

**EXHIBIT E**

**GREEN LAKE PROJECT (P7189)**

**APPENDIX B – CONSULTATIONS AND MEETINGS**

## **APPENDIX B – CONSULTATIONS AND MEETINGS**

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### **MEETINGS AND LETTERS**

#### **THE FOLLOWING MEETINGS OCCURRED DURING THE LICENSING PROCESS:**

1. GLWP Site Visit -

On 26<sup>th</sup> June 2019 Green Lake Water Power Company held a site visit at the Power Station and the Dam, the attendees included:

FERC - Nick Palso, Bill Connelly

GLWP - Bert and Caroline Kleinschmidt

USFWS - Steve Shepard, Oliver Cox

NOAA - Dan Tierney, Don Dow

MDIFW - Colin Shankland

GLA - Harry Moore, Dale Jellison, Scotty Folger & Tom, Val McCluskey

Kleinschmidt - Andy Qua, Kayler Easler

Fred and Edie Skinner

2. On 27<sup>th</sup> June 2019 two Scoping meetings were held in the Ellsworth Town Office, these were the attendees as noted by the court reporter:

ATTENDEES AT THE MORNING MEETING

NICHOLAS PALSO, FERC PROJECT DIRECTOR

WILLIAM CONNELLY, FERC STAFF

BERT KLEINSCHMIDT, GREEN LAKE WATER PROJECT

CAROLINE KLEINSCHMIDT, GREEN LAKE WATER PROJECT

KAYLA EASLER, Kleinschmidt Associates

DALE JELLISON, GREEN LAKE ASSOCIATION

HARRY MOORE, GREEN LAKE ASSOCIATION

COLIN SHANKLAND, MDIF&W

STEVEN SHEPHARD, USFWS

OLIVER COX, USFWS

DAN TIERNEY, NOAA

EDIE AND FRED SKINNER, GLA

ATTENDEES AT THE AFTERNOON MEETING

NICHOLAS PALSO, FERC PROJECT DIRECTOR

WILLIAM CONNELLY, FERC STAFF

BERT KLEINSCHMIDT, GREEN LAKE WATER PROJECT

CAROLINE KLEINSCHMIDT, GREEN LAKE WATER PROJECT

KAYLA EASLER, Kleinschmidt Associates

DALE JELLISON, GREEN LAKE ASSOCIATION

AUDREY TUNNEY, GREEN LAKE ASSOCIATION

RAYMOND JENKINS, JENKINS BEACH

MR. FRIEND, GREENLAKE RESIDENT

KEN AND HOLLY SHEA, GREEN LAKE RESIDENTS

BRIDGET JORDAN, GREEN LAKE RESIDENT

ANDREW DAVIS, GREEN LAKE ASSOCIATION

HEATHER GRINDLE, GREEN LAKE RESIDENT

COOPER FRIEND, GREEN LAKE RESIDENT

The issues brought up in the Scoping Meetings, and in comments filed after the Scoping meetings, are noted in the Scoping Document 2 (Accession 20190913-3000)



3. Meeting on 10<sup>th</sup> October 2019 - PSP Review  
All Stakeholders were invited by email.  
Attendee sign in sheets are included below.
4. Meeting on 15<sup>th</sup> June 2020 on Zoom to discuss BMI sites  
Attendees - MDEP - Kathy Howatt, Jeanne DiFranco, Chris Sferra  
Moody Mountain - Paul Leeper  
GLWP - Bert and Caroline Kleinschmidt
5. 24-Feb-2021 - Initial Study Report Meeting on Zoom  
All Stakeholders were invited by email.  
Attendees - FERC - Nick Palso, Bill Connelly, Amanda Gill  
NMFS - Dan Tierney  
USFWS - Oliver Cox, Julianne Rosset, Corbin Hilling  
MDEP - Kathy Howatt, Chris Sferra  
MDMR - Casey Clark  
MDIFW - John Perry  
GLA - Audie Tunney, Dale Jellison  
Jenkins Beach & GLA - Joe Jenkins  
Kleinschmidt Associates - Kayla Hopkins  
GLWP - Bert and Caroline Kleinschmidt
6. Meeting on 5-May-2021 on Zoom to discuss Loons on Green Lake  
Attendees - MDIFW - John Perry, Steve Dunham, Rachel D'Auria Sferra  
GLWP - Bert and Caroline Kleinschmidt
7. Meeting on 17-Jun-2021 on Zoom to discuss BMI Sampling  
Attendees - MDEP - Kathy Howatt, Jeanne DiFranco, Chris Sferra  
GLWP - Bert and Caroline Kleinschmidt
8. Meeting on 9-Feb-2022 on Zoom to discuss USFWS DLA Comments  
Attendees - USFWS - Oliver Cox  
GLWP - Bert and Caroline Kleinschmidt
9. 25-Feb-2022 - Updated Study Report Meeting on Zoom  
All Stakeholders were invited by email.  
Attendees - FERC - Nick Palso, Bill Connelly  
MDEP - Kathy Howatt, Jeanne DiFranco  
USFWS - Oliver Cox  
MDIFW - Gregory Burr  
GLWP - Bert and Caroline Kleinschmidt
10. Meeting on 8-Mar-2022 on the phone to discuss MDMR CZMA Requirements  
Attendees - MDMR - Todd Burrowes  
GLWP - Bert and Caroline Kleinschmidt

Proposed Study Plan  
Meeting  
10.10.19  
Organization

Name

Email

- |                   |                 |                                    |
|-------------------|-----------------|------------------------------------|
| 1. Kayla Easter   | Kleinschmidt    | kayla.easter@kleinschmidtgroup.com |
| 2. Oliver Cox     | USFWS           | Oliver_Cox@fws.gov                 |
| 3. Nicholas Palso | FERC            | nicholas.palso@ferc.gov            |
| 4. Mark Whiting   | Trout Unlimited | mark.c.whiting@gmx.com             |
| 5. Robert Haltner | FERC            | robert.haltner@ferc.gov            |
| 6. Bill Connolly  | FERC            | william.j.connolly@ferc.gov        |
| 7. Dan Tierney    | NMFS            | Dan.Tierney@NOAA.GOV               |
| 8. Ellen Moore    | GLA             | eemoore20@gmail.com                |
| 9. HARRY MOORE    | GLA             | hmoorembec@gmail.com               |
| 10. John Perry    | MDIFW           | John.perry@Maine.gov               |

<u>Name</u>	<u>Organization</u>	<u>email</u>
11. Greg Burr	MDIFW	gregory.burr@maine.gov
12. Raymond Jenkins	Jenkins' Beach	Tobeach11@yahoo.com
13. Audie Tunney	Green Lake Association	atunney@gmail.com
14. Kathy Honatt	MEDEP	kathy.honatt@maine.gov
15. Chris Serra	MEDEP	christopher.serra@maine.gov
16.		
17.		
18.		
19.		
20.		

**THE NEXT PAGES CONTAIN THE CONSULTATION EMAILS IN CHRONOLOGICAL ORDER:**

**STAKEHOLDER QUESTIONNAIRE**

On January 28, 2019, a questionnaire was sent to 21 individuals representing 12 tribes, associations, and federal and state government agencies.

The distribution list consisted of the following people:

- Indian Tribe Chiefs
  - Penobscot Nation
  - Passamaquoddy
  - Maliseets
  - Micmac
- Green Lake Association
  - Audrey Tunney
- Green Lake National Fish Hatchery
  - Oliver Cox
- Maine Dept of Environmental Protection
  - Kathy Howatt
- Maine Dept of Inland Fisheries & Wildlife
  - Colin Shankland
  - Gregory Burr
  - Henry Jones
  - Jacob Scoville
  - John Perry
  - Susan Bard
  - Joshua Matijas
- Maine Dept of Marine Resources
  - Casey Clark
  - Randy Spencer
- National Marine Fisheries Service
  - Jeff Murphy
  - Sean McDermott
- State Historic Preservation Office (also sending hard copy)
  - Megan Rideout
- U.S. Fish & Wildlife Service
  - Bryan Sojkowski, P.E.
  - Steve Shepard

**THE EMAIL SENT OUT, THE QUESTIONNAIRE, AND THE RESPONSES RECEIVED BY GLWP FOLLOW:**

## Caroline Kleinschmidt

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**From:** Caroline Kleinschmidt  
**Sent:** Monday, January 28, 2019 3:18 PM  
**To:** chris.sockalexis@penobscotnation.org; governorsocobasin@gmail.com; envplanner@maliseets.com; jpictou@micmac-nsn.gov; aftunney@gmail.com; oliver\_cox@fws.gov; kathy.howatt@maine.gov; Colin.Shanklin@maine.gov; Gregory.Burr@maine.gov; Henry.F.Jones@maine.gov; Jacob.Scoville@maine.gov; John.Perry@maine.gov; Susan.M.Bard@maine.gov; Josh.Matijas@maine.gov; casey.clark@maine.gov; randy.spencer@maine.gov; jeff.murphy@noaa.gov; sean.mcdermott@noaa.gov; Megan.M.Rideout@maine.gov; bryan\_sojkowski@fws.gov; steven\_shepard@fws.gov; Andy.Qua@KleinschmidtGroup.com  
Bert (bert@bertandcaroline.com); Kayla Easler  
  
**Subject:** Green Lake Waterpower Relicensing Questionnaire  
**Attachments:** Green Lake Stakeholder Questionnaire.docx

To: Distribution List  
From: Green Lake Water Power Company  
Subject: Green Lake Water Power Relicensing Questionnaire

Attached is a questionnaire regarding [the](#) Green Lake Hydroelectric Project (FERC No. 7189) relicensing process.

Please send your response to Kayla Easler via email at [Kayla.Easler@KleinschmidtGroup.com](mailto:Kayla.Easler@KleinschmidtGroup.com)

Regards,

Caroline Kleinschmidt  
Green Lake Water Power Company

## **GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)**

### **STAKEHOLDER INFORMATION QUESTIONNAIRE**

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Green Lake Waterpower Company (GLWC or Licensee) is the licensee and operator of the Green Lake Hydroelectric Project (FERC No. 7189) (Project), located on Reeds Brook near the City of Ellsworth, Hancock County, Maine (see Figure 1).

Under the Federal Power Act, the Federal Energy Regulatory Commission (FERC) administers the licensing and relicensing of the Green Lake Project. The existing FERC license for the Project expires on March 31, 2024, and GLWC, with assistance from Kleinschmidt Associates (Kleinschmidt), is beginning the relicensing process. Accordingly, GLWC is preparing a Notice of Intent (NOI) to relicense the Project and Pre-Application Document (PAD) to be filed with the FERC no later than March 31, 2019. The PAD will provide FERC and stakeholders with existing, relevant, and reasonably available information pertaining to the Project as well as resources within the Project vicinity.

This Stakeholder Questionnaire is being used to help identify sources of existing, relevant, and reasonably available information pertinent to the Project that is not currently in GLWC's possession. This information will help to identify any data collection needs or potential resource issues early in the relicensing process. Our intent is to include results of this information request in the PAD.

We respectfully request that you please complete and return this Stakeholder Questionnaire to Kayla Easler via email at [Kayla.Easler@KleinschmidtGroup.com](mailto:Kayla.Easler@KleinschmidtGroup.com) within 30 days of receipt. This will allow for any follow-up contact that may be needed by GLWC or Kleinschmidt.

If we do not receive a response within 30 days, this will indicate that:

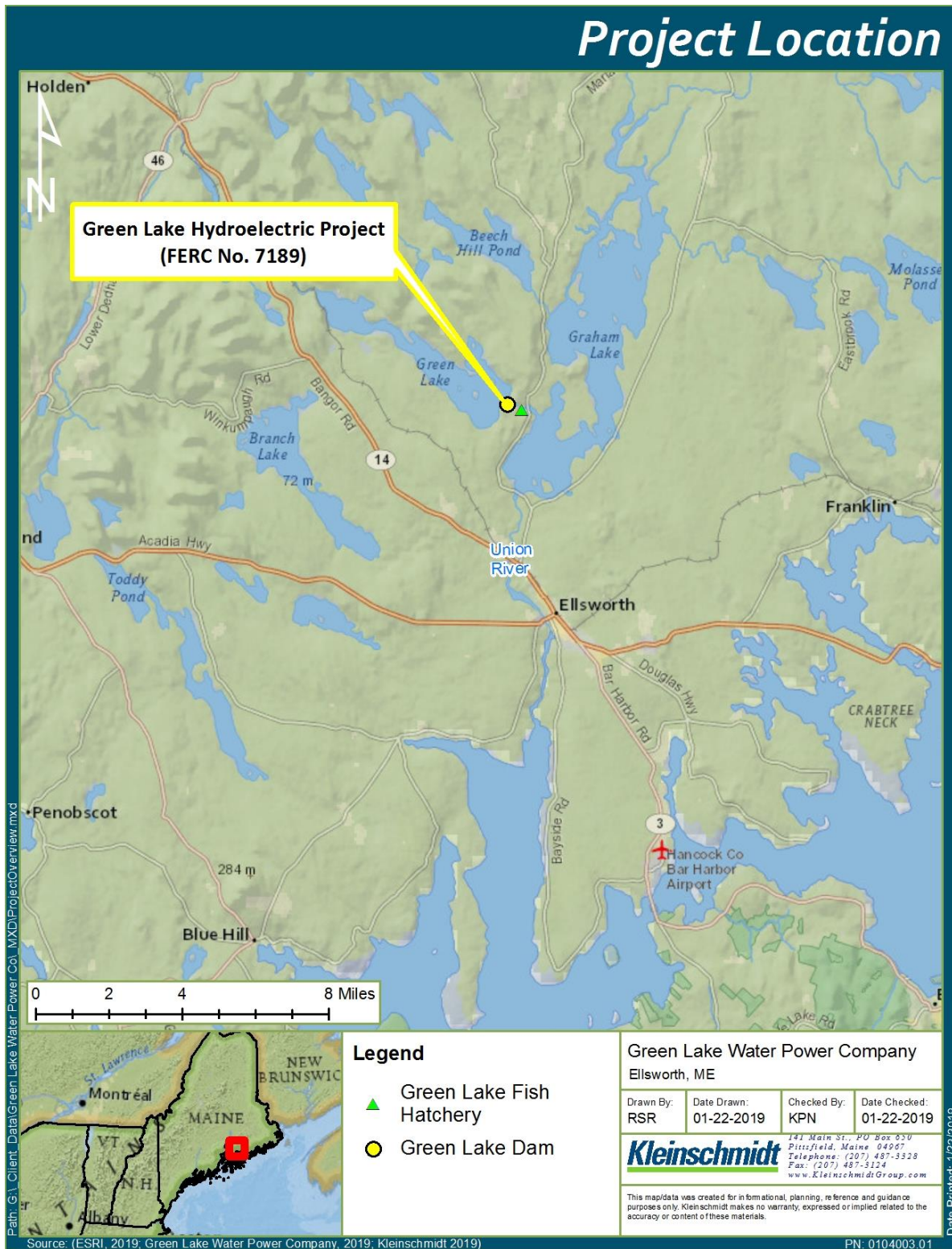
- you are not aware of any existing, relevant, and reasonably available information that describes the existing Project environment; and
- unless you are representative of a tribe or federal or state agency, you (and your organization) are not interested in receiving any further correspondence regarding this proceeding and you will be removed from the distribution list.

We greatly appreciate your response and assistance in this effort to identify information resources and interested parties in this proceeding.



# GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)

## STAKEHOLDER INFORMATION QUESTIONNAIRE



**Figure 1. Green Lake Project Location**

**GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)**  
**STAKEHOLDER INFORMATION QUESTIONNAIRE**

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1. Please provide the following information about the person completing this questionnaire.

Name & Title	
Organization	
Address	
Phone	
Email Address	

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☐ Yes (*if yes, please complete information below*) ☐ No (*if no, please go to No. 3*)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. (***Additional contacts may be provided on a separate page.***)

Name & Title	
Organization	
Address	
Phone	
Email Address	

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.



**GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)**  
**STAKEHOLDER INFORMATION QUESTIONNAIRE**

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4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?

\_\_\_Yes (*if yes, please complete Nos. 4a through 4d*) \_\_\_No (*if no, please go to No. 5*)

- a. If yes, please circle the specific resource area(s) that the information relates to:

- |  |                              |
|--|------------------------------|
| • Geology and soils                        | • Recreation and land use    |
| • Water resources                          | • Aesthetic resources        |
| • Fish and aquatic resources               | • Cultural resources         |
| • Wildlife and botanical resources         | • Socioeconomic resources    |
| • Wetlands, riparian, and littoral habitat | • Tribal resources           |
| • Rare, threatened, and endangered species | • Other resource information |

- b. Please briefly describe the information referenced above and/or list available documents (*additional information may be provided on page 6 of this questionnaire*).

- c. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

**GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)**  
**STAKEHOLDER INFORMATION QUESTIONNAIRE**

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- d. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

\_\_\_Yes (*please list specific issues below*)      \_\_\_No (*if no, please go to No. 5*)

Resource Area	Description of Issue

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

**GREEN LAKE HYDROELECTRIC PROJECT (FERC No. 7189)**  
**STAKEHOLDER INFORMATION QUESTIONNAIRE**

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*Additional Information:*

## STAKEHOLDER RESPONSES

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### NATIONAL MARINE FISHERIES SERVICE (NMFS) STAKEHOLDER RESPONSE

1. Please provide the following information about the person completing this questionnaire.

Name & Title	Dan Tierney
Organization	NOAA's National Marine Fisheries Service Protected Resources Division
Address	Maine Field Station 17 Godfrey Drive – Suite 1 Orono, Maine 04473
Phone	(207) 866-3755
Email Address	<a href="mailto:Dan.tierney@noaa.gov">Dan.tierney@noaa.gov</a>

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☒ Yes (if yes, please complete information below)      ☐ No (if no, please go to No. 3)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. **(Additional contacts may be provided on a separate page.)**

Name & Title	Same as above.
Organization	
Address	
Phone	
Email Address	

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.

4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?

☒ Yes (if yes, please complete Nos. 4a through 4d)      ☐ No (if no, please go to No. 5)

- a. If yes, please circle the specific resource area(s) that the information relates to:
- Geology and soils
  - Water resources
  - **Fish and aquatic resources**
  - Wildlife and botanical resources
  - Wetlands, riparian, and littoral habitat
  - **Rare, threatened, and endangered species**
  - Recreation and land use
  - Aesthetic resources
  - Cultural resources
  - Socioeconomic resources
  - Tribal resources
  - Other resource information
- b. Please briefly describe the information referenced above and/or list available documents (*additional information may be provided on page 6 of this questionnaire*).

Green Lake is located within the GOM DPS for federally endangered Atlantic salmon, and occurs within the designated critical habitat for that species. Other diadromous fish species (including alewives, blueback herring, American shad, sea lamprey, and American eels) also use the habitat within the Union River watershed for a portion of their life cycles.

- c. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

Information pertaining to the fisheries in the Union River watershed can be obtained through the FERC e-library (<https://elibrary.ferc.gov/IDMWS/search/fercgensearch.asp>) under the docket (P-2727) for the Ellsworth Hydroelectric Project, which is currently going through relicensing. Specifically, Black Bear Hydro's Final License Application (filed December 31, 2015; accession #: 20151230-5275), as well as the NMFS and USFWS preliminary prescriptions filed in April 2018 (accession numbers 20180411-0016 and 20180410-5059, respectively) may be helpful. These filings reference many articles and documents containing fisheries information that could be relevant to the Green Lake Project.

Information on listed Atlantic salmon can be found on the Atlantic salmon recovery website (<http://atlanticsalmonrestoration.org>). Documents and reports (including the 2019 Final Recovery Plan) can be found under the Resources tab.

- d. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

☒ Yes (please list specific issues below)      ☐ No (if no, please go to No. 5)

Resource Area	Description of Issue
Fisheries/Threatened and endangered species	The Green Lake Project does not currently have safe, timely, and effective passage for diadromous fish, including federally listed Atlantic salmon.

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

Additional Information: [blank]

## F.2 U.S. FISH AND WILDLIFE SERVICE (USFWS) STAKEHOLDER RESPONSE

1. Please provide the following information about the person completing this questionnaire.

Name & Title	Steven Shepard
Organization	FWS
Address	I think I'm in your DB
Phone	
Email Address	

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☒ Yes (if yes, please complete information below)      ☐ No (if no, please go to No. 3)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. (**Additional contacts may be provided on a separate page.**)

Name & Title	See above
Organization	
Address	
Phone	
Email Address	

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.

4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?

☒ Yes (if yes, please complete Nos. 4a through 4d)      ☐ No (if no, please go to No. 5)

a. If yes, please circle the specific resource area(s) that the information relates to:

- Geology and soils
- Water resources
- Fish and aquatic resources
- Wildlife and botanical resources
- Wetlands, riparian, and littoral habitat
- Rare, threatened, and endangered species
- Recreation and land use
- Aesthetic resources
- Cultural resources
- Socioeconomic resources
- Tribal resources
- Other resource information

c. Please briefly describe the information referenced above and/or list available documents  
(additional information may be provided on page 6 of this questionnaire).

I only have time for a quick response off the top of my head

Fish/Aquatics and RTE..

arctic charr (one of 14 US pop's is in Green Lake),  
a federal hatchery rearing ESA listed Atlantic salmon is located at the outlet,

Water resources...

the Project penstock supplies water to the federal hatchery  
a second penstock extends into the lake for hatchery water supply  
water-based recreation  
camps, camps, and (wealthy) camps

Other (historic/cultural)...

A 19th century federal fish hatchery was located (on the shores?) of Green Lake

e. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

An arctic charr reference is enclosed

f. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

☐ Yes (please list specific issues below)

☐ No (if no, please go to No. 5)

Resource Area	Description of Issue
[blank]	

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

Additional Information: [blank]

### **F.3 MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE (MDIFW) STAKEHOLDER RESPONSE**

From: Perry, John <John.Perry@maine.gov>  
Sent: Friday, February 15, 2019 9:00 AM  
To: Caroline Kleinschmidt  
Subject: RE: Green Lake Waterpower Relicensing Questionnaire

Good morning Caroline,

I apologize for the delayed response. The following Maine Department of Inland Fisheries and Wildlife staff will be involved with the relicensing of the Green Lake Hydroelectric Project:

John Perry, Environmental Review Coordinator (primary point of contact--please include me in all communications)

Maine Department of Inland Fisheries and Wildlife  
284 State Street, 41 SHS, Augusta, ME 04333-0041  
207-287-5254  
John.perry@maine.gov

Greg Burr, Regional Fisheries Biologist  
Maine Department of Inland Fisheries and Wildlife  
317 Whitneyville Road, Jonesboro, ME 04648  
207-434-5925  
Gregory.Burr@maine.gov

Susan Bard, Regional Wildlife Biologist  
Maine Department of Inland Fisheries and Wildlife  
317 Whitneyville Road, Jonesboro, ME 04648  
207-434-5927  
Susan.M.Bard@maine.gov

Other staff may be brought in as needed, but these three will be the primary reviewers.

Our Agency will be primarily commenting on fisheries and wildlife, including associated habitats, as well as recreational and public access issues.

Fisheries: Arctic char occur in the lake. In addition, our Agency stocks both landlocked salmon and lake trout. Lake trout do not spawn in the lake, but there is a large contribution of wild landlocked salmon from the tributaries. There is also a smallmouth bass fishery in the lake which necessitates stable water levels during the smallmouth bass spawning window of June 5 through July 5. Currently there is no fishway at the dam. If a fishway is constructed, our Agency would have concerns for possible impacts to the existing fisheries resulting from the upstream passage of certain species, such as largemouth bass, that could access the lake from Graham Lake downstream.

Wildlife: There is one mapped Inland Waterfowl and Wading Bird Habitat, a Significant Wildlife Habitat under Maine's Natural Resources Protection Act, that is mapped along the lake. It is not sure at this time what impacts, if any, Project operations have on this resource. Regarding Endangered, Threatened, and



Special Concern Species that may be present in the Project area, of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. Our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

In addition to bats, it is possible that other several rare species may be resident or transient within the Project area based on location, habitats present, and life history requirements including one or more species of birds, including great blue heron (Special Concern).

Finally, our preference for receiving materials, reports, etc., is via email.

Thank you, and please let me know if you have any questions or need additional information.

John

John Perry  
Environmental Review Coordinator  
Maine Department of Inland Fisheries and Wildlife  
284 State Street, 41 SHS  
Augusta, Maine 04333-0041  
Tel (207) 287-5254; Cell (207) 446-5145  
Fax (207) 287-6395  
[www.mefishwildlife.com](http://www.mefishwildlife.com)



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

#### F.4 MAINE HISTORIC PRESERVATION COMMISSION (MHPC) STAKEHOLDER RESPONSE



JANET T. MILLS  
GOVERNOR

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

KIRK F. MOHNEY  
DIRECTOR

February 8, 2019

Ms. Kayla Easler  
Kleinschmidt  
PO Box 650  
Pittsfield, ME 04967

Project: MHPC #0155-19

Green Lake Hydroelectric Project; FERC 7189  
Relicensing Project

Town: Ellsworth, ME

Dear Ms. Easler:

In response to your recent request, I have reviewed the information received February 5, 2019 to initiate consultation on the above referenced projects in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

In order to continue consultation, please define the area of potential effect (APE) for the Green Lake Hydroelectric Project (FERC.7189).

The APE for archaeological studies of hydro-power impoundments is all land around the margin of the impoundment that may be affected by erosion during the term of the future license. When the Project boundary is defined as an elevation, for example, the APE may extend above that elevation and laterally outside the Project boundary, if there is a potentially eroding land form that extends above the Project boundary elevation.

With regards to the architectural (above-ground) resources, the area of potential effects for the project should be defined in accordance with Section 106 and in consultation with MHPC. The Project APE is defined as the lands enclosed by the Project's boundary and the lands or properties outside of the Project's boundary where project construction and operation or project-related recreational development or other enhancements may cause changes in the character or use of historic properties, if any historic properties exist.

We look forward to continuing consultation with you on this project. Please do not hesitate to contact Megan M. Rideout, [megan.m.rideout@maine.gov](mailto:megan.m.rideout@maine.gov) or 287-2992, if you have any questions regarding this matter.

Sincerely,

Kirk F. Mohney  
State Historic Preservation Officer

PHONE: (207) 287-2132

FAX: (207) 287-2335

## F.5 GREEN LAKE ASSOCIATION (GLA) STAKEHOLDER RESPONSE

1. Please provide the following information about the person completing this questionnaire.

Name & Title	Audrey F. Tunney, President
Organization	Green Lake Association
Address	35 Grant Street Ellsworth, ME 04605
Phone	207-667-0291
Email Address	<a href="mailto:aftunney@gmail.com">aftunney@gmail.com</a>

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☒ Yes (if yes, please complete information below) ☐ No (if no, please go to No. 3)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. (***Additional contacts may be provided on a separate page.***)

Name & Title	Audrey F. Tunney
Organization	Green Lake Association
Address	35 Grant Street, Ellsworth, ME 04605
Phone	207-667-0291
Email Address	aftunney@gmail.com

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.

4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?

☒ Yes (if yes, please complete Nos. 4a through 4d) ☐ No (if no, please go to No. 5)

- a. If yes, please circle the specific resource area(s) that the information relates to:

- |  |  |
|--|--|
| Geology and soils  | <input type="radio"/> Recreation and land use                                |
| <input type="radio"/> Water resources  | <ul style="list-style-type: none"><li>• Aesthetic resources</li></ul>        |
| <ul style="list-style-type: none"><li>• Fish and aquatic resources</li></ul>               | <ul style="list-style-type: none"><li>• Cultural resources</li></ul>         |
| <ul style="list-style-type: none"><li>• Wildlife and botanical resources</li></ul>         | <input type="radio"/> Socioeconomic resources                                |
| <input type="radio"/> Wetlands, riparian, and littoral habitat                             | <ul style="list-style-type: none"><li>• Tribal resources</li></ul>           |
| <ul style="list-style-type: none"><li>• Rare, threatened, and endangered species</li></ul> | <ul style="list-style-type: none"><li>• Other resource information</li></ul> |

- b. Please briefly describe the information referenced above and/or list available documents (*additional information may be provided on page 6 of this questionnaire*).

Water Resources: The Green Lake Precipitation report has several years of data showing the monthly precipitation amounts and water levels.

Recreation and land use: Photographs and anecdotal accounts provided by property owners around the lake.

Socioeconomic resources: Anecdotal accounts of loss of rental opportunity due to the low water levels in September.

Wetlands, riparian and littoral habitat: Photographs

- c. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

Precipitation Reports: Harry Moore, thumb drive available.

Photographs and anecdotal information will be available on a thumb drive provided by Audrey Tunney.

Socioeconomic impacts to be identified at a later date.

#### ADDITIONAL CONTACTS:

Harry Moore      54 Harmony Way, Ellsworth, Me 04605  
Tel: 207-667-0503      Cell#: 207-479-4363  
[hmoorembec@gmail.com](mailto:hmoorembec@gmail.com)

David Megquier 603 Nicolin Rd., Ellsworth, Me 04605  
Tel: 207-949-4116  
megquier@maine.edu

- d. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

☒ Yes (please list specific issues below)

☐ No (if no, please go to No. 5)

Resource Area	Description of Issue
Recreation Water resources	Low water levels in September make use of boats and docks difficult if not impossible. Some camp owners lose access to water for their household if they draw from the lake.
Wetlands, Riparian, and littoral habitat	High water levels in the winter cause damage to the riparian habitat causing ice floes that uproot trees and damage rock walls that are meant to reduce storm water runoff. High water levels in the spring can destroy the nesting areas for loons.
Socioeconomic resources	The low water levels in September reduce the opportunity to rent cottages for that month. Boats at the local beach cannot be rented.

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

The demographics of the lake have changed significantly over the last 35-40 years. There has been significant development around the lake, much of which includes year round homes and camps that have been modified to allow for 3 season occupancy. It is no longer the rule that you close up camp on Labor Day weekend for many property owners.

*Additional Information:* [blank]

## F.6 JENKINS' BEACH STAKEHOLDER RESPONSE

1. Please provide the following information about the person completing this questionnaire.

Name & Title RAYMOND L. JENKINS, JR. – OWNER  
Organization JENKINS' BEACH  
Address PO BOX 155  
ELLSWORTH, ME 04605  
Phone 207-266-1381  
Email Address JOBEACH1@YAHOO.COM

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☒ Yes (if yes, please complete information below) ☐ No (if no, please go to No. 3)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. *(Additional contacts may be provided on a separate page.)*

Name & Title RAYMOND L. JENKINS, JR. – OWNER  
Organization JENKINS' BEACH  
Address PO BOX 155  
ELLSWORTH, ME 04605  
Phone 207-266-1381  
Email Address JOBEACH1@YAHOO.COM

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.

4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?

☒ Yes (if yes, please complete Nos. 4a through 4d) ☐ No (if no, please go to No. 5)

a. If yes, please circle the specific resource area(s) that the information relates to:

- 
- Geology and soils
- Water resources
- Fish and aquatic resources
- Wildlife and botanical resources
- Wetlands, riparian, and littoral habitat
- Rare, threatened, and endangered species
- Recreation and land use
- Aesthetic resources
- Cultural resources
- Socioeconomic resources
- Tribal resources
- Other resource information

b. Please briefly describe the information referenced above and/or list available documents  
(*additional information may be provided on page 6 of this questionnaire*).

Pictures of damages to shoreland and to personal property cause by ice during the period of high water in February 2017. Photos of economic damage done to my business because of low water in September.

c. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

This information may be obtained from me at Jenkins' Beach.

d. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

  X   Yes (*please list specific issues below*)        No (*if no, please go to No. 5*)

Resource Area	Description of Issue
JENKINS' BEACH	SHORELAND DAMAGE
	PERSONAL PROPERTY DAMAGE
	LOSS OF INCOME

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

Although I am not listed as a stakeholder in this project, I believe I should be as the nature of my business is directly affected by almost every move/decision made by GLWC.

~ Raymond L. Jenkins, Jr.

*Additional Information:*    [blank]

## F.7 HOULTON BAND OF MALISEET INDIANS (HBMI) STAKEHOLDER RESPONSE

1. Please provide the following information about the person completing this questionnaire.

Name & Title	Susan Young Natural Resources Director Acting Tribal Historic Preservation Officer
Organization	Houlton Band of Maliseet Indians
Address	88 Bell Road Littleton, ME 04730
Phone	207-532-4273 ext. 202
Email Address	Ogs1@maliseets.com

2. Do you or your organization plan to participate in the Green Lake Project's relicensing proceeding?

☐ Yes (if yes, please complete information below) ☒ No (if no, please go to No. 3)

Please provide the contact information for the representative(s) of your organization that will be participating in the relicensing process for this Project. *(Additional contacts may be provided on a separate page.)*

Name & Title	[blank]
Organization	
Address	
Phone	
Email Address	

3. If you and the entity you represent do not want to receive any further correspondence associated with this proceeding, please indicate so here:

☐ Please remove me and the entity I represent from the mailing list.

4. Do you or your organization know of any existing, relevant, and reasonably available information that describes the Green Lake Project's existing or historical environment (i.e., Project area, adjacent Project vicinity, or areas upstream or downstream of the Project)?



Yes (if yes, please complete Nos. 4a through 4d)   X   No (if no, please go to No. 5)

a. If yes, please circle the specific resource area(s) that the information relates to:

- Geology and soils
- Water resources
- Fish and aquatic resources
- Wildlife and botanical resources
- Wetlands, riparian, and littoral habitat
- Rare, threatened, and endangered species
- Recreation and land use
- Aesthetic resources
- Cultural resources
- Socioeconomic resources
- Tribal resources
- Other resource information

b. Please briefly describe the information referenced above and/or list available documents (*additional information may be provided on page 6 of this questionnaire*).

[blank]

c. Please provide referenced document, source website link, or description of where GLWC can obtain this information, if available.

[blank]

d. Based on the specific resource areas listed in 4a, are you aware of any specific issues related to the identified resource area(s)?

   Yes (please list specific issues below)   X   No (if no, please go to No. 5)

Resource Area	Description of Issue
[blank]	

5. If you have additional comments and/or questions regarding the Green Lake Project, or the relicensing process, please provide them below.

We do not have an immediate concern with your project or project site and we do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

We also hope, that you take into consideration fish passage when making decisions with regard to the dam's infrastructure, water quality and it's impacts on other aquatic organisms.

*Additional Information:*

[blank]

## Caroline Kleinschmidt

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**From:** Cox, Oliver <oliver\_cox@fws.gov>  
**Sent:** Tuesday, March 26, 2019 2:32 PM  
**To:** Bert Kleinschmidt; Caroline Kleinschmidt  
**Subject:** Month discharge data for Green Lake NFH  
**Attachments:** GLNFH WTP Monthly flow data request by P-7189.xlsx

Dear Bert and Caroline,

Attached is the monthly flow data summarized from our Discharge Monitoring Reports from 2011 through 2018. The flow data is for the discharge of hatchery wastewater from the rearing station to Reed Brook in millions of gallons per day (MGD). The data does not include process water that was returned to Reed Brook from our Water Treatment Plant. The conditions of our current Maine Pollutant Discharge Elimination System (MEPDES permit # ME0002623) allow for a monthly average discharge of 13.3 MGD and a daily maximum discharge of 19.4 MGD.

I think this data will provide you with a good understanding of our current water use.

Please let me know if you have any questions.

Sincerely,  
Oliver

--

Oliver Cox  
Project Leader

Green Lake National Fish Hatchery  
1 Hatchery Way, Route 180  
Ellsworth, ME 04605  
Phone: (207) 667-9531 x 2520

Craig Brook National Fish Hatchery  
306 Hatchery Road  
East Orland, ME 04431  
Phone: (207) 902-1557

## Caroline Kleinschmidt

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**From:** caroline@greenlakewaterpower.com  
**Sent:** Monday, July 15, 2019 2:40 PM  
**To:** Howatt, Kathy  
**Subject:** Re: Study Plan Meeting Schedule

**Categories:** GreenLakeWaterPower

Hi Kathy,

There's been a change since we sent out the PAD, at FERC's determination we are on the ILP.

FERC Issued the Scoping Document 1 and it is available on the FERC Online site (Docket no. P-7189-014) or you can download it from our website if you like.

Our website is at <https://www.greenlakewaterpower.com/> - click on the Relicensing Files link near the bottom of the page. Then select the Scoping folder.

Regards, Caroline

On 2019-07-15 07:37, Howatt, Kathy wrote:

Good morning Caroline,

Thanks for the notice of a study plan meeting, we will plan to attend. I haven't seen a schedule for a scoping meeting or schedule for study plans and PAD comments. Can you please forward the SD1? Thanks so much,

Kathy

Kathy Davis Howatt

Hydropower Coordinator, Bureau of Land Resources

Maine Department of Environmental Protection

Phone: 207-446-2642

[www.maine.gov/dep](http://www.maine.gov/dep)

*Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.*

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>

**Sent:** Friday, July 12, 2019 2:17 PM

**To:** Distribution List <relicensing@greenlakewaterpower.com>

**Subject:** Study Plan Meeting Schedule

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

To: Distribution List (below)

From: Green Lake Water Power Company

Subject: Green Lake Project Relicensing Study Plan Meeting

We plan to hold the Study Plan Meeting at 10am on Thursday 10th October in the Council Chamber at the Ellsworth City Hall. Please let me know as soon as possible if this date and time is a problem. If needed, we could currently reschedule for the afternoon of the 8th or 9th October.

Thanks, Caroline

Relicensing Coordinator

Green Lake Water Power Company

Distribution List:

- Federal Energy Regulatory Commission — Nicholas Palso
- Federal Energy Regulatory Commission — Bill Connelly
- NOAA's National Marine Fisheries Service — Dan Tierney
- U.S. Fish & Wildlife Service — Steve Shepard
- Maine Dept of Environmental Protection — Kathy Howatt
- Maine Dept of Inland Fisheries & Wildlife — John Perry
- Maine Dept of Inland Fisheries & Wildlife — Colin Shankland
- Maine Dept of Marine Resources — Casey Clark
- State Historic Preservation Office — Megan Rideout
- National Fish Hatchery — Oliver Cox
- Kleinschmidt Associates — Andy Qua

## Caroline Kleinschmidt

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**From:** caroline@greenlakewaterpower.com  
**Sent:** Wednesday, August 21, 2019 12:20 PM  
**To:** City of Ellsworth Assessing Office  
**Subject:** Re: Request for information regarding recreational property on Green Lake  
  
**Categories:** GreenLakeWaterPower

Hi Larry,

Thank you! This is very helpful.

Regards, Caroline

On 2019-08-19 09:35, City of Ellsworth Assessing Office wrote:

August 19, 2019

Hi Caroline,

Thank you for your email.

Yes, I've swam at both north end beaches! Great places for kids.

Being in the north section of Green Lake, both are located in Dedham, so I don't have that information, but I'm sure the Dedham town office can assist you.

In Ellsworth, just a few years ago, at 77 Green Lake Camping Way, we did have a shorefront camper trailer RV park and tenting area, but that is no longer operational.

We do not know if it will ever be operational again. The current owner purchased in 2016, via a foreclosure auction, and has not applied for a permit to make it operational.

Below is current owner and mailing address.

Parcel: 124/056/002/000/ Use: 1013 Type: W-P-B: --  
 Location: 77 GREEN LAKE CAMPING WAY Assessed Value: 361,400 Legal Land Area: 5.00 AC

**Parcel Information**

- Legal Information
- Account Information
- Owner and Deed**
- Assessment Summary
- Exemptions & Other Asst
- Supplemental Data
- Abatements & Assess Ct
- Parcel Addresses
- Associated Parcels
- Notice History
- Property Notes
- User Audit
- Sub-Division History
- Classification & Land Informa
- Building Information**
- Construction Detail
- Depreciation
- Outbuildings
- Extra Features
- Building Permits
- Visit History
- Building Notes
- Sketch
- Photos & Comparables

**Owner & Deed Information**

#	F	C	Owner Name(s)	Book/Page	Sale Date	Q	V	Sale Price	V	Record Date	Ref
1	C		M & M TRUCK SALES	6626/ 133	8/25/2016	U	I	243,600	1L		
2	C		THE BANK OF NEW YORK MELLON	6429/ 343	7/24/2015	U	I	0	1I		
3	C		LAWSON KATHLEEN RAE	2812/ 229	11/29/2004						
4	C		LAWSON KATHLEEN RAE			U	V		1N		

Owner: M & M TRUCK SALES  
 Addressee/Co-Owner:  
 Address:  
 PO BOX 6003  
 Address Line 2:  
 City: HERMON State: ME Zip: 04402

Deed Notes:







Thank you,

*-Larry*

**Larry Gardner, CMA**

City Assessor / 911 Addressing Officer

[lgardner@ellsworthmaine.gov](mailto:lgardner@ellsworthmaine.gov)

*Business, Leisure, Life*

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>

**Sent:** Saturday, August 17, 2019 11:05 PM



**To:** City of Ellsworth Assessing Office <assessing@ellsworthmaine.gov>

**Subject:** Request for information regarding recreational property on Green Lake

**Attention:** This e-mail message is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Hi Larry,

We are in the process of relicensing the Green Lake hydroelectrical project and we have been asked to provide some information to the Federal Energy Regulatory Commission. We sent in our Preliminary Application Document (PAD) and the question comes from that.

Audie Tunney suggested you could help me.

This is the question:

1. Section 5.7.1 describes the existing project recreation at Green Lake. It states that there are two private beaches at the north end of the impoundment, and a tenting area on the east side of the impoundment. To the extent possible, please provide information on who owns and maintains these recreation areas, and who has access to these facilities.

Audie provided the following information and suggested you could tell me who owns the former tenting area.

From Audie "The two beaches at the north end of the lake are privately held and open to public use. The larger of the two is Jenkins Beach, owned by Raymond J. Jenkins. There is a fee to use the beach and a fee to launch boats. A small snack shack is available. The other beach at the north end of the lake is currently owned by Gregory Barrows and Jeff Schlacter (sp?). They welcome public use of this small beach for swimming and picnicking. The beach has had several names over the years, the most current one being Marshmallow Beach. The tenting area went into foreclosure a year or two ago. It has been purchased, but does not operate as a tenting site any longer. The name of the new owner is not known for sure, it may be Maury Thayer."

Thank you very much for your help.

Best Regards,

Caroline Kleinschmidt

Relicensing Coordinator

Green Lake Water Power Co.

## Caroline Kleinschmidt

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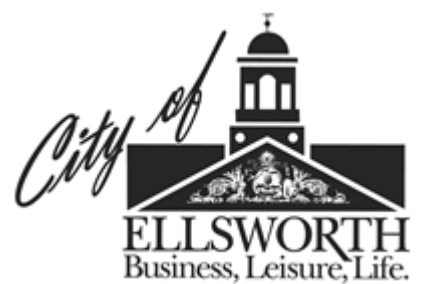
**From:** Lisa Sekulich <lsekulich@ellsworthmaine.gov>  
**Sent:** Wednesday, September 4, 2019 4:01 PM  
**To:** caroline@greenlakewaterpower.com  
**Subject:** RE: Request for information regarding the Ellsworth public beach and boat ramp.  
  
**Categories:** GreenLakeWaterPower

Hello Caroline –

The 25 ft extension resulted in an additional approx. 2 ft of additional depth , this will not guarantee that the ramp is usable in the fall when you do a draw down, as different boats have different requirements . Since this is new we haven't see exactly what it will mean in the fall yet.

Thanks,

Lisa Sekulich, PE  
Public Works Director



**Direct Phone:** (207) 669-6626  
**Email:** [lsekulich@ellsworthmaine.gov](mailto:lsekulich@ellsworthmaine.gov)

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Tuesday, September 3, 2019 4:18 PM  
**To:** Lisa Sekulich <lsekulich@ellsworthmaine.gov>  
**Subject:** Re: Request for information regarding the Ellsworth public beach and boat ramp.

Hi Lisa,

Thank you very much, this is useful data.

Do you expect that with the low water levels in the Fall that the 25' extension is enough so that the ramp remains useful until Mid October?

Also, are you able to tell me the angle of the slope and/or the increase in depth of the ramp?

Oh and if you have a picture too that would be lovely!

Thank you for your help.  
Regards, Caroline

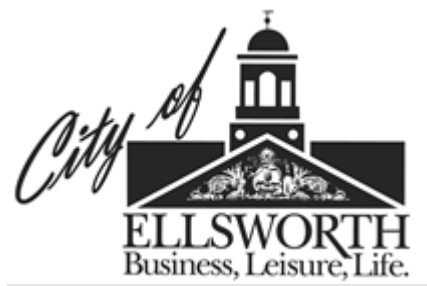
On 2019-08-20 12:49, Lisa Sekulich wrote:

Hello Caroline – In late 2018 the city extended the concrete boat launch ramp approx. 25 ft to help with the accessibility in the fall when water levels drop dramatically. In 2019/2020 we hope to purchase additional float docks to coincide with the extended concrete launch , to further help with this problem. The issue in the fall is that prior to installing the additional 25 ft of launch , sometime in the fall the entire or majority of the existing launch would be out of the water so that removing boats was next to impossible. Hopefully this is what you were looking for /asking .

Thanks,

Lisa Sekulich, PE

Public Works Director



Direct Phone: (207) 669-6626

Email: [lsekulich@ellsworthmaine.gov](mailto:lsekulich@ellsworthmaine.gov)

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**From:** [caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com) <[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)>

**Sent:** Saturday, August 17, 2019 10:38 PM

**To:** Lisa Sekulich <[lsekulich@ellsworthmaine.gov](mailto:lsekulich@ellsworthmaine.gov)>

**Subject:** Request for information regarding the Ellsworth public beach and boat ramp.

**Attention:** This e-mail message is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Hi Lisa,

We are in the process of relicensing the Green Lake hydroelectrical project and we have been asked to provide some information to the Federal Energy Regulatory Commission. We sent in our Preliminary Application Document (PAD) and the question comes from that.

We heard that the public beach and boat launch were being upgraded but we really don't have much information on the specifics.

Audie Tunney suggested you could help me.

This is the question, if you could provide me with some specifics on this that would be very much appreciated.

"3. Section 5.7.2.2 of the PAD discusses the beach and boat launch maintained by the City of Ellsworth. It states that improvements to the beach and boat launch to increase access to Green Lake are being implemented in 2019. To the extent possible, please provide details on the City of Ellsworth's planned improvements to the site. In addition, to the extent possible, please provide details about the access issues boaters experience during periods of low water and how the improvements are expected to provide better access."

Thank you very much for your help.

Best Regards,

Caroline Kleinschmidt

Relicensing Coordinator

Green Lake Water Power Co.







## Caroline Kleinschmidt

---

**From:** Caroline Kleinschmidt  
**Sent:** Monday, September 9, 2019 3:56 PM  
**To:** Cox, Oliver  
**Subject:** RE: [EXTERNAL] RE: FERC requested info

Hi Oliver,

Thanks, that's great!

I think that just leaves the boundary file ☺

Thanks for your help on this!

Caroline

**From:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Sent:** Monday, September 9, 2019 5:23 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** Re: [EXTERNAL] RE: FERC requested info

Hi Caroline,

Attached is a .gpx file of our trail system that you should be able to project on your project map.

Oliver

On Wed, Sep 4, 2019 at 8:47 PM Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)> wrote:

Hi Oliver,

Ok

Thanks, Caroline

**From:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Sent:** Wednesday, September 4, 2019 6:59 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** Re: [EXTERNAL] RE: FERC requested info

Hi Caroline,

The trail map that was in my email is the same as what is on the kiosk.

Oliver

On Tue, Sep 3, 2019 at 4:23 PM Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)> wrote:

Hi Oliver,

Ok, great, that sounds great.

If that is the map at the gate that would be good to know so we can say that it is available to people that come by.

Thanks, Caroline

**From:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>

**Sent:** Tuesday, September 3, 2019 1:12 PM

**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>

**Subject:** Re: [EXTERNAL] RE: FERC requested info

## Green Lake Nature Trails



I think the jpg of the trails I send you is what is posted at the trail head. However, I will double check. Currently, that is the only file I have for our trails. I should have a gps file by the end of the week.

The boundary map look close although the north side of Redds Brook appears to be a little off. I should have a good boundary file by COB tomorrow.

Oliver

On Tue, Sep 3, 2019 at 3:40 PM Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)> wrote:

Hi Oliver,

Bert has given me a file that contains the outline of the Hatchery land based on the property lines. It's in the attached file.

He also suggests that the map down by the gate might be useful. We are in Washington currently so we can't just pop out there and take a picture. If you could get us a picture that would be great.

You already gave us the trail route so maybe you could give us a description of the access points, and any access to the impoundment that is provided by the footpath and we'd be done!

How does that sound ?

Thanks, Caroline

---

**From:** Caroline Kleinschmidt  
**Sent:** Tuesday, September 3, 2019 10:14 AM  
**To:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Subject:** RE: [EXTERNAL] RE: FERC requested info

Hi Oliver,

Thank you very much! Our deadline to submit our Study Plan file with the additional data is on Friday September 13<sup>th</sup>

Regards, Caroline

**From:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Sent:** Tuesday, September 3, 2019 6:46 AM



**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>

**Subject:** Re: [EXTERNAL] RE: FERC requested info

I was not able to locate any GIS files for our trail. I am in the process of remapping it so I will be able to send you a gps file soon. I have a little more work to do to finish the track. As far as the boundary goes, I have a request to get copy of those files. I will follow up today on that request.

What is your time frame?

Oliver

On Mon, Sep 2, 2019 at 7:03 PM Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)> wrote:

Hi Oliver,

I hope you had a great Labor Day weekend!

I'm following up to see if you have tracked down the shape files for the trail system and your boundary.

Here is the original request from FERC:

5. Section 5.7.5 of the PAD discusses land use and management of project lands. It states that there is a footpath owned and maintained by the U.S. Fish and Wildlife Service as part of the Green Lake National Fish Hatchery. To the extent possible, please provide more information on the trail route, access points, and any access to the impoundment that is provided by the footpath. Please also provide any existing map illustrating the property boundary of the Green Lake National Fish Hatchery along the shoreline of Green Lake.

Thanks, Caroline

---

**From:** Caroline Kleinschmidt  
**Sent:** Wednesday, July 31, 2019 11:55 AM  
**To:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Subject:** RE: FERC requested info

Hi Oliver,

Thank you, we appreciate your help.

Caroline

**From:** Cox, Oliver <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>  
**Sent:** Tuesday, July 30, 2019 11:09 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** FERC requested info

Hi Caroline,

I saw that FERC requested more information on our trails and access points to the lake as well as hatchery boundaries. For starters, attached is a JPG of the trail system.

We should have shape files for the trail system and our boundary. I will provide them to you when I have tracked them down.

Oliver

--

[Oliver Cox](#)

[Project Leader](#)

[Green Lake National Fish Hatchery](#)

[1 Hatchery Way, Route 180](#)

[Ellsworth, ME 04605](#)

[Phone: \(207\) 667-9531 x 2520](#)

## Caroline Kleinschmidt

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**From:** Howatt, Kathy <Kathy.Howatt@maine.gov>  
**Sent:** Tuesday, September 10, 2019 9:47 AM  
**To:** 'caroline@greenlakewaterpower.com'  
**Subject:** RE: Green Lake Project Site Visit P-7189

**Categories:** GreenLakeWaterPower

Good morning Caroline,

Thank you for extending an invitation to visit the Green Lake Project on the day of the study plan meeting. I really do like to visit the projects to get a good understanding of the features and operations, and so I will accept your offer of a site visit on October 10. I appreciate you thinking of us and giving us a fresh opportunity to get to know the Project a little better.

Kathy

Kathy Davis Howatt  
Hydropower Coordinator, Bureau of Land Resources  
Maine Department of Environmental Protection  
Phone: 207-446-2642  
[www.maine.gov/dep](http://www.maine.gov/dep)

*Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.*

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Monday, September 09, 2019 7:21 PM  
**To:** Howatt, Kathy <Kathy.Howatt@maine.gov>  
**Subject:** Green Lake Project Site Visit P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Kathy,

We would like to invite representatives of the Maine Department of Environmental Protection to come to the Green Lake Project for a 'site visit'. It seems that there was some miscommunication earlier which resulted in the department not making it to the site visit we had in June and we'd like you to have the opportunity to gain firsthand knowledge of the size and nature of the project.

We could schedule a time during the week before the Proposed Study Plan Meeting or, if it would be more convenient for you, we could do this right after the meeting. The meeting is scheduled for 10am on 10th October 2019

Please let me know what works best for you.

Sincerely,

Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Co.

## Caroline Kleinschmidt

---

**From:** Perry, John <John.Perry@maine.gov>  
**Sent:** Tuesday, September 10, 2019 9:51 AM  
**To:** Caroline Kleinschmidt  
**Subject:** RE: FERC Request for additional information for the Green Lake Project P-7189

Hi Caroline,

Sorry I wasn't clearer earlier.

2—Landlocked salmon mainly spawn in the lower quadrants of each of those tributaries where the substrate is appropriate (no exact distances, just in the lower reaches of these tributaries). As stated earlier, we do not think that the project operations are impacting landlocked salmon spawning in the tributaries.

3—we do not know where or when char spawn in Green Lake. In nearby Flood's Pond they generally spawn between October 20 and November 7, so we expect similar timing at Green Lake.

Hope that helps!

John

**John Perry**  
**Environmental Review Coordinator**  
Maine Department of Inland Fisheries and Wildlife  
284 State Street, 41 SHS  
Augusta, Maine 04333-0041  
Tel (207) 287-5254; Cell (207) 446-5145  
Fax (207) 287-6395  
[www.mefishwildlife.com](http://www.mefishwildlife.com)



*Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.*

---

**From:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Sent:** Monday, September 09, 2019 8:25 PM  
**To:** Perry, John <John.Perry@maine.gov>  
**Subject:** RE: FERC Request for additional information for the Green Lake Project P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi John,

Thank you very much for the data you have sent me.

I have (1) the tributaries where landlocked salmon spawn,  
I don't have (2) the locations within those tributaries where salmon spawning occurs (e.g., near the mouth of the tributary or the approximate distance upstream of Green Lake),  
You were working on (3) the locations in Green Lake where Arctic char spawn, and  
I have this one for salmon but not for char (4) the approximate dates of the spawning period for the Green Lake population of each species.

So, if you have any more specifics on (2) the locations within those tributaries where salmon spawning occurs (e.g., near the mouth of the tributary or the approximate distance upstream of Green Lake),  
Or have made any headway on (3) the locations in Green Lake where Arctic char spawn and (4) when

We'd love to know.

We will be sending in our Proposed Study Plan at the end of this week so if you have some more data on this then great, if not, no problem!

We really appreciate your help!

Thanks, Caroline

---

**From:** Perry, John <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>  
**Sent:** Friday, August 23, 2019 5:51 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** RE: FERC Request for additional information for the Green Lake Project P-7189

Good morning Caroline,

Here is some additional information regarding landlocked salmon in Green Lake:

Green Lake supports one of the four original 4 wild landlocked salmon strains in Maine. This spawning has historically occurred in these sections of the stream well before the dam was put in and the current lake levels have very little influence on spawning success. The timing of salmon spawning happens between the last week in October and the middle of November.

I hope this helps--please let me know if you have any questions.

John

**John Perry**  
**Environmental Review Coordinator**  
Maine Department of Inland Fisheries and Wildlife  
284 State Street, 41 SHS  
Augusta, Maine 04333-0041  
Tel (207) 287-5254; Cell (207) 446-5145  
Fax (207) 287-6395  
[www.mefishwildlife.com](http://www.mefishwildlife.com)



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---

**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Monday, August 19, 2019 4:16 PM  
**To:** Perry, John <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>  
**Subject:** RE: FERC Request for additional information for the Green Lake Project P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi John,  
Thank you very much!  
Regards, Caroline

---

**From:** Perry, John <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>  
**Sent:** Monday, August 19, 2019 8:27 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** RE: FERC Request for additional information for the Green Lake Project P-7189

Good morning Caroline,

Landlocked salmon spawn in the following tributaries to Green Lake: Mann Brook, Jellison Brook, Great Brook and Sucker Brook. Our regional fisheries staff know the approximate locations of where these fish spawn, and I'll work with them to get you more specific information as soon as possible. Salmon are also fall spawners (generally October through November), but I'll also get better site-specific timing for you.

Regarding char: we do not know where char spawn. That said, staff are currently in the process of resurveying Green Lake for char, and we'll share whatever information we get from our surveys as soon as it is available.

John

**John Perry**  
**Environmental Review Coordinator**  
Maine Department of Inland Fisheries and Wildlife  
284 State Street, 41 SHS  
Augusta, Maine 04333-0041  
Tel (207) 287-5254; Cell (207) 446-5145  
Fax (207) 287-6395  
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---

**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>

**Sent:** Thursday, August 08, 2019 9:55 PM

**To:** Perry, John <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>

**Subject:** FERC Request for additional information for the Green Lake Project P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi John,

We have received a request for additional information from Bill Connelly at FERC.

The first request is regarding landlocked salmon and Arctic char. I am including the specific piece from the document below and the full document from FERC is attached. Are you able to help answer some or all of this question ?

### **Fisheries Resources**

1. Section 6.1.3 of the PAD states that landlocked salmon spawn in the tributaries of Green Lake, but provides no other information regarding when and where salmon spawn. In addition, section 6.1.3 of the PAD states that Arctic char are present in Green Lake, but provides no other information regarding Arctic char spawning behavior at the project. So that staff can better understand the potential effects of the annual impoundment drawdown on landlocked salmon and Arctic char, please identify to the extent possible: (1) the tributaries where landlocked salmon spawn, (2) the locations within those tributaries where salmon spawning occurs (*e.g.*, near the mouth of the tributary or the approximate distance upstream of Green Lake), (3) the locations in Green Lake where Arctic char spawn, and (4) the approximate dates of the spawning period for the Green Lake population of each species.

Thank you very much,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Co.

## Caroline Kleinschmidt

---

**From:** caroline@greenlakewaterpower.com  
**Sent:** Wednesday, January 1, 2020 12:10 PM  
**To:** Howatt, Kathy  
**Subject:** Re: Maine DEP Sampling Certification

**Categories:** GreenLakeWaterPower

Hi Kathy,

Thank you, we will definitely coordinate as you suggest and we'll let you know if/when we have questions.

Happy New Year!

Regards, Caroline

On 2019-12-23 09:35, Howatt, Kathy wrote:

Good morning Caroline,

I reached out to Linda Bacon, who indicated that the Lake Assessment team, which conducts training for the trophic state sampling and the DO sampling, can provide you with the training you requested. It'll take place in the spring/summer so you should try to be available at the earliest potential timeframe, so as to learn what you need to do and still have the time to conduct your sampling twice per month in June – September. It seems from Linda's response that the Lakes of Maine stewards are interested in helping too, and you may wish to use their experience to your best advantage by coordinating with Bud Farwell. A word of caution, the Lakes of Maine monitoring does not replace the requirements for the trophic state study but their data may be able to supplement our hydro program requirements. You'll have to take a look at what they have and what they collect to see how you can integrate or supplement your own data collection. So go ahead and consult with Bud Farwell as you develop your monitoring program so ensure that all your required data gets collected. Let us know if you have questions or if something seems unclear and we'll do our best to help you to understand what you need to do to demonstrate compliance with the water quality standards.

Kathy

Kathy Davis Howatt

Hydropower Coordinator, Bureau of Land Resources



Maine Department of Environmental Protection

Phone: 207-446-2642

[www.maine.gov/dep](http://www.maine.gov/dep)

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---

**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Thursday, December 19, 2019 2:28 PM  
**To:** Howatt, Kathy <Kathy.Howatt@maine.gov>  
**Subject:** Maine DEP Sampling Certification

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Kathy,

Bert and I would like to take part in the certification training. What do we need to do to get signed up ? And when is the training available ?

Thanks,

Merry Christmas,

Caroline

Green Lake Project

## Caroline Kleinschmidt

---

**From:** Dan Tierney - NOAA Federal <dan.tierney@noaa.gov>  
**Sent:** Thursday, March 12, 2020 7:20 AM  
**To:** caroline@greenlakewaterpower.com  
**Subject:** Re: Green Lake Project (FERC No. 7189)  
**Attachments:** USFWS 2017 Fish Passage Engineering Design Criteria.pdf

Hi Caroline, Absolutely. I have attached the fish passage guidelines, and have included a link to our recovery plan and companion documents. Let me know if you need anything else. Hope things are going well.

<https://atlanticsalmonrestoration.org/atlantic-salmon-recovery-project/resources/documents/atlantic-salmon-recovery-plan-2015>

Thanks  
Dan

On Wed, Mar 11, 2020 at 6:19 PM <[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)> wrote:

Hi Dan,

In your "Notice of Formal Study Dispute of FERC's Study Plan Determination..." you mention a couple of documents. Could you provide either the documents or links to them so we can be sure we have the correct documents.

The documents you mention are:

1. the Recovery Plan for Atlantic Salmon (USFWS and NMFS 2019)
2. the US FWS fish passage guidance (U.S. FWS 2017)

Thanks,

Caroline

--

Dan Tierney  
NOAA's National Marine Fisheries Service  
Protected Resources Division  
Maine Field Station  
17 Godfrey Drive – Suite 1  
Orono, Maine 04473  
Office: 207-866-3755  
Email: [Dan.Tierney@noaa.gov](mailto:Dan.Tierney@noaa.gov)

## Caroline Kleinschmidt

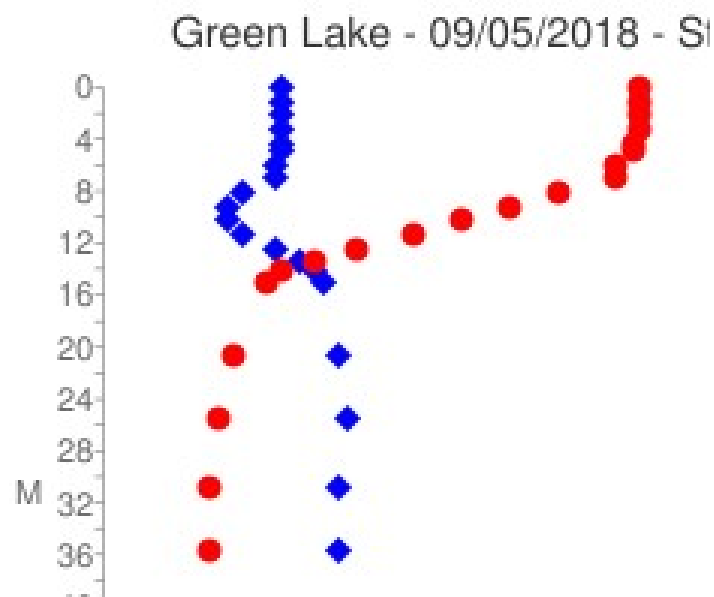
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**From:** Suitor, Douglas <Douglas.Suitor@maine.gov>  
**Sent:** Tuesday, March 24, 2020 8:18 AM  
**To:** Bert Kleinschmidt  
**Cc:** Caroline Kleinschmidt  
**Subject:** RE: Water Sampling Certification for Green Lake Project.

Mr. Kleinschmidt,

Please send me a copy of the data sheet from last summer. There are a number of situations where a DO spike could occur below the epilimnion. The 2018 profiles from the deep hole at Green look like they have a DO depletion at the metalimnion. Normally we would try to extend the core into this area to capture some of the algae at the 10 meter "spike". It is probably best to discuss over the phone. Let me know your availability for a phone meeting. It would be good to have the actual monitoring staff involved. This year I think we can probably cover most of the recertification details via phone.

Doug



---

**From:** Bert Kleinschmidt <bert@bertandcaroline.com>  
**Sent:** Monday, March 23, 2020 8:13 PM  
**To:** Suitor, Douglas <Douglas.Suitor@maine.gov>  
**Cc:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Subject:** RE: Water Sampling Certification for Green Lake Project.

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Hi Doug,

Thanks for the update.

We do have some questions on the water sampling equipment we need. We will have Secchi disk equipment and a DO/Temp meter available with a probe/cable long enough for the deepest part of the lake (a YSI ProSolo ODO

meter). In addition so Secchi disk readings and DO/T profiles, we also need to do water sampling at various depths for analysis.

From going through Dissolved Oxygen/Temperature profiles that have been taken by the Green Lake Association in the lake in past years, I know that the lake is stratified. Per the "DEP Sampling Protocol for Hydropower Studies, September 2019" I believe I need to capture an integrated core "from an epilimnetic core, unless there is a spike in dissolved oxygen concentration deeper, in which case the core depth should be extended to capture the dissolved oxygen spike."

Looking at the data captured last summer, it appears the epilimnion, depending on the time during the summer, ranged up to about 7 meters deep. While the DO does vary with depth, the curves appear reasonably smooth—nothing that I would call a "spike" below the epilimnion. It appears we need to capture an integrated core down to about 7 meters. The information I found on this online ("Instruction Manual for Baseline Water Quality Sampling by Webster Pearsall", Maine DEP) dates back to 1997, so I expect some of it is outdated. Is this still in use, or is has it been replaced with a newer version or some other document?

For the late summer sampling event we need to be able to take samples as far down as just above the bottom of the lake, so I plan on having a Van Dorn sampler for that.

Sincerely,  
Bert Kleinschmidt.

---

**From:** Suitor, Douglas [<mailto:Douglas.Suitor@maine.gov>]  
**Sent:** Monday, March 23, 2020 11:58 AM  
**To:** [caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)  
**Cc:** Suitor, Douglas  
**Subject:** RE: Water Sampling Certification for Green Lake Project

Hi Caroline,  
Just checking in to let you know we have not forgotten you. I will check in again in a few weeks to assess the situation.  
Doug

Doug Suitor  
Biologist  
Division of Environmental Assessment  
Maine Department of Environmental Protection  
SHS 17, Augusta, ME 04333  
[douglas.suitor@maine.gov](mailto:douglas.suitor@maine.gov)  
207-441-6616

[www.maine.gov/dep/water/lakes](http://www.maine.gov/dep/water/lakes)



## Caroline Kleinschmidt

---

**From:** Bert Kleinschmidt  
**Sent:** Wednesday, March 25, 2020 4:03 PM  
**To:** Suitor, Douglas  
**Cc:** Caroline Kleinschmidt  
**Subject:** RE: Water Sampling Certification for Green Lake Project.  
**Attachments:** 2019\_Green\_Lake\_Data.pdf

The data sheets from 2019 are attached. The latest data that I had to work with when I looked at the temp/DO profiles was from 2018, but the late summer graphs from 2018 are similar to the graph in your message.

I may not be using the correct understanding of what a "spike in DO" is. In the graph in the message below there appears to be a drop in the DO at about 10m depth, corresponding to about the middle of the thermocline. The DO then rises up to the reasonably static value that is present in the hypolimnion.

Is this rise what is referred to as a "spike" in DO, or is this term used for the drop in DO that occurs in the thermocline?

On another subject: I am preparing to order the DO/T meter for the sampling this summer. The lake is stated on lakes of Maine to have a maximum depth of 170 feet, or about 52 meters. The new Green Lake Association (GLA) meter has a cable length of 50m, the previous GLA meter, which they used to take readings to a reported depth of 53m, had a longer cable. At 50m depth, the sampling interval specified by Maine DEP is every 5m. I interpret this to mean that the deepest DO/T profile sample location I need is 50m if there is no part of the lake that is as deep as 55m. Is this correct?

I would like to use a 50m cable for the sampling rather than have to deal with a 100m cable just to get an addition 2-3m depth that I don't really need.

I know that during the late summer sampling event I need to get to 1m from the bottom, but this is for taking water samples for analysis—and separate DO and Temp readings are not listed as part of that event, just the standard profile needed to determine whether the lake is stratified or not and how deep the stratification layers are.

Bert.

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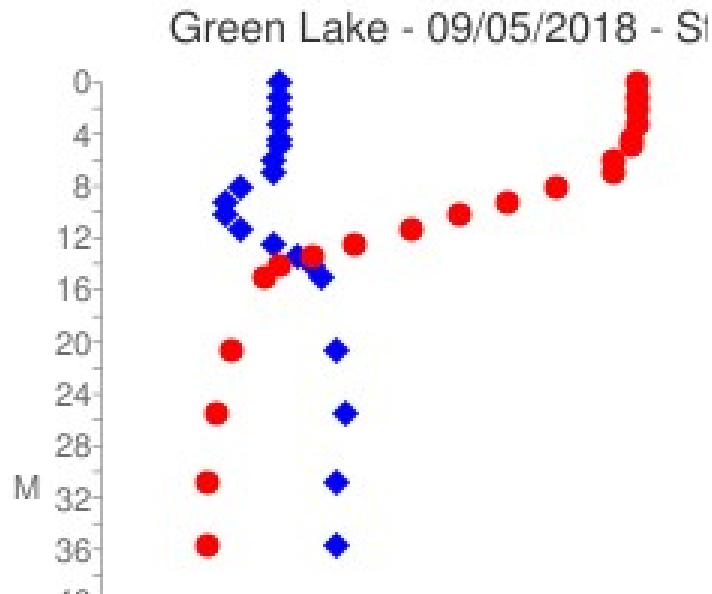
**From:** Suitor, Douglas <Douglas.Suitor@maine.gov>  
**Sent:** Tuesday, March 24, 2020 8:18 AM  
**To:** Bert Kleinschmidt <bert@bertandcaroline.com>  
**Cc:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Subject:** RE: Water Sampling Certification for Green Lake Project.

Mr. Kleinschmidt,

Please send me a copy of the data sheet from last summer. There are a number of situations where a DO spike could occur below the epilimnion. The 2018 profiles from the deep hole at Green look like they have a DO depletion at the metalimnion. Normally we would try to extend the core into this area to capture some of the algae at the 10 meter

“spike”. It is probably best to discuss over the phone. Let me know your availability for a phone meeting. It would be good to have the actual monitoring staff involved. This year I think we can probably cover most of the recertification details via phone.

Doug



---

**From:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Sent:** Monday, March 23, 2020 8:13 PM  
**To:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>  
**Cc:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** RE: Water Sampling Certification for Green Lake Project.

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Hi Doug,

Thanks for the update.

We do have some questions on the water sampling equipment we need. We will have Secchi disk equipment and a DO/Temp meter available with a probe/cable long enough for the deepest part of the lake (a YSI ProSolo ODO meter). In addition so Secchi disk readings and DO/T profiles, we also need to do water sampling at various depths for analysis.

From going through Dissolved Oxygen/Temperature profiles that have been taken by the Green Lake Association in the lake in past years, I know that the lake is stratified. Per the “DEP Sampling Protocol for Hydropower Studies, September 2019” I believe I need to capture an integrated core “from an epilimnetic core, unless there is a spike in dissolved oxygen concentration deeper, in which case the core depth should be extended to capture the dissolved oxygen spike.”

Looking at the data captured last summer, it appears the epilimnion, depending on the time during the summer, ranged up to about 7 meters deep. While the DO does vary with depth, the curves appear reasonably smooth—nothing that I would call a “spike” below the epilimnion. It appears we need to capture an integrated core down to about 7 meters. The information I found on this online (“Instruction Manual for Baseline Water Quality Sampling by Webster Pearsall”, Maine DEP) dates back to 1997, so I expect some of it is outdated. Is this still in use, or is has it been replaced with a newer version or some other document?

For the late summer sampling event we need to be able to take samples as far down as just above the bottom of the lake, so I plan on having a Van Dorn sampler for that.

Sincerely,  
Bert Kleinschmidt.

---

**From:** Suitor, Douglas [<mailto:Douglas.Suitor@maine.gov>]  
**Sent:** Monday, March 23, 2020 11:58 AM  
**To:** [caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)  
**Cc:** Suitor, Douglas  
**Subject:** RE: Water Sampling Certification for Green Lake Project

Hi Caroline,  
Just checking in to let you know we have not forgotten you. I will check in again in a few weeks to assess the situation.  
Doug

Doug Suitor  
Biologist  
Division of Environmental Assessment  
Maine Department of Environmental Protection  
SHS 17, Augusta, ME 04333  
[douglas.suitor@maine.gov](mailto:douglas.suitor@maine.gov)  
207-441-6616

[www.maine.gov/dep/water/lakes](http://www.maine.gov/dep/water/lakes)



## Caroline Kleinschmidt

---

**From:** Bert Kleinschmidt  
**Sent:** Tuesday, March 31, 2020 2:23 PM  
**To:** Caroline Kleinschmidt  
**Subject:** FW: Core Tube

FYI...

---

**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Sent:** Monday, March 30, 2020 2:57 PM  
**To:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** RE: Core Tube

Hi Bert,  
It is not just about specs.  
I'll pull the model number from the box in which the tubing was shipped to be sure when I'm in the office either tomorrow or Thursday.  
I'm also in the process of writing up what features in addition to dimensional specs are necessary when evaluating material.  
Please give me a couple of days. I am adhering to the social distancing advised by the governor due to the Covid-19 situation.  
Linda

---

**From:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Sent:** Friday, March 27, 2020 4:39 PM  
**To:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>; Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>  
**Cc:** Scott Williams (<[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)> <[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)>); Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** RE: Core Tube

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Linda,

There are many types and weights of Tygon tubing. Can you tell me the model number and wall thickness (or OD, I believe you use 1/2" ID tubing) of the Tygon tubing you know works well for integrated epilimnetic core sampling?

Regards,  
Bert Kleinschmidt  
Green Lake Water Power.

---

**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Sent:** Friday, March 27, 2020 9:14 AM  
**To:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>; Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Cc:** Scott Williams (<[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)> <[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)>)  
**Subject:** RE: Core Tube

99% correct.



I/DEP purchased the tubing to test it.

**If** it performs adequately, we will move forward with offering it through LSM.  
Long and Green citizen scientists can be the first to take advantage of this.

You will need to give us a few weeks...

Linda

*Linda Bacon*

*Lake Assessment Biologist III/Section Leader in the Division of Environmental Assessment*

*Bureau of Water Quality*

*[Maine Department of Environmental Protection](#)*

*(207) 441-0462 (desk cell)*

---

**From:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>

**Sent:** Friday, March 27, 2020 7:16 AM

**To:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>

**Cc:** Scott Williams (<[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)> <[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)>; Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>

**Subject:** FW: Core Tube

Hi Bert,

Scott Williams at the Lake Stewards of Maine purchased some core tubing in bulk. Linda offered to sell you one pre-set up for monitoring. I have copied them on this email to get the ball rolling, as you wanted to get out for a test run as soon as possible.

Doug

---

**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>

**Sent:** Thursday, March 26, 2020 10:54 PM

**To:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>

**Cc:** Scott Williams <[scott.williams@mainevlmp.org](mailto:scott.williams@mainevlmp.org)>

**Subject:** RE: Core Tube

We get the tubing from VWR...but they sell it in either 50' or 100' rolls. The Nalgene brand doubled in price about 18 months ago.

I purchased a much less expensive 100' roll of VWR brand to test last summer but haven't gotten a chance to make any up yet. If it works okay, Scott was going to buy some so that the program could sell them to volunteers for the cost of materials plus a few bucks for labor.

The Long Lake group was going to get one. Green Lake could get one as well. Have them email Scott and me and we will work something out.

---

**From:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>  
**Sent:** Thursday, March 26, 2020 3:43 PM  
**To:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Subject:** Core Tube

Where do we purchase our core tubes? I told the Green lake team I would send them a link to the specs for the tubing we use.

Doug Suitor  
Biologist  
Division of Environmental Assessment  
Maine Department of Environmental Protection  
SHS 17, Augusta, ME 04333  
207-441-6616

[www.maine.gov/dep/water/lakes](http://www.maine.gov/dep/water/lakes)



## Caroline Kleinschmidt

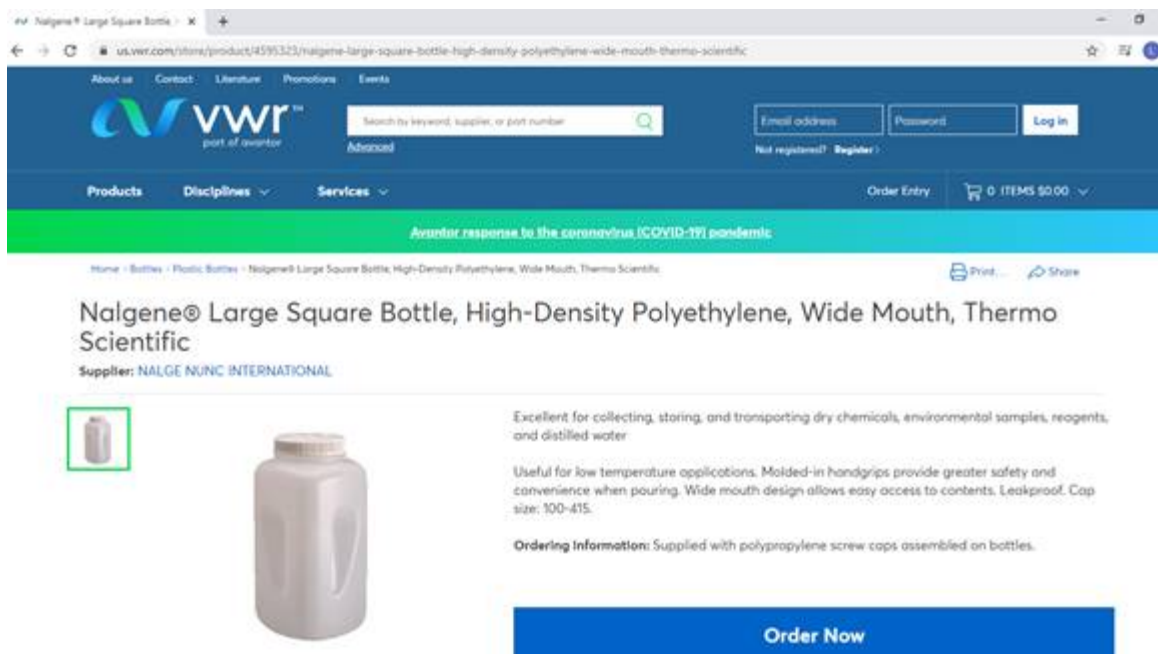
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**From:** Bert Kleinschmidt  
**Sent:** Monday, April 6, 2020 2:24 PM  
**To:** Caroline Kleinschmidt  
**Subject:** FW: Core  
**Attachments:** CORE Construction Notes 3-2020.pdf

---

**From:** Bacon, Linda C <Linda.C.Bacon@maine.gov>  
**Sent:** Sunday, April 5, 2020 9:47 PM  
**To:** Bert Kleinschmidt <bert@bertandcaroline.com>  
**Subject:** Core

And we use these for collection jugs...



---

**From:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Sent:** Saturday, April 4, 2020 7:21 PM  
**To:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Subject:** RE: Water Sampler.

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the price was right. I'll be interested in knowing what, if any, soap/detergent I can use to wash it that will not jeopardize the water samples.

From a mechanical point of view, I much prefer the Kemmerer design to the stretchy tubes and flying end pieces of the Van Dorns. Other than possible difficulty filling with the desired water, the only major downside I can see to the metal Kemmerer is that I won't be able to see the water sample until after I have discharged it into a container. My main concern on this is that I need to get a sample about 50m down, 1m from the sediment. I assume stirring up bottom sediment and including some in a water sample would not be a good thing...

If the Wildco Kemmerer purchase falls through for some reason, buying the Van Dorn would be my backup. Even at a cost of \$60 every year or two to buy the parts kit (which includes new tension and discharge tubes) the maintenance costs don't look too bad. I suspect using the plastic tube inserts from the old tube to make up a spare tension tube from bulk latex tubing, the cost to have a replacement tube ready to install at any time would be even lower.

Thanks,  
Bert.

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**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Sent:** Saturday, April 4, 2020 3:39 PM  
**To:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** RE: Water Sampler.

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**Sent:** Friday, April 3, 2020 11:38 PM  
**To:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Subject:** RE: Water Sampler.

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Here is the link:

[http://www.aquaticresearch.com/discrete\\_point\\_water\\_samplers\\_vertical.htm](http://www.aquaticresearch.com/discrete_point_water_samplers_vertical.htm)

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**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>  
**Sent:** Friday, April 3, 2020 11:33 PM  
**To:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** RE: Water Sampler.

The trouble I had was with the basic design. The 5-6 we tried used surgical tubing which proved a weak link. Some had no decanting mechanism at all. Some had surgical tubing. One had a spigot, but still had surgical tubing that snapped it shut.

The trace metal 'certification' is really not needed for the lake sampling we do. If you are not going to soak it in an acid bath between uses, that feature is essentially worthless.

We try to keep the devices clean and perform thorough rinses at the surface before lowering it to depth. When at depth, we raise and lower the device 7-times to flush out any trapped water.

Can you send me a link to the device you are considering?

---

**From:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>

**Sent:** Friday, April 3, 2020 11:20 PM

**To:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>

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Thanks for the info. Are the vertical Van Dorn samplers you have had trouble with the "spigot" variety or the "tube with a clamp" variety? The one I'm considering is a plastic unit with a pinch tube outflow. It is stated to be EPA approved for trace metal sampling. The tube outflow seems to be a decent design if one is careful to rinse everything well and avoid contamination of the tube. It keeps the outside of the unit and hands away from the opening of the bottle being filled.

I was concerned with a Kemmerer sampler that the end covers would obstruct flow through the tube and we might get too much water from higher up than the sampling height. I see lots of potential trouble with trying to use a horizontal sampler for what we need. Trying to move a horizontal sampler sideways to fill it with local water, with it over 100' down and no idea which way it's oriented, sounds like wishful thinking at best.

Bert.

---

**From:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>

**Sent:** Friday, April 3, 2020 7:19 PM

**To:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>

**Cc:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>

**Subject:** RE: Water Sampler.

2.2 liters will be plenty big enough! Our largest Kemmerer holds that amount. Our grab device SOP includes a technique to assure that the samples we collect are accurate. We have had a poor experience with horizontal VanDorns and verticle grab devices with the Van Dorn design...likely because they get a lot of use and the decanting mechanisms have been frustratingly grossly lacking as compared to the Wildco Kemmerers, which can lead to contamination of samples.

It is not a big issue if two sample grabs are needed to fill the bottles.

I'll get you the specs for the tubing this weekend, as well as the detailed write up (half done). I've been using these devices since 1980, and am trying to capture all the details.

I had to switch to the Georges Pond alum treatment protocol this week and have been bombarded with meetings (I think people like playing with Zoom).

Linda

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**Subject:** Water Sampler.

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Hello Linda,

I am preparing to order a Van Dorn sampler to capture the grab samples I need during the late summer sampling event.

During the late summer sampling event, in addition to epilimnetic core samples, we need to get grab samples from the top of the hypolimnion and 1m above the sediment. I am planning to use a 2.2 liter, vertical Van Dorn sampler for this. I believe it will capture a more accurate water sample than either a Kemmerer or horizontal Van Dorn sampler.

My question: Is the 2.2 liter sampler large enough? It is my understanding that the sample jars to be taken to the lab are best filled directly from the sampler, minimizing the amount of handling and potential contamination of the samples. If we need more volume we can take multiple samples from the same depth to fill different sample jars, or is there a requirement that all related samples be filled from the same single grab of water?

If you are not the person to answer this question, let me know...

Any info on the type and wall thickness of the Tygon tube preferred for integrated core sampling? I suspect that, other than not leaching anything significant into the water, the main requirement would be that the tube can be kinked to seal it off, while tending to remain round otherwise. For this I would tend toward the 3/32" wall tubing—1/16" looks like it would kink too easily, and 1/8" would be hard to seal off with a temporary kink. Please let me know anything you recall from experience with these tubes in past—I am concerned that I need to have this equipment in place and have enough experience with it to know that it will do the job by mid-May.

Sincerely,  
Bert Kleinschmidt  
Green Lake Water Power.

## Bert Kleinschmidt

---

**From:** Bacon, Linda C <Linda.C.Bacon@maine.gov>  
**Sent:** Sunday, April 5, 2020 1:53 PM  
**To:** Bert Kleinschmidt  
**Subject:** RE: Water Sampler.

Our workhorse Kemmerers are of this type.

You can use Dawn dish soap. It falls into the category of soap that is supposed to be phosphorus-free. I'd rinse it with distilled or deionized water after washing it. One rinses the device before lowering it, then one flushes it by moving it up and down in the water column (2.5') seven times to flush any entrapped water out, before taking the sample.

For the 50 meter deep spot on Green Lake, the 1 meter above the sediment standard can be relaxed by a meter to 2 meters above the sediment.

Keep this email as proof that this is my recommendation.

The SOP was written with the average lake in mind. Where Green Lake is so deep, 2 meters above the bottom will achieve the intent of the protocol.

Years ago, they didn't sell kits for maintenance. I had to search the local drug stores for the tubing. Now it is sold online by the foot. And there is a string inside the piece that goes through the device that is fun to replace. Good that they make a kit...much easier.

Linda

---

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Bert Kleinschmidt  
Green Lake Water Power.

## Caroline Kleinschmidt

---

**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Friday, April 10, 2020 9:59 AM  
**To:** caroline@greenlakewaterpower.com  
**Cc:** Howatt, Kathy; DiFranco, Jeanne L  
**Subject:** RE: Green Lake sampling 2020

**Categories:** GreenLakeWaterPower

Thanks for sending this along Caroline,  
It is great to see that you plan on conducting all these studies in 2020. I wanted to send along some important information which Jeanne DiFranco provided (she offered to provide comments and input for downstream sampling). The comments are below:

Hi Chris,

Just to follow up on the sampling issue, our macroinvertebrate sampling methods manual specifies that a professional aquatic biologist conduct and/or supervise sample collection and sample processing, and that a taxonomist certified in New England taxa must perform the taxonomic IDs and enumeration. So they will need to use professional consultants for this work.

Jeanne

**Jeanne DiFranco, Aquatic Biologist**  
Biological Monitoring Program Manager  
Maine Department of Environmental Protection  
17 State House Station, Augusta, ME 04333  
(207) 699-8345  
[www.maine.gov/dep/water/monitoring/biomonitoring](http://www.maine.gov/dep/water/monitoring/biomonitoring)

As she outlines, the macroinvertebrate sampling will need to be conducted by a consultant because there are certain certifications that are required. Some firms that we see typically conducting this type of work include Kleinschmidt Associates, HDR and Normandeau Associates. Let me know if you have any questions about this and I hope this is helpful as you continue to plan for the 2020 field season.

Chris Sferra

Environmental Specialist III, Hydropower Unit

Bureau of Land Resources

Maine Department of Environmental Protection

Cell: (207) 446 - 1619

[www.maine.gov/dep](http://www.maine.gov/dep)

---

**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Thursday, April 9, 2020 5:21 PM  
**To:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Subject:** Re: Green Lake sampling 2020

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Chris,

This summer we plan to do all the studies as described in our Revised Study Plan as follows:

1. Study #1 – Water Quality – Encompasses Data Requested from the Maine Department of Environmental Protection (MDEP), United States National Marine Fisheries Service (US NMFS), United States Fish and Wildlife Service (US FWS) and FERC to determine current impoundment and downstream water quality.
  - Impoundment Trophic State Study 1-1
  - Impoundment Habitat Study 1-2
  - Impoundment Temperature Study 1-3
  - Downstream Benthic Macroinvertebrate (BMI) Study 1-4
  - Downstream Temperature and Dissolved Oxygen (DO) Study 1-5
2. Study #2 – Aquatic Resources – Encompasses Data Requested from MDEP for Aquatic Habitat Cross-Section Flow and from US NMFS In-stream Flow
3. Study #3 – Aquatic Resources - Eel Passage Survey Requested by the United States Fish and Wildlife Service (US FWS)
4. Study #4 – Cultural Resources – Erosion Reconnaissance Survey

We are lining up what we need to do all these studies this summer. It looks like they can all happen but obviously there may be factors outside our control that affect this.

Thanks for helping us coordinate with Doug, that was very useful. It's also good to know we can ask for guidance and assistance from Jeanne DiFranco. We will let you know when we have questions.

Regards, Caroline

On 2020-04-09 15:25, Sferra, Christopher wrote:

Hi Caroline,

I recently exchanged emails with MDEP personnel Doug Sutor concerning consultation and assistance he provided you for water quality sampling protocols for the Green Lake impoundment. I am glad that you were able to acquire some guidance, thanks again Doug for providing this!

Caroline, I wanted to confirm with you which studies or sampling you planned to conduct during the 2020 field season. I have also CC'd to the email Jeanne DiFranco, who has offered to provide guidance and assistance should you have any questions concerning downstream studies, such as the macroinvertebrate studies. Do not hesitate to contact me with any questions and thank you.

Chris Sferra

Environmental Specialist III, Hydropower Unit

Bureau of Land Resources

Maine Department of Environmental Protection

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## Caroline Kleinschmidt

---

**From:** DiFranco, Jeanne L <Jeanne.L.DiFranco@maine.gov>  
**Sent:** Thursday, June 4, 2020 2:57 PM  
**To:** 'Paul Leeper'  
**Cc:** Howatt, Kathy; Sferra, Christopher; Caroline Kleinschmidt; Andy Qua (Andy.Qua@KleinschmidtGroup.com)  
**Subject:** RE: GREEN LAKE HYDROELECTRIC PROJECT (FERC NO. 7189)

Hi Paul,

Thank you for your letter describing your concerns about macroinvertebrate sampling locations related to the Green Lake hydro project relicensing. I am aware that there are some sample site constraints, which DEP has acknowledged in the revised study plan and comment letter for this project.

As a first step, I think it would be useful to hold a conference call or video meeting to discuss the potential sampling sites and clarify issues we need to address. If you agree, I will coordinate with Chris Sferra and Kathy Howatt on my end and get back to you with some possible dates as soon as possible. Please let me know if that sounds OK.

Best regards,

Jeanne

Jeanne DiFranco, Aquatic Biologist  
Biological Monitoring Program Manager  
Maine Department of Environmental Protection  
17 State House Station, Augusta, ME 04333  
(207) 699-8345  
[www.maine.gov/dep/water/monitoring/biomonitoring](http://www.maine.gov/dep/water/monitoring/biomonitoring)

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

From: Paul Leeper <moodymtn@tidewater.net>  
Sent: Friday, May 29, 2020 10:27 AM  
To: DiFranco, Jeanne L <Jeanne.L.DiFranco@maine.gov>  
Cc: Howatt, Kathy <Kathy.Howatt@maine.gov>; Sferra, Christopher <Christopher.Sferra@maine.gov>; Caroline Kleinschmidt <caroline@bertandcaroline.com>; Andy Qua (Andy.Qua@KleinschmidtGroup.com) <Andy.Qua@KleinschmidtGroup.com>  
Subject: GREEN LAKE HYDROELECTRIC PROJECT (FERC NO. 7189)

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Jeanne,

I am working with Green Lake Water Power (GLWP) on relicensing their dam. Please find attached a letter outlining some issues I see regarding the benthic macroinvertebrate study on Reeds Brook in Ellsworth. I look forward to your comments.

Have a nice weekend,

Paul

--

Paul C. Leeper  
Moody Mountain Env.  
137 Diamond Str.  
Searsmont, ME 04973

**Moody Mountain Environmental**  
137 Diamond Street Searsmont, Me. 04973  
moodymtn@tidewater.net  
Phone 207-592-8540

Maine DEP  
17 State House Station  
Augusta, ME 04333-0017  
ATTN: Jeanne DiFranco

Re: GREEN LAKE HYDROELECTRIC PROJECT (FERC NO. 7189)

May 29, 2020

Dear Jeanne,

I am writing regarding the Green Lake Water Power (GLWP) dam relicensing on Reeds Brook in Ellsworth. GLWP has reached out to me to sample the benthic macroinvertebrate community downstream of the dam. I am writing you to discuss the sample site locations. According to correspondence with DEP:

*“GLWP will employ a qualified researcher to sample the benthic macroinvertebrate community in the Reeds Brook bypass, powerhouse tailrace and the confluence of the tailrace and Reeds Brook. MDEP staff will verify that the locations are acceptable. The sampling will be conducted in accordance with the MDEP Methods for Biological Sampling and Analysis of Maine’s Rivers and Streams (Davies and Tsomides 2014). Wading will be used to rapidly bioassess the habitats to find suitable sample sites (hard eroded substrates in flowing water). The researcher will install rock-filled wire baskets/mesh bags for a period of 28 ± four days during the late summer, low flow period (July 1 to September 30).”*

I visited Reeds Brook on April 29<sup>th</sup> to look at potential sample locations. The Reeds Brook bypass section looks good. It is a typical small, steep brook with what looks to be a typical invertebrate community. The lower two (2) sites, the powerhouse tailrace, and the confluence of the tailrace and Reeds Brook, present challenges.

The first issue is the tailrace is approximately 125 feet long before the confluence with Reeds Brook. The majority of that length is the plunge pool. There is a small section at the end of the tailrace (before the confluence) that has cobble gravel substrates that could be described as typical habitat. It has been my experience, that the actual plunge pool is not sampled as it is



atypical habitat. Rather, DEP's guidance and/or requests have typically been to sample downstream within 1000 feet of the dam. At other projects I have chosen a sample site in a typical riverine or stream habitat within the tailrace section outside of the plunge pool.

The second issue is that the Green Lake Hatchery discharges into Reeds Brook just downstream of the confluence. It would seem that, in order to study what, if any, impact the GLWP project has on Reeds Brook, the community needs to be sampled upstream of the hatchery discharge. Therefore, the tailrace sample location and the confluence sample location would be within 200 feet of each other.

Finally, the big issue, Graham Lake. When Graham Lake is drawn down, both the tailrace section and the confluence of Reeds Brook and the tailrace are riverine. This can be seen in Photos 1 and 2. When the lake is not drawn down, both sites are backwatered (Photos 3, 4, and 5). Essentially both potential sample sites have lotic habitats for part of the year and lentic habitats for the remainder of the year. Again, it has been my experience that sample locations such as these should be avoided when conducting studies such as requested on Reeds Brook.

The two (2) downstream sites (the tailrace and the confluence) appear to be extremely atypical habitats that most likely will not provide good information as to whether the GLWP project is impacting the aquatic life in Reeds Brook. I would like to extend an invitation to you to visit the project so we can look at it together and decide the best way forward. Please contact me to further discuss this summer's sampling at Reeds Brook.

Regards,



Paul C. Leeper  
Moody Mountain Environmental

Cc: Kathy Howatt- DEP Hydropower Coordinator  
Chris Sferra-Hydropower Program, Project Manager  
Bert and Caroline Kleinschmidt- GLWP  
Andy Qua- Kleinschmidt Group

**Photo 1. Google Earth Photo of Reeds Brook and GLWP Project when Graham Lake is drawn down. Both the tailrace and confluence with Reeds Brook are riverine habitat.**



**Photo 2. View downstream from GLWP Project when Graham Lake is drawn down. B. Kleinschmidt 3-21-2019.**





**Photo 3. Google Earth Photo of Reeds Brook and GLWP Project when Graham Lake is not drawn down. Both the tailrace and confluence with Reeds Brook are backwatered.**



**Photo 4. View of backwatered GLWP tailrace. P. Leeper. 4-29-20.**





*P. Leeper to Jeanne DiFranco, DEP 5/29/2020, pg. 5*

**Photo 5. View downstream from GLWP Project showing backwatered tailrace and confluence. For reference see Photo 2. P. Leeper 4-29-2020.**



## Caroline Kleinschmidt

---

**From:** Bert Kleinschmidt  
**Sent:** Thursday, June 18, 2020 6:39 PM  
**To:** Suitor, Douglas  
**Cc:** Sferra, Christopher; Howatt, Kathy; Andy Qua; Caroline Kleinschmidt  
**Subject:** RE: Water Sampling Certification for Green Lake Project

Hi Doug,

Thanks for clarifying that, it answers a concern I had that some of what we were being asked to do for the late summer sampling event did not make sense.

We completed our equipment and study preparations for the first bi-monthly sampling on Tuesday and were able to get out on the lake yesterday. We successfully found the Station 1 buoy, attached to it and then did the Secchi disk reading, took the DO/T profile, determined the lake was stratified, determined the depth of the epilimnion and the sample depth, then took enough epilimnetic core samples with our thrice rinsed core sampler to fill our thrice rinsed food-safe 4-liter HDPE bottle, and got the bottle cooling in a water bath at about 2 degrees C in our portable refrigerated cooler. We learned a lot going through this complete process, but with only a few mis-steps that required retaking readings or samples, it basically went well.

We then navigated to Station 2, anchored enough up-wind that we became stationary at Station 2 and repeated the process. We can only get one large bottle in our portable refrigerator so we kept the Station 2 bottle as cool as possible while we put the boat back on the trailer and drove home. At Station 2 the process went quickly and smoothly without requiring any significant redoing of work.

Once home we decanted the water into the small sample bottles and placed the bottles in their bags and the bags in a refrigerated 2-degC water bath. We did the Station 2 water first to get it cooling as soon as possible (it was cooling within about 2 hours of when we sampled it from the lake). The already chilled water from Station 1 was then decanted to the small bottles and placed in the water bath. The bottles remained in the water bath (warmed to 3-4 degC once the samples were cooled down) through the night and while being driven to the lab in Augusta. The samples arrive at the lab at a temp of about 3 degC. The Station 1 samples were delivered to the lab within 22 hours of being drawn from the lake and the Station 2 samples about 20 hours.

We no longer view the lake water quality work as quite so daunting. We would like to thank all involved in helping us get to this point, especially Doug and Andy for their consistent help and guidance.

We now get to prepare for the next sampling event in about 2 weeks. Yesterday's sampling work took about 6.5 hours. Through efficiency and equipment improvements, we hope to get that down to about 4 hours by the 2<sup>nd</sup> or 3<sup>rd</sup> sampling event so we can get the samples, properly chilled, to Augusta the same day they are taken.

Regards,  
Bert and Caroline.

---

**From:** Suitor, Douglas <Douglas.Suitor@maine.gov>  
**Sent:** Thursday, June 18, 2020 2:59 PM  
**To:** Bert Kleinschmidt <bert@bertandcaroline.com>; Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Cc:** Sferra, Christopher <Christopher.Sferra@maine.gov>; Howatt, Kathy <Kathy.Howatt@maine.gov>  
**Subject:** FW: Water Sampling Certification for Green Lake Project

Bert and Caroline,

I agree the protocol is poorly written. This is what we expect of you for the late season sampling. Please let me know if you have any questions. How did the sampling trip go Monday? Any issues arise that you would like to discuss?  
Doug

Here is the re-written late summer section of the Trophic study.

*In addition, during late summer (mid to late August depending on latitude and weather conditions), water samples shall be collected and analyzed from up to three depths in the water column.*

*If the waterbody is thermally stratified, samples for the parameters below will be collected from an epilimnetic core*

<u>Parameter</u>	<u>Detection limit</u>
Total phosphorus	0.001 mg/l
Nitrate	0.01 mg/l
Chlorophyll a (uncorrected)	0.001 mg/l (trichromatic determination)
Color	1.0 SPU
DOC	0.25 mg/l
pH	0.1 SU
Total alkalinity	1.0 mg/l
Total iron	0.005 mg/l
Total & dissolved aluminum	0.010 mg/l
Total calcium	1.0 mg/l
Total magnesium	0.1 mg/l
Total sodium	0.05 mg/l
Total potassium	0.05 mg/l
Total silica	0.05 mg/l
Specific conductance	1 ms/cm
Chloride	1.0 mg/l
Sulfate	0.5 mg/l

*Additional samples will be collected at the top of the hypolimnion, and at one meter above the sediment.*

<u>Parameter</u>	<u>Detection limit</u>
Total phosphorus	0.001 mg/l

*If the waterbody is not thermally stratified, only one integrated core sample is needed from the surface to two times the Secchi disk depth, to 1 m from the bottom, or 10 m, whichever is less.*

<u>Parameter</u>	<u>Detection limit</u>
Total phosphorus	0.001 mg/l
Nitrate	0.01 mg/l
Chlorophyll a (uncorrected)	0.001 mg/l (trichromatic determination)
Color	1.0 SPU
DOC	0.25 mg/l

<i>pH</i>	<i>0.1 SU</i>
<i>Total alkalinity</i>	<i>1.0 mg/l</i>
<i>Total iron</i>	<i>0.005 mg/l</i>
<i>Total &amp; dissolved aluminum</i>	<i>0.010 mg/l</i>
<i>Total calcium</i>	<i>1.0 mg/l</i>
<i>Total magnesium</i>	<i>0.1 mg/l</i>
<i>Total sodium</i>	<i>0.05 mg/l</i>
<i>Total potassium</i>	<i>0.05 mg/l</i>
<i>Total silica</i>	<i>0.05 mg/l</i>
<i>Specific conductance</i>	<i>1 ms/cm</i>
<i>Chloride</i>	<i>1.0 mg/l</i>
<i>Sulfate</i>	<i>0.5 mg/l</i>

Doug Sutor  
Biologist  
Division of Environmental Assessment  
Maine Department of Environmental Protection  
SHS 17, Augusta, ME 04333  
[douglas.sutor@maine.gov](mailto:douglas.sutor@maine.gov)  
207-441-6616

[www.maine.gov/dep/water/lakes](http://www.maine.gov/dep/water/lakes)




---

**From:** Mower, Barry F <[Barry.F.Mower@maine.gov](mailto:Barry.F.Mower@maine.gov)>  
**Sent:** Tuesday, June 16, 2020 9:17 AM  
**To:** Sutor, Douglas <[Douglas.Sutor@maine.gov](mailto:Douglas.Sutor@maine.gov)>  
**Cc:** Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>; Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Howatt, Kathy <[Kathy.Howatt@maine.gov](mailto:Kathy.Howatt@maine.gov)>; DiFranco, Jeanne L <[Jeanne.L.DiFranco@maine.gov](mailto:Jeanne.L.DiFranco@maine.gov)>; Mohlar, Robert C <[Robert.C.Mohlar@maine.gov](mailto:Robert.C.Mohlar@maine.gov)>; McGlauflin, Arthur T <[Arthur.T.Mcglauflin@maine.gov](mailto:Arthur.T.Mcglauflin@maine.gov)>; Witherill, Donald T <[Donald.T.Witherill@maine.gov](mailto:Donald.T.Witherill@maine.gov)>; Meidel, Susanne K <[Susanne.K.Meidel@maine.gov](mailto:Susanne.K.Meidel@maine.gov)>  
**Subject:** RE: Water Sampling Certification for Green Lake Project

No I can't clear it up, because what is in our 'DEP Sampling Protocol for Hydropower Studies, Lakes, Ponds, and Impoundments, Trophic State Studies' came from the lakes section. Linda reviewed it within the last year or two.

Although riverine impoundments may be different from lakes, they may be different from rivers as well. We treat them as lakes and ponds.

Please change the Trophic State Studies section to conform with lakes sampling. See <H:\L&W\WATERSHED\Monitoring & Assessment\Waterbody Type\Rivers\Hydropower\Hydro Sampling Protocol 2019.doc>

Save the new version where it is and change the year to 2020

Thanks

---

**From:** Sutor, Douglas <[Douglas.Sutor@maine.gov](mailto:Douglas.Sutor@maine.gov)>  
**Sent:** Tuesday, June 16, 2020 8:59 AM

To: Mower, Barry F <[Barry.F.Mower@maine.gov](mailto:Barry.F.Mower@maine.gov)>

Cc: Bacon, Linda C <[Linda.C.Bacon@maine.gov](mailto:Linda.C.Bacon@maine.gov)>; Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Howatt, Kathy <[Kathy.Howatt@maine.gov](mailto:Kathy.Howatt@maine.gov)>; DiFranco, Jeanne L <[Jeanne.L.DiFranco@maine.gov](mailto:Jeanne.L.DiFranco@maine.gov)>

Subject: FW: Water Sampling Certification for Green Lake Project

Barry,

Can you clear up something regarding the hydropower protocol for me.

I wanted to clarify what is collected on a stratified lake. The way the hydropower protocol is written applicants will be taking all of the parameters listed below from the epilimnetic core, all excluding chlorophyll from a grab 1m off the bottom and all excluding chlorophyll from a grab at the top of the hypolimnion. This is not the procedure we have been following in the past nor what we do with the Lakes unit summer sampling. We routinely collect additional Total phosphorus from the two grabs

This may have come up as most of the monitored impoundments we have been regulating do not stratify. Green Lake will certainly be stratified in the summer. Please confirm so that I may follow up with our intentions.

Thanks

Doug

*In addition, during late summer (mid to late August depending on latitude and weather conditions), water samples shall be collected and analyzed from up to three depths in the water column for the parameters below except Chlorophyll a. If the waterbody is thermally stratified samples will be collected from an epilimnetic core, at the top of the hypolimnion, and at one meter above the sediment. If the waterbody is not thermally stratified, only one integrated core sample is needed from the surface to two times the Secchi disk depth, to 1 m from the bottom, or 10 m, whichever is less.*

<u>Parameter</u>	<u>Detection limit</u>
Total phosphorus	0.001 mg/l
Nitrate	0.01 mg/l
Chlorophyll a (uncorrected)	0.001 mg/l (trichromatic determination)
Color	1.0 SPU
DOC	0.25 mg/l
pH	0.1 SU
Total alkalinity	1.0 mg/l
Total iron	0.005 mg/l
Total & dissolved aluminum	0.010 mg/l
Total calcium	1.0 mg/l
Total magnesium	0.1 mg/l
Total sodium	0.05 mg/l
Total potassium	0.05 mg/l
Total silica	0.05 mg/l
Specific conductance	1 ms/cm
Chloride	1.0 mg/l
Sulfate	0.5 mg/l



## Caroline Kleinschmidt

---

**From:** caroline@greenlakewaterpower.com  
**Sent:** Friday, July 10, 2020 12:45 PM  
**To:** Harris, Anna  
**Cc:** Sojkowski, Bryan  
**Subject:** Re: Green Lake Water Power (P-7189) - Eel study plan

**Categories:** GreenLakeWaterPower

Hi Anna,

Thank you, we will do two more studies in July and if we do see eels we will let you know otherwise we will end off on this for this season.

Would you prefer that we continue with our weekly schedule for the next two studies or should we space it out more ? We will still choose the best days based on the predicted precipitation within the preferred schedule.

Regards, Caroline

On 2020-07-10 11:42, Harris, Anna wrote:

Hi Caroline,

Thanks for contacting me earlier about this project. I believe you spoke with Gail from DMR earlier this week. Gail and I connected today and based on her recommendation, and my knowledge of our study request, it is recommended that at the Green Lake Project, you conduct two more studies in July to be sure there are no eels present. And if nothing is caught, additional studies would be referred until after there is upstream passage at the Ellsworth dam.

Please let me know if you have any additional questions.

all the best,  
Anna

Anna Harris  
Maine Field Office Project Leader  
Maine-NH Fish and Wildlife Complex  
US Fish and Wildlife Service  
Cell Phone: 207-949-0561

## Caroline Kleinschmidt

---

**From:** Caroline Kleinschmidt  
**Sent:** Thursday, August 20, 2020 10:37 AM  
**To:** Bacon, Linda C  
**Subject:** RE: Late Summer Water Sampling

Hi Linda,  
Thanks for letting us know!  
Regards, Caroline

---

**From:** Bacon, Linda C [mailto:Linda.C.Bacon@maine.gov]  
**Sent:** Wednesday, August 12, 2020 6:49 PM  
**To:** Caroline Kleinschmidt  
**Cc:** Sferra, Christopher; Bert Kleinschmidt; Mower, Barry F  
**Subject:** RE: Late Summer Water Sampling

Hi Caroline,

Doug no longer works for the Lake Assessment Section as he has taken another position in the Biomonitoring Unit. In the future, please direct your lake-related questions to me. Now that Doug is in the Biomonitoring Unit, he may be able to provide assistance regarding sampling of the outlet stream.

To answer your timing question, either of those dates will work and fall within our late summer 'baseline' period.

Thank you!  
Linda

*Linda Bacon*  
*Lake Assessment Biologist III/Section Leader in the Division of Environmental Assessment*  
*Bureau of Water Quality*  
[Maine Department of Environmental Protection](#)  
*(207) 441-0462 (desk cell)*

---

**From:** Suitor, Douglas <Douglas.Suitor@maine.gov>  
**Sent:** Wednesday, August 12, 2020 4:52 PM  
**To:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Cc:** Sferra, Christopher <Christopher.Sferra@maine.gov>; Bert Kleinschmidt <bert@bertandcaroline.com>; Bacon, Linda C <Linda.C.Bacon@maine.gov>; Mower, Barry F <Barry.F.Mower@maine.gov>  
**Subject:** RE: Late Summer Water Sampling

Hi Caroline,  
August 26<sup>th</sup> should be fine. We do most of our late summer sampling mid-August to early September. Enjoy  
I copied Linda Bacon and Barry Mower to keep them in the loop.  
Doug

---

**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Monday, August 10, 2020 9:39 AM  
**To:** Suitor, Douglas <[Douglas.Suitor@maine.gov](mailto:Douglas.Suitor@maine.gov)>  
**Cc:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** Late Summer Water Sampling

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Doug,

All is going well with our water sampling. We are getting ready to do our late summer (mid to late August) sampling.

We have a sampling event scheduled for the 26<sup>th</sup> August and we are planning on doing the late summer extended sampling event at that time.

The instructions say “during late summer (mid to late August depending on latitude and weather conditions)” – let us know if you think the 26<sup>th</sup> August will be a problem ? We could do it 9<sup>th</sup> September if that were better.

It is lovely to HAVE to get out on the lake every couple of weeks 😊

Regards, Caroline

## Caroline Kleinschmidt

---

**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Tuesday, August 25, 2020 9:32 AM  
**To:** Caroline Kleinschmidt  
**Cc:** Howatt, Kathy; Burr, Gregory; Mower, Barry F; Bacon, Linda C; Perry, John; Anna Harris (anna\_harris@fws.gov); Bert Kleinschmidt  
**Subject:** RE: Green Lake Project P-7189

Sounds good Caroline. Thanks!

Christopher Sferra  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



---

**From:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Sent:** Monday, August 24, 2020 4:12 PM  
**To:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Cc:** Howatt, Kathy <Kathy.Howatt@maine.gov>; Burr, Gregory <Gregory.Burr@maine.gov>; Mower, Barry F <Barry.F.Mower@maine.gov>; Bacon, Linda C <Linda.C.Bacon@maine.gov>; Perry, John <John.Perry@maine.gov>; Anna Harris (anna\_harris@fws.gov) <anna\_harris@fws.gov>; Bert Kleinschmidt <bert@bertandcaroline.com>  
**Subject:** RE: Green Lake Project P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Chris,

Thanks for coordinating this, and for clarifying the likely spawning locations, I obviously got confused when I sent it to FWS rather than IFW ☺

We assume from FERC's request and the indicated potential spawning sites that the purpose of this study is to determine when the water temperature at the likely spawning locations reaches 50 degrees F at a depth of 1.5 to 6 feet.

We'll let you know which sites we pick for the loggers.

Thank you,  
Caroline  
Relicensing Coordinator  
Green Lake Water Power Co.

---

**From:** Sferra, Christopher [<mailto:Christopher.Sferra@maine.gov>]  
**Sent:** Monday, August 24, 2020 12:02 PM  
**To:** Caroline Kleinschmidt  
**Cc:** Howatt, Kathy; Burr, Gregory; Mower, Barry F; Bacon, Linda C; Perry, John  
**Subject:** RE: Green Lake Project P-7189

Hi Caroline,

Below I am forwarding the consultation with MDIFW on the continuous temperature logger location placement. MDIFW sent along the map with the recommended logger locations as they are the best representative locations of Arctic Charr spawning habitat in the Green Lake impoundment. My understanding is that any of the locations marked would be acceptable for deploying the logger for data collection. If you have further questions feel free to consult with myself and Greg Burr, the regional fish Biologist for the area. Please keep in the loop in terms of the site selected. Thanks and I hope you have a good week.

Christopher Sferra  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



**From:** Burr, Gregory <[Gregory.Burr@maine.gov](mailto:Gregory.Burr@maine.gov)>  
**Sent:** Monday, August 24, 2020 9:44 AM  
**To:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>  
**Cc:** Perry, John <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>  
**Subject:** RE: Green Lake Project P-7189

Good Morning Christopher,

Attached are the possible charr spawning locations from our experience working with the charr at Floods Pond and others across the state.

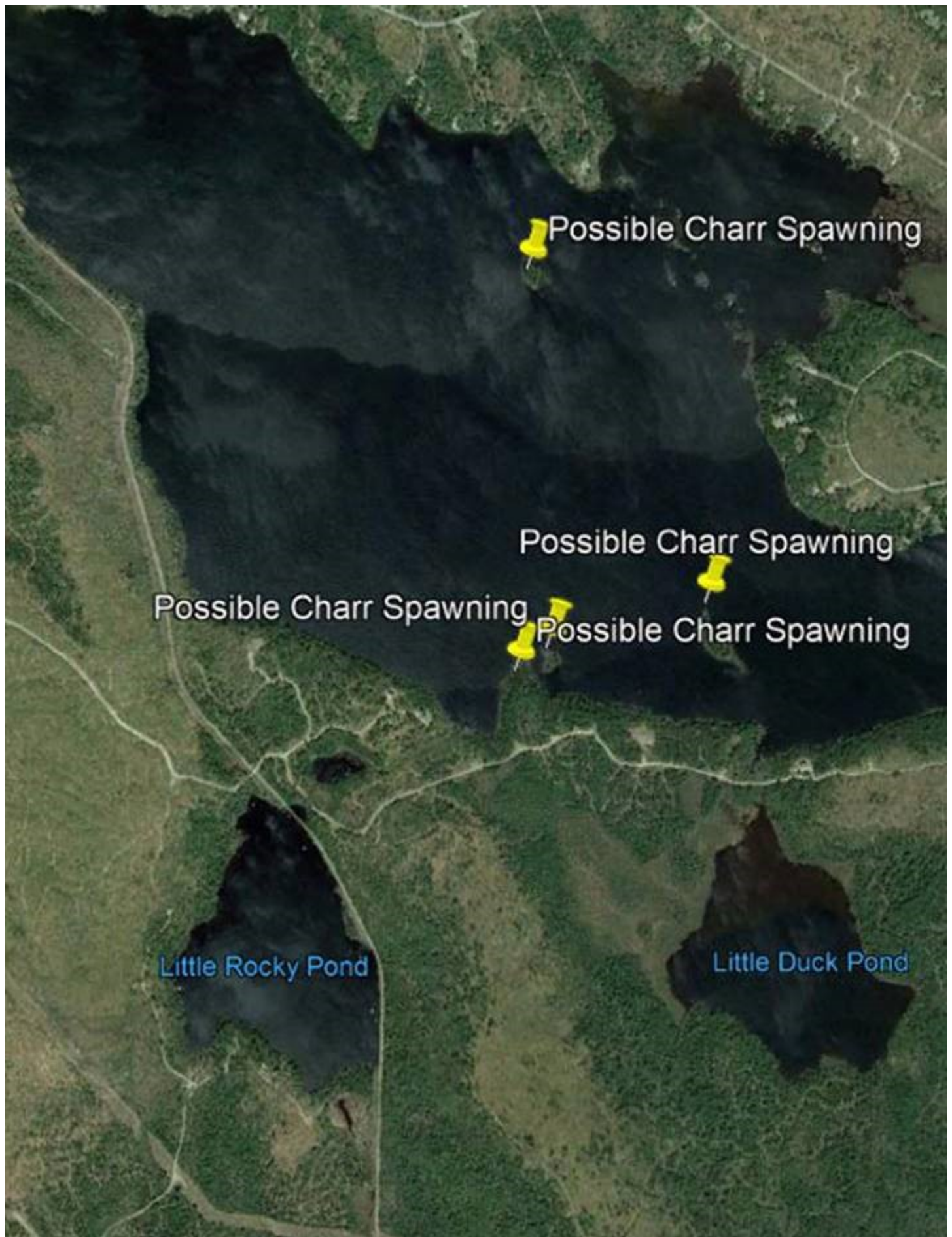
Please let us know if you have any other questions.

Best,

Greg

Gregory Burr  
Regional Fisheries Biologist  
Grand Lakes Region  
Jonesboro, Maine 04648

(207) 434-  
5925





---

**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Wednesday, August 19, 2020 9:50 PM  
**To:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>  
**Subject:** Re: Green Lake Project P-7189

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Thanks Chris!

...

On Aug 18, 2020, at 16:08, Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)> wrote:

Hi Caroline,  
I am looking in to this and will send a response shortly with more information. Thanks!

Christopher Sferra  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)

<image001.jpg>

---

**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Monday, August 17, 2020 11:18 AM  
**To:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Anna Harris ([anna\\_harris@fws.gov](mailto:anna_harris@fws.gov))  
<[anna\\_harris@fws.gov](mailto:anna_harris@fws.gov)>  
**Cc:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** Green Lake Project P-7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Good morning Chris and Anna,

We are preparing to do the study, requested by FERC, to gather the impoundment temperature data and we would like to know what your requirements are in terms of the location of the loggers.

FERC's study request has a footnote that states:

"3 Green Lake Power should consult with Maine DIFW and the Maine Department of Environmental Protection about the location of the continuous water temperature logger(s). "



I am attaching a copy of the document that contains the request.

Thank you,  
Caroline

Relicensing Coordinator  
Green Lake Water Power Co.

## Caroline Kleinschmidt

---

**From:** caroline@greenlakewaterpower.com  
**Sent:** Tuesday, September 8, 2020 5:19 PM  
**To:** Isaac St. John  
**Subject:** Re: Green Lake Project 7189

**Categories:** GreenLakeWaterPower

Hi Isaac,

We haven't run across any human remains,, archaeological properties or other items of historical importance as of yet. If we do we will certainly stop and report our findings to the appropriate authorities, including the Houlton Band of Maliseet Indians.

Regards, Caroline

On 2020-09-01 13:27, Isaac St. John wrote:

Good afternoon,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Thank you,

Isaac St. John

Tribal Historic Preservation Officer

Houlton Band of Maliseet Indians

88 Bell Road

Littleton, ME 04730

## Caroline Kleinschmidt

---

**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Tuesday, September 8, 2020 11:12 AM  
**To:** caroline@greenlakewaterpower.com  
**Cc:** Bert Kleinschmidt; Howatt, Kathy  
**Subject:** RE: Green Lake Project Sampling Information

**Categories:** GreenLakeWaterPower

Caroline,

Thank you for sending this summary and documenting the irregularity in your sampling. This will be added to our file and can be referenced if needed during data analysis. Have a good rest of your week.

Chris Sferra (he/him)  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



---

**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Tuesday, September 8, 2020 10:47 AM  
**To:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Cc:** Bert Kleinschmidt <bert@bertandcaroline.com>  
**Subject:** Green Lake Project Sampling Information

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Chris,

Thank you for your help on working out the details of how to handle the difficulties we were having conducting the late summer, extended sampling event on Green Lake. As requested, this message lays out what was agreed upon and what we did.

On Wednesday 26-Aug-2020, our planned day for the extended sampling, we successfully conducted the normal and extended sampling at Site 1 in Green Lake (The NW end of the lake) despite moderate waves (some white-caps) and gusty winds at the site.

We then traveled to Site 2 and discovered that the wind had increased and there were many white-caps and some spraying foam on the water. We attempted to set our anchor 3 times. We stayed at the lake and waited several hours for the wind to die down a bit, and attempted to set the anchor a total of five times. We got the anchor to set twice, but with gusty, changing winds and heavy waves the anchor did not hold long enough for us to start sampling. With 400' of scope out the boat was moving sideways enough even when the anchor held briefly that we decided that we could not get the samples properly at Site 2 on Wednesday.

On Thursday 27-Aug-2020 we discussed the lab requirements with the HETL and determined that along with the 24 hour Chlorophyll time there were several samples that were requested to be at the lab within 48 hours of being taken. We then called you and worked out that it was best to complete the samples and get them all to the HETL within 48 hours, noting the time of sampling so that if there were a discrepancy on the Site 1 Chlorophyll results it would be known that time was likely a factor.

Thursday was windy during the day, but the wind calmed down late in the afternoon. We proceeded to Site 2 on Green Lake, took the Secchi disk reading while we still had light, and successfully completed the DO/T profile and sampling as the sun set.

The Site 1 samples were placed in the dark in a 3-4°C water bath within about 10 minutes of being taken, were placed in a refrigerator until Friday, and then were transported in a water bath or insulated box with cool packs to the HETL. The Site 2 samples were handled the same on the boat, but then remained in the water bath overnight until delivered to the HETL.

All samples arrived at the HETL within  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , within 24 hours of being taken for Site 2 and 48 hours for Site 1.

Regards, Caroline

Green Lake Water Power Co.

## Caroline Kleinschmidt

---

**From:** Isaac St. John <istjohn@maliseets.com>  
**Sent:** Wednesday, September 9, 2020 10:11 AM  
**To:** caroline@greenlakewaterpower.com  
**Subject:** RE: Green Lake Project 7189

**Categories:** GreenLakeWaterPower

Thank you!

Isaac St. John  
Tribal Historic Preservation Officer  
Houlton Band of Maliseet Indians  
88 Bell Road  
Littleton, ME 04730

---

**From:** caroline@greenlakewaterpower.com [mailto:caroline@greenlakewaterpower.com]  
**Sent:** Tuesday, September 8, 2020 5:19 PM  
**To:** Isaac St. John <istjohn@maliseets.com>  
**Subject:** Re: Green Lake Project 7189

Hi Isaac,

We haven't run across any human remains,, archaeological properties or other items of historical importance as of yet. If we do we will certainly stop and report our findings to the appropriate authorities, including the Houlton Band of Maliseet Indians.

Regards, Caroline

On 2020-09-01 13:27, Isaac St. John wrote:

Good afternoon,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Thank you,

Isaac St. John

Tribal Historic Preservation Officer

Houlton Band of Maliseet Indians

88 Bell Road

Littleton, ME 04730

## GLWP Brook Habitat Study Sites

22-Nov-2020

Green Lake Water Power Project – FERC No. 7189

Four transects in the bypass reach are proposed for GLWP Study #2: Aquatic Habitat Cross-Section and In-stream Flow Study. The four transect sites, as well as the dam and location of the discharge from the GLNFH filtering plant, are marked on the following aerial photo:



Pictures of the transect sites are included on the following pages of this document. All pictures were taken from the bank that is on the right side of the brook (facing downstream).

In consultation with a Kleinschmidt Group Biologist, the sites were chosen to be representative of each section of the bypass reach (Reeds Brook) which has distinct characteristics. Two transects have been chosen upstream of the confluence of the discharge of the GLNFH filter plant and Reeds Brook, and two transects are downstream of that point.

Transect #1 was chosen as close to the dam as practical while being downstream of the section of the brook that was modified heavily by the original dam and road construction and improvements (in the early 1900's, 1960's and late 1980's). The brook from the dam to below transect #1 is characterized by frequent pools with rock restrictions between the pools. This section of the brook has a moderate rate of drop.

Downstream of the section of Reeds Brook represented by Transect #1 the rate of drop of Reeds Brook reduces. Transect #2 was chosen to be in this area.

Downstream of Transect #2, after the confluence of Reeds Brook and the GLNFH filter plant discharge, there is a section of Reeds Brook that has a more rapid rate of drop. The brook has many large rocks and very frequent, small pools. Transect #3 represents this section.

Downstream of the section of Reeds Brook represented by Transect #3 the rate of drop of Reeds Brook moderates and it becomes wider, with larger pools. It maintains these characteristics until it discharges into Graham Lake. Transect #4 is in this region of the brook.



Transect 1 Cross Brook:





Transect 1 Upstream:



Transect 1 Downstream:





Transect 2 Cross Brook:



2020/11/21 13:43



Transect 2 Upstream:

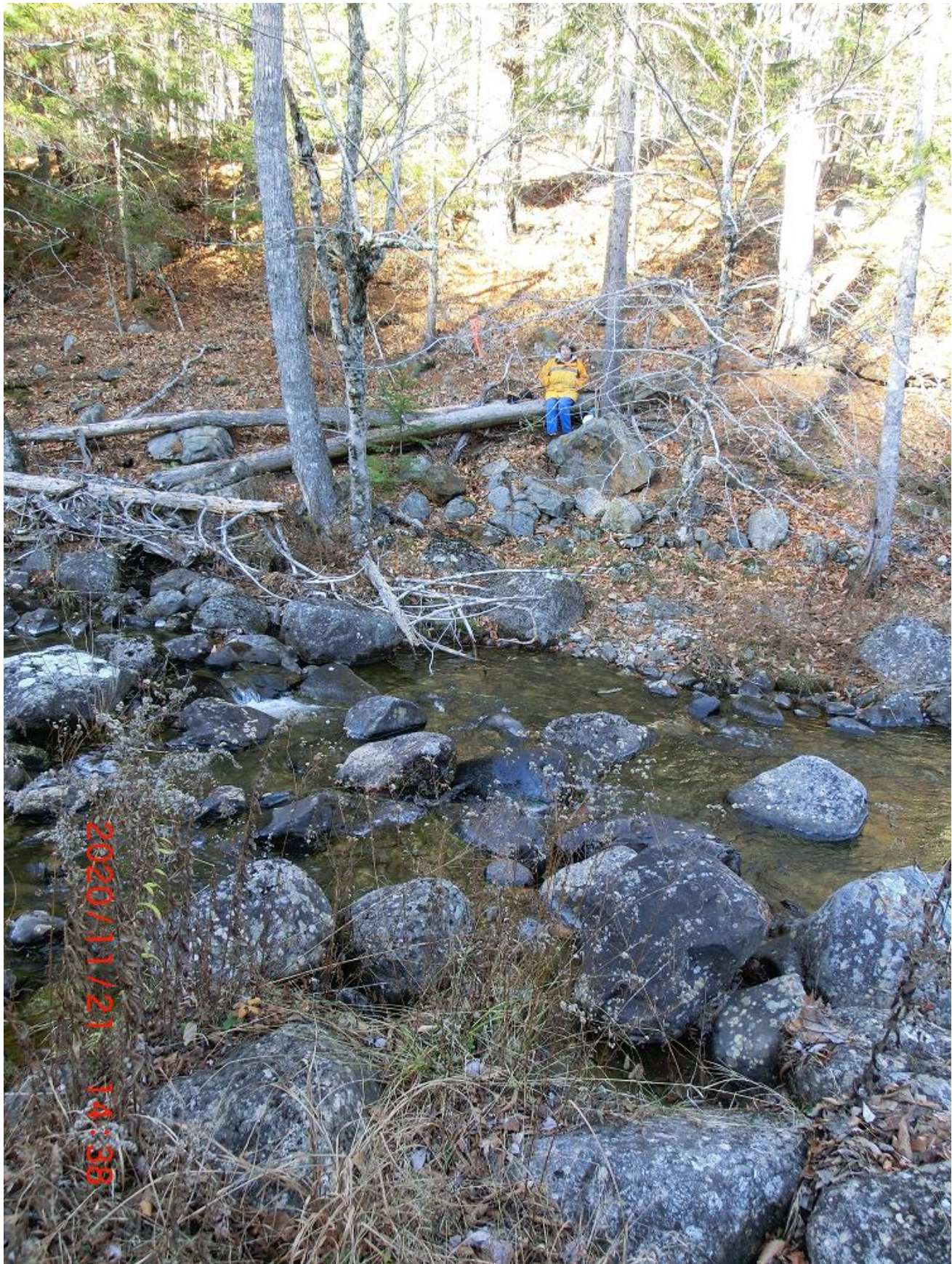


Transect 2 Downstream:





Transect 3 Cross Brook:





Transect 3 Upstream:



Transect 3 Downstream:





Transect 4 Cross Brook:





Transect 4 Upstream:



Transect 4 Downstream:



GLWP believes these transects do a good job of representing the different sections of Reeds Brook.

While we didn't have enough water in the lake to do flow measurements in the brook during the summer and early fall, we now have enough water in the lake to do this. We are planning to take measurements at 23 cfs (the 0.5 cfs per square mile of drainage area flow), one cfs (our current minimum flow) and an intermediate flow level to be chosen based on the brook conditions we observe during the 1 cfs and 23 cfs flow measurements.



## Caroline Kleinschmidt

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**From:** Bert Kleinschmidt  
**Sent:** Monday, November 23, 2020 10:17 PM  
**To:** Sferra, Christopher; Caroline Kleinschmidt  
**Cc:** Howatt, Kathy; Dan Tierney - NOAA Federal  
**Subject:** RE: Green Lake Water Power Project – FERC No. 7189

Hi Christopher,

Thank you for your prompt review and response.

On the Department's questions and concerns:

1. The transect flows at the time the pictures were taken are not known precisely because flow measurements were not done as part of the field work to locate transects. The flow past the dam has been very low since the fall drawdown because as the water level drops, it reduces the pressure and area of leaks at the dam. However, some water has been leaking past the dam and down the brook.

Despite no water being released by the Project, the lake level has not been rising. We expect that it will start to rise some from the rain today, but not enough to appreciably increase the leakage by the dam. As usual during late summer and fall when the lake is rising, we plan to raise a gate slightly to pass more than dam leakage tomorrow.

I expect the flow past the dam at the time the pictures were taken was less than 1 cfs. Given the leakage past the dam and the variability of the flow past the gate at very small openings (with leaves affecting the gate), we will not be able to precisely set the lowest flow at the dam from the gate opening. Also the bottom of the gate area is rough with exposed concrete aggregate that make accurate measurement of small flows at the gate impractical.

I expect to determine the flow past the dam based on the flow at Transect #1. The brook between the dam and Transect #1 has no incoming streams and it is mostly large and medium size boulders that have multiple spaces for water to flow around and below them. One of the reasons for choosing the location for Transect #1 is that it was the closest location to the dam where it looked practical to map cross sectional areas and determine the actual flow in the brook.

My plan is to set a gate for an estimated flow of 1 cfs in the brook below the dam and do initial water depth and velocity measurements at Transect #1, then calculate the flow and adjust the gate as needed to get a flow near 1 cfs. Once we have the initial 1 cfs flow set, we will do the first set of measurements at all the transects. The 23 cfs flow will be set by gate position (per the flow curves I expect it to be a gate opening of about 4 inches), and the intermediate flow will be determined by a combination of gate opening and observation in the brook channel.

2. Given the behavior of the lake this fall, it is very unlikely any precipitation we get within the next few weeks would result in high brook

flows. Despite our being shut down for penstock work since 18-Oct, the lake level has only risen about a third of a foot since the end of our fall drawdown on 15-Oct. The lake level would have to rise by about 3 feet to cause us to dump extra water at the dam and cause high flows in Reeds Brook.

Best,  
Bert Kleinschmidt.

---

**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Monday, November 23, 2020 8:19 PM  
**To:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Cc:** Bert Kleinschmidt <bert@bertandcaroline.com>; Howatt, Kathy <Kathy.Howatt@maine.gov>; Dan Tierney - NOAA Federal <dan.tierney@noaa.gov>  
**Subject:** RE: Green Lake Water Power Project – FERC No. 7189

Hi Caroline,

The Department has reviewed the proposed transect locations for the Downstream Aquatic Habitat Cross-Sectional Flow Study and agrees with the sites selected. Some questions and concerns the Department has about this study are as follows:

1. What was the flow when the photos were taken and how does this relate to the target flows identified in the GLWP-Transect-Sites document.
2. The Department approves the timing of this study as long as the brook is not experiencing high flows from today's rain and GLWP can achieve their proposed target flows. The Department is concerned that high flows might distort or alter the results of the flow study.

Please let me know if you have any questions or need clarification and thank you.

Christopher Sferra (he/him)  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



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**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Sunday, November 22, 2020 10:12 PM  
**To:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Dan Tierney <[dan.tierney@noaa.gov](mailto:dan.tierney@noaa.gov)>  
**Cc:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** Green Lake Water Power Project – FERC No. 7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Chris and Dan,

The attached document describes transect sites which we believe do a good job of representing the different regions of Reeds Brook for the GLWP Aquatic Habitat Cross-Section and In-stream Flow Study.

Let us know if you have any questions or concerns. We would like to be ready to start the transect survey and flow measurement work by Wednesday of this week.

Regards, Caroline

## Caroline Kleinschmidt

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**From:** Caroline Kleinschmidt  
**Sent:** Wednesday, November 25, 2020 4:43 PM  
**To:** Dan Tierney - NOAA Federal  
**Cc:** Bert Kleinschmidt  
**Subject:** RE: Green Lake Water Power Project – FERC No. 7189

Hi Dan,

Great, and thank you for responding so promptly!

Regards, Caroline

**From:** Dan Tierney - NOAA Federal [mailto:dan.tierney@noaa.gov]  
**Sent:** Tuesday, November 24, 2020 7:57 AM  
**To:** Bert Kleinschmidt  
**Cc:** Sferra, Christopher; Caroline Kleinschmidt; Howatt, Kathy  
**Subject:** Re: Green Lake Water Power Project – FERC No. 7189

Hi Caroline and Bert,  
These transects appear suitable. Thanks for checking.

Dan

On Mon, Nov 23, 2020 at 10:16 PM Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)> wrote:

Hi Christopher,

Thank you for your prompt review and response.

On the Department's questions and concerns:

1. The transect flows at the time the pictures were taken are not known precisely because flow measurements were not done as part of the field work to locate transects. The flow past the dam has been very low since the fall drawdown because as the water level drops, it reduces the pressure and area of leaks at the dam. However, some water has been leaking past the dam and down the brook.

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today, but not enough to appreciably increase the leakage by the dam. As usual during late summer and fall when the lake is rising, we plan to raise a gate slightly to pass more than dam leakage tomorrow.

I expect the flow past the dam at the time the pictures were taken was less than 1 cfs. Given the leakage past the dam and the variability of the flow past the gate at very small openings (with leaves affecting the gate), we will not be able to precisely set the lowest flow at the dam from the gate opening. Also the bottom of the gate area is rough with exposed concrete aggregate that make accurate measurement of small flows at the gate impractical.

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Best,

Bert Kleinschmidt.

---

**From:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>  
**Sent:** Monday, November 23, 2020 8:19 PM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Cc:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>; Howatt, Kathy <[Kathy.Howatt@maine.gov](mailto:Kathy.Howatt@maine.gov)>; Dan Tierney - NOAA Federal <[dan.tierney@noaa.gov](mailto:dan.tierney@noaa.gov)>  
**Subject:** RE: Green Lake Water Power Project – FERC No. 7189

Hi Caroline,

The Department has reviewed the proposed transect locations for the Downstream Aquatic Habitat Cross-Sectional Flow Study and agrees with the sites selected. Some questions and concerns the Department has about this study are as follows:

1. What was the flow when the photos were taken and how does this relate to the target flows identified in the GLWP-Transect-Sites document.
2. The Department approves the timing of this study as long as the brook is not experiencing high flows from today's rain and GLWP can achieve their proposed target flows. The Department is concerned that high flows might distort or alter the results of the flow study.

Please let me know if you have any questions or need clarification and thank you.

Christopher Sferra (he/him)

Environmental Specialist III, Hydropower Unit

Bureau of Land Resources

Maine Department of Environmental Protection

Cell: (207) 446 - 1619

[www.maine.gov/dep](http://www.maine.gov/dep)



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**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Sunday, November 22, 2020 10:12 PM  
**To:** Sferra, Christopher <[Christopher.Sferra@maine.gov](mailto:Christopher.Sferra@maine.gov)>; Dan Tierney <[dan.tierney@noaa.gov](mailto:dan.tierney@noaa.gov)>  
**Cc:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** Green Lake Water Power Project – FERC No. 7189

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Chris and Dan,

The attached document describes transect sites which we believe do a good job of representing the different regions of Reeds Brook for the GLWP Aquatic Habitat Cross-Section and In-stream Flow Study.

Let us know if you have any questions or concerns. We would like to be ready to start the transect survey and flow measurement work by Wednesday of this week.

Regards, Caroline

--

Dan Tierney  
NOAA's National Marine Fisheries Service  
Protected Resources Division  
Maine Field Station  
17 Godfrey Drive – Suite 1  
Orono, Maine 04473  
Office: 207-866-3755  
Email: [Dan.Tierney@noaa.gov](mailto:Dan.Tierney@noaa.gov)



## Bert Kleinschmidt

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**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Wednesday, April 7, 2021 4:34 PM  
**To:** Bert Kleinschmidt  
**Cc:** Howatt, Kathy; DiFranco, Jeanne L  
**Subject:** Green Lake BMI Supplementary data

Hello Bert,

Happy spring! MDEP reviewed the supplemental BMI data that was filed with FERC on March 17, 2021 after the ISR meeting held earlier in the month. In this report, you identified two of three rock bags deployed in the Reeds Brook bypass reach in 2020 were not analyzed.

You stated that Site 2 was washed out and had been disturbed from where it was deployed and was in lentic habitat when recovered. It is unclear if there were washout issues at Site 3, but you stated that both Site 2 and 3 were impacted by water levels of Graham Lake, were in lentic habitat when recovered and it was stated that you decided not to analyze these BMI samples further. MDEP has comments and questions concerning the issues you had during BMI sampling.

Can you please clarify what happened with the recovery of the bag at site 2 and how it may have been displaced?

When selecting these sites and consulting with MDEP, we emphasized and Green Lake Water Power Company agreed, that rock bags needed to be deployed and data collected and reported from these three locations. The backwatering issues from Graham Lake have been known and discussed and we are aware that site 2 in the tailrace of the powerhouse and site 3 at the confluence of the tailrace, are backwatered by Graham Lake.

You are going to see more about this in our comments on the ISR, but we wanted to give you early notice of this. MDEP can only make a determination on whether BMI samples influenced by the hydro project meet water quality standards if BMI data is collected and compiled from the three specified locations in the bypass (Site 1), the tailrace of the powerhouse (Site 2) and the confluence of the two (Site 3).

Since two of three stations were compromised, you must conduct the BMI study again in 2021 and all three rock bags will need to be redeployed. All of the BMI data needs to be collected at once under the same conditions, so all rock bags will need to be redeployed in 2021. I have cc'd Jeanne DiFranco on this email. She is a Biologist at MDEP who deals specifically with BMI sampling so that she is aware of the issues and can provide her opinion on the issue if needed.

I hope this provides clarity on how to move forward this study season. If you would like to discuss please don't hesitate to reach out.

Christopher Sferra (he/him)  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



## Caroline Kleinschmidt

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**From:** Dan Tierney - NOAA Federal <dan.tierney@noaa.gov>  
**Sent:** Friday, April 9, 2021 11:31 AM  
**To:** caroline@greenlakewaterpower.com  
**Subject:** Re: Green Lake Project 7189 Initial Study Report Meeting Summary

**Categories:** GreenLakeWaterPower

Hi Caroline, We have reviewed your interim study report and the meeting summary and do not have any comments at this time.

Thanks you,  
Dan

On Thu, Mar 11, 2021 at 9:06 PM <[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)> wrote:

To: Distribution List  
From: Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

Green Lake Water Power Company has submitted the Initial Study Report Meeting Summary, with additional requested data and attachments, to Secretary Bose at the Federal Energy Regulatory Commission (FERC) using the e-filing process.

You can download the documents from the FERC Online website, referencing our Project Number P-7189, or you can download these files from our website: [www.greenlakewaterpower.com](http://www.greenlakewaterpower.com), select the Relicensing Files link near the bottom of the home page.

Regards,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

--

Dan Tierney (he/him)  
Atlantic Salmon Recovery Coordinator  
Protected Resources Division  
National Marine Fisheries Service  
17 Godfrey Drive, Orono, Maine 04473  
207-866-3755

## Caroline Kleinschmidt

---

**From:** Sferra, Christopher <Christopher.Sferra@maine.gov>  
**Sent:** Wednesday, May 26, 2021 10:32 AM  
**To:** caroline@greenlakewaterpower.com; Caroline Kleinschmidt  
**Cc:** Howatt, Kathy; DiFranco, Jeanne L  
**Subject:** Green Lak BMI Sampling and Proposed meeting

**Categories:** GreenLakeWaterPower

Hello Bert and Caroline,

On April 12, 2021, MDEP filed ISR comments with FERC which requested additional information concerning the washout and backwatering issues reported by the Applicant for macroinvertebrate sampling locations in the powerhouse tailrace (Site 2) and the confluence of the powerhouse tailrace and the Reeds Brook bypass (Site 3). On May 5, 2021, GLWP filed an ISR response with FERC. Thank you for providing additional information concerning this sampling. The May 2021 report included some additional information requested by MDEP regarding macroinvertebrate sampling at Site 2 and 3, including:

1. Photos of water level conditions at Site 2 which indicated the displaced location of the rock bags.
2. A description of the displacement of the rock bag samplers by the powerhouse tailrace flow at Site 2.
3. Discussion and data related to backwatering concerns to Sites 2 and 3 and the water levels of Graham Lake. Data were collected by a gauge underneath the GLWP Power Station. This gauge provides GLWP with a reading of Graham Lake levels of 100.65 ft USGS and above. After 16-Aug-2020, the data recorded by GLWP is from the Graham Lake page on the Brookfield website.
4. A statement from the Applicant that “baskets from all three sites were collected and preserved. Preliminary inspection of the baskets from Site 2 and Site 3, and a comparison with the baskets from Site 1, showed that Sites 2 and 3 had been heavily influenced by Graham Lake water”. GLWP believes all potential sites below the power station are heavily influenced by both Graham Lake and the GLNFH discharge.
5. A statement from the Applicant that, according to a virtual consultation meeting held with MDEP on June 15, 2020, it was agreed that BMI sampling at one site, the confluence of Reeds Brook and the Project tailwater (Site 3), might be sufficient to meet water quality determination requirements.

MDEP acknowledges that BMI data from Site 1 in Reeds Brook attain Class B aquatic life standards and understands GLWP's concerns regarding resampling costs. However, Site 1 only evaluates the Reeds Brook bypass reach. The Department would like to set up a video call to discuss a path forward with the Applicant concerning the reporting of additional BMI data as well as a discussion surrounding the conditions at Sites 2 and 3. Based on the above, MDEP staff that work closely with BMI sampling and the application of the linear discriminate model think that the described washout, water level data and summary of water levels at Graham Lake may not have negatively impacted BMI samples collected at Sites 2 and 3. Photos seem to indicate that the extent (in distance) of the washout and backwater conditions at the sample sites would, in fact, allow application of the linear discriminant model to evaluate the impact of operations at the Green Lake Hydro station. We believe that backwater effects from Graham Lake were minimal last year as a result of the drought conditions in Maine, and that the samples collected and the data that can be developed from them will be a better opportunity to evaluate the impact of the Project operations, compared to resampling.

MDEP and the Applicant mutually agreed on these sampling locations to provide data which might provide resolution on the impacts of the hydro project, the backwatering of Graham Lake and the fish hatchery discharge. If GLWP is in possession of the BMI samples collected at site 2 and 3 during 2020, through the same methods used for Site 1, those samples may be processed and the subsequent data can then be reported to MDEP for analysis. The Department cannot make a determination on if BMI samples at Sites 2 and 3 were influenced by these factors unless the samples are processed and the data is reported to our agency.

The Departments goal for the meeting is to consult and work together with the Applicant to find the best way to generate BMI data which demonstrates the impacts of the Green Lake Dam on downstream habitat. Thank you for your time and please let me know of some upcoming dates and times that might work to schedule a virtual meeting.

Christopher Sferra (he/him)  
Environmental Specialist III, Hydropower Unit  
Bureau of Land Resources  
Maine Department of Environmental Protection  
Cell: (207) 446 - 1619  
[www.maine.gov/dep](http://www.maine.gov/dep)



## Caroline Kleinschmidt

---

**From:** Isaac St. John <istjohn@maliseets.com>  
**Sent:** Tuesday, November 9, 2021 12:10 PM  
**To:** caroline@greenlakewaterpower.com  
**Subject:** RE: GREEN LAKE PROJECT 7186

**Categories:** GreenLakeWaterPower

Good afternoon,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Thank you,

Isaac St. John  
Tribal Historic Preservation Officer  
Houlton Band of Maliseet Indians  
88 Bell Road  
Littleton, ME 04730



## Caroline Kleinschmidt

---

**From:** Lamothe, Peter <Peter\_Lamothe@fws.gov>  
**Sent:** Friday, December 3, 2021 10:51 AM  
**To:** caroline@greenlakewaterpower.com  
**Cc:** Cox, Oliver N; Cross, Amanda S  
**Subject:** Re: [EXTERNAL] Fwd: RE: Green Lake Project 7189 Draft License Application

**Categories:** GreenLakeWaterPower

Hi Caroline -

Oliver Cox will be the point of contact for this project moving forward. We look forward to continuing to work with you on the project.

Best,

Peter

Peter Lamothe  
Program Manager  
Maine-New Hampshire FWS Complex  
306 Hatchery Road  
East Orland, ME 04431  
Office: 207-902-1556  
Cell phone: 207-801-1350

---

**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Tuesday, November 23, 2021 6:08 PM  
**To:** Lamothe, Peter <Peter\_Lamothe@fws.gov>  
**Subject:** [EXTERNAL] Fwd: RE: Green Lake Project 7189 Draft License Application

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Peter,

When we started this process we had Steve Shepard representing USFWS. Some time after he left we had both Julianne Rosset and Corbin Hilling on the list as they didn't know which one of them was going to be involved with our project. Then Julianne asked me to remove her as Corbin was handling it. Then before we sent out the Draft License Application Corbin asked me to take him off the distribution list and replace him with you.

I received the email below from Casey Clark. I don't know your organizing board but it seems to me that you are the senior of this area so I figure I would check with you before I make any changes.

Happy Thanksgiving,  
Caroline

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

**Subject:** RE: Green Lake Project 7189 Draft License Application

**Date:** 2021-11-03 11:18

**From:** "Clark, Casey" <Casey.Clark@maine.gov>

**To:** "caroline@greenlakewaterpower.com" <caroline@greenlakewaterpower.com>

**Cc:** "Rosset, Julianne" <julianne\_rosset@fws.gov>

Hello Caroline,

Please add Julianne Rosset to the distribution list for this project. And please remove Corbin Hilling. Corbin is no longer with USFWS.

Thank you,  
Casey

Casey Clark  
Resource Management Coordinator  
Maine Department of Marine Resources  
Office: (207) 624-6594 (currently forwarding)  
Cell: (207) 350-9791  
Email: [casey.clark@maine.gov](mailto:casey.clark@maine.gov)

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>

**Sent:** Tuesday, November 2, 2021 4:38 PM

**To:** Distribution List <relicensing@greenlakewaterpower.com>

**Subject:** Green Lake Project 7189 Draft License Application

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To: Distribution List

From: Caroline Kleinschmidt

Relicensing Coordinator

Green Lake Water Power Company

Green Lake Water Power Company has submitted a Draft License Application to Secretary Bose at the Federal Energy Regulatory Commission (FERC) using the e-filing process.

You can download the documents from the FERC Online website, referencing our Project Number P-7189-014, or you can download these files from our website: [www.greenlakewaterpower.com](http://www.greenlakewaterpower.com) then select the Relicensing Files link near the bottom of the home page.

Regards,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

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

**Subject:**Re: Green Lake Project 7189 Updated Study Report

**Date:**2022-02-11 18:47

**From:**[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)

**To:**"Clark, Casey" <[Casey.Clark@maine.gov](mailto:Casey.Clark@maine.gov)>

**Cc:**"Cox, Oliver N" <[oliver\\_cox@fws.gov](mailto:oliver_cox@fws.gov)>, "dan.tierney" <[dan.tierney@noaa.gov](mailto:dan.tierney@noaa.gov)>, "Howatt, Kathy" <[Kathy.Howatt@maine.gov](mailto:Kathy.Howatt@maine.gov)>, "Perry, John" <[John.Perry@maine.gov](mailto:John.Perry@maine.gov)>

Hi Casey,

Thank you for letting me know.

The only topic of discussion at the meeting is the BMI study.

We will be filing a meeting summary within 15 days following the meeting. We will send out an email to let everyone know when the meeting summary is filed and you'll be able to download it then.

Regards, Caroline

On 2022-02-11 15:34, Clark, Casey wrote:

Hello Caroline,

DMR will not be able to participate in the meeting at 10am on Tuesday February 15, 2022, due to a conflicting meeting. If the purpose of the meeting is to discuss topics **in addition to** the Benthic Macroinvertebrate (BMI) study, I request that you send out a meeting poll to find a time that works for the stakeholders to the relicensing. Also, can you confirm that meeting minutes will be taken and distributed?

Regards,

Casey

Casey Clark  
Resource Management Coordinator  
Maine Department of Marine Resources  
Cell: (207) 350-9791 (Preferred)  
Office: (207) 624-6594  
Email: [casey.clark@maine.gov](mailto:casey.clark@maine.gov)

**From:** [caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com) <[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)>  
**Sent:** Wednesday, February 9, 2022 6:43 PM  
**To:** Distribution List <[relicensing@greenlakewaterpower.com](mailto:relicensing@greenlakewaterpower.com)>  
**Subject:** Green Lake Project 7189 Updated Study Report

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To: Distribution List

From: Caroline Kleinschmidt

Relicensing Coordinator

Green Lake Water Power Company

Green Lake Water Power Company has submitted our Updated Study Report to Secretary Bose at the Federal Energy Regulatory Commission (FERC) using the e-filing process.

The report was submitted on February 9, 2022.

You can download the documents from the FERC Online website, referencing our Project Number P-7189, or you can download these files from our website: [www.greenlakewaterpower.com](http://www.greenlakewaterpower.com), select the Relicensing Files link near the bottom of the home page.

Within 15 days following the filing of the Updated Study Report (USR) (i.e., by February 24, 2022) GLWP will hold an online meeting with relicensing participants and FERC staff to discuss the 2021 study results and status. The only study included in the 2021 study season is the Benthic Macroinvertebrate (BMI) Study. We expect the meeting to be quite short.

The meeting will be at 10am on Tuesday February 15, 2022. We'll be using Microsoft Teams for the meeting - this is the link: <https://teams.live.com/join/9313414666224>

Note: If you have an Enterprise license for Teams you will need to select the browser interface rather than the Teams App when connecting to the meeting (or copy and paste the link directly in to your browser).

Regards,

Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

## Caroline Kleinschmidt

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**From:** Howatt, Kathy <Kathy.Howatt@maine.gov>  
**Sent:** Monday, February 14, 2022 6:31 AM  
**To:** 'caroline@greenlakewaterpower.com'  
**Subject:** RE: Green Lake Project 7189 Updated Study Report Meeting - Updated

**Categories:** GreenLakeWaterPower

Thank you Caroline, appreciate the flexibility in rescheduling this meeting.  
Kathy

Kathy Davis Howatt  
Hydropower Coordinator, Bureau of Land Resources  
Maine Department of Environmental Protection  
Phone: 207-446-2642  
[www.maine.gov/dep](http://www.maine.gov/dep)

*Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.*

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**From:** caroline@greenlakewaterpower.com <caroline@greenlakewaterpower.com>  
**Sent:** Sunday, February 13, 2022 3:22 PM  
**To:** Distribution List <relicensing@greenlakewaterpower.com>  
**Subject:** Green Lake Project 7189 Updated Study Report Meeting - Updated

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To: Distribution List

MDEP has a conflict with the time of the USR Meeting. To resolve this we would like to reschedule the meeting to 10am on Thursday February 17, 2022.

Please let us know if you plan to attend this meeting and if the new date causes a problem for you.

The link for the meeting remains the same - it is included in the message below.

Regards, Caroline

To: Distribution List  
From: Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

Green Lake Water Power Company has submitted our Updated Study Report to Secretary Bose at the Federal Energy Regulatory Commission (FERC) using the e-filing process.

The report was submitted on February 9, 2022.

You can download the documents from the FERC Online website, referencing our Project Number P-7189, or you can download these files from our website: [www.greenlakewaterpower.com](http://www.greenlakewaterpower.com), select the Relicensing Files link near the bottom of the home page.

Within 15 days following the filing of the Updated Study Report (USR) (i.e., by February 24, 2022) GLWP will hold an online meeting with relicensing participants and FERC staff to discuss the 2021 study results and status. The only study included in the 2021 study season is the Benthic Macroinvertebrate (BMI) Study. We expect the meeting to be quite short.

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Note: If you have an Enterprise license for Teams you will need to select the browser interface rather than the Teams App when connecting to the meeting (or copy and paste the link directly in to your browser).

Regards,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company

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

**Subject:**MDMR Comments on Green Lake Project 7189 DLA

**Date:**2022-02-14 13:26

**From:**[caroline@greenlakewaterpower.com](mailto:caroline@greenlakewaterpower.com)

**To:**Casey Clark <[casey.clark@maine.gov](mailto:casey.clark@maine.gov)>

To: Casey Clark, MDMR

From: Caroline Kleinschmidt, GLWP

The Maine Department of Marine Resources (MDMR), in its response to the GLWP Draft License Application (DLA), mentions extensive coordination with other resource agencies that are involved in the GLWP relicensing. No details of these coordination activities (Coordination) with agencies outside MDMR have been provided by MDMR. At the same time, numerous general statements of purported agreement amongst resource and purported facts have been included in MDMRs DLA comments.

GLWP requests that MDMR distribute complete and accurate statements of the communications and/or meetings that took place as part of the Coordination so they are not ex parte communications. The following should be included for each such meeting or communication:

1. The type, time and place (if applicable) of the communication
2. The agencies and individuals involved
3. The purpose of the Coordination
4. A summary of what was discussed
5. A summary of key statements and conclusions communicated by individuals during the Coordination related to GLWP, its project or project relicensing

Sincerely,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company



## Caroline Kleinschmidt

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**From:** Nicholas Palso <Nicholas.Palso@ferc.gov>  
**Sent:** Thursday, February 24, 2022 11:36 AM  
**To:** Caroline Kleinschmidt  
**Subject:** RE: FLA Question

The final word from our attorneys is that you DO NOT need to contact any landowners by mail for a relicensing.

Thanks for your patience while they delved into this.

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**From:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Sent:** Thursday, February 17, 2022 3:28 PM  
**To:** Nicholas Palso <Nicholas.Palso@ferc.gov>  
**Subject:** RE: FLA Question

Hi Nick,  
Thanks for letting us know!

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**From:** Nicholas Palso <[Nicholas.Palso@ferc.gov](mailto:Nicholas.Palso@ferc.gov)>  
**Sent:** Thursday, February 17, 2022 11:05 AM  
**To:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Subject:** RE: FLA Question

We're still looking into this. I've got the attorney assigned to the project on it. I thought it would be an easy answer, but apparently it isn't.

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**From:** Caroline Kleinschmidt <[caroline@bertandcaroline.com](mailto:caroline@bertandcaroline.com)>  
**Sent:** Friday, February 11, 2022 2:16 PM  
**To:** Nicholas Palso <[Nicholas.Palso@ferc.gov](mailto:Nicholas.Palso@ferc.gov)>  
**Cc:** Bert Kleinschmidt <[bert@bertandcaroline.com](mailto:bert@bertandcaroline.com)>  
**Subject:** FLA Question

Hi Nick,

We are interested in clarifying the requirements as to who we should notify about the project relicensing.

In the CFRs we have:

§ 5.18 Application content.

(a) General content requirements.

(3) (i) For a license (other than a license under section 15 of the Federal Power Act) state that the applicant has made, either at the time of or before filing the application, a good faith effort to give notification by certified mail of the filing of the application to:

(A) Every property owner of record of any interest in the property within the bounds of the project, or in the case of the project without a specific project boundary, each such owner of property which would underlie or be adjacent to any project works including any impoundments; and

(B) The entities identified in paragraph (a)(2) of this section, as well as any other Federal, state, municipal or other local government agencies that there is reason to believe would likely be interested in or affected by such application.

(ii) Such notification must contain the name, business address, and telephone number of the applicant and a copy of the Exhibit G contained in the application, and must state that a license application is being filed with the Commission.

As we are under section 15 of the Federal Power Act, (3)(i) doesn't apply to us.

On page 3-11 of:

[Handbook for Hydroelectric Project Licensing and 5 MW Exemptions From Licensing \(ferc.gov\)](https://www.ferc.gov/sites/default/files/2020-06/ilp.pdf)

It says:

"Concurrent with filing the application, the applicant must provide copies of the filed application to all resource agencies, Indian tribes, and consulted members of the public. 18 CFR 5.17

"No later than 14 days after the filing date with the Commission, the applicant must publish a notice twice in a daily or weekly newspaper published in the county or counties in which the project or any part thereof or the lands affected are situated. The notice must disclose the filing date and briefly summarize the application including the applicant's name and address, type of facility, proposed location, and places where the information can be inspected and reproduced."

It doesn't mention specifically mailing abutters etc.

Also, on the first page of the ILP Application Checklist at <https://www.ferc.gov/sites/default/files/2020-06/ilp.pdf> it has:

#### **§ 5.18 (a) - GENERAL CONTENT REQUIREMENTS**

...

(3) (i) Certified mail filing notification for:

(A) Owners of underlying or adjacent property

(B) Entities identified in (a)(2) and any government agencies that would likely be interested in or affected by the application

It would be good to know, if there is a requirement for us to mail to property owners around the lake, where it is stated in the CFRs.

As we read the CFRs, 5.18 (a)(3)(i) excludes some of the notification requirement for licenses under section 15 of the FPA.

Thanks, Caroline

## Caroline Kleinschmidt

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**From:** Burrowes, Todd <Todd.Burrowes@maine.gov>  
**Sent:** Tuesday, March 8, 2022 4:59 PM  
**To:** Caroline Kleinschmidt  
**Cc:** Bert Kleinschmidt  
**Subject:** RE: Green Lake Project 7189 Relicensing Costal Zone Review

Hi, Caroline. Thanks for your e-mail. I'd be glad to talk with you about the process for federal consistency review of the project under the Coastal Zone Management Act (CZMA). For projects of this kind, CZMA review is typically integrated with the Department of Environmental Protection's (DEP) review of an applicant's application for state water quality certification under Section 401 of the Clean Water Act. I strongly suggest that you meet with DEP to discuss the state water quality certification process if you have not already done so. Are you available to talk tomorrow between 10 A.M. and 12 P.M. or 2:30 P.M. and 5 P.M.?  
- Todd

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**From:** Caroline Kleinschmidt <caroline@bertandcaroline.com>  
**Sent:** Tuesday, March 08, 2022 4:23 PM  
**To:** Burrowes, Todd <Todd.Burrowes@maine.gov>  
**Cc:** Bert Kleinschmidt <bert@bertandcaroline.com>  
**Subject:** Green Lake Project 7189 Relicensing Costal Zone Review

**EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Todd,

We are in the process of preparing our Final License Application (FLA) for relicensing the Green Lake Project (P-7189). The FLA is due in a few weeks (31-Mar-2022). Part of the project falls within Ellsworth, Maine and some falls in Dedham. Since Ellsworth is on the coast, our understanding is that the project is considered to be in the Maine Coastal Zone, despite the fact that it is some distance from the ocean or tidal water (about 7 miles upstream of the head of tidewater on the Union River).

We understand from talking to Andy Qua at Kleinschmidt Associates that the timeline for a coastal zone review and Water Quality Certification application can be challenging. We would like to find out if we need a formal Maine Coastal Zone review and how to best handle the logistics involved.

Is there a good time in the next few days for us to call and discuss this?

Sincerely,  
Caroline Kleinschmidt  
Relicensing Coordinator  
Green Lake Water Power Company