

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: 7/19/14
 Name: Jim Bowd

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	7/19/14
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
- C2
- Raft
- Cataract
- Other (describe): Car Reed Hy-side Paddle

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
 Take-out Access: easy moderate
 difficult
 Extremely 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	Low	Too high
Navigability	-2	-1	0	1	2		
Availability of 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.

3500 would be class II
the rest run would be class III +
if unacceptable, was flow:

7/19/14	1160-2120 p.m.	3500	II - II	-2	-1	0	1	2	
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. 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, w one 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 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, and rescue 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)

Advanced

Beginner

Expert

Novice

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

Higher for whitewater boating

Much lower for fishing

Much higher

Lower

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

Higher

Much lower

Lower

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: Strainer approx 1/3 mile upstream of the first
bridge below the put-in
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) 1
Number of hits with stops (did not have to get out of boat) 6
Number of hits with stops (had to get out of boat to continue) 6
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/locations and reason for portage

Easy	Slightly	Moderately	Extremely
Difficult	Difficult	Difficult	Difficult

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swarm) 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..

1	2	3	4
1	2	3	4
1	2	3	4

Did not portage
Got out to Great Rock Run on ledge in center of river, and on River left shore

Difficulty
Location

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

Take Out Comments
Thank you to first light for providing shuttle and access at take-out
However - I strongly suggest/request that access should be negotiated with landowner immediately upstream of takeout for right of way + run
Rough street down to the River left shore.
This would enable recreational users to take rafts and/or heavy boats without necessity for usual without such access, the takeout is EXTREMELY
Arduous and potentially dangerous.
In the past, this was allowed so there is precedent.

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: Patrick Wymann

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
Flow 3	cfs	Date/time	7/19
Flow 4	cfs	Date/time	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 Stand up paddle board

Inflatable kayak

C2

Raft

Cataract

C1

Other (describe): SHUTTER

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	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	<u>0</u>	1	2		
Availability of whitewater play areas	-2	-1	<u>0</u>	1	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	1	<u>2</u>		
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+)	-2	-1	0	1	2	Too Low	Too high
7/19/04	3500	2	Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable		

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 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, and rescue is often difficult even for experts. A very reliable eskimo roll, 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
 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
 Lower
 No change
 Higher
 Much higher

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
 Lower
 No change
 Higher
 Much 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).

Site numbers/Locations: ROCK DAM
 Rating: 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

1	2	3	4
1	2	3	4
1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swarm) 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.

LIKED 3500 MUCH MORE THAN 2500 for a CLASS 2 BOATER

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: 7/19/2014
 Name: Carm Tinnery

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
Flow 3	cfs	Date/time	7/19 1:30
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

Raft
 Cataraft

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

Beginner
 Novice
 Intermediate
 Advanced
 Expert

Other (describe): _____

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	Low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Availability of technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	<u>-1</u>	0	1	2		
Availability of whitewater play areas	-2	<u>-1</u>	0	1	2		
Overall whitewater challenge	-2	-1	<u>0</u>	1	2		
Safety	-2	-1	0	<u>1</u>	2		
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	<u>0</u>	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+)	-2	-1	0	1	2	Too high
7/19/19	3500	II (III)	Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Low

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

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)

N/A

Place site numbers/location and reason for portage Easy Slightly Moderately Extremely Difficult Difficult Difficult

1	2	3	4
1	2	3	4
1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swarm) 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

easy-downed trees on left shore

Location

just above the 2nd power plant/dam

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

- nice wildlife - beaver, eagles, yellow birds (snakes?)
- water quality seemed wondrous - eyes shining a bit

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: 7/19/14
Name: Brian Varnus

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	7/19/14 - 1 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

Cataraft

Raft

C2

Stand up paddle board

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

Beginner

Novice

Intermediate

Expert

Advanced

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

Put-in Access: easy moderate difficult

Take-out Access: moderate easy 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	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	<u>-1</u>	0	1	2	X	
Availability of whitewater play areas	<u>-2</u>	-1	0	1	2	X	
Overall whitewater challenge	-2	-1	<u>0</u>	1	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	<u>0</u>	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	7/19/14	3500	II (III)	-2	-1	0	1	II (III)	Too high
Perceived Difficulty of the run (Class I-V+)	Flow (cfs)				Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too low

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, and rescue is often difficult even for experts. A very reliable eskimo roll,

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

Beginner
~~Novice~~
 Intermediate
 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
 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
 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: Rock Dam
 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) 2
 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/locations 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, swarm) 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 in river

1

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: Glen Stewart
 Name: 7-19-14

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
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
☐ Stand up paddle board
☐ C2
☐ Raft
☐ Cataraft
☐ 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	Low	Too high
Navigability	-2	-1	0	1	2		
Availability of 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+)	-2	-1	0	1	2	Too Low	Too high
7-19-14 3:50 PM	1:00 PM	2+	Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable		

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 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, and rescue 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)

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 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

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: 7/19
Name: Lou Christopher

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

Flow 1	cfs	Date/time	
Flow 2	cfs 3,500	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
Stand up paddle board

OC1 Raft

OC2 Cataraft

C1

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

Beginner Advanced

Novice

Intermediate

Expert

Other (describe):

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

Put-in Access: easy
 Take-out Access: easy
 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 technical boating	-2	-1	0	1	2		
Availability of challenging	-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+)	-2	-1	0	1	2	Too low	Too high
			Unacceptable	Unacceptable	Neutral	Acceptable	Acceptable		

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+ - 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 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, and rescue 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
☐ 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
☐ Lower
☒ No change
☐ Higher
☐ Much higher

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
☐ Lower
☒ No change
☐ Higher
☐ Much 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).

Site numbers/Locations: Rock Dam
Upper ledges
 Rating: 3+/4
2+/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) 2
 Number of portages 2

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..

Location

Difficulty
No Difficulties

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

Nice Flow

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: 7/19/14
 Name: Zachary H. Zidak

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500 7/19/14 1:00 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
☐ Stand up paddle board
☐ C2
☐ Raft
☐ Cataraft
☐ Other (describe): _____

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

☐ Beginner
☐ Novice
☒ Advanced
☐ 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: moderate easy 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	<u>-1</u>	0	1	2	X	
Availability of powerful hydraulics	-2	<u>-1</u>	0	1	2	✓	
Availability of whitewater play areas	-2	<u>-1</u>	0	1	2	X	
Overall whitewater challenge	<u>-2</u>	-1	0	1	2	X	
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	<u>0</u>	1	2		
Overall Rating	-2	<u>-1</u>	0	1	2	X	

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+)	-2	-1	0	1	2	
			Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low
								Too high

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 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 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)

Advanced
Novice
Beginner
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
Lower
Higher
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
Lower
Higher
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
Rating
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)
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/locations and reason for portage Easy Slightly Moderately Extremely Difficult Difficult

1	2	3	4
1	2	3	4
1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swamp) 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

Downed trees on River left just	
upriver of the canal outlet	
Very easy to miss	

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

a local mentioned there may be old steel ties in one of the lines at Rock Dam. I ran the line at the lower flow and didn't have a problem. His cold case injury or death under some conditions and should be cut out of the Rock when there is no flow. All assuming the locals correct. I did not and will not run that line again. But it was the most technical and interesting line.

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: 7/19/14
 Name: Math Gurtin

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

Flow 1	cfs	3500	Date/time	7/19	12 - 3
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

CI

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

Stand up paddle board

C2

Raft

Cataract

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,)

X swim lay

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	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	7/14
Flow (cfs)	2500
Your Perceived Difficulty of the run (Class I-V+)	
Totally Unacceptable	-2
Unacceptable	-1
Neutral	0
Acceptable	1
Totally Acceptable	2
Too Low	
Too high	

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 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, and rescue 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)

Advanced

Expert

Beginner

Novice

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

Lower

No change

Much higher

Higher

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

Lower

No change

Much higher

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).

Site numbers/Locations¹

rock dam

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)

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
0
0
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

N/A

1 2 3 4
1 2 3 4
1 2 3 4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swarm) 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

N/A

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

low

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: 7/19/14
 Name: BOUCE LEBRAS

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
Flow 3	cfs	Date/time	7/19/14 PM
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

Stand up paddle board
 C2

Raft

Cataract

OC1

OC2

C1

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	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	Low	Too high
7/19	3500	11 (11)	-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: 11 (11)

• 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
 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
 Lower
 No change
 Higher
 Much higher

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
 Lower
 Higher
 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: 1st Rapid, 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/locations and reason for portage

Extremely	Difficult	Moderately	Difficult	Slightly	Difficult	Easy
-----------	-----------	------------	-----------	----------	-----------	------

_____	1	2	3	4
_____	1	2	3	4
Rock Dam	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: 7/19
Name: John Mudano

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	7/19
Flow 3	cfs	Date/time	12 - 3
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

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

Beginner

Novice

Intermediate

Advanced

Expert

Stand up paddle board

C2

Raft

Cataract

Other (describe):

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

Put-in Access: easy
 Take-out Access: easy

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	Low	Too high
Navigability	-2	-1	0	1	2		
Availability of 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+)	-2	-1	0	1	2	Too high
7/19/1	3500		Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Low

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, and rescue 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
 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
 Lower
 No change
 Higher
 Much higher

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
 Lower
 No change
 Higher
 Much 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).

Site numbers/Locations: Rock Dam
 Rating: 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 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)

Rock Dam

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 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.

good, but could be higher.

Figure 3.6-3-1b: Single Flow Evaluation Form

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

Date of run: 7/19/14
Name: Jim Michaud

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
Flow 3	cfs	Date/time	7/19/2014
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
Stand up paddle board

OC1

OC2

C1

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

Beginner

Novice

Intermediate

Advanced

Expert

Cataract

Raft

C2

Other (describe):

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	Low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Availability of challenging technical boating	-2	-1	<u>0</u>	1	2		
Availability of powerful hydraulics	-2	<u>-1</u>	0	1	2		
Availability of whitewater play areas	-2	<u>-1</u>	0	1	2		
Overall whitewater challenge	-2	<u>-1</u>	0	1	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	1	<u>2</u>		
Overall Rating	-2	-1	<u>0</u>	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+)	-2	-1	0	1	2	Too high
7/19/14 3500		II	Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	

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 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, and rescue 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)

Advanced
Novice
Intermediate
Beginner

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
Lower
No change
Higher
Much higher

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
Lower
No change
Higher
Much 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).

Site numbers/Locations: Rock Dam
Rating: 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) 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

4	3	2	1	
4	3	2	1	
4	3	2	1	

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: 1/13/14 PM

Name: Ken G/Usman

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

Flow 1	cfs	3500	Date/time	1/12/14	PM
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
 OC1
 Cataraft
 Raft
 C2
 Stand up paddle board

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):

difficult

moderate

easy

Put-in Access:

difficult

moderate

easy

Take-out Access:

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	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+)	-2	-1	0	1	2	
			Totally Unacceptable	Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low
									Too high

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, and rescue is often difficult even for experts. A very reliable eskimo roll,

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

Beginner
Novice
 Intermediate
 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
Lower
 No change
 Higher
 Much higher

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
 Lower
No change
 Higher
 Much 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).

Site numbers/Locations: Rapid 5 am
 Rating: 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) 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
------	--------------------	----------------------	---------------------

4	3	2	1	
4	3	2	1	
4	3	2	1	

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: Sat July 19, 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	3500
Flow 3	cfs	Date/time	1 PM
Flow 4	cfs	Date/time	July 19
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
 C1
 OC1
 OC2
 C1

Stand up paddle board
 C2
 Raft
 Cataraft

Other (describe): _____

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

Advanced
 Expert

Beginner
 Novice
 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	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		

Much more fun 3500 vs 2500

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.

3500 ft./11 class II

If unacceptable, was flow:

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

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 Rock Dam III + 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 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, and rescue are essential.

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

- Beginner
- Novice
- Intermediate
- 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
- Lower
- No change
- Higher
- Much higher

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
- Lower
- Higher
- 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: Rock dam

Rating: 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 1

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/locations and reason for portage Easy Slightly Moderately Extremely Difficult Difficult Difficult

Rock dam (paddled around it) 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.

Beats 17m 2500 cfs

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: 7/19/14
 Name: Ryan Galloway

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	cfs	Date/time	Flow 5, if applicable	cfs	Date/time	Flow 6, if applicable	cfs	Date/time
			3500		7/19/14										100		

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	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	7/19/14	3500	II-III
Flow (cfs)			
Your Perceived Difficulty of the run (Class I-V+)			
Totally Unacceptable	-2		
Unacceptable	-1		
Neutral	0		
Acceptable	1		
Totally Acceptable	2		
Low			
Too high			

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 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)

Advanced
Expert

Beginner
Novice
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

Higher
Much higher

Much lower
Lower
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

Higher
Much higher

Much lower
Lower
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: 1st ledges on left, 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 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

4	3	2	1	
4	3	2	1	
4	3	2	1	

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 flow was a lot of fun. The ledges on river left had great play features as well as some of the waves down stream.

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: 7/19/2014
 Name: MIKE DOUGLAS

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500 7/19/14 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):

Put-in Access: easy moderate difficult

Take-out Access: moderate easy 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	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	<u>-1</u>	0	1	2	X	
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	1	<u>2</u>		
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	7/19/14 PM 3:50	II +	-2	-1	0	1	2	
Flow	(cfs)		Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low
									Too high

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, and rescue 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
 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
 Lower
 No change
 Higher
 Much higher

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
 Lower
 No change
 Higher
 Much 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).

Site numbers/Locations
 FIRST RAPID
 ROCK DAM
 Rating
 II
 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)
 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/locations 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.

I PREFER VERY TECHNICAL RVS, LINESCAOM
 RACING - 750 NOT SO INTERESTING FOR ME
 FOR NOVICE INSTRUCTORS PLAT HAS GOOD
 POTENTIAL
 I CAN SEE ADVANCED BOATERS COMING AND
 RUNNING ROCK DRY OVER AND OVER, AS
 COMING IN BOAT GROUP DID TODAY

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: 7/19/14
 Name: Evan Eichhorn

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
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):

Put-in Access: easy moderate

Take-out Access: 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	Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of technical boating	-2	-1	0	1	<u>2</u>		
Availability of powerful hydraulics	-2	-1	<u>0</u>	1	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	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	<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+)	-2	-1	0	1	(2)	Too low	Too high
7/9/04	3500	II +	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable		

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 + or 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 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, and rescue 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
Expert
Advanced

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
Lower
Higher
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
Lower
Higher
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

Pl-in - plenty of surf & drop spots - eddies for catch
Play waves above Rock Dam
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)

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

2
0
0
0
6

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/locations and reason for portage

Extremely	Difficult	Difficult	Slightly	Easy	Portage	1	2	3	4
Extremely	Difficult	Difficult	Slightly	Easy	Portage	1	2	3	4
Extremely	Difficult	Difficult	Slightly	Easy	Portage	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
Easy	Rock Dam
Swam below Rock Dam	

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

- Put in - left channels great surf + play spots, intermediate level. I would drive to paddle this level

- Nice wave trains below put-in

- Surf waves by the 2nd power station above Rock Dam near "the patch" were good on river left. Good spin spot for open boats

- Rock Dam was a good drop, straight forward but squirrely below in the atflow. I swam there but not a bad swim

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: 7/19/14
 Name: Marc B. Schell

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500
Flow 3	cfs	Date/time	9/19/14
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):

Advanced

Expert

Novice

Intermediate

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

Put-in Access: easy moderate

Take-out Access: moderate easy

difficult

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	-2	-1	0	1	acceptable	Totally acceptable	Low	Too high
Navigability	-2	-1	0	1	2				
Availability of 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+)	-2	-1	0	1	2	Too high
7/19/03	3000	HI	Unacceptable	Unacceptable	Neutral	Acceptable	Acceptable	Too low

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 I runs

- 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 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.

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.

Put stains or skips on take out

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: 7/19/2014
 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	7/19/2014
Flow 3		cfs	Date/time	1:00 PM
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
 Raft
 Cataraft
 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	Low	Too high
Navigability	-2	-1	0	1	2		
Availability of 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:

Date/Time	9/21/14 1:30	4550	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	-2	-1	0	1	2	Totally Acceptable	Low	Too high
-----------	--------------	------	---	----------------------	----	----	---	---	---	--------------------	-----	----------

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: I/II Rock 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, and rescue 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)

Advanced

Beginner

Novice

Intermediate

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

Lower

No change

Much higher

Higher

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

Lower

No change

Much higher

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).

Site numbers/Locations¹

Rock Dam

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)

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

0

0

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/locations and reason for portage Easy Slightly Moderately Extremely Difficult Difficult Difficult

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
Strainers	Middle of section

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: 7/19/14
 Name: Donna and Renard

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

Flow 1	cfs	Date/time	7/19/14	1 PM / Whitewater
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

C2

Raft

Cataract

Other (describe): _____

OC1

OC2

C1

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	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+)	-2	-1	0	1	2	
7/9 1 PM	3500	II - III	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low
								Too high

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 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, and rescue 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)

Advanced

Expert

Beginner

Novice

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

Lower

No change

Much higher

Higher

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

Lower

No change

Much higher

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).

Site numbers/Locations¹

Bypass over

Rock dam

Rating

II-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)

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
0
0
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

4	3	2	1	
---	---	---	---	--

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

$$\frac{H}{N}$$

Location

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

Getting Better

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: 7/19/14
Name: Stephen Robinson

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

Flow 1	cfs	Date/time	
Flow 2	cfs 3500	Date/time 7/19 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
C1
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: moderate easy 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	Low	Too high
Navigability	-2	-1	0	<u>1</u>	2		
Availability of challenging technical boating	-2	<u>-1</u>	0	1	2	✓	
Availability of powerful hydraulics	-2	<u>-1</u>	0	1	2	✓	
Availability of whitewater play areas	-2	<u>-1</u>	0	1	2	✓	
Overall whitewater challenge	-2	-1	<u>0</u>	1	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	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	1	2		
Overall Rating	-2	<u>-1</u>	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	7/19	3500	II-III	-2	(-1)	0	1	2	✓
Flow (cfs)	Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Low	Too high		

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 + (Rock down class III, all class I-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 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
Advanced
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
Lower
Higher
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
Lower
Higher
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
Entrance ledges
Rock dam
Rating
I - 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)
2
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 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, swarm) 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

A couple of downed trees, easily avoided

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

Slightly better than 2500 for rafting, but still too low. Ladders have potential for surfing at higher flows.

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: 7-19-14
Name: Seth Ballman

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	7/19/14
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
- Cataraft
- 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	Low	Too high
Navigation	-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	3/27/11	1/1	-2	-1	0	1	2	
Flow (cfs)	Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Low	Too high

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, and rescue 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)

Advanced

Expert

Beginner

Novice

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

Lower

No change

Higher

Much higher

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

Lower

No change

Higher

Much 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).

Site numbers/Locations¹

Rock

Rating

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)

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
0
0
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

Nice Low

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: 7-19-14
 Name: Tracey Kallman

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	3500 7/19/14 180
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
- C2
- Stand up paddle board

Cataraft

Raft

OC1

OC2

C1

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

Beginner

Novice

Intermediate

Advanced

Expert

Other (describe): _____

- If unacceptable, was flow:

Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high	Navigation	-2	-1	0	1	2
							Availability of 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	-2	Unacceptable	-1	Neutral	0	Acceptable	1	Totally Acceptable	2	Too Low	Too high
7.19.14	3500	#													

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 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
☐ Expert
☐ Advanced

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
☒ Lower
☐ No change
☐ Higher
☐ Much higher

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
☐ Lower
☒ Higher
☐ 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: Rock Dam
 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 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

Extremely Difficult	Moderately Difficult	Slightly Difficult	Easy
---------------------	----------------------	--------------------	------

4	3	2	1	_____
4	3	2	1	_____
4	3	2	①	Rock Dam

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: 7/19/14
 Name: Julia Rhorans

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

Flow 1	cfs	3500	Date/time	7/19 off canyon	
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

Cataract

Other (describe): Shredder

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

Advanced

Expert

Beginner

Novice

Intermediate

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

Put-in Access: easy
 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	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+)	-2	-1	0	1	2	Too high
	7/19/14	3500	II	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Low

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

Definitely no Possibly! *if I had my own boat - not for my wife's boat* 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 except, 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 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, and rescue 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)

Advanced
Expert

Beginner
Novice
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

Higher
Much higher

Much lower
Lower
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

Higher
Much higher

Much lower
Lower
No change

hasn't done it yet

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

Rocky Dam

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)

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
0
0
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 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.

I thought this level was safer for class 2 paddlers - a thru better for novice instruction - for my paddling - too much flat if I want a white-water day. Not much technical just a one shot drop - I prefer continuous technical - scenery nice

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 19th 2014
Name: James Kullig-Rand

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	7/19 1:00
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
C2
Stand up paddle board

Raft
Cataraft

Other (describe):

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

Advanced

Expert

Beginner

Novice

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	Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of 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>	<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	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	7/19	1,000
Flow	(cfs)	400	
Your Perceived Difficulty of the run (Class I-V+)		II	
Totally Unacceptable		-2	
Unacceptable		-1	
Neutral		0	
Acceptable		1	
Totally Acceptable		2	
Low			
Too high			

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 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
Advanced
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
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
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: 1st rapid right hand good for ferry
2 eddy practice
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)
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
0
0
3

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	Moderately	Extremely
Difficult	Difficult	Difficult	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: 7/19/14
 Name: Jack Gill

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

Flow 1	cfs	Date/time	
Flow 2	cfs	Date/time	✓ 3500 7/19/14 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
 C2
 Stand up paddle board

Raft
 Cataraft

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	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>	<u>1</u>	2		
Overall whitewater challenge	-2	-1	0	<u>1</u>	2		
Safety	-2	-1	0	<u>1</u>	<u>2</u>		
Aesthetics	-2	-1	0	<u>1</u>	<u>2</u>		
Length of run	-2	-1	0	<u>1</u>	<u>2</u>		
Number of portages	-2	-1	0	<u>1</u>	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+)	-2	-1	0	1	2	Too low	Too high
		Totally Unacceptable		Unacceptable	Neutral	Acceptable	Totally Acceptable		

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 + Except for 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 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
☐ Expert
☐ Advanced

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
☒ Lower
☐ No change
☐ Much higher
☐ Higher

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
☐ Lower
☒ No change
☐ Much higher
☐ 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).

Site numbers/Locations: Rock Dam
1st set of Rapids After Put-In
 Rating: 4
2+

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) 2
 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 Scouted at 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/locations and reason for portage

Scouted at Rock Dam	1	2	3	4
The Scout was Moderately Difficult	1	2	3	4
at this Level.	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.

At the Put-In there were boils that made the ferry across to river right.

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: 7/19/14
 Name: Robert Brown

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	cfs	Date/time	Flow 5, if applicable	cfs	Date/time	Flow 6, if applicable	cfs	Date/time
			3500		7/19/14												
					1:00 pm												

1. Watercraft used (Circle appropriate one):

- Hard shell kayak
- Inflatable kayak
- OC1
- OC2
- C1
- Stand up paddle board
- C2

- Raft
- Cataract

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	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	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:

7/19/14	3500	class II	1:00 pm
Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	
Release		Totally Unacceptable	
		Unacceptable	
		Neutral	
		Acceptable	
		Totally Acceptable	
		Low	
		Too high	

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 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)

Advanced

Expert

Beginner

Novice

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

Higher

Much higher

Much lower

Lower

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

Higher

Much higher

Much lower

Lower

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 dams

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)

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

0

0

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

rock dam	1	2	3	4
	1	2	3	4
	1	2	3	4

16. Did you experience any difficulties (e.g., pinned, wrapped boat, swarm) 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.

Swam on rock dam after times at this level
much more turbulent landing after drop

No issues with strainers but there are multiple
one along the run

