

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 Dowd

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

Flow 1	<u>2500</u> cfs	Date/time <u>7/19/14 9:00-11:54 AM</u>	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Stand up paddle board

Inflatable kayak

C2

OC1

Raft

OC2

Cata raft

C1

Other (describe): our Rigged Hyside Paddler
Shredder deck

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

Beginner

Advanced

Novice

Expert

Intermediate

- Strongly suggest that "right of way" be obtained at take-out that goes from Poplar Street down to sandbar at river's edge on River Right - just upstream of the take-out that we used today.
 Note - people were camping and fishing there on Saturday
3. Please evaluate the boating access for this segment of river (Circle appropriate one):

Put-in Access: easy moderate

difficult for Raft

Take-out Access: easy moderate

Very difficult for Raft

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

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

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

Saw three bald eagles!

If portaging Rock Dam, it would be only moderately difficult

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.

Acceptable for class II boater

If unacceptable,
was flow:

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

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

- 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, for whitewater

Lower

Much higher

No change

if fishing, then slightly lower would be better

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

Strainers at various locations present hazards

Rock run - class III+ at this level

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)

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

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

Difficulty

Location

I saw two strainers.
 Tom Christopher was swept underneath
 one - Very dangerous situation

Right side, River Right Channel
 at very top of river just
 below put-in

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: PATRICK WYMAN

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

Flow 1	2500	cfs	Date/time	7/19/14	930AM.
Flow 2		cfs	Date/time		
Flow 3		cfs	Date/time		
Flow 4		cfs	Date/time		
Flow 5, if applicable		cfs	Date/time		
Flow 6, if applicable		cfs	Date/time		

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	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	<u>-1</u>	0	1	2		
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	1	<u>2</u>		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

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

If unacceptable,
was flow:

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

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

ROCK DAM
FIRST RAPID

3
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)

0

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

0

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

0

Number of portages

1

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

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

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

Nice Level for CLASS 2 Boaters

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: Matt Guertin

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

Flow 1	<u>2500</u> cfs	Date/time	<u>7/19 8-12</u>
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19	2500	II/III	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II / III

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

rock dam

III

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

Number of hits (but did not stop)

No

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
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, 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
N/A	

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

way too 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: John Mudano

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

Flow 1	2500	cfs	Date/time	7/19 9:30-12
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<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	1	<u>2</u>		
Overall Rating	-2	-1	0	<u>1</u>	2		

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19	2500	2	-2	-1	0	①	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2 - II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

3

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

Number of hits (but did not stop)

0

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

0

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

0

Number of portages

0

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

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

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

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

Difficulty	Location
<u>None</u>	<u></u>
<u></u>	<u></u>
<u></u>	<u></u>

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

This would be great for a novice - to make this more palatable for a more experienced boater, the level would have to be higher.

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: PROCE LESSEES

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

Flow 1	<u>2600</u>	cfs	Date/time	<u>Am 7/19/14</u>
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<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	<u>0</u>	1	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	<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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 AM	2500	II (III)	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II (III)

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner	Advanced
Novice	Expert
Intermediate	

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

Much lower	Higher
Lower	Much higher
No change	

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

Much lower	Higher
Lower	Much higher
No change	

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
<u>POT IN RAPID</u>	<u>II</u>
<u>ROCK DAM</u>	<u>III</u>

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

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

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

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

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

At first a big log on top of ledge
caused a dangerous swim

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: Tom Christopher

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

Flow 1	<u>2,500</u>	cfs	Date/time	<u>Morning</u>
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<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	-1	<u>0</u>	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	1	<u>2</u>		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	1	<u>2</u>		
Overall Rating	-2	-1	0	<u>1</u>	2		

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19	2500		-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner
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).

<u>Site numbers/Locations¹</u>	<u>Rating</u>
<u>Rock Dam</u>	<u>3+</u>
_____	_____
_____	_____

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

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

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

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

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

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

Difficulty

Location

WAS PINNED AGAINST A LOG & WA
swept under. HAD TO WETCUT
AND SWIM

Top ledges along RIVER RIGHT

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

Better flow than what I experienced last year.

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: JORDAN YARUSS

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

Flow 1	2500	cfs	Date/time 7/19 - 8AM	
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

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	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	<u>-2</u>	<u>-1</u>	0	1	2	X	
Availability of powerful hydraulics	<u>-2</u>	<u>-1</u>	0	1	2	X	
Availability of whitewater play areas	<u>-2</u>	-1	0	1	2	X	
Overall whitewater challenge	-2	<u>-1</u>	0	1	2	X	
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	<u>-1</u>	0	1	<u>2</u>	X	
Overall Rating	<u>-2</u>	-1	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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19	2500	I+(III)	-2	-1	(0)	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: I+(III)

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

ROCK DAM

III

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

Number of hits (but did not stop)

0

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

0

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

0

Number of portages

0

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

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

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

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

Difficulty	Location
DOWNED TREE, LEFT OF CENTER. It is a bad location	#1
0 - 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: Glenn Stewart

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

Flow 1	2500	cfs	Date/time 7-19-14 9 AM	
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<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	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7-11-14 9 AM	2500	2+	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II +

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

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

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

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

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

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

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
<u>Rock Dam</u>	<u>III+</u>
_____	_____

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

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

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

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

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

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

Difficulty

Downed Tree

Location

Location
First rapid route 2 side

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: 7/19/2014

Name: Carm Tinney

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

Flow 1	<u>2,500</u> cfs	Date/time	<u>7/19 9:30am</u>
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Cataract

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<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	-1	<u>0</u>	1	2	X	
Overall whitewater challenge	-2	-1	0	<u>1</u>	2	not m	rock sp
Safety	-2	-1	0	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	<u>2</u>		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	0	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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19/2014	2500	I + (3)	-2	-1	0	(1)	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: I + (III)

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

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)

N/A

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

tree in 1st rapid after put in
easy to avoid

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: 7/19/2014
Name: RICK HANSON

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

Flow 1	2500	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	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	<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	<u>-2</u>	-1	0	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	1	<u>2</u>		
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	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
	2500	2	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2-3

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

WAVE RIVER RIGHT @ TOP

3

ROCK JAM DROP

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, 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.

BEAUTIFUL RIVER
NEED A LOT MORE
WATER FOR GOOD WW

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: _____

Name: Zachary Hvizdak

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

Flow 1	2500	cfs	Date/time	7/19/14 10:00am
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	<u>-1</u>	0	1	2	X	
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	<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	<u>-1</u>	0	1	2	X	
Overall Rating	<u>-2</u>	-1	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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 10:00a	2500	I +	-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: I +

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

///

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
_____	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: Scott R. Callahan

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

Flow 1	<u>2500</u> cfs	Date/time <u>7/19</u>	<u>9:30</u>
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
	2800	III	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II - III

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

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

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

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

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
_____	_____
_____	_____

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

Number of hits (but did not stop)	<u>5</u>
Number of hits with stops (did not have to get out of boat)	<u>0</u>
Number of hits with stops (had to get out of boat to continue)	<u>0</u>
Number of portages	<u>1</u>

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

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

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

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

Difficulty

Location

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

Fine For Novice

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 Galway

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

Flow 1	<u>2500</u>	cfs	Date/time <u>7/19/14</u>	<u>8:30</u>
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access:

easy

moderate

difficult

Take-out Access:

easy

moderate

difficult

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

Run Rock Dam

Portage Rock Dam

Paddle alternate canal (avoid Rock Dam,)

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
8:30	2500	II	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Beginning ledges
Rock Run

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	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

Trees in River

throughout the run

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

Name: Charles Murray

2500 cfs

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

Flow 1	2500 cfs	Date/time 10AM	July 19 (Sat)
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy / moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	0	<u>1</u>	2		
Availability of powerful hydraulics	-2	-1	<u>0</u>	1	2		
Availability of whitewater play areas	-2	-1	<u>0</u>	1	2		
Overall whitewater challenge	-2	-1	<u>0</u>	1	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	<u>1</u>	2		
Overall Rating	-2	-1	0	<u>1</u>	2		

note: rock dam was not like rest of the run.

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

If unacceptable,
was flow:

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

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

Definitely no

Possibly

Probably

Definitely yes

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

not including rock dam

This flow rates at 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 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

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 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	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, 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.

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: MICHELLE DOLLOP

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

Flow 1	<u>2500</u> cfs	Date/time <u>7/19/2014 AM</u>	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
A.M. 7/19/14	2500	II	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

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

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

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

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

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

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

FIRST RAPID BELOW DAM
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)

5

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

0

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


0

Number of portages


0

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

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

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

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

Difficulty	Location
	

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

BEAUTIFUL, SCOTT VALLEY, WE SAW AN EAGLE & HERON.
FLOW APPROPRIATE FOR WW INSTRUCTION,
DUE TO LOW FLOW SOME LONG FLAT WATER SECTIONS

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 Khorana

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

Flow 1	2500	cfs	Date/time <u>am</u>	<input checked="" type="checkbox"/>
Flow 2		cfs	Date/time	<input type="checkbox"/>
Flow 3		cfs	Date/time	<input type="checkbox"/>
Flow 4		cfs	Date/time	<input type="checkbox"/>
Flow 5, if applicable		cfs	Date/time	<input type="checkbox"/>
Flow 6, if applicable		cfs	Date/time	<input type="checkbox"/>

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	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	-2	-1	<u>0</u>	1	2		
Availability of powerful hydraulics	-2	<u>-1</u>	0	1	2	✓	
Availability of whitewater play areas	-2	-1	<u>0</u>	1	2		
Overall whitewater challenge	-2	<u>-1</u>	0	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	<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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
8/19/14 4m	2500	1-11	-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: 1-11

- 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

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

IV

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
<u>no portage</u>	1	2	3	4
<u></u>	1	2	3	4
<u></u>	1	2	3	4

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

Difficulty

Location

<u>no</u>	<u></u>
<u></u>	<u></u>
<u></u>	<u></u>

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

a lot of flat water

1 saw a bald eagle

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 Eichorn

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

Flow 1	<u>2500</u> cfs	Date/time	<u>7/19/14 - 9am</u>
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<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	-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	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	0	1	<u>2</u>		
Boating instruction	-2	-1	0	<u>1</u>	2		
Overall Rating	-2	-1	<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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19-9am	2500	II - 2	-2	-1	0	(1)	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

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

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

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

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

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

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
<u>Pit-in</u>	<u>2</u>
<u>Rock Dam</u>	<u>3</u>
<u>Right of Island at Rock Dam</u>	<u>2</u>

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

Number of hits (but did not stop)	<u>5</u>
Number of hits with stops (did not have to get out of boat)	<u>2</u>
Number of hits with stops (had to get out of boat to continue)	<u>0</u>
Number of portages	<u>0</u>

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

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

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
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, 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
— N/A	

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

- Very easy, can avoid anything dangerous
- Take out would be tough
- I'd come only if nothing else running
- Rock Dam was fun
- Pit-in surfing was decent, nothing too hard but nothing of note

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: Jim Michaud

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

Flow 1	<u>2500</u>	cfs	Date/time	<u>7/19 / AM</u>
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	1	<u>2</u>		
Availability of challenging technical boating	<u>-2</u>	-1	0	1	2		
Availability of powerful hydraulics	<u>-2</u>	-1	0	1	2		
Availability of whitewater play areas	-2	<u>-1</u>	0	1	2		
Overall whitewater challenge	<u>-2</u>	-1	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	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	<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	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 AM	2500	II I	-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 rate's at Class: I

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

III

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

Number of hits (but did not stop)

0

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

0

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

0

Number of portages

0

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

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

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

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

Difficulty	Location
<u>none</u>	_____
_____	_____
_____	_____

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

Figure 3.6.3-1b: Single Flow Evaluation Form

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

Date of run: 7/19/14

Name: Ken Glusman

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

Flow 1	<u>2500</u> cfs	Date/time <u>7/19</u>	<u>MORNING</u>
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 A.m.	2500	II	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2500

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

III+

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

Number of hits (but did not stop)

2

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

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

Number of portages

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

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

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

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

Difficulty	Location
<u>no difficulty</u>	<u></u>
<u></u>	<u></u>
<u></u>	<u></u>

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

~~at~~ at this level, there is only one significant feature. I doubt I'd make the drive if I had a reasonable alternative.

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 (Zoar Outdoor)

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

Flow 1	<input checked="" type="checkbox"/>	2500 cfs	Date/time	AM	7/19
Flow 2	<input type="checkbox"/>	cfs	Date/time		
Flow 3	<input type="checkbox"/>	cfs	Date/time		
Flow 4	<input type="checkbox"/>	cfs	Date/time		
Flow 5, if applicable	<input type="checkbox"/>	cfs	Date/time		
Flow 6, if applicable	<input type="checkbox"/>	cfs	Date/time		

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<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	<u>-1</u>	0	1	2	✓	
Safety	-2	-1	0	1	<u>2</u>		
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	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 AM	2500	II +	-2	(-1)	0	1	2	✓	

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II - III (Rock dam is the only class III at this level)

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock dam

III

All else

I-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)

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 Difficult	Extremely Difficult
<u>None</u>	1	2	3	4
<u></u>	1	2	3	4
<u></u>	1	2	3	4

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

Difficulty

Location

Some downed trees, easily avoided

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

Definitely too low for a satisfying rafting run. Rock dam was fun.
Several areas appear to have good potential 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: Mark Blatchley

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

Flow 1	<u>2500</u> cfs	Date/time <u>morning 7/14</u>	
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Stand up paddle board

Inflatable kayak

C2

OC1

Raft

OC2

Catacraft

C1

Other (describe): _____

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

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

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class:

II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations

Rating

Rock Dam

117

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

None
0
1
0

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

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

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

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

Difficulty

Location

None	

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

Too 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: JONATHAN PENNELL

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

Flow 1	2500	cfs	Date/time	7/19/14 9 AM
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

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	Too Low	Too high
Navigability	-2	-1	<u>0</u>	1	2	✓	
Availability of challenging technical boating	<u>-2</u>	<u>-1</u>	0	1	2	✓	
Availability of powerful hydraulics	<u>-2</u>	-1	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	<u>0</u>	1	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	0	1	<u>2</u>		
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	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 9 AM	2500	II +	-2	-1	0	1	2	<input checked="" type="checkbox"/>	

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II +

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
① <u>Rock DAM</u>	<u>III</u>
② <u>ByPASS</u>	<u>II</u>

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

Number of hits (but did not stop)

3

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
② BYPASS UPPER	①	②	3	4
① ROCK DAM	1	②	3	4
	1	2	3	4

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

Difficulty

Location

NO ISSUE

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

Flow LESS THAN OPTIMUM. MORE WATER WOULD MAKE FOR A BETTER RECREATIONAL 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: July 19 2014

Name: Michael D. Parker

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

Flow 1 <input checked="" type="checkbox"/>	2500 cfs	Date/time 7/19/14	9:30 AM → 11:30 AM
Flow 2	cfs	Date/time	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

	Totally unacceptable	Unacceptable	Neutral	Acceptable	Totally acceptable	Too Low	Too high
Navigability	-2	-1	0	<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	<u>0</u>	<u>1</u>	2		
Aesthetics	-2	-1	0	<u>1</u>	2		
Length of run	-2	-1	0	<u>1</u>	2		
Number of portages	-2	-1	<u>0</u>	1	2		
Boating instruction	-2	-1	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+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19/14 9:30 AM	2500	II+	-2	-1	0	1	2	✓	

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II+

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

Rock Dam

3 III

Everything Else

1/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)

2 or 3

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
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, 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: July 19th 2014
Name: James Kelly-Band

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

Flow 1	<u>2500</u> cfs	Date/time <u>7/19 9:30</u>	
Flow 2	cfs	Date/time <u>7/19 9:30</u>	
Flow 3	cfs	Date/time	
Flow 4	cfs	Date/time	
Flow 5, if applicable	cfs	Date/time	
Flow 6, if applicable	cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 9:30	L 2500	II	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rating

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

Number of hits (but did not stop)

5

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

0

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

0

Number of portages

0

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

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

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

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

Difficulty

Location

_____	_____
_____	_____
_____	_____

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

Figure 3.6.3-1b: Single Flow Evaluation Form

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

Date of run: 7/19/14
 Name: Jack Gill

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

Flow 1 ✓	2500	cfs	Date/time	7/19 Morning
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult
 Take-out Access: easy moderate X difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19 Mon	2500	C1 2	-2	-1	0	1	2		

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: 2 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 holes or steep, congested chutes with complex demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult.

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

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

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

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

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

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

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

<u>Site numbers/Locations¹</u>	<u>Rating</u>
_____	_____
_____	_____

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

Number of hits (but did not stop)	<u>3</u>
Number of hits with stops (did not have to get out of boat)	_____
Number of hits with stops (had to get out of boat to continue)	_____
Number of portages	_____

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

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

Place site numbers/location and reason for portage	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult
Stopped at Rock Dam and scouted from shore and then ran.	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

Made several roll attempts before
successful.

Rock Dam

Downed tree at the beginning looked like a ledge.

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: Robert Breaux

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

Flow 1	2500	cfs	Date/time 7/19/14	9 AM
Flow 2		cfs	Date/time	
Flow 3		cfs	Date/time	
Flow 4		cfs	Date/time	
Flow 5, if applicable		cfs	Date/time	
Flow 6, if applicable		cfs	Date/time	

1. Watercraft used (Circle appropriate one):

Hard shell kayak

Inflatable kayak

OC1

OC2

C1

Stand up paddle board

C2

Raft

Catacraft

Other (describe): _____

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

Beginner

Novice

Intermediate

Advanced

Expert

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

Put-in Access: easy moderate difficult

Take-out Access: easy moderate difficult

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

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

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

If unacceptable,
was flow:

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

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

If unacceptable,
was flow:

Release Date/Time	Flow (cfs)	Your Perceived Difficulty of the run (Class I-V+)	Totally Unacceptable	Unacceptable	Neutral	Acceptable	Totally Acceptable	Too Low	Too high
7/19/14 9am	2500		-2	-1	0	1	2		

Class II
with one class III drop

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

Definitely no

Possibly

Probably

Definitely yes

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

This flow rates at Class: II - III

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

Swims are dangerous, and rescue is often difficult even for experts. A very reliable eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

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

Beginner

Advanced

Novice

Expert

Intermediate

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

Much lower

Higher

Lower

Much higher

No change

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

Much lower

Higher

Lower

Much higher

No change

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

Site numbers/Locations¹

Rock Dam

Rating

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)

2

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

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

Number of portages

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

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

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

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

Difficulty	Location
<i>None</i>	

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

No rec'd

