pipes and replacing them with two 28"x20"x50' polymer coated steel arch pipes at the same invert elevation.

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/43.68301868456135N70.98146931302283W>



Counties: Carroll, NH

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/9045	

Flowering Plants

NAME	STATUS
Small Whorled Pogonia (<i>Isotria medeoloides</i>)	Threatened
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/1890	

Critical habitats

There are no critical habitats within your project area.

Large, Sarah

From: Lamb, Amy
Sent: Wednesday, May 03, 2017 10:51 AM
To: Large, Sarah
Subject: RE: Question about IPaC hit for Small Whorled Pagonia but no hit through NHB

Hi Sarah –

The photos did not come through - I just see a word document with a title but no pictures. However, even just looking at aerials I don't believe that this site would support SWP. This plant does not grow in scrub shrub wetlands, or on sandy shorelines. Based on the lack of suitable habitat for the plant at this location, I do not have concerns about small whorled pogonia for this project.

Thank you, and let me know if you need anything else.

Best,
Amy

Amy Lamb
Ecological Information Specialist
(603) 271-2215 ext. 323

NH Natural Heritage Bureau
DRED - Forests & Lands
172 Pembroke Rd
Concord, NH 03301

*** PLEASE NOTE: I will be out of the office from the end of June to mid-July.** * Please plan any NHB review needs accordingly, as we will not be reviewing projects during this time. Thank you, and I apologize for any inconvenience this may cause.

From: Large, Sarah
Sent: Wednesday, May 03, 2017 10:20 AM
To: Lamb, Amy
Cc: Urban, Matt
Subject: Question about IPaC hit for Small Whorled Pagonia but no hit through NHB

Hi Amy,

I am helping out District 3 with a wetland permit application to replace twin pipes that connect an un-named wetland to Province Lake in Wakefield, NH. They submitted their own NHB review (NHB17-0364) and got only a hit for coastal plain grass-leaved goldenrod (which they followed up with you and Kim back in February). When I did a US Fish & Wildlife IPaC search I got a hit for Northern long-eared bat and Small whorled pogonia. I plan to follow up with the appropriate agencies on the NLEB.

I wanted to touch base with you on the Small whorled pogonia and how best to proceed. The impact areas are all temporary besides the permanent impact through the pipes for replacement. I don't believe the banks or shoreline of the wetland or lake are suitable habitat for Small whorled pogonia but wanted to verify with you.

Let me know if I can provide you anything else that would be helpful.

Thanks,
Sarah Large
Wetlands Program Aide
NH Department of Transportation
Bureau of Environment

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

IPaC Official Species List Consultation Code: OSEINE00-2017-SLI-1416

Information to Determine 4(d) Rule Compliance:

	YES	NO
1. Does the project occur wholly outside of the WNS Zone ¹ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Have you contacted the appropriate agency ² to determine if your project is near known hibernacula or maternity roost trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Could the project alter the entrance or interior environment of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

You are eligible to use this form if you have answered yes to question #1 or yes to question #2 and no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant³ (Name, Email, Phone No.): NH DOT, Sarah Large, Sarah.large@dot.nh.gov

Project Name: Wakefield M312-13

Project Location (include coordinates if known): Wakefield, NH
Province Lake outlet (43°40'58.70" N
70°58'53.19" W)

Basic Project Description (provide narrative below or attach additional information):

work consists of the replacement of twin 28" x 20" x 50' corrugated metal arch pipes w/ twin 38" x 20" x 50' polymer coated steel arch pipes at the same invert elevation between a wetland and Province Lake.

¹ <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

² See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

³ If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

General Project Information	YES	NO
Does the project occur within 0.25 miles of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project occur within 150 feet of a known maternity roost tree?	<input type="checkbox"/>	<input type="checkbox"/>
Does the project include forest conversion ⁴ ? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of forest conversion		
If known, estimated acres ⁵ of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31 ⁶		
Does the project include timber harvest? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: Sarah E. Looge

Date Submitted: June 9, 2017

⁴ Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

⁵ If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

⁶ If the activity includes tree clearing in June and July, also include those acreage in April to October.

Large, Sarah

From: Hicks, Michael C CIV USARMY CENAE (US) <Michael.C.Hicks@usace.army.mil>
Sent: Friday, June 09, 2017 9:10 AM
To: Large, Sarah
Subject: RE: Wakefield M312-13 4(d) Consultation

Sarah,

I can make a no Effect call on this project.

Thanks,
Mike

Thanks,
Michael Hicks, PM
USACE, REG DIV., BR. C
978-318-8157

-----Original Message-----

From: Large, Sarah [<mailto:Sarah.Large@dot.nh.gov>]
Sent: Friday, June 09, 2017 7:36 AM
To: Hicks, Michael C CIV USARMY CENAE (US) <Michael.C.Hicks@usace.army.mil>
Subject: [Non-DoD Source] Wakefield M312-13 4(d) Consultation

Good morning Mike,

Attached is the 4(d) Consultation for Northern Long-eared Bat for an Operations project in District 3. Work will consist of removing two failing 28"x 20"x 50' corrugated metal arch pipes and replacing them with two 28"x 20"x 50' polymer coated steel arch pipes at the same invert elevation. There will be 625 square feet of temporary wetland impacts and 250 sq feet of temporary bank impacts. The twin pipes carry flow from south river to Province Lake. There will be no tree clearing. Attached is the location map and some photos.

This is not a federally funded project.

If you could please let me know once you have submitted it to USF&WS so that I can track the 30 days.

Thank you,

Sarah Large

Wetland Application – NHDOT Cultural Resources Review

For the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the US Army Corps of Engineers' *Appendix C*, and/or state regulation RSA 227-C:9, *Directive for Cooperation in the Protection of Historic Resources*, the NHDOT Cultural Resources Program has reviewed the enclosed Standard Dredge and Fill Application for potential impacts to historic properties.

Proposed Project: Remove failing twin 28" X 20" X50' corrugated metal arch pipe culverts and replace with same size polymer coated steel arch pipes at same invert elevation. Drainage pipes, linking unnamed wetland west into Province Lake, are located on NH RT153 east of the southeast side of Province Lake. Project will not have impact on abutting landowners.

Above Ground Review

Known/approximate age of structure:

No Potential to Cause Effect/No Concerns

Modern metal pipes

Concerns:

Below Ground Review

Recorded Archaeological site: Yes No

Nearest Recorded Archaeological Site Name & Number: 27-CA-0168 Campbell

Pre-Contact Post-Contact

Distance from Project Area: 2.79 miles (4.5 km) south of project location

No Potential to Cause Effect/No Concerns

Previous impacts are associated with the road and culvert construction. Proposed replacements are the same size, and in the same location and elevation. So impacts likely stay within previously disturbed locations.

Concerns:

Reviewed by:



5/22/2017

NHDOT Cultural Resources Staff

Date:



**US Army Corps
of Engineers** *
New England District

**U.S. Army Corps of Engineers
New Hampshire Programmatic General Permit (PGP)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5 regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*		x
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	x	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, www.nhnaturalheritage.org , specifically the book Natural Community Systems of New Hampshire .		x
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	x	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		x
2.5 The overall project site is more than 40 acres.		x
2.6 What is the size of the existing impervious surface area?	3,000 SF	
2.7 What is the size of the proposed impervious surface area?	0	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	0%	
3. Wildlife	Yes	No
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require a NHB determination.)	x	
3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: <ul style="list-style-type: none"> • PDF: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html. 	x	Highest Ranked Habitat in NH
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the PGP, GC 21?		x

4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	x	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	x	
5. Historic/Archaeological Resources		
If a minor or major impact project, has a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) been sent to the NH Division of Historical Resources as required on Page 5 of the PGP? **	x	

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

STANDARD DREDGE AND FILL APPLICATION - PHOTOGRAPHS

Applicant: NHDOT Maintenance District 3

Location: Wakefield, Rte. 153



Outlet end (Looking southeast)



Outlet end (Looking southeast)

STANDARD DREDGE AND FILL APPLICATION – PHOTOGRAPHS

Applicant: NHDOT Maintenance District 3

Location: Wakefield, Rte. 153



Inlet end (Looking east)



Outlet end (Looking west)



Aerial: Province Lake at the bottom of photo



Aerial: Province Lake to the left in the photo



South River flowing through un named wetland





South River Outletting into Province Lake

CONSTRUCTION SEQUENCE


1. Work will take place during low flow conditions. A sandbag cofferdam will be placed on the inlet end of the culverts allowing dewatering. Water will be pumped to a sediment bag placed on the shoulder of the road, water will be allowed to filter through the bag, through vegetation along the side of the road and back into the wetland. A turbidity curtain and silt fence shall be used in and along the lake on the outlet side to contain any sedimentation during excavation
2. Culverts will be excavated and replaced
3. Culverts will be buried with excavated materials, compacted and then allowed to settle.
4. Excavated area will then be compacted and hot topped (Asphalt)
5. All BMPs will remain in place until disturbed areas have stabilized.
6. Once stable removal of BMPs will take place.


Note:


Project will use and maintain DES Best Management Practices at all stages of construction.

TYPE OF WETLAND IMPACT	PERMANENT IMPACT
N.H.V.B. (NON-WETLAND)	
N.H.V.B. & A.C.O.E. (WETLAND)	

N.H.V.B. - NEW HAMPSHIRE WETLANDS BOARD
A.C.O.E. - ARMY CORP. OF ENGINEERS

 # WETLAND DESIGNATION NUMBER

 # WETLAND IMPACT LOCATION

 # WETLAND MITIGATION AREA


 TEMPORARY IMPACTS

 MITIGATION

 ORDINARY HIGH WATER

 TOP OF BANK

 TIDAL BUFFER ZONE

 TOP OF BANK & ORDINARY HIGH WATER

SHOWN SMALLER THAN ACTUAL SIZE

WETLAND DESIGNATION	USFWS WETLAND CLASSIFICATION	LOCATION	AREA (S.F.)		
			N.H.V.B. (NON-WETLAND)	N.H.V.B. & A.C.O.E. (WETLAND)	TEMPORARY IMPACTS
1	R2UB3	A			250
2	L2UB2	B			150
3	BANK	C			250
4	R2UB3	D			225
		E			
		F			
		G			
		H			
		I			

PERMANENT IMPACTS: 0 S.F.
TEMPORARY IMPACTS: 875 S.F.

TOTAL IMPACTS: 875 S.F.

copy

Minimum Wetland Application
 M-312-13
 10 Scale
 2/10/17
 By: L. Evans
 Revised by S. Large
 5/31/17

WETLAND AREA : SOUTH RIVER

R2UB3

SAND BAG COFFERDAM

OWH

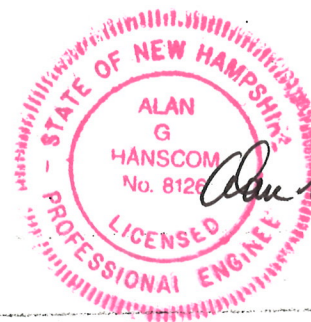
TOB

SEDIMENT BAG
 Will be placed 20 ft from jurisdictional wetland

← TO MAINE STATE LINE
 APPROX. 400'

TO WAKEFIELD →

NH 153



Alan G. Hanscom

Work Description

Work will consist of removing two failing 28"x 20"x 50' corrugated metal arch pipes and replacing them with two 28"x 20"x 50' polymer coated steel arch pipes at the same invert elevation.

Erosion Control Plan

Work will be completed during low flow conditions. In the event that dewatering is necessary during construction a cofferdam will be constructed on the inlet side of the pipes and water will be pumped to a sediment bag. Silt fence Hay bales and a turbidity curtain shall be used on the outlet side to contain sedimentation. We will maintain erosion control methods until the area has stabilized and vegetation has been reestablished.

