

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20
Name: Patrick Wyman

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	7/20 Date/time	Afternoon
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20	8000	2+	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2+

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

SURF WAVE, EDDY (First Rapid)

2+

ROCK DAM

3+

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
NA	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty	Location
No	

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Best Flow of Study so far. Less Dead spots
More waves better eddies

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Jim Durd

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2	8000	cfs	Date/time 7/20/14	1:00 - 3:30 + 2 pm
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

without
first night
assistance

Put-in Access: easy moderate

difficult

i.e. how would we
get past the locked gate

Take-out Access: easy moderate

difficult -

extremely difficult for
rafts / heavy boats

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam
both Right and Left sides

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	2		
Availability of challenging technical boating	-2	-1	0	1	2		
Availability of powerful hydraulics	-2	-1	0	1	2		
Availability of whitewater play areas	-2	-1	0	1	2		
Overall whitewater challenge	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Aesthetics	-2	-1	0	1	2		
Length of run	-2	-1	0	1	2		
Number of portages	-2	-1	0	1	2		
Boating instruction	-2	-1	0	1	2		
Overall Rating	-2	-1	0	1	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20/14 pm	8000	II-III+	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: Class II overall with Class III+ @ Rock Dam

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

Kayakers should have a solid, dependable roll

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rock Dam (Horizon line/Mandatory scout)

Rating

III+

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

2

↳ Portaged in order to run Rock Dam several times

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
Kayak Rock Dam portage	1	2	3	4
River right thru the woods along shore	①	2	3	4
River left up over high rocks on a "goat trail"	1	2	③	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

No difficulties

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

TAKE-OUT

Please enhance by obtaining landowner permission or a "Right of Way" in order to allow access from Poplar Street to the River Right Beach just upstream of the Take-Out we used in this study.

The current TAKE-OUT is extremely arduous and potentially dangerous for rafts and/or heavy watercraft.

It is my understanding that this right of way access to the riverbank was formerly available to the public (and is still used by emergency personnel) but was closed due to littering and/or vandalism. At one point in the past the Connecticut River Watershed Council published a brochure describing access points for "Source to the Sea" river travellers. This site was in use at that time.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Zack Horzlek

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4	8000	cfs	Date/time	7/20 1:00 PM
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

Middle Canal

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<u>0</u>	1	2	X	X
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	<u>0</u>	1	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
		II +	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II +

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

No change

Much higher

- Rock dam was
Better @ 5000

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Center Canal @ Rock Dam

III Hydraulic

Rock Dam

III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

_____	_____
_____	_____
_____	_____

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Rock Dam was more dynamic @ 5000

The Rest of the River was much Better @ this flow 8000. more surfable waves.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: BRUCE LESSER

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	7/20 PM	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20 PM	8000	II+	-2	-1	0	1	(2)		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II⁺

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner	Advanced
Novice	Expert
Intermediate	

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower	Higher
<u>Lower</u>	Much higher
No change	

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower	<u>Higher</u>
Lower	Much higher
No change	

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

<u>Site numbers/Locations¹</u>	<u>Rating</u>
<u>1st Rapid</u>	<u>11⁺</u>
<u>Rock Dam</u>	<u>111 in hardest place</u>

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)	<u>0</u>
Number of hits with stops (did not have to get out of boat)	<u>0</u>
Number of hits with stops (had to get out of boat to continue)	<u>0</u>
Number of portages	<u>0</u>

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

_____	_____
_____	_____
_____	_____

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

First rapid would be attractive as a play rapid at this level but you would want to take out as soon after the first rapid as possible. The rest of the run would be just nuisance paddling.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/2014

Name: Corn Tinney

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time 7/20 ; 1:30pm	
Flow 3	cfs	Date/time	
Flow 4	8,000 cfs	Date/time 7/20 1:30pm	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak *playboat*

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<u>0</u>	1	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	<u>0</u>	1	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

* someone mentioned there is rebar in rock dam → may want to check on this + remove it during fish flow

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20 1:30	8000	II (III)	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II (III)

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner
Novice
Intermediate

moving up to

Advanced

Expert

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations ¹	Rating
2. NICE draw wave	II
3. minor play wave	I+

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

—

Number of hits with stops (did not have to get out of boat)

—

Number of hits with stops (had to get out of boat to continue)

—

Number of portages

—

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

N/A

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

_____ none of relevance

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

- nice play wave opened up right channel of first island
- good level for beginners moving into novice, lot to practice in first rapid river B + D channels.
- I wouldn't personally come to paddle but would certainly add it to existing deerfield trip (sunday) - take the newbies down..
- if you take the time - a few lines open up at rock dam e.g. far right boof.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: John Madero

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	Date/time	7/20/14
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20/14	8000	III	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Rock Dam	III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
None	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty	Location
None	

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Perfect level!

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7-20-14

Name: Glenn STEWART

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4	8000	cfs	Date/time 7-20-14 1 PM	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7-20-14 1 PM	8000	II+	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II+

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
<u>None</u>	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Jordan Yarus

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2		cfs	Date/time	
Flow 3	8000	cfs	Date/time	
Flow 4	8000	cfs	Date/time 7/20/14 1PM	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	<u>0</u>	1	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	<u>0</u>	1	2		
Length of run	-2	-1	<u>0</u>	1	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20 1pm	8000	II (III)	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II (III)

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

PRECCA #4215 NO

ROCK DAM

III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

1

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
NA	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty	Location
TREE @ #1 IS under water	#1

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

LEFT LINE @ ROCK DAM HAS REMAINED
THE SAME @ ALL LEVELS. SEEM TO
get easier w/ more water.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Tom Christopher

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2	8,000	cfs	Date/time	Afternoon
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
			-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 3+ / IV

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Rock Dam -

IV

Upper Legges

III/IV

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
<u>No Portages</u>	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Location

Nove

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Very good flow with lots of surfing available at the upper lozes. If there was a portage trail to carry back up one could spend an entire afternoon playing the waves and surfing.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14
Name: Ryan Galway

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	7/20/14	100
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	<u>0</u>	1	2		
Availability of whitewater play areas	-2	-1	<u>0</u>	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	<u>1</u>	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	<u>0</u>	1	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7:00	8000	II-III	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II - III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Beginning Ledges
Rock Dam

III
III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

_____	_____
_____	_____
_____	_____

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: Sunday July 20, 2014

Name: Charles Murray

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	<u>4000</u> cfs	<u>7 pm</u> Date/time	<u>July 20</u>
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

☒ OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

☒ Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate w/ winch difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

ran twice on right side

0

?

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
		II+	-2	-1	0	1	2		

rock dam IV

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II+ II- rock dam IV

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner	Advanced
Novice	Expert
Intermediate	

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower	Higher
Lower	Much higher
No change	

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower	Higher
Lower	Much higher
No change	

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

<u>Site numbers/Locations¹</u>	<u>Rating</u>
rock dam	

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)	0
Number of hits with stops (did not have to get out of boat)	0
Number of hits with stops (had to get out of boat to continue)	0
Number of portages	0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
<u>NO portages</u>	1	2	3	4
<u></u>	1	2	3	4
<u></u>	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

swam twice at rock dam

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

The higher flow (8000 cfs) made the flat stretches easier to paddle but it also washed out most features. It did create several play waves.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/2014

Name: Jim Michaud

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	<u>.8000</u> cfs	Date/time <u>7:20 PM</u>	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	<u>0</u>	1	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20	8000	3	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 3

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

_____	_____
_____	_____

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
<u>none</u>	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

<u>none</u>	

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14 PM

Name: Ken Glusman

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	<u>8000</u> cfs	Date/time <u>7/20/14 PM</u>	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20/14 pm	8000	3	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 3

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Rock Dam

3+

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

Number of hits with stops (had to get out of boat to continue)

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty	Location
_____	_____
_____	_____
_____	_____

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

*This was the best level
so far.*

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Evan Eichorn

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	Date/time	7/20 - 1pm
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20-1pm	8000	III	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class:

III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Put in - left channel/island

III

Play wave at power lines below mid-canal porch

II

Middle Channel Rock Dam Island

III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

1

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

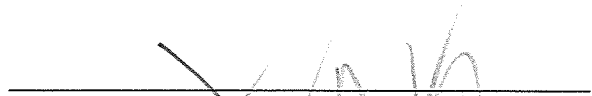


Rock Dam - mid-river - por over - boat - III

Play wave above Cabot - glassy wave - river right - II

Play wave right of Smead Island - river left - III

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

Swam - couldn't roll at Smead Island play wave - easy big rocky

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

- Better take out access - take out at Rock Dam?
- Great play waves below rock dam - river right
 - 1 @ Cabot
 - 1 @ right of Smead Island

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: July 20th 2014

Name: James Kelly-Rand

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	<u>Good</u> cfs	Date/time	<u>7/20 1:00</u>
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Stand up paddle board

Inflatable kayak

C2

OC1

Raft

OC2

Cataract

C1

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Advanced

Novice

Expert

Intermediate

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	<u>0</u>	1	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
		II	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no Possibly Probably Definitely yes

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

This flow rates at Class: II (III ROCK TOWN)

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

14. Estimate the number of hits,* stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

The 8000 cfs flow opened up new features at the beginning left channel ~~to~~ at the rock dam. The new ~~main~~ ^{remainder} of the river was washed out for most play.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14
Name: Jack Gill

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	<u>8000</u> cfs	Date/time <u>7/20</u>	<u>Afternoon</u>
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Advanced

Novice

Expert

Intermediate

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	2		
Availability of challenging technical boating	-2	-1	0	1	2		
Availability of powerful hydraulics	-2	-1	0	1	2		
Availability of whitewater play areas	-2	-1	0	1	2		
Overall whitewater challenge	-2	-1	0	1	2		
Safety	-2	-1	0	1	2		
Aesthetics	-2	-1	0	1	2		
Length of run	-2	-1	0	1	2		
Number of portages	-2	-1	0	1	2		
Boating instruction	-2	-1	0	1	2		
Overall Rating	-2	-1	0	1	2		

1 to 2
1.5

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20	8000	2 +	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2 +

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Rock Dam (far right along the Island) 3

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

Shore scouted Rock Dam

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
_____	1	2	3	4
_____	1	2	3	4
_____	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

I witnessed and threw a rope to an open boater who
messed up their boof at Rock Dam (far right along the island shore)

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

An alternate take-out just upstream of the take-out we used would greatly add to the ease of doing this run.

At this level, the river moved too quick and was too pushy for novices to feel comfortable. They might be able to hang on and paddle it, but their level of comfort probably would not be there.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20
Name: Steve Bridges

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4	8000	cfs	Date/time	7/20 1 PM
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	<u>0</u>	1	2		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
			-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class:

II (III)

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

ledge in middle channel
above Rock Dam

Rating

II

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

0

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
<u>NA</u>	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

difficulty escaping
surf at ledge in
middle channel above
Rock Dam

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/2014

Name: Michael D. Parker

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1		cfs	Date/time	
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4 ✓	8,000	cfs	Date/time 7/20/14	1:00 PM
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Stand up paddle board

Inflatable kayak

C2

OC1

Raft

OC2

Cataract

C1

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Advanced

Novice

Expert

Intermediate

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	<u>0</u>	1	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20/2014 1:00 PM	8,000	II / Ranker III	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class:

II / III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

Rock Dam - Scouting the Rapid
and then being able to run it would be
Difficult.

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

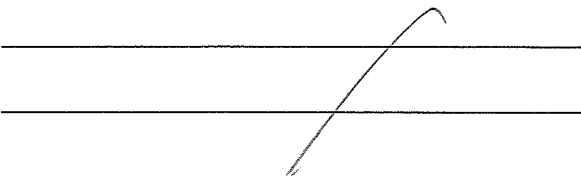
Number of hits with stops (did not have to get out of boat)

Number of hits with stops (had to get out of boat to continue)

Number of portages

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

Middle channel Above Rock Dam
(Sticky surf) Fun!

Getting Raft up Rock Dam

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/19
Name: Seth Hollman

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	<u>8000</u> cfs	<u>Date/time</u> <u>PM</u>	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
8/1/00	2000		-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class:

III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rating

<u>Rock</u>	<u>III</u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

Number of hits with stops (did not have to get out of boat)

Number of hits with stops (had to get out of boat to continue)

Number of portages

<u>0</u>
<u>0</u>
<u>0</u>
<u> </u>

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
Rock 2m	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

gross level

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7.20.14

Name: Tracey Kallman

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	7/20/14 100	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	1	<u>2</u>		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/20/14 1000	5000	II +	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II - III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner

Advanced

Novice

Expert

Intermediate

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower

Higher

Lower

Much higher

No change

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

Site numbers/Locations¹

Rock Dam

Rating

II-III

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)

0

Number of hits with stops (did not have to get out of boat)

0

Number of hits with stops (had to get out of boat to continue)

0

Number of portages

1

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
NA	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

NO	

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Figure 3.6.3-1b: Single Flow Evaluation Form

SINGLE FLOW EVALUATION FORM
Turners Falls Hydroelectric Project FERC No. 1889
Whitewater Controlled Flow Study

Date of run: 7/20/14

Name: Robert Brean

Indicate which flow release this survey corresponds to (check appropriate box):

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	8000 cfs	7/20/14	1:00 PM
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

2. Your whitewater boating skill level for the watercraft used for this flow (Circle appropriate one):

Beginner

Novice

Intermediate

Advanced

Expert

3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

4. At "Rock Dam" did you (Circle appropriate response):

Run Rock Dam Portage Rock Dam Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	0	<u>1</u>	2		
Availability of whitewater play areas	-2	-1	0	1	<u>2</u>		
Overall whitewater challenge	-2	-1	0	1	<u>2</u>		
Safety	-2	-1	0	1	<u>2</u>		
Aesthetics	-2	-1	0	1	<u>2</u>		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	1	<u>2</u>		

6. Evaluate the recently completed flow for your craft based on your perceived difficulty of the run for a "typical user". For example, if you perceived that a flow of 2,500 cfs was Class II, please rank this flow for a typical Class II boater.

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/26/14 1:00 pm	8000	II with III drop	-2	-1	0	1	2		

7. Are you likely to return for future boating in the Turners Falls bypass at this flow? (Circle one)

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: III

- 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.

9. What skill level does a paddler need to safely paddle the bypass at this flow? (Circle one)

Beginner	Advanced
<u>Novice</u>	Expert
Intermediate	

10. Relative to this flow, would you consider the minimum acceptable flow (enough flow for an enjoyable recreation experience) to be higher, lower, or about the same as this flow? Circle one

Much lower	Higher
<u>Lower</u>	Much higher
No change	

11. Relative to this flow, would you consider the optimum flow for this type of trip to be higher, lower, or about the same as this flow? Circle one

Much lower	Higher
Lower	Much higher
<u>No change</u> possibly Higher	

13. Using site numbers or locations, please identify challenging features, rapids or sections and rate their difficulty (using the International Whitewater Scale at this flow).

<u>Site numbers/Locations¹</u>	<u>Rating</u>
First rapids river right channel	<u>II</u>
Rock Dam	<u>III</u>

14. Estimate the number of hits, stops, boat drags, and portages you had at this flow (i.e., did you hit anything and did you have to stop or get out of the boat to continue?).

Number of hits (but did not stop)	<u>1</u>
Number of hits with stops (did not have to get out of boat)	<u>0</u>
Number of hits with stops (had to get out of boat to continue)	<u>0</u>
Number of portages	<u>0</u>

¹ Site numbers/locations will be defined in consultation with the whitewater boating stakeholders during the field investigations for the IFIM study (Study No. 3.3.1)

15. Using site numbers/locations on the map provided, identify rapids or sections you portaged and rate the difficulty of the portages (for your type of watercraft at this flow)

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
First rapids	1	2	3	4
rock dam	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swam) or identify any specific risk (e.g., downed trees, woody growth in the river bed) during your run at this flow? Provide a brief description and location of these experiences or identified risks..

Difficulty

Location

17. Provide any additional comments about this flow below. If necessary, please use site numbers/locations to identify specific locations.

Over all I thought this was a very good level
And liked it very much

I personally liked rock dam at 2500 But only rock
dam. over all ~~at~~ 8000 cfs ~~was~~ made the whole
river good

