



**Stantec**

September 14, 2012

On-Call Technician  
Maine Department of Environmental Protection  
Eastern Maine Regional Office  
106 Hogan Road, Bangor, Maine 04401

**Subject: Significant Wildlife Habitat(s) associated with land in Orland, ME**

Dear Sir or Madam:

On behalf of Project Manager Michael Chelminski ([michael.chelminski@stantec.com](mailto:michael.chelminski@stantec.com)), I am requesting information on any Significant Wildlife Habitat(s) regulated under the Natural Resources Protection Act associated with a project in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

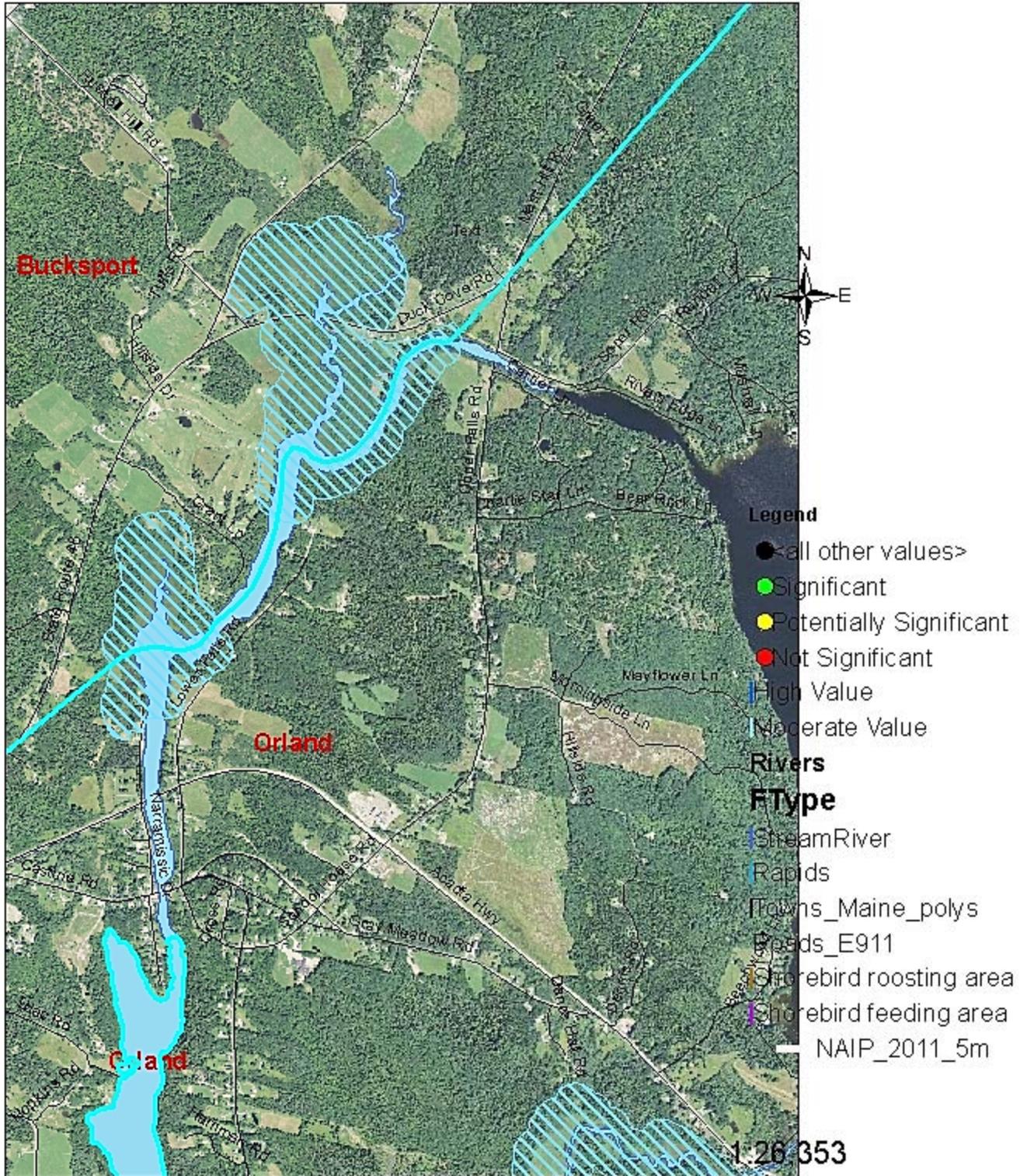
The estimated extent of potential impacts that may be expected from implementation of the alternatives that we expect to evaluate is the reach of the Narramissic River between the Alamoosook Lake Dam and the Orland Village Dam and the reach of White's Brook upstream from the Narramissic River to White's Road Bridge.

If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**STANTEC CONSULTING**

Jessica Haider  
Project Coordinator  
[jessica.haider@stantec.com](mailto:jessica.haider@stantec.com)

PN 195600824





**Stantec**

September 14, 2012

Steve Walker  
Maine Department of Inland Fisheries and Wildlife  
41 State House Station  
284 State Street  
Augusta, ME 04333

**Subject: Significant Resources associated with a project in Orland, Maine**

Dear Steve:

On behalf of Project Manager Michael Chelminski, I am requesting information on any significant wildlife and fisheries resources associated with a project in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

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If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**Stantec Consulting**

Jessica Haider  
Project Assistant

PN 195600824



PAUL R. LePAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
284 STATE STREET  
41 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0041

CHANDLER E. WOODCOCK  
COMMISSIONER

September 25, 2012

Michael Chelminski  
Stantec Consulting  
30 Park Drive  
Topsham, ME 04086

**RE: Information Request, Orland Village Dam Alternatives, Orland**

Dear Michael:

Per your request received September 19, we have searched current Department records for known occurrences of Rare, Threatened, and Endangered species, designated Essential and Significant Wildlife Habitats, and fisheries habitat concerns within the vicinity of the Narramissic River between the Orland Village Dam and the Alamoosook Lake Dam as well as the reach of White's Brook upstream of the Narramissic River to White's Bridge Road. Findings for each category of protected resource are specified below.

*Rare, Threatened, and Endangered Species*

At this time, there are no Rare, Threatened or Endangered Species mapped along this stretch of the Narramissic River or White's Brook.

*Essential Habitat*

Currently, Essential Habitat is designated only for Piping Plovers, Least Terns, and Roseate Terns, all of which do not occur in this area.

*Significant Wildlife Habitat*

The mudflat located immediately below the Orland Village Dam has been mapped as a high value Tidal Wading Bird and Waterfowl Habitat. The wetland at Duck Cove upstream of the Orland Village Dam has been mapped as a moderate value Inland Wading Bird and Waterfowl Habitat (IWWH 050091) as has the large area of wetlands associated with the mouth of White's Brook (IWWH 203134). Please contact Rich Bard, MDIFW Region C wildlife biologist, at 434-5927 for more information regarding how the proposed alternatives could potentially affect these habitats.

*Fisheries habitat concerns*

Letter to Michael Chelminski  
Comments RE: Information Request, Orland Village Dam Alternatives, Orland  
September 25, 2012  
Page 2 of 2

Alamoosook Lake and the Narramissic River support wild brook trout as well as American eel. MDIFW stocks the Narramissic River with brook trout twice annually. The river also has stocked landlocked salmon and brown trout as well as wild brown trout and likely supports sea-run brown trout. White's Brook has both wild brook trout and wild landlocked salmon. Please contact Greg Burr, MDIFW Region C fisheries biologist, at 434-5925 to discuss how the proposed alternatives could affect these and the other fisheries in this system.

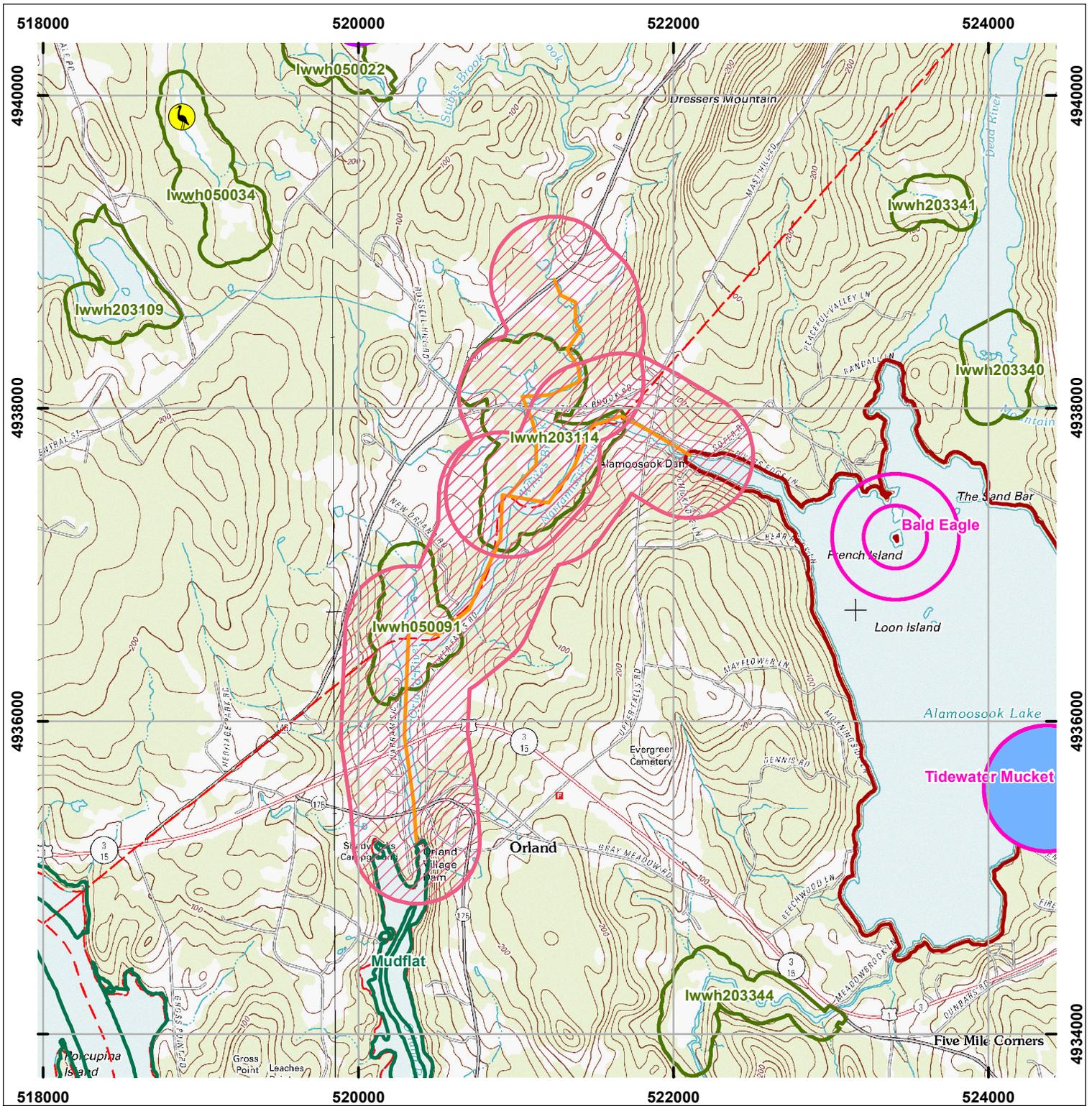
This consultation review has been conducted specifically for known MDIF&W jurisdictional features and should not be interpreted as a comprehensive review for the presence of all regulated features that may occur on site. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Department of Marine Resources, Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

A handwritten signature in blue ink, appearing to read "Steve Walker", with a long horizontal flourish extending to the right.

Steve Walker  
Acting Environmental Review Coordinator



## Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Orland Village Dam Evaluation (Version 1)



Maine Department of Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 9/20/2012

	ProjectPoints		Deer Winter Area		Roseate Tern
	ProjectLines		LURC p-fw		Piping Plover/Least Tern
	ProjectPolys		Cooperative DWAs		Aquatic ETSc (2.5 mi review)
	ProjectSearchAreas		Seabird Nesting Islands		Rare Mussels (5 mi review)
			Shorebird Areas		A and B List Ponds
			Inland Waterfowl/Wading Bird		Arctic Charr Habitat
			Shoreland Zoning_lwwh		E. Brook Trout Joint Venture Subwatershed Classification
			Tidal Waterfowl/Wading Bird		Redfin Pickerel/Swamp Darter Habitats (buffer100ft)
			Significant Vernal Pools		Special Concern-occupied habitats(100ft buffer)
			Environmental Review Polygons		Wild Lake Trout Habitats





**Stantec**

September 14, 2012

Norman R. Dubé, Fisheries Scientist  
Environmental Coordinator (Atlantic Salmon Program)  
Maine Dept. of Marine Resources  
Bureau of Sea Run Fisheries and Habitat  
650 State Street  
Bangor, ME 04401

**Subject: Atlantic Salmon Habitat information associated with a project in Orland, ME**

Dear Mr. Dube:

On behalf of Project Manager Michael Chelminski, I am requesting information on any Atlantic salmon resources associated with a project in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

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If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**STANTEC CONSULTING**

Jessica Haider  
Project Assistant

PN 195600824



PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES  
650 STATE STREET  
BANGOR, MAINE  
04401

PATRICK C. KELIHER  
COMMISSIONER

October 12, 2012

Submitted Electronically

Michael Chelminski  
Stantec Consulting  
30 Park Drive  
Topsham, ME 04086

RE: Atlantic salmon habitat information associated with a project in Orland, ME

Dear Mr. Chelminski:

Maine Department of Marine Resources (Maine DMR) is responding to your September 14, 2012, address to Norm Dube, requesting information on Atlantic salmon resources in the Narramissic River between the Alamoosook Lake Dam and the Orland Village Dam and White's Brook. Sorry for the belated response to your request. Would you please address future correspondence to me at the address below?

The project area in question is listed as Critical Habitat for Atlantic salmon. Maine DMR does not have an active Atlantic salmon restoration program on the Orland/Narramissic River, nor have we surveyed the project area for Atlantic salmon habitat. We have had a confirmed report of an adult Atlantic caught in the river below the Alamoosook Dam in December of 2010. The presence of Craig Brook National Fish Hatchery on the shores of Alamoosook Lake would provide some olfactory cues and increase the likelihood of stray adults returning to the Narramissic River.

In addition to Atlantic salmon, the river is an important migratory corridor for river herring and American eels. Both of those species would be benefited by removal of the Orland Village Dam. While I have no knowledge of Atlantic or shortnose sturgeon utilizing the Orland River it is assumed that they would occur in estuary.

Sincerely,

Oliver Cox  
*Division of Sea Run Fisheries and Habitat*  
*Maine Department of Marine Resources*  
*650 State Street*  
*Bangor, Maine 04401*

OFFICES AT 2 BEECH ST., BAKER BUILDING, HALLOWELL, MAINE  
<http://www.Maine.gov/dmr>

PHONE: (207) 624-6550

FAX: (207) 624-6024



**Stantec**

September 14, 2012

Earle G. Shettleworth, Jr.  
State Historic Preservation Officer  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, Maine 04333

**Subject: Significant historic or archaeological resources information request for  
Orland, Maine**

Dear Mr. Shettleworth:

On behalf of Project Manager Michael Chelminski, I am requesting information on any significant historic or archaeological concerns associated with a project in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

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If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**STANTEC CONSULTING**

Jessica Haider  
Project Coordinator

PN 195600824

## Huntress, David

---

**From:** Reed, Robin K <robin.k.reed@maine.gov>  
**Sent:** Monday, October 15, 2012 5:46 PM  
**To:** Chelminski, Michael  
**Cc:** Haider, Jessica  
**Subject:** MHPC# 1558-12 Orland Village Dam evaluation  
**Attachments:** MHPC# 1558-12 maps.pdf; Contract Archaeology Guidelines.pdf

### MHPC# 1558-12 Orland Village Dam evaluation

Michael:

Our office has reviewed the information received September 18, 2012 to initiate consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

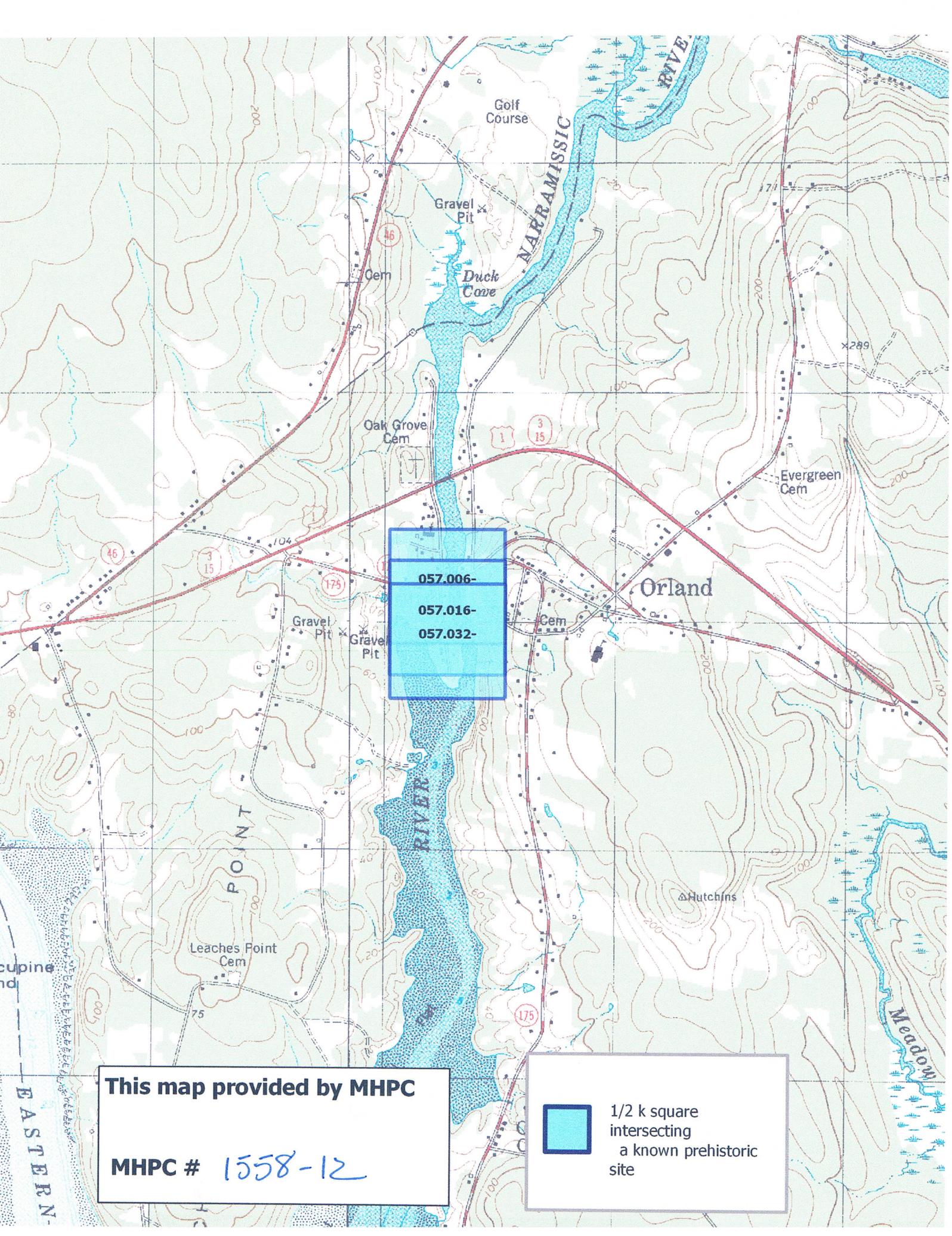
In order to continue our review, please submit the following information:

1. Regarding prehistoric archaeological resources, there are 3 known archaeological sites present in the project area, including 57.12 right at the dam itself. See the attached map. Therefore, Phase I archaeological survey is necessary for this project prior to any ground disturbance. A list of qualified prehistoric archaeologists may be found on our website: [http://www.maine.gov/mhpc/project\\_review/arc\\_consultants.html](http://www.maine.gov/mhpc/project_review/arc_consultants.html) Material explaining the Phase I/II/III approach to archaeological survey is attached. This office must approve any proposal for archaeological fieldwork. If you have any questions, please contact Dr. Arthur Spiess of our office. He may be reached at 287-2789 or [arthur.spiess@maine.gov](mailto:arthur.spiess@maine.gov)
2. Regarding historic archaeological resources, there are historic dams and other properties in the project area. See the attached 1872 map. Therefore, Phase I archaeological survey is necessary for this project prior to any ground disturbance. A list of qualified historic archaeologists may be found on our website: [http://www.maine.gov/mhpc/project\\_review/arc\\_consultants.html](http://www.maine.gov/mhpc/project_review/arc_consultants.html) Material explaining the Phase I/II/III approach to archaeological survey is attached. This office must approve any proposal for archaeological fieldwork. If you have any questions, please contact Dr. Leith Smith of our office. He may be reached at 287-8304 or [Leith.smith@maine.gov](mailto:Leith.smith@maine.gov)
3. Regarding architectural resources, please forward a history of the present dam and photos so we may assess the property's National Register status.

We look forward to continuing consultation with you on this project.

Robin K. Reed  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, ME 04333  
phone: 207-287-2132 ext. 1  
fax: 207-287-2335  
[robin.k.reed@maine.gov](mailto:robin.k.reed@maine.gov)

<http://www.maine.gov/mhpc>

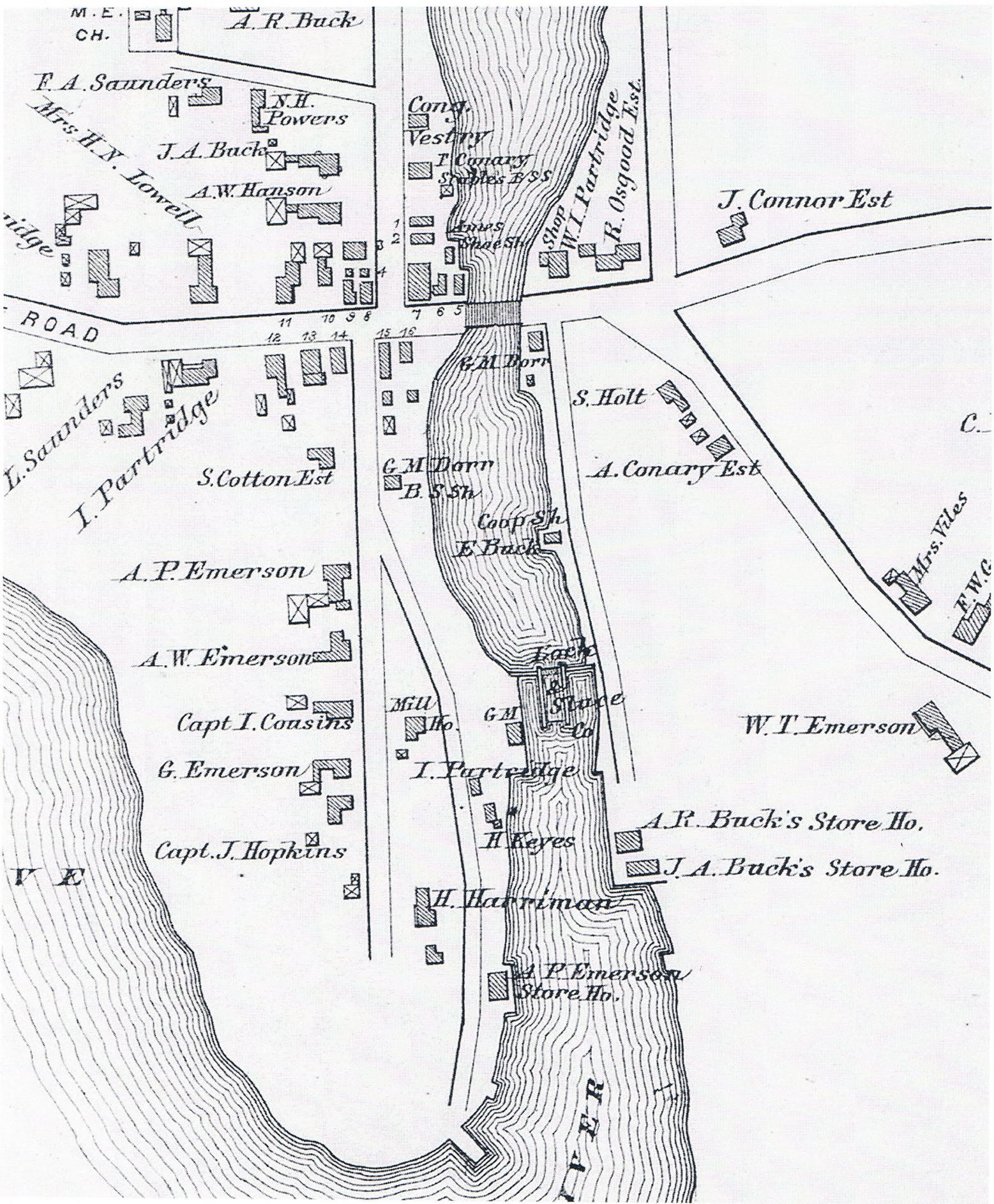


057.006-  
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057.032-

**This map provided by MHPC**

**MHPC #** 1558-12

 1/2 k square intersecting a known prehistoric site



1872



MAINE HISTORIC PRESERVATION COMMISSION  
55 CAPITOL STREET  
65 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333

ANGUS S. KING, JR.  
GOVERNOR

EARLE G. SHETTLEWORTH, JR.  
DIRECTOR

## CONTRACT ARCHAEOLOGY GUIDELINES

June 10, 2002

This document is provided as background information to agencies, corporations, professional consultants or individuals needing contract archaeological services (also known as Cultural Resources Management archaeology) in Maine. These guidelines are based on state rules (94-089 Chapter 812).

### Finding an Archaeologist

At the time that MHPC issues a letter requiring archaeological survey work, MHPC will also supply one (or more) lists of archaeologists (Levels 1 and/or 2, historic or prehistoric) appropriate to the type of work (Phase I, II, III, historic or prehistoric). **Archaeologists on the Level 2 Approved Lists can do projects of any level, including Phase I archaeological survey projects.** Level 1 archaeologists are restricted to doing Phase I surveys, and certain planning projects for municipal governments.

MHPC maintains lists of archaeologists interested in working in different geographic areas of Maine, and those who are qualified in different types of work. The archaeologists themselves indicate their availability (except for short-term absence) to MHPC on a periodic basis, so archaeologists on the list can be expected to respond to inquiries. The applicant should solicit proposals or bids for work from archaeologists whose names appear on the list supplied by MHPC.

These archaeologists' names are taken from lists of archaeologists approved for work in Maine by MHPC under a set of rules establishing minimal qualifications, such as previous supervisory experience in northern New England, and an appropriate graduate degree. *However, the inclusion of an archaeologist on one of these lists should not be interpreted as an endorsement by the MHPC beyond these limited qualification criteria. Moreover, the MHPC cannot recommend the services of an individual archaeologist.*

### Project Types

The vast majority of contract archaeology survey work falls into one of three categories. **Phase I** surveys are designed to determine whether or not archaeological sites exist on a particular piece of land. Such work involves checking records of previous archaeology in the area, walking over the landscape to inspect land forms and look for surface exposures of soil and possible archaeological material, and the excavation of shovel test pits in areas of high probability.

**Phase II** surveys are designed to focus on one or more sites that are already known to exist, find site limits by digging test pits, and determine site content and preservation. Information from Phase II survey work is used by the Maine Historic Preservation Commission (MHPC) to determine site significance (eligibility for listing in the National Register of Historic Places). **Phase III** archaeological work, often called data recovery, is careful excavation of a significant archaeological site to recover the artifacts and information it contains in advance of construction or other disturbance.



PRINTED ON RECYCLED PAPER

Archaeological sites are further divided into two broad categories of culture, **prehistoric** (or Native American), and **historic** (or European-American). Different archaeological specialists are usually needed for prehistoric or historic sites because the nature of content and preservation and site locations are quite different.

### **Scope of Work**

In responding to a project submission, the MHPC may issue a letter specifying which type of archaeological survey is needed (prehistoric, historic or both) and at what level (Phase I, II, or III). Often the response letter contains further information, such as the suspected presence of an historic site of a certain age, or a statement that only a portion of the project parcel in question is sensitive for prehistoric sites and only that portion needs archaeological survey.

Once the project applicant has one or more scopes of work (proposals) from appropriate archaeologists (see below), the applicant should submit their preferred proposal (*without attached financial information or bid total*) to the MHPC for approval. MHPC will not comment upon cost, but will comment on the appropriateness of the scale and scope of the work. An approval from MHPC of the scope of work is the applicant's guarantee that, if the field and laboratory work are done according to the scope, and appropriately described in writing, the results will be accepted by MHPC.

The final written report on the project must also be submitted to MHPC for review and comment.

### **Project Final Report**

Whatever the archaeological survey result, a final report on the project should be submitted by the applicant to the MHPC. The MHPC will review the report, and issue further guidance or issue a "clearance" letter for the project.



MAINE HISTORIC PRESERVATION COMMISSION  
55 CAPITOL STREET  
65 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333

PAUL R. LEPAGE  
GOVERNOR

EARLE G. SHETTLEWORTH, JR.  
DIRECTOR

March 11, 2013

Michael Chelminski, P.E.  
Stantec  
30 Park Drive  
Topsham, ME 04086

Project: MHPC #1588-12 – Orland Village Dam evaluation  
Town: Orland, ME

Dear Mr. Chelminski:

As I reported to you in my e-mail dated February 20, 2013, the Commission is in receipt of a draft document titled "A Village, A River, A Dam, A Way of Life" that was prepared in February, 2013 by Sharon Thompson of the Orland Historical Association. We have used this document, as well as additional information submitted directly to Christi Mitchell of our staff by Ms. Thompson, to make a determination as to whether this structure is eligible for listing in the National Register of Historic Places. This eligibility assessment continues our consultation on the above referenced project pursuant to Section 106 of the National Historic Preservation Act, as amended.

The criteria used to determine if a property is eligible for listing in the National Register contain two broad categories for evaluation. The first is that the property must have significance – either for its archaeological, architectural, artistic, or engineering qualities, or for its association with a significant person, event, or broad pattern of events. The criteria require that a property retain its historic integrity of design, workmanship, materials, setting, feeling, association and location. For example, a house significant as an example of period architecture has to be authentically historic – not a reproduction or a reconstruction. Finally, only those properties of extraordinary importance can be listed in the National Register if they are less than 50 years old.

The design of the current concrete and timber lower dam in Orland dates to no earlier than the 1930s. From at least 1872 to 1930 there was a granite dam with timber cribbing that included a set of timber locks to facilitate marine traffic traveling between the tidal river below the dam to the impoundment and Narramissic River above the dam. Photographs and engineering plans from c. 1930 show a sawmill over the dam at the west shore. The new dam, constructed by the Maine Seaboard Paper after 1930, was located somewhat downstream of the old dam. Plans from 1984 indicate that it had concrete abutments, spillway, and fish ladder and a timber face. A storm surge in 1994 extensively damaged the dam, and while it was rebuilt, the extent to which the structure retained the integrity of design, materials and workmanship which characterized the post 1930 dam has not been sufficiently determined. Consequently, based on the information received to date, it is the Commission's opinion that the dam at the lower falls in

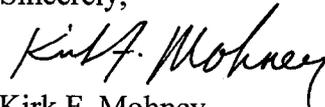
Orland may not meet the 50 year-old threshold for designation as a historic structure under the National Register criteria by virtue of its recent reconstruction.

While the dam itself may not be historic, the impoundment created by dams at the lower falls is an important character defining feature in the design and development of Orland village. Commencing in the 1770s, if not earlier, a dam was located at this site. The impoundment behind the dam was one factor in determining the layout of roads and bridges, and subsequently the placement of houses, mills, stores and churches. The economic development and growth of the town resulted in part from water-dependent industries including fish management, ship building, and milling. The sense of Orland as a historic village is directly connected to its relationship with the impoundment.

Although it is our understanding that no construction work is currently planned and that you are only conducting a feasibility study at this time, I remind you that Robin Reed's e-mail to you dated September 18, 2012, noted the presence of three known archaeological sites in the project area, and stated that prehistoric and historic archaeological surveys would be necessary. If any ground disturbance is planned, this survey work must be conducted. We also request that we be kept informed of proposed construction work so that we may offer our recommendations pursuant to any federal and/or state regulations (funding, permitting or licensing) that may be required.

Please contact Ms. Reed if you have any questions regarding this matter.

Sincerely,



Kirk F. Mohney

Deputy State Historic Preservation Officer

cc: Sharon Thompson



**Stantec**

September 14, 2012

Don Cameron  
Maine Natural Areas Program  
State House Station #93  
Augusta, Maine 04333

**Subject: Significant Natural Resources associated with land in Orland, Maine**

Dear Mr. Cameron:

On behalf of Project Manager Michael Chelminski, I am requesting information on any significant natural resources associated with land in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

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If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**STANTEC CONSULTING**

Jessica Haider  
Project Assistant

PN 195600824



STATE OF MAINE  
DEPARTMENT OF CONSERVATION  
93 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0093

PAUL R. LEPAGE  
GOVERNOR

WILLIAM H. BEARDSLEY  
COMMISSIONER

September 26, 2012

Jessica Haider  
Stantec Consulting  
30 Park Drive  
Topsham, ME 04086

Re: Rare and exemplary botanical features in proximity to: PN 195600824, Orland Village Dam, Orland, Maine

Dear Ms. Haider:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received September 15, 2012 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in Orland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

Letter to Stantec  
Comments RE: Orland Village Dam  
September 26, 2012  
Page 2 of 2

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Don Cameron  
Ecologist  
Maine Natural Areas Program  
207-287-8041  
[don.s.cameron@maine.gov](mailto:don.s.cameron@maine.gov)

## Rare and Exemplary Botanical Features in the Project Vicinity

Documented within a four-mile radius of the Proposed Orland Village Dam Project, Orland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Cypripedium arietinum	G3	S1	E	9	1904-05-30	Forested wetland
Three-toothed cinquefoil - blueberry low summit bak	GNR	S3		5	1997-07-01	Rocky summits and outcrops (non-forested, upland)
Minuartia glabra	G4	S3	SC	1	1997-07-01	Rocky summits and outcrops (non-forested, upland)
Minuartia glabra	G4	S3	SC	3	1997-07-01	Rocky summits and outcrops (non-forested, upland)
Zosterella dubia	G5	S3	SC	9	1999-08-26	Open water (non-forested, wetland)
Potamogeton vaseyi	G4	S2	SC	10	1999-08-26	Open water (non-forested, wetland)
Isoetes acadensis	G3Q	S2	SC	5	2005-10-05	Open water (non-forested, wetland)



## STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.
- SU** Under consideration for assigning rarity status; more information needed on threats or distribution.
- SNR** Not yet ranked.
- SNA** Rank not applicable.
- S#?** Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

**Note:** **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

## GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.
- GNR** Not yet ranked.

**Note:** **Global Ranks** are determined by NatureServe.

## STATE LEGAL STATUS

**Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

## NON-LEGAL STATUS

- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE** Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.





**Stantec**

September 14, 2012

Lori Nordstrom  
United States Fish and Wildlife Service  
Maine Field Office  
17 Godfrey Dr., Suite #2  
Orono, ME 04473

**Subject: Significant Wildlife Resources associated with land in Orland, Maine**

Dear Ms. Nordstrom:

On behalf of Project Manager Michael Chelminski, I am requesting information on any significant wildlife resources associated with land in Orland, Maine.

Stantec has contracted with the Town of Orland to assist them with evaluation of Orland Village Dam on the Narramissic River in Orland. Orland Village Dam is located at the head-of-tide on the Narramissic River (the reach of the river seaward from the dam is referred to as the "Orland Rivers"), and the tributary watershed includes Alamoosook Lake and tributary waterways. The objective of this project is to evaluate the condition of the Orland Village Dam and factors related to the current condition of the dam and associated fish passage systems. The project study will address a broad range of issues and constraints associated with the Town's ownership of the dam, including operations and maintenance costs, recreational use, and potential impacts to infrastructure and natural resources that could result from deliberate changes to the dam and/or deterioration of the dam.

The estimated extent of potential impacts that may be expected from implementation of the alternatives that we expect to evaluate is the reach of the Narramissic River between the Alamoosook Lake Dam and the Orland Village Dam and the reach of White's Brook upstream from the Narramissic River to White's Road Bridge.

If you have any questions, please contact Michael at (207) 729-1199. Thank you for your assistance in obtaining this information.

Respectfully,  
**STANTEC CONSULTING**

Jessica Haider  
Project Assistant

PN 195600824



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Ecological Services  
Maine Field Office  
17 Godfrey Drive, Suite 2  
Orono, Maine 04473  
207/866-3344 Fax: 207/866-3351

October 4, 2012

Jessica Haider  
Stantec Consulting  
30 Park Avenue  
Topsham, Maine 04086

### **Re: Species List Request - Job Location/Number: Orland, Maine**

Dear Ms. Haider:

We have received your request for information regarding the occurrence of federally listed threatened and endangered species within the vicinity of the above referenced project/property. In an effort to streamline project reviews in a time of increasing workloads, we are directing all species list requests to our Web site: <http://www.fws.gov/mainefieldoffice/Project%20reviews.html>. Please copy and paste this link into your browser and follow the instructions at **Species Lists and Project Reviews**. Step-by-step instructions are found here. Using this Web-based process will allow you to print an official species list response from the Maine Field Office.

**Please Note: Even if you have already printed out a preliminary species list request from the online system Information, Planning, and Conservation (IPaC), you will still need to return to the IPaC site to generate an *official* species list request.**

As a reminder, Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) prohibits unauthorized taking\* of listed species and applies to both Federal and non-federal activities. Additionally, endangered and threatened species and their habitats are protected by Section 7(a)(2) of the ESA, which requires Federal agencies, in consultation with the U.S. Fish and Wildlife Service (Service), to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. An assessment of the potential direct, indirect, and cumulative effects is required for all Federal actions that may affect listed species. For projects not authorized, funded, or carried out by a Federal agency, consultation with the Service pursuant to Section 7(a)(2) of the ESA is not required. However, no person is authorized to “take”\* any listed species without appropriate authorization from the Service. Therefore, we provide technical assistance to individuals and agencies to assist with project planning to avoid the potential for “take,” or when appropriate, to provide assistance with their application for an incidental take permit pursuant to Section 10(a)(1)(B) of the ESA.

Project construction or implementation should not commence until all requirements of the ESA have been fulfilled. If you have any questions or require further assistance regarding our Web-based **Species List and Project Reviews** process, please contact Shay White at: [Shay\\_White@fws.gov](mailto:Shay_White@fws.gov) or by telephone

at: 207/866-3344, Ext. 157. If you have questions about our Endangered Species Program, please contact Mark McCollough at: [Mark\\_McCollough@fws.gov](mailto:Mark_McCollough@fws.gov) or by telephone at 207/866-3344, Ext. 115. For questions about Atlantic salmon, please contact Wende Mahaney at: [Wende\\_Mahaney@fws.gov](mailto:Wende_Mahaney@fws.gov) or by telephone at: 207/866-3344, Ext. 118.

Thank you.



Laury Zicari  
Field Supervisor  
Maine Field Office

\*Under the Act and regulations, it is illegal for any person subject to the jurisdiction of the United States to **take** (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered fish or wildlife species and most threatened fish and wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. "Harm" includes any act which actually kills or injures fish or wildlife, and case law has clarified that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
MAINE ECOLOGICAL SERVICES FIELD OFFICE  
17 GODFREY DRIVE, SUITE 2  
ORONO, ME 04473  
PHONE: (207)866-3344 FAX: (207)866-3351  
URL: [www.fws.gov/mainefieldoffice/index.html](http://www.fws.gov/mainefieldoffice/index.html)

Consultation Tracking Number: 05E1ME00-2013-SLI-0017

October 22, 2012

Project Name: Orland Village Dam

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 the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This 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 Web site 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 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 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>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: [http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html) Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines: <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. 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> and at:

<http://www.towerkill.com>; and at:

<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



United States Department of Interior  
Fish and Wildlife Service

Project name: Orland Village Dam

## Official Species List

### Provided by:

MAINE ECOLOGICAL SERVICES FIELD OFFICE

17 GODFREY DRIVE, SUITE 2

ORONO, ME 04473

(207) 866-3344

<http://www.fws.gov/mainefieldoffice/index.html>

**Consultation Tracking Number:** 05E1ME00-2013-SLI-0017

**Project Type:** Dam

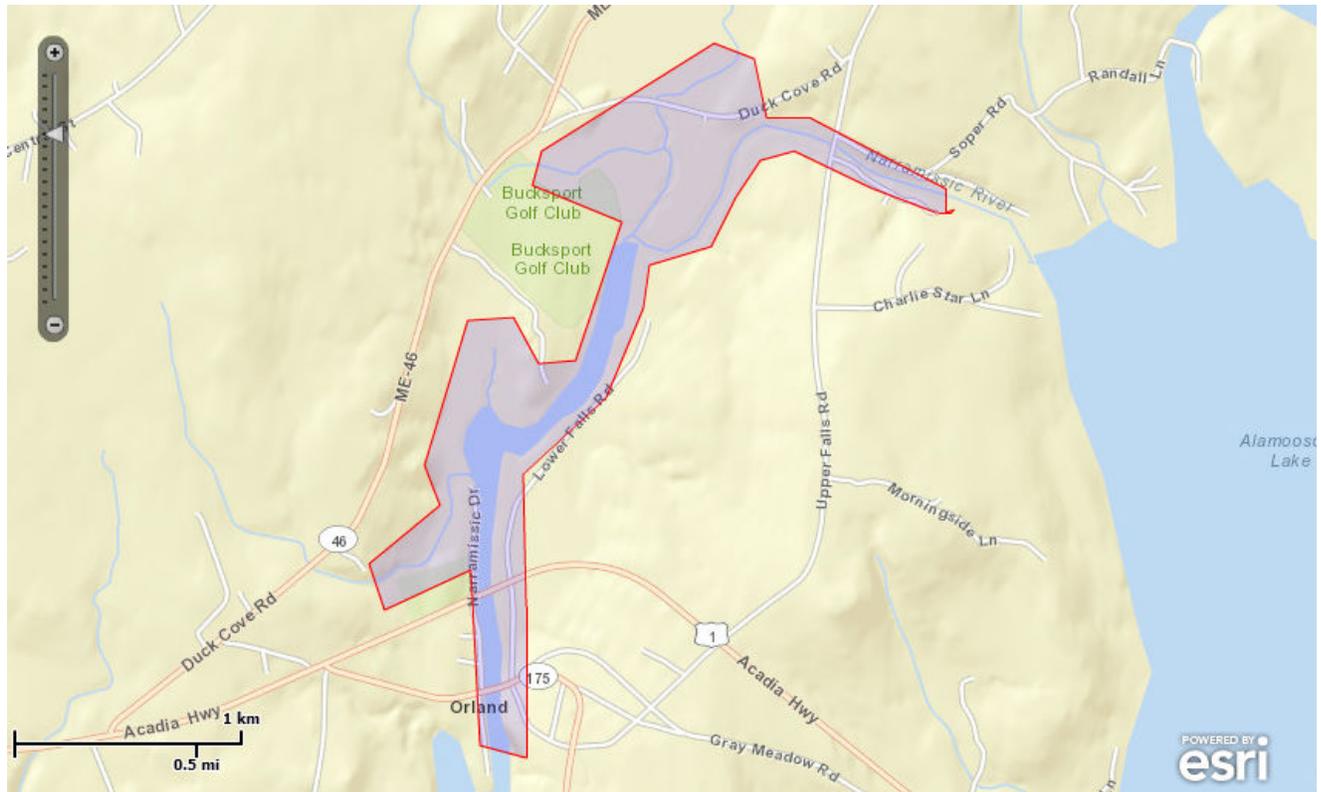
**Project Description:** Alternatives Analysis for Orland Village Dam. Project study is evaluating alternatives to existing dam, including reconstruction of the dam, improvement of the existing technical fishpass, partial breaching of the dam, and dam removal. Project study is being performed by Stantec Consulting Services Inc. under contract to the Town of Orland Dam Committee.



United States Department of Interior  
Fish and Wildlife Service

Project name: Orland Village Dam

**Project Location Map:**



**Project Coordinates:** MULTIPOLYGON (((-68.7185002 44.5907143, -68.7179852 44.5908365, -68.7181568 44.5907143, -68.7185002 44.5907143)), ((-68.7185002 44.5907143, -68.7188435 44.5907143, -68.7190151 44.5907143, -68.72262 44.5916922, -68.7269116 44.5931591, -68.7287998 44.5927924, -68.7301731 44.5913255, -68.7315464 44.5893695, -68.7349797 44.588636, -68.735323 44.5869245, -68.7373829 44.583379, -68.7420178 44.5803223, -68.7418461 44.5750645, -68.7418461 44.5690725, -68.744421 44.5695617, -68.744936 44.5765319, -68.7497425 44.5749423, -68.7506008 44.5767764, -68.7466526 44.5790996, -68.7475109 44.5806891, -68.7451077 44.5864355, -68.7425499 44.5865577, -68.741168 44.5847238, -68.7391081 44.5848461, -68.7365332 44.5903475, -68.7415028 44.5918084, -68.7409964 44.5931591, -68.7313748 44.5974374, -68.7291432 44.5968263, -68.7284565 44.5944977, -68.7260618 44.5944977, -68.7185002 44.5916861, -68.7185002 44.5907143)))

**Project Counties:** Hancock, ME



United States Department of Interior  
Fish and Wildlife Service

Project name: Orland Village Dam

## Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

### Atlantic salmon (*Salmo salar*)

Population: Expanded Gulf of Maine DPS

Listing Status: Endangered

Critical Habitat: Final designated