

Boating Navigability Study

Study Report

Turners Falls Hydroelectric Project (No. 1889)

Prepared for:



Prepared by:



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EXECUTIVE SUMMARY

The Turners Falls Hydroelectric Project (FERC No. 1889) is owned and operated by FirstLight MA Hydro LLC on the Connecticut River in Gill and Montague, Massachusetts. In November 2021, a boating navigability study was conducted to assess the potential effects of discharges from Turners Falls Dam on navigability for recreational boaters, particularly through-paddlers, in the bypass reach of the Connecticut River below Turners Falls Dam at various flows. The study reach extended from the put-in just below the Turners Falls Dam to Cabot Woods located below Rock Dam, a distance of approximately 2.5 miles. For the purpose of this study, a "navigable" reach was defined as one through which boaters can paddle recreational watercraft without having to portage around obstacles, even if minor bumping and/or scraping occurs.

This study was conducted in collaboration with representatives from the Massachusetts Department of Environmental Protection (DEP), Massachusetts Department of Conservation and Recreation (DCR), and the Connecticut River Conservancy (CRC).

The field demonstration flow study was conducted on November 9, 2021. Four different test flows (termed Flow #1 through Flow #4) ranging from 214 cfs to 545 cfs were released from Bascule Gate #1 at Turners Falls Dam. Station No. 1 generation ranged from approximately 560 cfs to 1,080 cfs during the study and the Fall River flow was measured as 71 cfs on the study date, resulting in total flows ranging from 285 cfs to 616 cfs in the upper bypass reach (above Station No. 1) and 1,007 cfs to 1,427 cfs in the lower bypass reach (below Station No. 1).

Ten boaters participated in the study utilizing four canoes and three kayaks, for a total of seven boats. Boaters paddled the study reach under each flow and were then asked to evaluate the flow based on their watercraft and skill level for various characteristics, including navigability, safety, ease of put-in, number of scrapes/bumps, and number of portages for each flow experienced.

Two areas of interest were the primary focus of the navigability evaluation: the channels around Peskeomskut Island immediately below Turners Falls Dam and the channels around Rawson Island below Station No. 1 at the downstream extent of the study reach. At Peskeomskut Island, the left¹ channel was unnavigable under all assessed flows, but boaters were able to paddle the center-right and far-right channels (with varying level of difficulty) under all flows. The center-right channel is narrow and flume-like, while the far-right channel is more riffle-like. Boater feedback was mixed on which channel would be the preferable and/or safer route under the range of flows assessed.

At Rawson Island, boaters were able to navigate the far-right channel with no issues under all assessed flows. The center-right channel was unnavigable under all flows. Several experienced whitewater boaters took the left channel around Rawson Island to paddle over Rock Dam, which was runnable but not recommended for novice paddlers.

Put-In #2, located approximately 800 feet downstream of the Spillway Ladder and Put-In #1, was determined to be an acceptable put-in option for boaters wishing to bypass Peskeomskut Island.

Flow #3 was determined to be the minimum navigable flow of those assessed during the study. This flow event was characterized by approximately 545 cfs released from Bascule Gate #1

¹ River left and river right refer to the directions when facing downstream.

(calculated), 71 cfs from the Fall River (measured), and 560 cfs from Station No. 1 (reported), for total flows of approximately 616 cfs below Peskeomskut Island (measured) and 1,007 cfs below Station No. 1 (calculated).

The difficulty of the bypass reach under Flow #3 was rated as Class II (Novice) by most boaters. At a minimum, all boaters indicated that they would at least “possibly” return to the bypass reach during conditions similar to Flow #3.

Overall, the results of the Turners Falls boating navigability study demonstrate that the bypass reach provides through-paddling opportunities for a variety of watercraft and skill levels. Flow #3 (545 cfs released from Bascule Gate #1) was determined to be the minimum navigable flow and the flow at which boaters are most likely to return to the bypass reach for recreational opportunities.

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LIST OF ABBREVIATIONS

ADCP	acoustic Doppler current profiler
AFLA	Amended Final License Application
AMC	Appalachian Mountain Club
cfs	cubic feet per second
CRC	Connecticut River Conservancy
DCR	Massachusetts Department of Conservation and Recreation
DEP	Massachusetts Department of Environmental Protection
DFG	Massachusetts Department of Fish and Game
FERC	Federal Energy Regulatory Commission
FirstLight	FirstLight Hydro Generating Company
ILP	Integrated Licensing Process
NMFS	National Marine Fisheries Service
NRF	Naturally Routed Flow
TFH	Turners Falls Hydro
USFWS	United States Fish and Wildlife Service

1 INTRODUCTION

The Turners Falls Hydroelectric Project (FERC No. 1889) is owned and operated by FirstLight MA Hydro LLC² on the Connecticut River in Gill and Montague, Massachusetts. In December 2020, FirstLight filed its Amended Final License Application (AFLA) with the Federal Energy Regulatory Commission (FERC) to relicense the Project.

In November 2021, a boating navigability study was conducted to assess the potential effects of discharges from Turners Falls Dam on navigability for recreational boaters in the upper bypass reach of the Connecticut River below Turners Falls Dam at various flows. For the purpose of this study, a "navigable" reach was defined as one through which boaters can paddle recreational watercraft without having to portage around obstacles, even if minor bumping and/or scraping occurs.

This study was conducted in collaboration with representatives from the Massachusetts Department of Environmental Protection (DEP), Massachusetts Department of Conservation and Recreation (DCR), and the Connecticut River Conservancy (CRC) (collectively referred to as the Study Team).

2 BACKGROUND

2.1 Existing Information

Project Description

The Turners Falls Dam is located on the Connecticut River at approximately river mile 122 (above Long Island Sound) on the Connecticut River, in the towns of Gill and Montague in Franklin County, MA. Below the dam, a 2.7-mile-long bypassed section of the Connecticut River is paralleled by the power canal. Station No. 1 and Cabot Station discharge into the Connecticut River approximately 0.9 miles and 2.7 miles downstream of the Turners Falls Dam, respectively.

Project Operations

Flow is maintained in the bypass reach at various times of the year either through the Spillway Ladder attraction flow, fish ladder flow, or via a bascule gate. However, when the hydraulic capacity of the power canal (approximately 18,000 cubic feet per second, cfs), is exceeded and water elevations in the Turners Falls Impoundment start to rise, FirstLight will open bascule or Tainter gates accordingly to spill water at the dam and into the bypass reach.

Minimum Flow Requirements

Under the current FERC license for the Turners Falls Project, FirstLight is required to release a continuous minimum flow of 1,433 cfs or inflow, whichever is less, below the Project. FirstLight

² For purposes of this document, Northfield Mountain LLC, which owns the Northfield Mountain Pumped Storage Project and FirstLight MA Hydro LLC, which owns the Turners Falls Hydroelectric Project, are collectively referred to as FirstLight.

typically maintains the minimum flow requirement through discharges at Cabot Station and/or Station No. 1.

A continuous minimum flow of 200 cfs is also maintained in the bypass reach starting on May 1, increasing to 400 cfs when fish passage starts by releasing flow through a bascule gate. The 400 cfs continuous minimum flow is provided through July 15, unless the upstream fish passage season has concluded early, in which case the 400 cfs flow is reduced to 120 cfs. The 120 cfs continuous minimum flow is maintained in the bypass reach from the date the fish ladders are closed (or by July 16) until the river temperature drops below 7°C, which typically occurs around November 15.

In its AFLA, FirstLight proposed the Turners Falls bypass flows shown in **Table 2.1-1** below.

Table 2.1-1: Proposed Minimum Flows for Turners Falls Bypass Reach

Date	Total Bypass Flow ²	Turners Falls Dam	³ Station No. 1
01/01-03/31	1,500 cfs or the Naturally Routed Flow (NRF), whichever is less	300 cfs	1,200 cfs ⁴
04/01-05-31 ¹	6,500 cfs or the NRF, whichever is less	4,290 cfs	2,210 cfs ⁴
06/01-06/15 ¹	4,500 cfs or the NRF, whichever is less	2,990 cfs	1,510 cfs ⁴
06/16-06/30 ¹	3,500 cfs or the NRF, whichever is less	2,280 cfs	1,220 cfs ⁴
07/01-08/31	1,800 cfs or the NRF, whichever is less	670 cfs	1,130 cfs ⁴
09/01-11/30	1,500 cfs or the NRF, whichever is less	500 cfs	1,000 cfs ⁴
12/01-12/31	1,500 cfs or the NRF, whichever is less	300 cfs	1,200 cfs ⁴

¹The flow split during these periods is approximately 67% from the Turners Falls Dam and 33% from Station No. 1. If FirstLight conducts further testing, in consultation with the National Marine Fisheries Service (NMFS), US Fish and Wildlife Service (USFWS) and Massachusetts Department of Fish and Game (DFG) and determines that migratory fish are not delayed by passing a greater percentage of the bypass flow via Station No. 1, it may increase the percentage through Station No. 1 upon written concurrence of those agencies.

²If the NRF is less than 6,500 cfs (04/01-05/31), 4,500 cfs (06/01-06/15) or 3,500 cfs (06/16-06/30) the flow split will still be set at approximately 67% of the NRF from the Turners Falls Dam and 33% of the NRF from Station No. 1. If the NRF is less than 1,800 cfs (7/1-8/31), 1,500 cfs (9/1-11/30), or 1,500 cfs (12/1-3/31), the Licensee shall maintain the Turners Falls Dam discharges at 670 cfs, 500, cfs, and 300 cfs, respectively.

³To maintain the flow split, Station No. 1 must be automated, which will not occur until Year 3 of the license. FirstLight proposes to maintain the flow split such that the Turners Falls Dam discharge will be as shown above, or higher flows will be spilled, in cases where the additional flow cannot be passed through Station No. 1.

⁴The Turners Falls Hydro (TFH) project (FERC No. 2622) and Milton Hilton, LLC project (unlicensed) are located on the power canal and discharge into the bypass reach upstream of Station No. 1. The hydraulic capacity of the TFH project and Milton Hilton, LLC project is 289 and 113 cfs, respectively. If the TFH project is operating, FirstLight will reduce its Station No. 1 discharge by 289 cfs. If the Milton Hilton, LLC project is operating, FirstLight will reduce its Station No. 1 discharge by 113 cfs.

Previous Studies

During the relicensing process, FirstLight performed Study No. 3.6.3 *Whitewater Boating Evaluation* in the 2.7-mile-long Turners Falls Dam bypass reach (from Turners Falls Dam to Cabot Station) in accordance with FERC’s ILP. A study report was prepared in March 2015.

The whitewater boating evaluation was conducted in July 2014. A team of whitewater boaters in various types of watercrafts ran up to six evaluation flows (2,500, 3,500, 5,000, 8,000, 10,000 and 13,000 cfs) over a three-day period. The reach was found to provide an acceptable whitewater boating experience for most watercraft types at all six of the study flows, with overall optimal boating conditions for most watercraft type occurring in the 5,000-8,000 cfs range. Additionally,

both lower and higher flows rated well with the participants, although the ratings were dependent on type of watercraft and skill level.

Bypass reach access points were also identified as part of this study. The study identified three areas (Spillway Ladder Put-In, Turners Falls Station No. 1 Fishing Access, Cabot Woods Fishing Access) that currently provide access to the bypass reach, and one site (Poplar Street Access) downstream of the bypass reach that currently serves as both the canoe portage put-in and as a take-out for those boating the bypass reach. It was determined that both the fishway put-in area and Turners Falls Station No. 1 Fishing Access could provide adequate access to the bypass reach for skilled and experienced whitewater boaters. The Cabot Woods Fishing Access is not suitable for bypass access due to steep slopes.

As part of the Turners Falls Recreation Management Plan filed with the AFLA, improvements are proposed for the put-in below the Turners Falls Dam on river-left³. There is an existing informal pathway leading to the base of the dam just downstream of the existing Spillway Ladder. The proposed access would be provided via the existing bridge spanning the power canal (known as the “IP Bridge”). Once over the canal, a formal 12-foot-wide path would lead to the riverbank put-in, with directional signs along the path.

2.2 Need for Additional Information

Additional information was needed for lower flows that could potentially allow recreational boaters to paddle through the Turners Falls bypass reach. Through consultation with the Study Team, it was agreed that navigability would be assessed at flows of approximately 500 cfs, 670 cfs, and 900 cfs. Adjustments were made to this proposed release schedule during the study based on field conditions as described below.

3 METHODOLOGY

3.1 Study Area

An overview map of the study area is shown in **Figure 3.1-1**. Detail maps of the upstream extent (Peskeomskut Island) and downstream extent (Rawson Island) are shown in **Figures 3.1-2** and **3.1-3**, respectively. The study area included the Connecticut River between the Turners Falls Dam and the Cabot Woods access point below Rawson Island. This reach is approximately 2.5 miles long (as measured by the longest paths around the islands). The Fall River joins the Connecticut River approximately 0.16 miles downstream of the dam on river-right.

The upstream segment of the study reach extends from the toe of the Turners Falls Dam to the pool upstream of the Turners Falls Road Bridge (see **Figure 3.1-2**). This area includes an expansive plunge pool at the base of the dam, which remains wetted from dam leakage and Fall River flows. Flow exiting the plunge pool has two major outlets, separated by a small island (known as Peskeomskut Island) in the center of the channel.

The river-right channel follows the western shore and immediately bifurcates upon exiting the plunge pool into a far-right channel and a center channel adjacent to the island (see **Figure 3.1-2**). The two sub-channels are divided by a bedrock outcrop and both have well-defined channel cross-

³ River-left and river-right refer in this report to the direction when facing downstream.

sections. The far-right channel is generally uniformly wide and comprised of shallow run and riffle morphologies.

The center channel is separated from the far-right channel by a bedrock terrace. It is bedrock controlled, relatively straight, and flume-like. At a dam discharge of 125 cfs, it is approximately 4 or more feet deep and fast-flowing⁴.

The river-left channel has a poorly defined channel and lacks a distinct thalweg. Flow passes over broken ledge and rubble, through crevasses, and over short vertical drops.

All channels converge near the upstream end of a large pool, approximately 1,500 feet upstream of the Turners Falls Road Bridge, where the bypass reach narrows. The channel continues relatively straight and riverine in form, with a defined thalweg on the river-left side, to the end of the upper bypass at the confluence with the Station No. 1 tailrace.

The lower segment of the study reach is approximately 1.4 miles long, extending from the Station No. 1 tailrace downstream to the Rawson Island complex and a geological feature including a natural ledge drop known as Rock Dam. The bedrock-defined channel bifurcates into left, center right, and far right channels around Rawson Island. The Rock Dam is located near the downstream end of the left channel. The reach terminates in a pool downstream of Rawson Island.

The study area included Rawson Island in order to evaluate the navigability of the river-right channels around the island so boaters could avoid the potentially hazardous Rock Dam in the river-left channel.

⁴ As observed during relicensing Study No. 3.3.1 *Instream Flow Habitat Assessments in the Bypass Reach and below Cabot Station*.

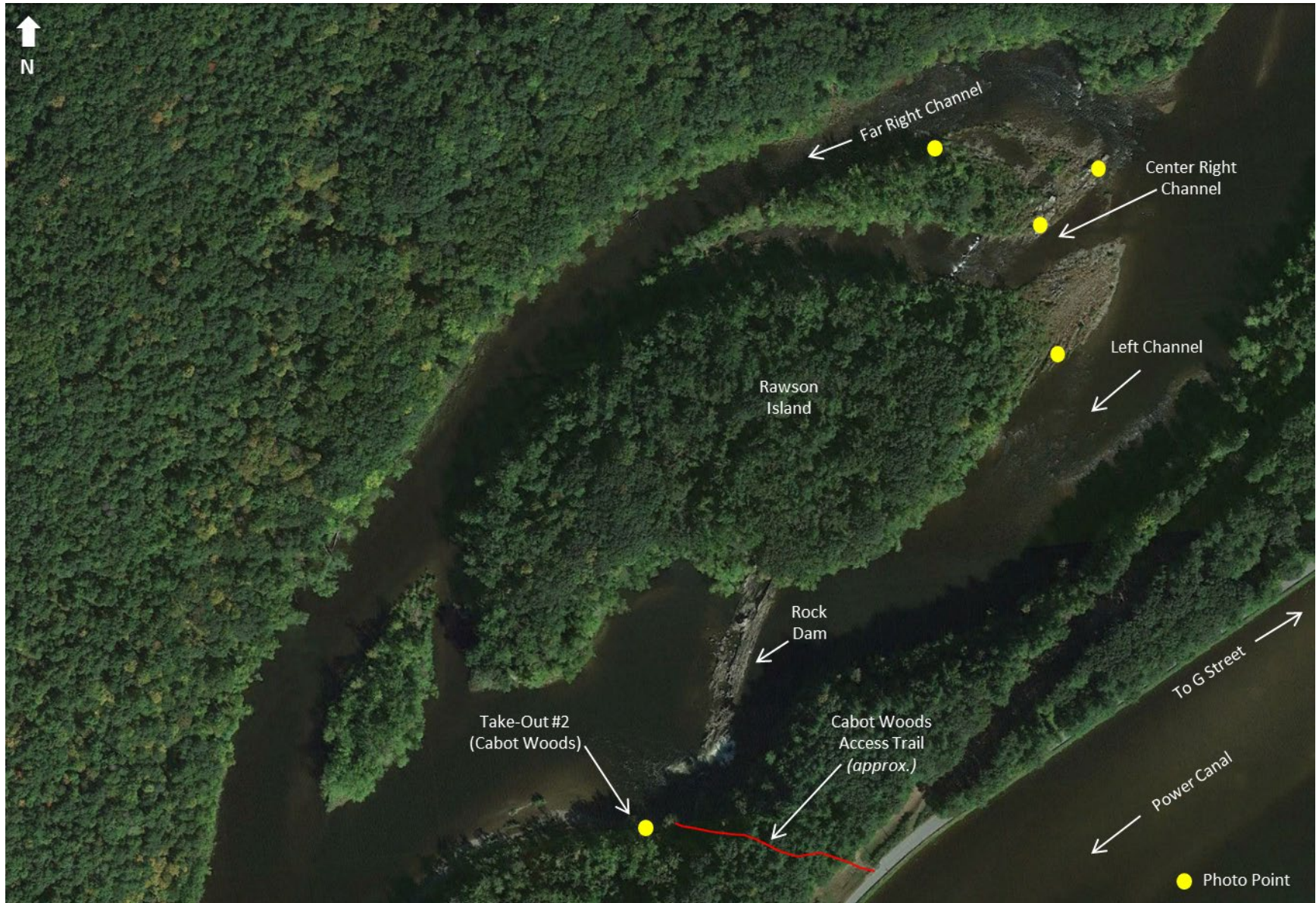
Figure 3.1-1: Study Area Map – Overview



Figure 3.1-2: Study Area Map – Peskeomskut Island / Put-In Area



Figure 3.1-3: Study Area Map – Rawson Island / Take-Out Area



3.2 Logistics

Participants

FirstLight coordinated with the Study Team to identify potential volunteer boaters for the study. Organizations contacted during boater outreach included the Appalachian Mountain Club (AMC), CRC, and other local paddling groups. Requirements for volunteer boaters included the following:

- Minimum age: 18
- Minimum paddling skill: Novice (comfortable running Class II whitewater; higher skill level and/or boater safety training preferred)
- Minimum gear:
 - Canoe or kayak (no paddleboards, rafts, or catarafts)
 - Personal flotation device (Type III or Type V)
 - Helmet
 - Closed-toe shoes
 - Wetsuit w/ splash gear OR thermals with dry suit
 - Warm hat/gloves

Access

Figure 3.1-1 shows the boat put-in and take-out areas utilized for the study. Two put-ins and two take-outs were made available for the study, though participants primarily used Put-In #1 (Spillway Ladder) and Take-Out #2 (Cabot Woods)⁵.

A close-up of the put-in area is shown in **Figure 3.1-2**. The put-ins are located near the base of the dam on river-left downstream of the existing Spillway Ladder. Both put-ins are accessible by walking across the IP Bridge and down informal pathways leading to the riverbank. Put-In #1 is located immediately downstream of the Spillway Ladder and requires paddlers to paddle around Peskeomskut Island via the left, center, or right channels. Put-In #2 is located approximately 800 feet farther downstream along the left bank and allows boaters to skip paddling around the island⁶.

Two take-out options were also made available during the study. Take-Out #1 is located on the upstream side of the Station No. 1 tailrace, which is accessible by an informal pathway leading down from the paved parking area (shown in **Figure 3.1-1**). Take-Out #2 is located downstream of the Rock Dam at the Cabot Woods Fishing Access trail (shown in **Figure 3.1-3**). Take-Out #1 (Station No. 1) was made available in case boaters needed to take-out early due to a safety concern, or to shorten the study reach and boating run time once a determination had been made regarding navigability around Rawson Island.

Rock Dam is a known hazard at certain flows. Only experienced whitewater paddlers with a trained rescue spotter (with throw bag) stationed below the rapid were permitted to navigate the left channel over Rock Dam during this study. Rock Dam navigability was not part of the assessment.

⁵ Put-In #1 was used for all flows. Take Out #2 was used for all flows except Flow #4. Boaters took out at Station No. 1 (Take-Out #1) for Flow #4 due to reduced daylight.

⁶ Note that while no boaters launched from Put-In #2 during the study, its ease of access/launching was visually assessed under the various study flows.

Flow Releases & Measurements

A range of test flows were scheduled to be released from Bascule Gate No. 1 at Turners Falls Dam. In addition, Station No. 1 was scheduled to generate during the study to be representative of FirstLight's AFLA bypass flow proposal during the paddling season, as the backwater effect of the tailwater release from the station may improve navigability upstream. The target release schedule originally proposed for the study is provided in **Table 3.2-1**. (The actual flows measured or calculated during the study varied from these targets and are provided in **Section 4**.)

Table 3.2-1: Target Flow Release Schedule

Flow No. ¹	Target Release Flow (cfs)		
	Bascule Gate #1	Station No. 1	TOTAL
1	500	1000	1500
2	670	1130	1800
3	1100	600	1700
4	900	600	1500

¹The order of Flows No. 3 & 4 were swapped in this table (with Flow 3 being the highest flow released from the bascule gate) to match the order of flows as actually released during the study.

After the adjustment of the bascule gate to release each test flow, a wait time of at least 30 minutes was provided to allow the flow to move through the bypass reach and stabilize.

The test flows were verified by collecting a flow measurement downstream of Peskeomskut Island during each flow release. This flow measurement was collected using an acoustic Doppler current profiler (ADCP). Additionally, the flow in the Fall River was measured and recorded on the day of the study using a digital flow meter.

3.3 Evaluation

For each test flow, boaters paddled the study reach and assessed navigability. Participating boaters completed a Pre-Run Boater Information Form prior to commencing the boating runs to collect contact information and background about the boater's type of watercraft, skill level, and boating history. Boaters then completed a Single Flow Evaluation Form after each flow run to evaluate the navigability of that flow. Upon completion of the final boating run, a post-evaluation discussion was facilitated to discuss the study and gather additional feedback from the participants.

A summary of the boater evaluation forms is provided in **Appendix A**. Original scanned forms are provided in **Appendix B** (Boater Information Forms) and **Appendix C** (Single Flow Evaluation Forms).

Photographs and/or videos were recorded at the following locations by the Study Team during each test flow:

- Put-In #1 (Spillway Ladder)
- Put-In #2
- Peskeomskut Island Right Channel
- Peskeomskut Island Center Channel
- Peskeomskut Island Left Channel
- Rawson Island Right Channel
- Rawson Island Center Channel

- Rawson Island Left Channel
- Rock Dam
- Cabot-Woods Take-Out

Photo/video locations are shown in **Figures 3.1-2** and **3.1-3**. Photos are provided in **Appendix D**. Videos can be viewed or downloaded from the following website⁷:

<https://gomezandsullivan.sharepoint.com/:f:/s/flims/Ek0EgG4dJqNOnHUyijwDjPIBd23ruRvysUPu3CA-ema4gg?e=hIYeFS>

Table 3.3-1 below provides a list of videos available on the website.

Table 3.3-1: List of Videos Taken during Boating Study

No.	Flow No.	Flow (cfs) ¹	Location	Channel	Boater(s)
1-01	1	214	Peskeomskut	Center	1, 2
1-02	1	214	Peskeomskut	Center	5, 10
1-03	1	214	Peskeomskut	Center + Right	3,4,6,7,8,9
2-01	2	276	Peskeomskut	Center	1,2
2-02	2	276	Peskeomskut	Center	6,7,8
2-03	2	276	Peskeomskut	Center + Right	4,5,9,10
2-04	2	276	Peskeomskut	Right	3,9
2-05	2	276	Rawson	Right	1,2
2-06	2	276	Rawson	Right	9
2-07	2	276	Rock	Left	-
3-01	3	545	Peskeomskut	Center + Right	3,5,10
3-02	3	545	Peskeomskut	Right	7,8,9
3-03	3	545	Put-In 2	Center	5,10
3-04	3	545	Put-In 2	Center + Right	4,6
3-05	3	545	Put-In 2	Right	3,7,8
3-06	3	545	Rawson	Center + Right	-
3-07	3	545	Rawson	Right	1,2,5,10
3-08	3	545	Rawson	Right	3
3-09	3	545	Rock Dam	Left	7,8
4-01	4	376	Peskeomskut	Center	1,2
4-02	4	376	Peskeomskut	Center + Right	3,4,5,9,10
4-03	4	376	Put-In 2	Center + Right	All

¹Calculated release from Bascule Gate #1 based on flow measured below Peskeomskut Island less flow measured in Fall River (71 cfs). See **Table 4.1-1** for additional details on flows during the study.

Data and feedback collected from the demonstration flow study were used to evaluate navigability of the bypass reach by recreational boaters.

⁷ This website is only accessible by invited users. Contact Gomez and Sullivan for access for additional users if needed.

4 RESULTS

The boating demonstration flow study was conducted on November 9, 2021. A team of volunteer boaters, observers, and the Study Team gathered at the site to visually and directly assess navigability in the study area under various flows.

4.1 Flow Conditions

The actual flow conditions during the study varied from the original target flow releases presented previously in **Table 3.2-1**. **Table 4.1-1** below provides the actual flows experienced by boaters in the upper and lower bypass reach as well as the calculated actual flows released from Bascule Gate #1 during the study.

Table 4.1-1: Actual Flows Measured and Calculated during the Study

Flow No.	Start Time	Actual Flow (cfs)				
		<i>Measured Flow below Peskeomskut Is.</i>	<i>Measured Flow in Fall River</i>	<i>Calculated Release from Bascule Gate #1</i>	<i>Station No. 1 Generation</i>	<i>Total Flow at Rawson Island</i>
		A	B	A - B = C	D	A + D = E
1	8:30 AM	285	71	214	1010	1295
2	10:40 AM	347	71	276	1080	1427
3	12:55 PM	616	71	545	560	1176
4	2:05 PM	447	71	376	560	1007

Additionally, Cabot Station (downstream of the study area) was generating approximately 41 megawatt-hours (MWh) during the study, with about 9,000 cfs passing through the station.

4.2 Participants

Ten boaters participated in the study. The boaters utilized four canoes (solo and tandem) and three kayaks during study, for a total of seven boats. Boaters were asked to rate their skill level associated with their watercraft, ranging from novice to expert. Two boaters considered themselves novices, four considered themselves intermediate, three considered themselves advanced, and one considered himself an expert. Four of the boaters indicated that they had paddled the study reach previously, while six had not.

4.3 Navigability

Boaters were also asked to evaluate each flow based on their watercraft and skill level for various characteristics, rating each characteristic on a scale ranging from -2 (totally unacceptable) to 2 (totally acceptable). Characteristics included navigability, safety, ease of put-in, scrapes/bumps, and portages for each flow experienced. Responses for each of the rated characteristics were averaged by flow. **Table 4.3-1** summarizes the average rating of each characteristic for a given flow.

Table 4.3-1: Average Boater Ratings for Evaluated Characteristics by Flow

Characteristic	Rating ¹			
	Flow 1 (285/1,295 cfs) ²	Flow 2 (347/1,427 cfs) ²	Flow 3 (616/1,176 cfs) ²	Flow 4 (447/1,007 cfs) ²
Navigability	Neutral -0.40	Unacceptable -0.70	Acceptable 0.50	Unacceptable -0.50
Safety	Neutral 0.10	Neutral -0.20	Acceptable 0.60	Neutral 0.00
Ease of Put-In	Neutral 0.22	Neutral 0.30	Neutral 0.40	Neutral 0.20
Scrapes/Bumps	Unacceptable -0.60	Unacceptable -0.89	Neutral 0.38	Unacceptable -0.67
Portages	Neutral -0.11	Neutral -0.11	Acceptable 1.00	Neutral -0.13

¹Key to ratings available for boaters to choose from: -2 = Totally Unacceptable; -1 = Unacceptable; 0 = Neutral; 1 = Acceptable; 2 = Totally Acceptable. Average rating values were assigned to the nearest rating category.

²Flow above Station No. 1/Flow below Station No. 1.

Two areas of interest were the primary focus of the navigability evaluation: the channels around Peskeomskut Island immediately below Turners Falls Dam and the channels around Rawson Island below Station No. 1 at the downstream extent of the study reach. At Peskeomskut Island, the left channel was unnavigable under all assessed flows, but boaters were able to paddle the center-right and far-right channels (with varying level of difficulty) under all flows. The center-right channel is narrow and flume-like, while the far-right channel is more riffle-like. Boater feedback was mixed on which channel would be the preferable and/or safer route under the range of flows assessed.

At Rawson Island, boaters were able to navigate the far-right channel with no issues under all assessed flows. The center-right channel was unnavigable under all flows. Several experienced whitewater boaters took the left channel around Rawson Island to paddle over Rock Dam, which was runnable but not recommended for novice paddlers.

Put-In #2, located approximately 800 feet downstream of the Spillway Ladder and Put-In #1, was determined to be an acceptable put-in option for boaters wishing to bypass Peskeomskut Island. However, the path to access Put-In #2 would require some modification and clearing to improve ease of access.

Flow #3 was determined to be the minimum navigable flow of those assessed during the study. This flow event was characterized by approximately 545 cfs released from Bascule Gate #1 (calculated), 71 cfs from the Fall River (measured), and 560 cfs from Station No. 1 (reported), for total flows of approximately 616 cfs below Peskeomskut Island (measured) and 1,007 cfs below Station No. 1 (calculated).

The difficulty of the bypass reach under Flow #3 was rated as Class II (Novice)⁸ by most boaters (seven boaters gave a rating of Class II, while two additional boaters gave a range of ratings that included Class II).

⁸ According to the International Scale of River Difficulty, Class II runs involve straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized

Lastly, boaters were asked how likely they were to return to the bypass reach for recreation under each flow. Boaters were more likely to return under conditions similar to Flow #3 than any other flow. At a minimum, all boaters indicated that they would at least “possibly” return to the bypass reach during conditions similar to Flow #3.

Overall, the results of the Turners Falls boating navigability study demonstrate that the bypass reach provides through-paddling opportunities for a variety of watercraft and skill levels. Flow #3 (545 cfs released from Bascule Gate #1) was determined to be the minimum navigable flow and the flow at which boaters are most likely to return to the bypass reach for recreational opportunities.

waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.

APPENDIX A: SUMMARY OF EVALUATION FORMS

Turners Falls Hydroelectric Project (No. 1889)
TURNERS FALLS BOATING NAVIGABILITY STUDY REPORT

Table A-1: Summary of Pre-Run Boater Information Forms

Question	Paddler									
	1	2	3	4	5	6	7	8	9	10
Watercraft Type	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe
Tandem Partner	Nancy Condon	Tom Condon	N/A	N/A	Noah Pollack	N/A	Bryan Pytko	Jim Sullivan	N/A	Deb Weissman
Years of Experience with Watercraft	50	50	25	40	45	15	34	1	20	30
Skill Level with Watercraft	Advanced	Intermediate	Intermediate	Intermediate	Novice	Advanced	Expert	Intermediate	Novice	Advanced
Paddling Days per Year	30	13	25	24	40	80	170	30	7	60
Previous Boating Experience with Study Reach	No	No	No	Yes	No	Yes	Yes	Yes	No	No

Turners Falls Hydroelectric Project (No. 1889)
TURNERS FALLS BOATING NAVIGABILITY STUDY REPORT

Table A-2: Summary of Single-Flow Evaluation Forms – Flow 1

Question		Paddler									
		1	2	3	4	5	6	7	8	9	10
Boat	Watercraft Type	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe
	Watercraft Loading	Light	Light	None	Light	None	Yes	None	None	Light	None
Route	Put-In Location	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1
	Take-Out Location	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2
	Channel around Peskeomskut Island	Center Right	Center Right	Far Right	Center Right	Center Right	Far Right	Far Right	Left	Far Right	Center Right
	Channel around Rawson Island	Far Right	Far Right	Far Right	Far Right	Far Right	Center Right	Left (Ctr. Right not possible due to ledge)	Left (Ctr. Right unrunnable, no water)	Far Right	Far Right
No.	Scrapes/Bumps	5	5	5	11	1	5	10	10	11	2
	Portages	0	N/A	0	0	0	0	1	1	0	0
Rating ¹	Navigability	-1	1	-2	-1	1	1	-1	-1	-1	0
	Safety	1	1	-1	0	1	0	-1	-1	0	1
	Ease of Put-In	1	1	2	N/A	0	-1	-2	-1	1	1
	Scrapes/Bumps	-1	0	-2	-1	1	0	-1	-1	-1	0
	Portages	0	0	0	0	0	0	0	-1	0	N/A
Evaluation	Likelihood of Return	Possibly	Possibly	N/A	Definitely Not	Probably	Possibly	Possibly	Definitely Not	Definitely Not	Possibly
	Difficulty Rating ²	2	2	N/A	1	1	4	2	2	2	2
	Min. Recommended Skill Level	Intermediate	Intermediate	N/A	Novice	Novice	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Other	Difficulties	Lots of maneuvering needed to avoid pillows and exposed rocks	Navigating many pillows and exposed rocks in center right channel of Peskeomskut Island and 3 places throughout bypass	N/A	Got completely stopped once in center right channel of Peskeomskut Island	N/A	Opening ledges tough to read near Put-In #1	Peskeomskut Island: much scraping, some pushing. Improvements are needed for dry land access to be more accessible to a wider range of paddlers.	Center channel at Rawson Island is unpassable; rock ledge out of the water	Stuck in upper far right channel around Peskeomskut Island	Shallow water in ctr. R channel around Peskeomskut required careful river running. Boulder garden above Rawson requires maneuvering in quickly moving water.
	Comments	Whitewater reading and paddling skills necessary to maneuver through rock gardens	It is necessary to have an ability to maneuver a boat with confidence, although not life threatening if breached	Flow around Rawson Island was ok	N/A	N/A	Low - only to be done out of necessity	More water would provide a much better experience at the 1st rapid (Peskeomskut). The rest was decent water.	Novice paddlers would struggle around Peskeomskut Island	Upper far-right channel around Peskeomskut was bony; too low to "navigate" successfully for a novice. The rest of the reach was ok. The far-right channel around Rawson was ok.	Paddlers must be able to "read" the river to avoid hazards, mostly boulders, as flow increases below Station #1. Far-right channel around Peskeomskut Island is not recommended.

¹Key to Ratings: -2 = Totally Unacceptable; -1 = Unacceptable; 0 = Neutral; 1 = Acceptable; 2 = Totally Acceptable

²Based on the International Scale of River Difficulty: Class I, Class II (Novice), Class III (Intermediate), Class IV (Advanced), Class V (Expert)

Note: Some responses edited for clarity. See **Appendix B** for original evaluation forms.

Turners Falls Hydroelectric Project (No. 1889)
TURNERS FALLS BOATING NAVIGABILITY STUDY REPORT

Table A-3: Summary of Single-Flow Evaluation Forms – Flow 2

Question		Paddler									
		1	2	3	4	5	6	7	8	9	10
Boat	Watercraft Type	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe
	Watercraft Loading	Light	Light	None	Light	None	Yes	None	None	Light	None
Route	Put-In Location	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1
	Take-Out Location	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2
	Channel around Peskeomskut Island	Center Right	Center Right	Far Right	Center Right	Center Right	Far Right	Center Right	Center Right	Far Right	Center Right
	Channel around Rawson Island	Far Right	Far Right	Far Right	Left	Far Right	Center Right	Left	Left (Center Right was un-runnable)	Far Right	Far Right
No.	Scrapes/Bumps	7	8	5	9	7	5	10	N/A	10	7
	Portages	0	0	0	0	0	0	1	N/A	0	0
Rating ¹	Navigability	-2	-1	-2	-1	0	1	-1	-1	-1	1
	Safety	0	-1	-1	0	1	0	-1	-1	0	1
	Ease of Put-In	1	1	1	0	1	-1	-1	-1	1	1
	Scrapes/Bumps	-2	-1	N/A	-1	-1	0	-1	-1	-1	0
	Portages	0	1	N/A	0	0	0	-1	-1	0	0
Evaluation	Likelihood of Return	Possibly	Probably	Definitely Not	Definitely Not	Possibly	Possibly	Probably	Definitely Not	Definitely Not	Possibly
	Difficulty Rating ²	2	2	2	1	1	4	2	2	2	2
	Min. Recommended Skill Level	Intermediate	Intermediate	Intermediate	Novice	Novice	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Other	Difficulties	Center Right at Peskeomskut Island was worse than during Flow #1.	More difficulty around Peskeomskut this time. Two absolute stops and more scrapes. Other sections much the same. After Sta. 1, more water made for just nice, navigable runs.	Stuck on rocks at top island, far right.	One stop at center right channel at Peskeomskut Island. Pushed off the rock with the paddle.	Stuck once at right center of top island. Scraped 7 times mostly right center of top island.	Opening ledges tough to read near Put-In #1.	Got stuck at bottom of Center Right chute. Run felt like the same flow as previous.	No noticeable difference from Flow #1	Stuck in upper far right channel	Hit more rocks in center chute, oddly enough
	Comments	Top section around Peskeomskut Is. was worse or at least no better than at Flow #1. Lower section below Sta. 1 was easier to paddle with more flow covering some rocks and making others more noticeable.	Same or bonier in Center Right chute around Peskeomskut Island as the previous, lower level	Flow around Rawson Island was acceptable	There really wasn't any difference from Flow #1. One or two less scrapes, but this might have been an effect of learning the channel.	N/A	Low - only to be done out of necessity	No noticeable difference from the previous run	Very easy to get "lost" in center channel first rapids	This was the same experience as Flow #1	The additional flow did not materially change the experience

¹Key to Ratings: -2 = Totally Unacceptable; -1 = Unacceptable; 0 = Neutral; 1 = Acceptable; 2 = Totally Acceptable

²Based on the International Scale of River Difficulty: Class I, Class II (Novice), Class III (Intermediate), Class IV (Advanced), Class V (Expert)

Note: Some responses edited for clarity. See **Appendix C** for original evaluation forms.

Table A-4: Summary of Single-Flow Evaluation Forms – Flow 3

Question		Paddler									
		1	2	3	4	5	6	7	8	9	10
Boat	Watercraft Type	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe
	Watercraft Loading	Light	Light	None	Light	None	Yes	None	None	Light	None
Route	Put-In Location	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1
	Take-Out Location	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2	Take-Out #2
	Channel around Peskeomskut Island	Center Right	Center Right	Far Right	Center Right	Center Right	Far Right	Far Right	Far Right	Far Right	Center Right
	Channel around Rawson Island	Far Right	Far Right	Far Right	Left	Far Right	Far Right	Left	Left	Far Right	Far Right
No.	Scrapes/Bumps	1	1	3	3	3	4	3	3	5	N/A
	Portages	0	0	0	0	0	0	0	0	0	N/A
Rating ¹	Navigability	1	2	-1	0	1	1	-1	0	0	2
	Safety	1	1	0	0	1	0	0	0	1	2
	Ease of Put-In	1	1	1	0	1	-1	0	-1	1	1
	Scrapes/Bumps	1	2	N/A	0	1	0	-1	0	0	N/A
	Portages	1	2	N/A	0	2	0	N/A	1	1	N/A
Evaluation	Likelihood of Return	Probably	Definitely Yes	Possibly	Possibly	Probably	Possibly	Definitely Yes	Possibly	Probably	Definitely Yes
	Difficulty Rating ²	2	2	2	2	1 to 2	4	2	2	2	2 to 3
	Min. Recommended Skill Level	Intermediate	Intermediate	Intermediate	Novice	Novice	Intermediate	Intermediate	Intermediate	Novice	Novice (summer) and Intermediate (winter temps)
Other	Difficulties	Top around Peskeomskut Island much better at this flow	Fun. Only one scrape. Still skillful navigation helpful. Must maintain heading in Ctr. Right of Peskeomskut. Pillows require navigability in Far Right of Rawson.	N/A	This flow was better. No significant issues. Just a few bumps around the first island.	Just scrapes.	Pinned at Far Right ledges at opening ledges.	First rapid Class II, Rock dam Class III. We didn't get stuck this time, but it's still scrape-y. Below first rapid was about the same level of sufficient flow.	N/A	Bumps upper Far Right channel around Peskeomskut	Two minor bumps in Center Right chute around Peskeomskut
	Comments	Still requires river reading and maneuverability skills	Much improved from previous run levels. Not as long but ability to direct a canoe is still necessary (adds to the fun)	N/A	N/A	N/A	Tougher to navigate rocks	Getting better. A little more water would make it a fluid run but at this level it is much more passable.	Not great, but far better than the AM runs. Still not appropriate for beginners, the rapid lines are scratchy and hard to follow. At this level, first rapid is a real class II.	I feel this was minimum acceptable flow	Nice level. Still a little bumpy up high, but fun and pretty. Difficult to get around gate before pedestrian bridge with canoe. Need larger opening.

¹Key to Ratings: -2 = Totally Unacceptable; -1 = Unacceptable; 0 = Neutral; 1 = Acceptable; 2 = Totally Acceptable

²Based on the International Scale of River Difficulty: Class I, Class II (Novice), Class III (Intermediate), Class IV (Advanced), Class V (Expert)

Note: Some responses edited for clarity. See **Appendix C** for original evaluation forms.

Turners Falls Hydroelectric Project (No. 1889)
TURNERS FALLS BOATING NAVIGABILITY STUDY REPORT

Table A-5: Summary of Single-Flow Evaluation Forms – Flow 4

Question		Paddler									
		1	2	3	4	5	6	7	8	9	10
Boat	Watercraft Type	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe	Canoe	Kayak	Canoe
	Watercraft Loading	Light	Light	None	Light	Yes	Yes	None	None	Light	Yes
Route	Put-In Location	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1	Put-In #1
	Take-Out Location	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #1	Take-Out #2	Take-Out #2
	Channel around Peskeomskut Island	Center Right	Center Right	Center Right	Center Right	Far Right	Center Right	Center Right	Center Right	Far Right	Far Right
	Channel around Rawson Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No.	Scrapes/Bumps	4	3	3	6	8	3	10	10	7	4
	Portages	0	0	0	0	0	0	1	0	0	0
Rating ¹	Navigability	-1	-1	-1	-1	0	1	-1	-1	-1	1
	Safety	1	-1	0	0	1	0	-1	-1	0	1
	Ease of Put-In	1	1	1	0	0	-1	-1	-1	1	1
	Scrapes/Bumps	-1	-1	N/A	-1	-1	0	-1	-1	-1	1
	Portages	0	0	N/A	N/A	0	0	-1	-1	0	1
Evaluation	Likelihood of Return	Possibly	Possibly	Possibly	Definitely Not	Definitely Not	Possibly	Definitely Yes	Definitely Not	Possibly	Probably
	Difficulty Rating ²	2	2	2	2	1	4	2	2	2	2 to 3
	Min. Recommended Skill Level	Intermediate	Intermediate	Intermediate	Novice	Novice	Intermediate	Intermediate	Intermediate	Intermediate	Novice
Other	Difficulties	Difficult maneuvering around Peskeomskut Island	More scrapes than Flow #3 in Center Right of Peskeomskut island. Bony; difficult for through-paddlers or novices.	N/A	Experienced one stop (also 6 scrapes) in the Center Right channel around Peskeomskut Island. The stop turned me sideways and I had to push off the bottom with my paddle to get free.	Far Right of Peskeomskut Island much too low. Like being in a pinball machine.	Paddler needs to know lines at opening ledges	Went exploring in Center Right chute around Peskeomskut. The two ledges were fun, but we got stuck. Could have scratched down left.	N/A	Bumps and stuck in upper Far Right channel around Peskeomskut	"Pin ball" around Peskeomskut Island. More water would have made it easier.
	Comments	Requires maneuvering skills and river reading skill.	Hard to find a paddle-able route at this flow.	N/A	N/A	N/A	I ran different lines in Flow #3 out #4 was far better than #1 or #2	Lower than desired	All levels today were too low. 600 cfs [Flow #3] was close. 670 would be good to try.	Too low to "navigate" successfully.	Would have been difficult with fully loaded canoe, but generally enough water to get down with occasional bouncing off rocks

¹Key to Ratings: -2 = Totally Unacceptable; -1 = Unacceptable; 0 = Neutral; 1 = Acceptable; 2 = Totally Acceptable

²Based on the International Scale of River Difficulty: Class I, Class II (Novice), Class III (Intermediate), Class IV (Advanced), Class V (Expert)

Note: Some responses edited for clarity. See **Appendix C** for original evaluation forms.

APPENDIX B: PRE-RUN BOATER INFORMATION FORMS

Pre-Run Boater Information Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/6/21

Name: E. BRADLEY WATKINS

Email Address: BRAD@ADVENTUREKAYAKS.COM

1. What type of watercraft will you be using for this boating flow evaluation? (Check one)

- Canoe Kayak Other (describe): _____
(TOWERING)

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:

X

3. How many years have you been using this type of watercraft? 15 years

4. How would you rate your skill level with this type of watercraft? (Check one)

Whitewater classifications defined on next page.

- Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running ~~Class IV whitewater~~ Sea kayak)
 Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 80 days

(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 45 (must be at least 18 years old to participate)

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? (Check all that apply)

- Boat Shuttle Person Shuttle (must be vaccinated and masked)

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Name: Paul Jahnige

Email Address: pjahnige@gmail.com

1. What type of watercraft will you be using for this boating flow evaluation? (Check one)
- Canoe Kayak Other (describe): _____

(TWINNS)

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
- _____

3. How many years have you been using this type of watercraft? 20 years

4. How would you rate your skill level with this type of watercraft? (Check one)

Whitewater classifications defined on next page.

- Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 7 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 54 *(must be at least 18 years old to participate)*

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? (Check all that apply)

- Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/2021
Name: Debra Weisenstein
Email Address: dkweis@alum.mit.edu

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Nash Pollack

3. How many years have you been using this type of watercraft? 45 years

4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.
 Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 40 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 65 *(must be at least 18 years old to participate)*

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21
Name: Jack Gill
Email Address: jackgill@yahoo.com

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____
(OCI WW)
2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Solo
3. How many years have you been using this type of watercraft? 40+ years
4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.
 Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)
5. In general, how many days per year do you spend paddling? 24 days
(Please use a whole number rather than a range; it's fine to estimate.)
6. What is your age? 67 *(must be at least 18 years old to participate)*
7. Have you boated this reach before? Yes No
8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 1/9/21
Name: Conrad Nuxhmann
Email Address: ccn12@live.com

1. What type of watercraft will you be using for this boating flow evaluation? (Check one)

- Canoe Kayak Other (describe): _____
(ww)

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:

3. How many years have you been using this type of watercraft? 25 years

4. How would you rate your skill level with this type of watercraft? (Check one)

Whitewater classifications defined on next page.

- Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 25 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 63 (must be at least 18 years old to participate)

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? (Check all that apply)

- Boat Shuttle Person Shuttle (must be vaccinated and masked)

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11-9-21
Name: Nancy Condon
Email Address: nancy@paddleforwater.net

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Tom Condon

3. How many years have you been using this type of watercraft? 50 years

4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.
 Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 5-20 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 61 *(must be at least 18 years old to participate)*

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21
Name: Tom Condon
Email Address: science@condon.net

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Darcy Condon

3. How many years have you been using this type of watercraft? 50+ years

4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.

- Novice (comfortable running Class II whitewater)
- Intermediate (comfortable running Class III whitewater)
- Advanced (comfortable running Class IV whitewater)
- Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 30 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 61 *(must be at least 18 years old to participate)*

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/4/21

Name: Nash Pollock

Email Address: Nash@VermontRiverConservancy.org

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____

2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Deb Weisman

3. How many years have you been using this type of watercraft? 30 years

4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.

- Novice (comfortable running Class II whitewater)
- Intermediate (comfortable running Class III whitewater)
- Advanced (comfortable running Class IV whitewater)
- Expert (comfortable running Class V whitewater)

5. In general, how many days per year do you spend paddling? 80 days
(Please use a whole number rather than a range; it's fine to estimate.)

6. What is your age? 40 *(must be at least 18 years old to participate)*

7. Have you boated this reach before? Yes No

8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Name: Brian Pytko

Email Address: _____

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____
Mad River Legend 16'
2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Jim Sullivan
3. How many years have you been using this type of watercraft? 1 years
4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.
 Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)
5. In general, how many days per year do you spend paddling? 30 days
(Please use a whole number rather than a range; it's fine to estimate.)
6. What is your age? 46 *(must be at least 18 years old to participate)*
7. Have you boated this reach before? Yes No
8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

Pre-Run Boater Information Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Name: James Sullivan

Email Address: _____

1. What type of watercraft will you be using for this boating flow evaluation? *(Check one)*
 Canoe Kayak Other (describe): _____
Mad River Legend 16'
2. Please provide the name of your tandem paddling partner (in the same boat with you), if any:
Brian Pytko
3. How many years have you been using this type of watercraft? 34 years
4. How would you rate your skill level with this type of watercraft? *(Check one)*
Whitewater classifications defined on next page.
 Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)
5. In general, how many days per year do you spend paddling? 170 days
(Please use a whole number rather than a range; it's fine to estimate.)
6. What is your age? 40 *(must be at least 18 years old to participate)*
7. Have you boated this reach before? Yes No
8. Will you be using the provided shuttle services for this study? *(Check all that apply)*
 Boat Shuttle Person Shuttle *(must be vaccinated and masked)*

APPENDIX C: SINGLE-FLOW EVALUATION FORMS

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: AM 11:30
 Name: Tom Condon

- Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs #1 670 cfs 900 cfs Other: _____
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note: "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle the number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	✓	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>5</u>	-2	-1	0	1	2	✓	
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
lots of maneuvering needed to avoid allows exposed rocks	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run **at this flow**? (If appropriate, provide a range of classification for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**?

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

whitewater reading and paddling skills
necessary to maneuver through rock gardens

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with able training. Risk to swimmers is high; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers, fast current and good boat control in tight passages or around ledges are often required. Large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Center Right @ P. Island was worse than at 500 cfs.	

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification for this flow.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

Top section around P. Island was worse or at least no better than @ 500 cfs.
 Lower section below station #1 was easier to paddle with more flow covering some rocks & making others more noticeable

International Whitewater Scale

- **Class I** - Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with a little portage or a few timers with self-rescue ability.
- **Class II** - Straightforward rapids with wide, clear channels which are evident without scouting. Occasional portage may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance while helpful is seldom needed.
- **Class III** - Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers, fast current and good boat control in tight passages or around ledges are often required. Large waves or strainers may be present out are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long portages.
- **Class IV** - Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** - Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Time: 2:30

Name: Tom Condon

1. Please indicate which flow release this survey corresponds to. (Check one)

500 cfs 670 cfs 900 cfs Other: _____

~~N/A~~ 600 #3

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note: "left" & "right" refer to direction facing downstream.)

Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.

(Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	2		
Ease of put-in	-2	-1	0	<u>1</u>	2		
Scrapes/bumps No. of times: <u>1</u>	-2	-1	0	<u>1</u>	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	<u>1</u>	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Top around P. island much better at this flow	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

Definitely not Possibly Probably Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classification for **this flow**)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

Beginner Novice Intermediate Advanced Expert

12. Please provide any additional comments about **this flow** below.

still requires river reading & maneuverability skills!

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little scouting. Risk to swimmers slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers – fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable body turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: _____

Name: Tom Condon

1. Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: 4th flow

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream)
 Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	✓	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>4</u>	-2	-1	0	1	2	✓	
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
difficult maneuvering around P. Island	

9. Are you likely to return for future boating along this reach at **this flow**? (Check all that apply.)

- Definitely not Possibly Probably Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classification for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check all that apply.)

- Beginner Novice Intermediate Advanced Expert

12. Please provide any additional comments about **this flow** below.

Requires strong maneuvering skills and river reading skill.

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with care. Paddling. All types swimmers. Right self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance is often helpful. Judgment needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers – fast current and good boat control in tight passages or around ledges are often required. Large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11-9-21

Time: 11:30

Name: Nancy Condon

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____

#1

2. Did you load your boat with gear or other weights for this run? Yes No

slight

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>5x</u>	-2	-1	0	1	2		
Portages ¹ No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
navigating many pillows & exposed rocks	Center R. channel of Peskeomskut 2sl. → 3 places throughout Bypass

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

Definitely not

Possibly

Probably

Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classification for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

Beginner

Novice

Intermediate

Advanced

Expert

12. Please provide any additional comments about **this flow** below.

It is necessary to have ~~navigability~~ an ability to maneuver a boat with confidence. Although not life threatening if breached.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
More difficulty around Peskumokut this time. Some absolute stops & more scrapes.	
Other sections much the same, and after station 1 & more water made for just nice, navigable runs.	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classification for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little edging. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers or fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11-9-21
 Time: _____
 Name: Taney Condon

- Please indicate which flow release this survey corresponds to. *(Check one)*
 500 cfs 670 cfs 900 cfs Other: _____
#3
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: *(Note "left" & "right" refer to direction facing downstream.)*
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
(Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps <i>No. of times: 4</i>	-2	-1	0	1	2		
Portages ¹ <i>No. of times: 0</i>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Fun - waves - only 1 scrape - still skillful navigation helpful. Pillows require maneuverability	Center R of Peskomskat For R of Rowson

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classifications for **this** flow.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

Much improved from previous run levels. Not as long but ability to direct a canoe is still necessary (Adds to the fun)

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable easy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11-9-21
 Time: 4th run
 Name: Nancy Condon

4

1. Please indicate which flow release this survey corresponds to. (Check one) 500 cfs / 480
 500 cfs 670 cfs 900 cfs Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island: N/A
 Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	0	1	2		
Safety	-2	<u>-1</u>	0	1	2		
Ease of put-in	-2	-1	0	<u>1</u>	2		
Scrapes/bumps No. of times: <u>3x</u>	-2	<u>-1</u>	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	<u>0</u>	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
More scrapes than 3 rd run - long - difficult for thru paddlers or novices.	Center R. of P. 2sl.

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Hard to find a paddle-able route at this flow.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 9:30 AM
 Name: Conrad Northrup

- Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
 #1
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	<input checked="" type="checkbox"/>	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>5</u>	-2	-1	0	1	2		
Portages ¹ <u>None</u> No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

Note: Flow around Rawson Island was OK.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: _____

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/2021
 Time: 12:30 PM
 Name: Conrad Nuthmann

1. Please indicate which flow release this survey corresponds to. (Check one)
 - 500 cfs
 - 670 cfs
 - 900 cfs
 - Other: _____

#2
2. Did you load your boat with gear or other weights for this run? Yes No
3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 - Left
 - Center Right (deep chute)
 - Far Right
 - N/A (put in below island)
6. Channel taken past Rawson Island:
 - Left (Rock Dam)
 - Center Right
 - Far Right
 - N/A (took out above island)
7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	(-2)	-1	0	1	2	✓	
Safety	-2	(-1)	0	1	2		
Ease of put-in	-2	-1	0	(1)	2		
Scrapes/bumps No. of times: <u>5</u>	-2	-1	0	1	2		
Portages ¹ <u>None</u> No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

Note: Flow around Rawson was acceptable

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
5 x 9' ck on rocks	Top Island Ferry
	Rt 367

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 2

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 1:30
 Name: Conrad Nathman

1. Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
- #3
2. Did you load your boat with gear or other weights for this run? Yes No
3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
6. Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	0	1	2		
Portages ¹ <u>None</u> No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 2

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 2:30
 Name: Conrad Nixhman

1. Please indicate which flow release this survey corresponds to. (Check one)
- 500 cfs 670 cfs 900 cfs Other: 500
#4
2. Did you load your boat with gear or other weights for this run? Yes No
3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
- Left Center Right (deep chute) Far Right N/A (put in below island)
6. Channel taken past Rawson Island:
- Left (Rock Dam) Center Right Far Right N/A (took out above island)
7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	<u>0</u>	1	2	<input checked="" type="checkbox"/>	
Safety	-2	-1	<u>0</u>	<u>1</u>	2		
Ease of put-in	-2	-1	0	<u>1</u>	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	0	1	2		
Portages ¹ <u>None</u> No. of times: <u> </u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 2

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Jill is nice!

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 11:15 AM

Name: Jack Gill

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No *Loaded just with a sm. Dry bag, water and throw bag.*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle the number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Safety	-2	-1	<u>0</u>	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>11</u>	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Portages ¹ No. of times: <u>0</u>	-2	-1	<u>0</u>	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Got completely stopped	once Center Rt. channel at Peskeom. Island

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

- Definitely not Possibly Probably Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification for **this** flow.)

This flow rates as Class: 1

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

- Beginner Novice Intermediate Advanced Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little planning. Risk to swimmers is slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers and fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 12:30 PM

Name: Jack Gill

1. Please indicate which flow release this survey corresponds to. (Check one) 2nd Flow
- 500 cfs 670 cfs 900 cfs Other: _____
#2
2. Did you load your boat with gear or other weights for this run? Yes No Just a day trip load,
3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
- Left Center Right (deep chute) Far Right N/A (put in below island)
6. Channel taken past Rawson Island:
- Left (Rock Dam) Center Right Far Right N/A (took out above island)
7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	✓	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>9</u>	-2	-1	0	1	2	✓	
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
One Stop at center Rt. Channel ent	Peskeom Island. Pushed off the rock with the paddle

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not Possibly Probably Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 1

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner Novice Intermediate Advanced Expert

12. Please provide any additional comments about **this flow** below.

There really wasn't any difference from 500 cfs. One or two less scrapes than 570 cfs but this might have been an effect of learning the channel.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9

Time: 2:50

Name: Jack Gill

1. Please indicate which flow release this survey corresponds to (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
The 3rd Flow

2. Did you load your boat with gear or other weights for this run? Yes No *A day trip load*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
This flow was better. No significant issues. Just a few bumps around the 1st island	

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)
- Definitely not Possibly Probably Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classifications for **this** flow.)

This flow rates as Class: 2

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner Novice Intermediate Advanced Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 3:30 PM

Name: Jack Gill

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: 4th Flow

2. Did you load your boat with gear or other weights for this run? Yes No

Just a day trip load

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	✓	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>6</u>	-2	-1	0	1	2	✓	
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Experienced one stop (also 6 scrapes) in the center of channel around Peskeom. Island. The stop turned me sideways and I had to push off the bottom with my paddle to get free.	in the center of channel around Peskeom. Island.

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)
- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classifications for **this** flow.)

This flow rates as Class: 2 minus

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 11:30 am
 Name: Debra Weisenstein

- Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
#1
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of cut-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>1</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty. None

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification for **this** flow.)

This flow rates as Class: I

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/2021

Time: 12:50

Name: Debra Weisenstein

1. Please indicate which flow release this survey corresponds to. (Check one)

500 cfs 670 cfs 900 cfs Other: _____

#2

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
(Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>7</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Stuck once scraped 7 times	R. Center of top island mostly R. Center of top island

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification **at this flow**.)

This flow rates as Class: I

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers and fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/2021
 Time: 2:45
 Name: Deb Weisenstein

1. Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
#3
2. Did you load your boat with gear or other weights for this run? Yes No
3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
6. Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location or Bypass
Just scrape	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run **at this flow**? (If appropriate, provide a range of classifications for **this flow**)

This flow rates as Class: I-II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little scouting. Risk to swimmers is high; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/2021

Time: 3:30 PM

Name: Deb Weisenstein

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 670 cfs
 900 cfs
 Other: 450
#4

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note: "left" & "right" refer to direction facing downstream.)
 Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)

6. Channel taken past Rawson Island:
 Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of out-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>8</u>	-2	-1	0	1	2		
Portages No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Far R of island much too low	
like being in a pinball machine	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Not far Right
- Possibly
- Probably
- Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classification for **this flow**.)

This flow rates as Class: I+

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
- Novice
- Intermediate
- Advanced
- Expert

12. Please provide any additional comments about **this flow** below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little scouting. Risk to swimmers is high; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance while helpful but seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an inexperienced paddler. Complex maneuvers and good current and boat control in tight passages or around ledges are often required, large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 11:30 AM

Name: BRAD WALKER

- Please indicate which flow release this survey corresponds to. (Check one)
 - 500 cfs #1
 - 670 cfs
 - 900 cfs
 - Other: _____
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 - Left
 - Center Right (deep chute)
 - Far Right
 - N/A (put in below island)
- Channel taken past Rawson Island:
 - Left (Rock Dam)
 - Center Right
 - Far Right
 - N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	<u>0</u>	1	2		
Ease of put-in	-2	<u>-1</u>	0	1	2		
Scrapes/bumps No. of times: <u>5</u>	-2	-1	<u>0</u>	1	2		
Portages ¹ No. of times: <u>4</u>	-2	-1	<u>0</u>	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Opening Ledges back to head	Run #1

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Low - only to be done out of necessity -

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 12:45 PM

Name: Bo Walker

EFFECTIVELY THE SAME AS 500 cfs

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____

#2

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: _____	-2	-1	0	1	2		
Portages ¹ No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classifications for **this** flow.)

This flow rates as Class: _____

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Time: 2:45 PM

Name: Brian Warner

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 670 cfs
 900 cfs
 Other: _____
#3

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	1	0	1	2		
Scrapes/bumps No. of times: <u>4</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Pinned @ for crit ledge	Open ledge

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II/III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

toxic to navigate shallow rocks

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 3:30 PM
 Name: Brian Walker

- Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: #4
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	<u>0</u>	1	2		
Ease of put-in	-2	<u>0</u>	0	1	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	<u>0</u>	1	2		
Portages ¹ No. of times: <u>4</u>	-2	-1	<u>0</u>	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Paddler needs to learn lines	Openly ledges

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Iron diffcult line in flow #3 out #4 was for
Gaffer thru #1,2

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 11:27

Name: Jim Sullivan

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____
 #1

2. Did you load your boat with gear or other weights for this run? Yes No *Just Brian*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right *NOT passable w/ rock ledge* Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Safety	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Ease of put-in	<u>-2</u>	-1	0	1	2	<i>NA</i>	
Scrapes/bumps No. of times: <i>10+?</i>	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Portages ¹ No. of times: <u>1</u>	-2	-1	<u>0</u>	1	2	<input checked="" type="checkbox"/>	

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
1st Island much scraping some pushing far right much talk about improving D/L and access to be more accessible to a wider range of paddlers	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 2

1st rapid is a scrape (chute) is a III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

more water would provide a much better experience at the 1st rapid. The rest had decent water.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 12:46
 Name: Jim Sullivan

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____

#2

2. Did you load your boat with gear or other weights for this run? Yes No *Just Bring again*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

The Bottom is not deep

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	✓	
Safety	-2	-1	0	1	2	✓	
Ease of put-in	-2	-1	0	1	2	✓	
Scrapes/bumps No. of times: <u>10</u>	-2	-1	0	1	2	✓	
Portages ¹ No. of times: <u>1</u>	-2	-1	0	1	2	✓	

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
got stuck at bottom of center right chute	
Run felt like the same flow as previous	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: 2
 1st rapid still to low Rock dam CI III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

No noticeable difference from previous run

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
we didn't get stuck this time But its still scummy	Far right 1st rapid
Below first rapid was about the same level Sufficient flow	

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)
- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classifications for **this** flow.)

This flow rates as Class: 2
1st rapid class II rock dam class III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

getting better a little more water
would make it a fluid run but at this
level it is much more passable

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21
 Time: 3:30?
 Name: Jim Sullivan

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 670 cfs
 900 cfs
 Other: _____
cap 4 #4

2. Did you load your boat with gear or other weights for this run? Yes No *still got Brian*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)
went exploring

6. Channel taken past Rawson Island:

- Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>10+</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>1</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Went exploring in center chute the 2 ledges were fun but we got stuck	center chute
could have scratched down left	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Lower than desired.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Time: 11:27

Name: Brian Pytko

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 670 cfs
 900 cfs
 Other: _____
 #1

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

*Unavailable
No water*

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Safety	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Ease of put-in	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Scrapes/bumps No. of times: <u>10</u>	-2	<u>-1</u>	0	1	2	<input checked="" type="checkbox"/>	
Portages ¹ No. of times: <u>1</u>	-2	<u>0</u>	0	1	2	<input checked="" type="checkbox"/>	

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Center channel at Rawson Island is unpassable. Rock ledge out of the water.	Rawson Island

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

~~Intermediate~~
 Novice paddlers would struggle around Peskeomskut

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers and fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
No noticeable difference from 500 cfs.	

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Very easy to get "lost" in center channel
15+ rapids

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/21
 Time: 3rd Run
 Name: Brian Pytko

- Please indicate which flow release this survey corresponds to. (Check one)
 500 cfs 670 cfs 900 cfs Other: _____
? #3
- Did you load your boat with gear or other weights for this run? Yes No
- Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)
- Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)
- Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)
- Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)
- Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>3</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run at this flow (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
scribble	

9. Are you likely to return for future boating along this reach at this flow? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at this flow? (If appropriate, provide a range of classifications for this flow.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at this flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about this flow below.

Not great, but far better than the Am runs. Still not appropriate for beginners, the rapid lines are scratchy and hard to follow. At this level, 1st rapid is a real class II

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
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- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
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8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

All levels today were too low. 600 cfs. was close. 670 would be good to try.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
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- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
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Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 10 a.m.

Name: Paul Jahnige

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: _____

#1

2. Did you load your boat with gear or other weights for this run? Yes No

(Some)

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2	X	
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>9+2</u>	-2	-1	0	1	2	X	
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

Struck once

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Stuck	Upper Far Right

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Upper far Right was boney. Too low to "navigate" successfully for a novice, Rest was OK. Right of Rawson, OK.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
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Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 17:30

Name: Paul Jahnig

1. Please indicate which flow release this survey corresponds to. (Check one)
- 500 cfs 670 cfs 900 cfs Other: _____
- #2*

2. Did you load your boat with gear or other weights for this run? Yes No
- some*

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:
- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	<u>-1</u>	<u>0</u>	1	2	<u>X</u>	
Safety	-2	-1	<u>0</u>	1	2		
Ease of put-in	-2	-1	0	<u>1</u>	2		
Scrapes/bumps No. of times: <u>9+1</u>	-2	<u>-1</u>	0	1	2	<u>X</u>	
Portages ¹ No. of times: <u>0</u>	-2	-1	<u>0</u>	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.
1 stuck

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
stuck upper far right	—

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

This was the same experience as 500

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form

Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 10/9/21

Time: 1:30

Name: Paul Jahng

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 670 cfs
 900 cfs _{3rd}
 Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island) _{Some}

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>5</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Bumps	upper Far Right

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

I feel this was minimum acceptable flow.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 3 pm

Name: Paul Jahnige

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs 670 cfs 900 cfs Other: 500? ^{4th}

2. Did you load your boat with gear or other weights for this run? Yes No

some

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of put-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>7</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Bumps & Stuck	Upper Far Right

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range of classifications for **this flow**.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Too Low to "navigate" successfully

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 11:30 AM

Name: Noah Bottock

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs #1 (300 cfs) 670 cfs 900 cfs Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Check one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Ease of out-in	-2	-1	0	1	2		
Scrapes/bumps No. of times: <u>2</u>	-2	-1	0	1	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run at **this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location or Bypass
Shallow water in "deep chute" required careful river running.	Peskeomskut Island
A boulder garden above Rawson Island requires maneuvering in quickly moving water.	Rawson Island

9. Are you likely to return for future boating along this reach at **this flow**? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this flow**? (If appropriate, provide a range in classification for **this flow**.)

This flow rates as Class: II (check den: III)

11. What skill level do you think a paddler needs to safely paddle the bypass at **this flow**? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this flow** below.

Paddlers must be able to "read" the river to avoid hazards, mostly boulders, as flow increases below Station One. For right part Peskeomskut Island is not recommended.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with adequate scouting. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable recovery turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 12:45 PM

Name: Noah Pollock

1. Please indicate which flow release this survey corresponds to. (Check one)

- 500 cfs
 ~~570 cfs~~ **330 cfs** #2
 900 cfs
 Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

- Left
 Center Right (deep chute)
 Far Right
 N/A (put in below island)

6. Channel taken past Rawson Island:

- Left (Rock Dam)
 Center Right
 Far Right
 N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	(1)	2		
Safety	-2	-1	0	(1)	2		
Ease of put-in	-2	-1	0	(1)	2		
Scrapes/bumps No. of times: <u>7</u>	-2	-1	(0)	1	2		
Portages ¹ No. of times: _____	-2	-1	(0)	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Hit more rocks in center chute, and oddly enough.	Center chute

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run **at this** flow? (If appropriate, provide a range of classification **at this** flow.)

This flow rates as Class: II

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

The additional flow did not materially change the experience.

International Whitewater Scale

- Class I – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little scouting. Risk to swimmers is high; self-rescue is easy.
- Class II – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- Class III – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers, fast current and good boat control in tight passages or around ledges are often required; large waves or scowlers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- Class IV – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- Class V – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
Turners Falls Hydroelectric Project, FERC No. 1889
Boating Demonstration Flow Study

Date: 11/9/21

Time: 2:45 PM

Name: Noah Pollock

1. Please indicate which flow release this survey corresponds to. (Check one) 43 (600 cfs)
 500 cfs 670 cfs 900 cfs Other: _____

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)
 Left Center Right (deep chute) Far Right N/A (put in below island)

6. Channel taken past Rawson Island:
 Left (Rock Dam) Center Right Far Right N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics. (Circle one number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Ease of put-in	-2	-1	0	<u>1</u>	2		
Scrapes/bumps: No. of times: _____	-2	-1	0	1	2		
Portages ¹ : No. of times: _____	-2	-1	0	1	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

Difficult to get around gate before pedestrian bridge w/ canoe - need larger openings.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
Two minor bumps	(center chute)

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

- Definitely not
 Possibly
 ~~Probably~~
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification for **this** flow.)

This flow rates as Class: II-III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

< summer < Fall/Spring (water temps)

12. Please provide any additional comments about **this** flow below.

Nice run. Still a little bumpy up high, but fun + pretty.

International Whitewater Scale

- **Class I** – Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with due planning. Risk to swimmers is slight; self-rescue is easy.
- **Class II** – Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** – Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers and fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** – Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** – Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

Single Flow Evaluation Form
 Turners Falls Hydroelectric Project, FERC No. 1889
 Boating Demonstration Flow Study

Date: 11/9/21

Time: 3:30 PM

Name: Nah Pollock

1. Please indicate which flow release this survey corresponds to. (Check one)

500 cfs

670 cfs

900 cfs

Other: 450 cfs
#4

2. Did you load your boat with gear or other weights for this run? Yes No

3. Put-in location for this run: Put-In #1 (at fish ladder) Put-In #2 (below Peskeomskut Island)

4. Take-out location for this run: Take-Out #1 (Station No. 1) Take-Out #2 (Cabot Woods)

5. Channel taken past Peskeomskut Island: (Note "left" & "right" refer to direction facing downstream.)

Left

Center Right (deep chute)

Far Right

N/A (put in below island)

6. Channel taken past Rawson Island:

Left (Rock Dam)

Center Right

Far Right

N/A (took out above island)

7. Please evaluate this flow for your watercraft and skill level for each of the following characteristics.
 (Enter a number for each characteristic.)

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	If unacceptable, was flow:	
						Too low	Too high
Navigability	-2	-1	<input checked="" type="checkbox"/>	(1)	2		
Safety	-2	-1	0	(1)	2		
Ease of put-in	-2	-1	0	(1)	2		
Scrapes/bumps No. of times: <u>4</u>	-2	-1	0	(1)	2		
Portages ¹ No. of times: <u>0</u>	-2	-1	0	(1)	2		

¹Include any instances where you needed to get out of your boat and carry/drag the boat over or around an obstacle.

8. Did you experience any difficulties during your run **at this flow** (e.g., stuck on obstacles, had to portage, etc.)? Provide a brief description and location of any difficulty.

Difficulty	Location in Bypass
'Pin ball' around Peskamdot Island - more water would have been made made it easier.	

9. Are you likely to return for future boating along this reach at **this** flow? (Check one)

- Definitely not
 Possibly
 Probably
 Definitely yes

10. Based on the International Whitewater Scale (defined below), how would you rate the whitewater difficulty of the run at **this** flow? (If appropriate, provide a range of classification for **this** flow.)

This flow rates as Class: II-III

11. What skill level do you think a paddler needs to safely paddle the bypass at **this** flow? (Check one)

- Beginner
 Novice
 Intermediate
 Advanced
 Expert

12. Please provide any additional comments about **this** flow below.

⊙ would have been difficult w/ fully loaded canoe, but generally enough water to set down - with occasional bouncing off rocks.

International Whitewater Scale

- **Class I** - Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little scouting. Risk to swimmers is high; self-rescue is easy.
- **Class II** - Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class III** - Rapids with moderate, irregular waves which may be difficult to avoid, and which can swamp an open canoe. Complex maneuvers, fast current and good boat control in tight passages or around ledges are often required. Large waves or straits may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy, but group assistance may be required to avoid long swims.
- **Class IV** - Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong eskimo roll is highly recommended.
- **Class V** - Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescues are often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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Flow #1



Photo 1-01: View from Put-In #1



Photo 1-02: View from Put-In #1



Photo 1-03: Peskeomskut Island – Center Channel – Upstream View



Photo 1-04: Peskeomskut Island – Center Channel – Upstream View – Boaters 1, 2



Photo 1-05: Peskeomskut Island – Center Channel – Downstream View – Boaters 1, 2



Photo 1-06: Peskeomskut Island – Right Channel – Boaters 7, 8, 9



Photo 1-07: View from Put-In #2 Upstream toward Peskeomskut – Center Channel – Boaters 5, 10



Photo 1-08: View from Put-In #2 Upstream toward Peskeomskut – Center Channel – Boaters 5, 10



Photo 1-09: Rawson Island – Right Channel Entrance – Upstream View – Boaters 9, 5, 10



Photo 1-10: Rawson Island – Right Channel Entrance – Downstream View – Boaters 1, 2, 9



Photo 1-11: Rawson Island – Center Channel Entrance – Upstream View – Boaters 7, 8



Photo 1-12: Rawson Island – Center Channel Entrance – Downstream View

Flow #2



Photo 2-01: Put-In #1

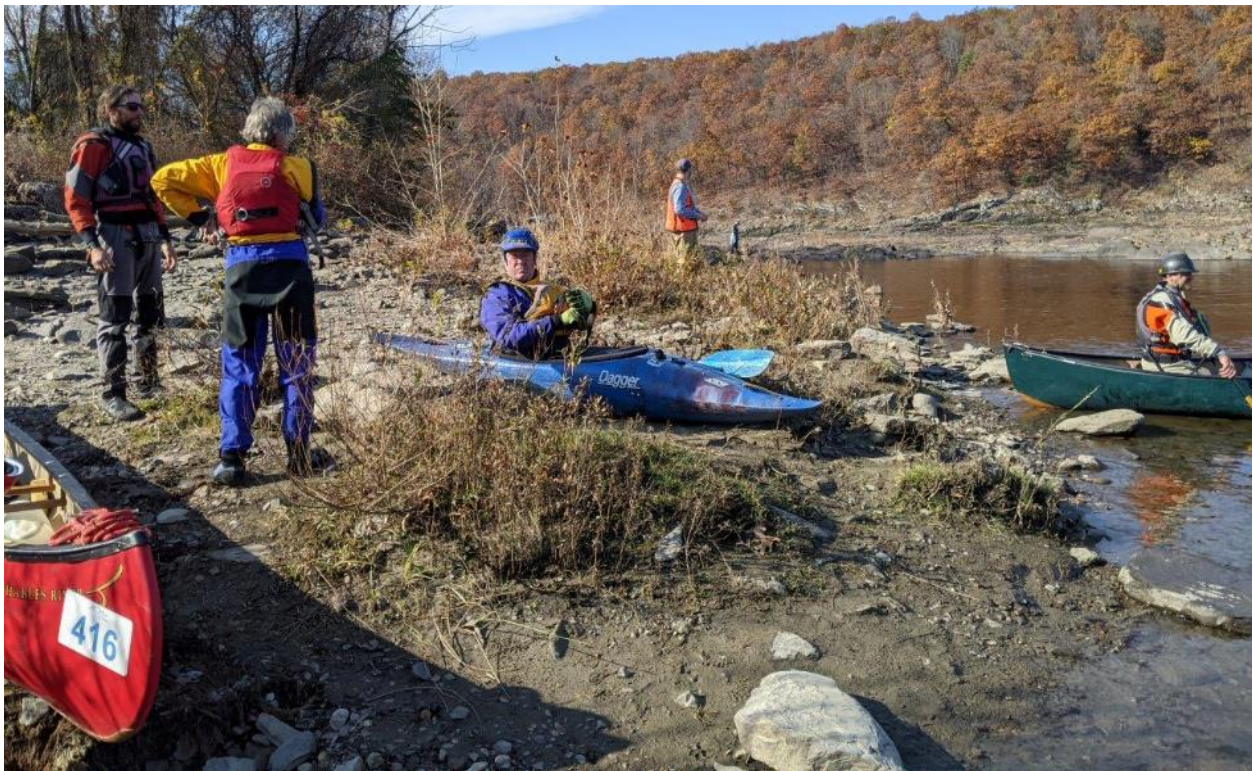


Photo 2-02: Put-In #1



Photo 2-03: View from Put-In #1



Photo 2-04: Peskeomskut Island – Center Channel – Upstream View



Photo 2-05: Peskeomskut Island – Center Channel – Upstream View – Boaters 1, 2



Photo 2-06: Peskeomskut Island – Center Channel – Downstream View – Boaters 1, 2



Photo 2-07: Peskeomskut Island – Center (foreground) + Right (background) Channels – Boaters 4, 9



Photo 2-08: View from Put-In #2 Upstream toward Peskeomskut – Center Channel – Boater 4



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Photo 2-10: Rawson Island – Right Channel Entrance – Upstream View – Boaters 1, 2, 5, 10



Photo 2-11: Rawson Island – Right Channel Entrance – Downstream View – Boaters 1, 2, 5, 10



Photo 2-12: Rawson Island – Right Channel Midsection– Upstream View – Boaters 5, 10



Photo 2-13: Rawson Island – Right Channel Midsection – Downstream View



Photo 2-14: Rawson Island – Center Channel Entrance – Upstream View



Photo 2-15: Rawson Island – Center Channel Entrance – South View



Photo 2-16: Rawson Island – Center Channel Entrance – Downstream View



Photo 2-17: Rawson Island – Left Channel – Upstream View



Photo 2-18: Rawson Island – Left Channel – Downstream View – Boaters 4, 7, 8



Photo 2-19: Rock Dam



Photo 2-20: Take-Out #2 – Upstream View



Photo 2-21: Take-Out #2 – Downstream View

Flow #3



Photo 3-01: Peskeomskut Island – Center Channel – Upstream View – Boaters, 1, 2



Photo 3-02: Peskeomskut Island – Center Channel – Downstream View – Boaters, 1, 2



Photo 3-03: Peskeomskut Island – Center (foreground) + Right (background) Channels – Boater 6



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Photo 3-07: Put-In #2 – Access Trail – Downstream View



Photo 3-08: View from Put-In #2 Upstream toward Peskeomskut – Center Channel – Boaters 1, 2



Photo 3-09: View from Put-In #2 Upstream toward Peskeomskut – Center Channel – Boaters 1, 2

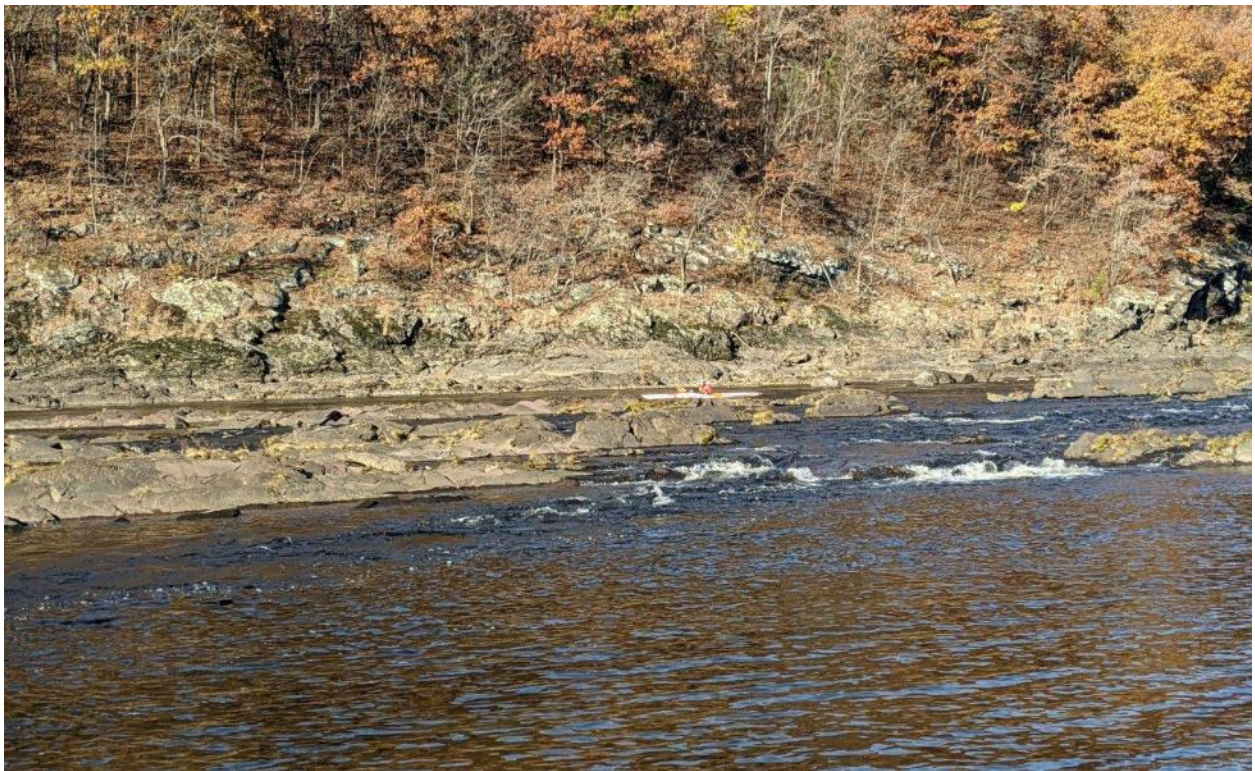


Photo 3-10: View from Put-In #2 Upstream toward Peskeomskut – Right Channel – Boater 6



Photo 3-11: Rawson Island – Right Channel Entrance – Upstream View – Boaters 5, 10



Photo 3-12: Rawson Island – Right Channel Entrance – Downstream View – Boaters 5, 10



Photo 3-13: Rawson Island – Right Channel Midsection – Upstream View – Boater 6

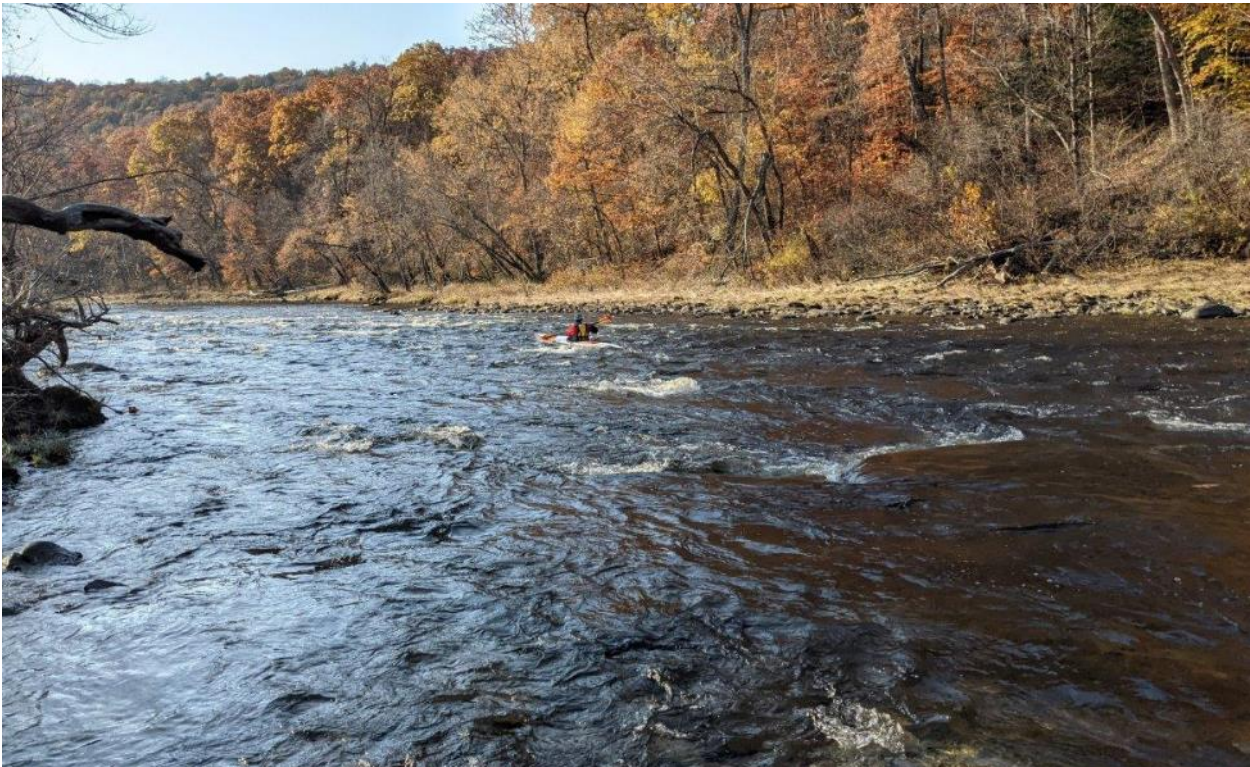


Photo 3-14: Rawson Island – Right Channel Midsection – Downstream View – Boater 6



Photo 3-15: Rawson Island – Center Channel Entrance – Upstream View



Photo 3-16: Rawson Island – Center Channel Entrance – South View



Photo 3-17: Rawson Island – Center Channel Entrance – Downstream View



Photo 3-18: Rock Dam – Boaters 7, 8



Photo 3-19: Take-Out #2 – Downstream View

Flow #4



Photo 4-01: Put-In #1

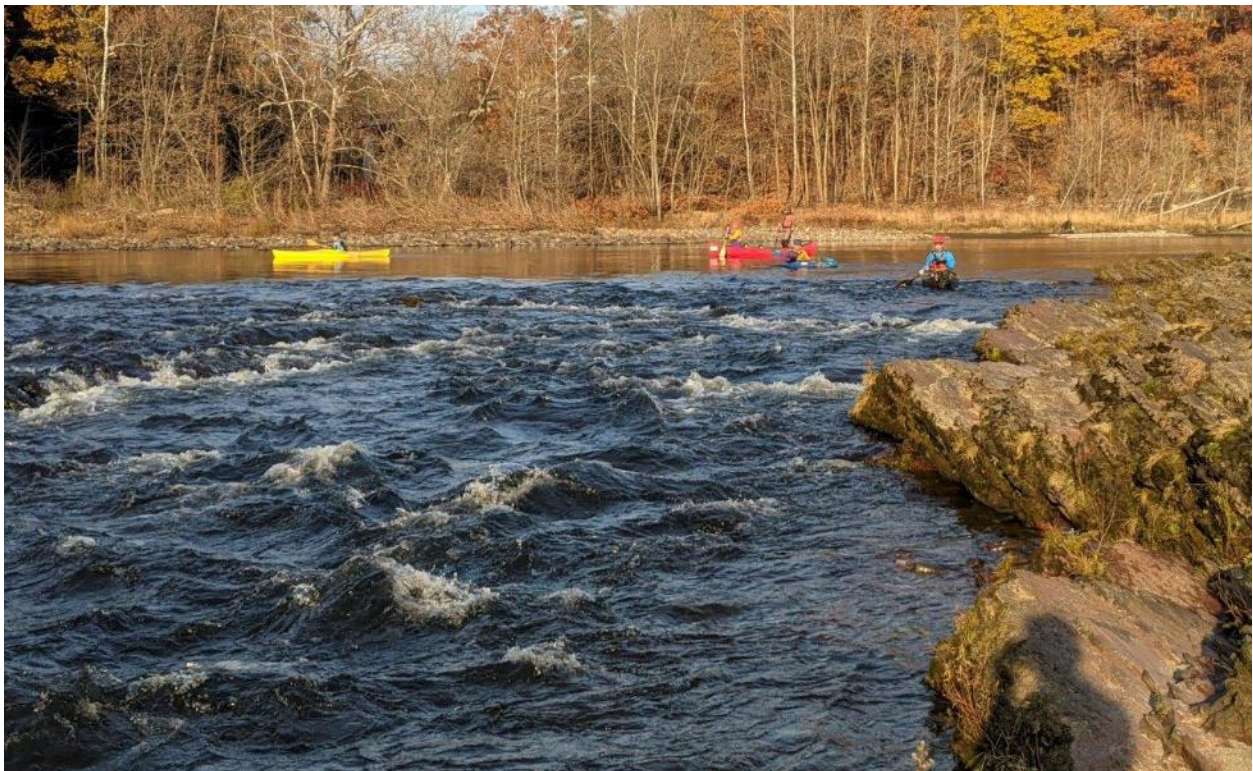


Photo 4-02: Peskeomskut Island – Center Channel – Upstream View



Photo 4-03: Peskeomskut Island – Center Channel – Upstream View – Boaters 7, 8



Photo 4-04: Peskeomskut Island – Center (foreground) + Right (background) Channels – Boaters 4, 5, 10



Photo 4-05: Peskeomskut Island – Center Channel – Downstream View – Boaters 3, 4



Photo 4-06: Peskeomskut Island – Right Channel –Boaters 5, 10