

**ATTACHMENT 7
ADDITIONAL INFORMATION
RESPONSE OCTOBER 10, 2018**

October 10, 2018

VIA E-FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N. E.
Washington, DC 20426

***Ellsworth Hydroelectric Project FERC No. 2727-086
Additional Information***

Dear Secretary Bose:

Black Bear Hydro Partners, LLC (Black Bear), licensee for the Ellsworth Hydroelectric Project (Project), filed an Application for New License (Application) for the Project on December 30, 2015. On September 12, 2018 the Commission's staff contacted Black Bear to request several items of additional information that they determined would be useful in preparing the Environmental Assessment for the Project relicensing (Nicholas Palso, September 13, 2018 Communication Memorandum). The following are Black Bear's responses to the additional information requests.

1. Please provide daily elevation data for Graham Lake for 2016.
The data is attached hereto, the daily readings are for 7:00 a.m.
2. At what elevations is the Graham Lake boat launch near the dam useable, both high and low elevations?
The pre-construction drawings for the boat launch show the toe of the boat ramp at approximately elevation 97' (USGS 1929). Black Bear visually inspected the ramp in October 2018 to generally confirm the elevations of the boat launch ramp. The concrete planks forming the boat ramp start at approximately elevation 107'. While the concrete planks are clearly visible down to elevation 99' (based on a comparison to the known lake elevation on that date), the toe of the concrete ramp is covered by gravel and staff were not able to confirm an absolute elevation. It is apparent however that the planks extend at least to the planned elevation of 97' and that the launch is useable to approximately elevation 94'. Black Bear notes that, generically, the recreation boating season in Maine runs through Labor Day. The long-term target elevation for Graham Lake on this date is approximately elevation 99' with the historic operating curve for 1998-2014 (see Final License Application and attached) showing that the lake level on this date averages approximately elevation 99.8'.
3. For the downstream migrant pipe at Ellsworth Dam, what is the monthly min., max. and average flow?

The stoplog weir at the outlet of the downstream fish passage system transition box (entrance to the downstream migrant pipe) is 48" wide and, since at least 2015, has been maintained at constant depth of about 12". This results in a conveyance flow of approximately 12 cfs through the downstream transport pipe. The weir depth is only adjusted during periods when the impoundment is drawn down for maintenance activities at which time stoplogs are removed to maintain the same approximate flow. It has been observed that passing more than 12 cfs of flow through the pipe results in water escaping the sluice way.

4. Provide the dimensions of the spillway flume (fish flume or sluiceway) at Ellsworth Dam in terms of length, width and height and the conveyance flow capacity.

The surface weirs at the downstream fish passage system at the Ellsworth dam are approximately 36" wide. Weir 3 (outboard of Unit 1 on the spillway) is set at about 17 inches of depth, providing about 16 cfs of flow into the spillway flume. The spillway flume is 48 inches wide with approximately 18-inch-high plate steel sidewalls and a heavy plastic bottom. The flume extends the entire height of the spillway. Black Bear did not find whether there was an intended design flow capacity for the flume.

5. Provide the depth of the plunge pool at Graham Lake, and at Ellsworth at both high and low tide.

Graham Dam: The floor of the bay containing the downstream fish passage weir is at elevation 71.0' and the normal tailwater is at elevation 80.5', therefore the plunge pool is generally around 9.5 ft deep.

Ellsworth Dam: Normal low tide is 4.5' and normal high tide is 9.0'. The bottom of the tailrace at the immediately adjacent Unit 1 is no higher than approximately -3.5'.

Although Black Bear does not have confirmatory drawings at the bottom of the plunge pool location, the minimum depth of the plunge pool appears to be several feet with a potential depth of approximately 12 feet. There is no exposed ledge in this location even at the lowest tide.

If you have any questions regarding this filing, please contact me by phone at (207) 755-5603 or by email at Frank.Dunlap@BrookfieldRenewable.com.

Sincerely,



Frank H. Dunlap
Licensing Specialist
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Encl.: 2016 Graham Lake Elevations

Cc: Distribution List
FERC: Nicolas Palso, Bill Connelly
Brookfield; S. Murphy, K. Maloney, R. Dill, K. Bernier

CERTIFICATE OF SERVICE
Ellsworth Hydroelectric Project (FERC No. 2727)
October 2018 Additional Information

I, Frank H. Dunlap, Licensing Specialist, Brookfield Renewable, hereby certify that a link to the foregoing document on the Commission website has been transmitted to the following parties on October 10, 2018.



Frank H. Dunlap

One copy, via e-filing to:

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BBHP Graham Lake Reservoir Operating Curves

Target Operating Curve, 1999-2014 Daily WSEL (ft), and 2016 WSEL (ft)

