

**Placer County Water Agency
Middle Fork American River Project
(FERC No. 2079)**

FINAL

**REC 4 – CONTINGENCY WHITEWATER
BOATING STUDY**



Placer County Water Agency
P.O. Box 6570
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August 2010

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1.0 INTRODUCTION

This report describes the Contingency Whitewater Boating Study conducted by the Placer County Water Agency (PCWA) in association with the REC 4 – Stream-based Opportunities Technical Study Plan (REC 4 – TSP). The REC 4 – TSP was included in Supporting Document (SD) H of the Pre-Application Document (PAD) for the Middle Fork American River Project (MFP or Project) (PCWA 2007).

Information available in existing sources and collected as part of the REC 4 – Technical Study Report (TSR) (PCWA 2010a) were discussed with the Recreation Technical Working Group (TWG) participants on March 16, 2009, April 6, 2009, and June 15, 2009. The Recreation TWG determined that additional “high value” study information was needed in three bypass reaches to assist in the development and evaluation of potential license conditions. PCWA developed a Revised Whitewater Boating Flow Study Proposal – Bypass Reaches, dated July 23, 2009, in consultation with the Recreation TWG. The revised proposal was discussed with the Recreation TWG during a meeting held on August 3, 2009. The proposal was approved by the Recreation TWG with the understanding that specific study dates would be determined in consultation with the Recreation TWG, and the target study flow for the Middle Fork American River between French Meadows Dam and Middle Fork Interbay would be determined after consultation with potential boating team members. The stakeholder-approved study proposal was included in the 2009 Updated Study Report filed with the Federal Energy Regulatory Commission (FERC or Commission) on January 21, 2010 (PCWA 2010b).

This report presents the REC 4 – Contingency Whitewater Boating Study including the study objectives, study implementation, extent of study area, study approach, study results, and literature cited.

2.0 STUDY OBJECTIVE

The study objective of the REC 4 – Contingency Whitewater Boating Study was to identify the minimum acceptable boatable flow in three bypass river reaches:

- Rubicon River – Ellicott Bridge to Ralston Afterbay;
- Middle Fork American River – Middle Fork Interbay Dam to Ralston Afterbay; and
- Middle Fork American River – French Meadows Dam to Middle Fork Interbay.

These study reaches are shown on Map REC 4-1.

3.0 STUDY IMPLEMENTATION

Study elements described in the REC 4 – Contingency Whitewater Boating Study were initiated in 2009 and completed in 2010. The study elements completed, deviations from the study plan, proposed modifications to the study plan, and outstanding study elements are discussed below.

3.1 STUDY ELEMENTS COMPLETED

The following study elements from the contingency study completed in 2009 and 2010:

- Monitored flows and communicated probability and timing of spill or high flow events to the potential study team for the Rubicon River.
- Conducted single boating flow studies on two reaches on the Middle Fork American River: (1) from Middle Fork Interbay to Ralston Afterbay, and (2) from French Meadows Dam to Middle Fork Interbay.

3.2 DEVIATIONS FROM TECHNICAL STUDY PLAN

There were no deviations from the REC 4 – Contingency Whitewater Boating Study.

3.3 OUTSTANDING STUDY ELEMENTS

All study elements from the REC 4 – Contingency Whitewater Boating Study have been completed.

3.4 PROPOSED MODIFICATIONS TO TECHNICAL STUDY PLAN

There are no proposed modifications to the REC 4 – Contingency Whitewater Boating Study.

4.0 EXTENT OF STUDY AREA

The study area included the following three study reaches:

- Rubicon River – Ellicott Bridge to Ralston Afterbay (Map REC 4-2);
- Middle Fork American River – Middle Fork Interbay Dam to Ralston Afterbay (Map REC 4-3); and
- Middle Fork American River – French Meadows Dam to Middle Fork Interbay (Map REC 4-4).

5.0 STUDY APPROACH

This study focused on developing “high value” study information to identify the minimum acceptable boatable flow in each of the three specified study reaches. The type of flow study (i.e., reliance on spill/runoff or controlled release), timing of study, target flow range, flow measurement location, and duration of study for each reach are summarized below:

	Rubicon River	Middle Fork American River	
	Ellicott Bridge to Ralston Afterbay	Middle Fork Interbay Dam to Ralston Afterbay	French Meadows Dam to Middle Fork Interbay
Type of Flow Study	Single flow with reliance on spill or high runoff event	Controlled release	Controlled release
Targeted Timing of Study	Winter 2009 – Summer 2010	Spring 2010 prior to May 15; or immediately after the cessation of spill, if spill extends beyond May 15, 2010	Spring – early Summer 2010
Target Flow Range	500–800 cfs	450–550 cfs	250 cfs
Flow Measurement Location	Gage at Ellicott Bridge (PCWA Gage No. MF6) (put-in)	Gage above Ralston Afterbay (PCWA Gage No. MF2) (take-out)	Gage below French Meadows Dam (USGS Gage No. 11427500) (put-in); Gage above Middle Fork Interbay (USGS Gage No. 11427760) (take-out)
Study Duration	1 or 2 days, as determined by the study team	1 day	1 day

As part of the study, the following responsibilities were defined for PCWA, the boating community, and the study team:

- PCWA was responsible for:
 - Developing flow study evaluation form in consultation with the Recreation TWG;
 - Monitoring flow and communicating probability and timing of spill or high runoff event to the potential study team for the Rubicon River study reach;
 - Establishing single flow study date (spill or high runoff event or controlled flow);
 - Providing target flow range for the Middle Fork American River study reaches (controlled flow study);
 - Providing shuttle services for the boating study team;
 - Conducting pre-and post-boating discussions; and
 - Study documentation and reporting.
- Boating community was responsible for:
 - Providing a minimum of 4 boaters (with signed liability forms).
- Study team was responsible for:
 - Providing all necessary on-water equipment and support material;
 - Photo-documentation of flow study (optional);
 - Completing the flow study evaluation forms; and
 - Participating in pre- and post-run discussions.

Specific methods used to carry out the flow studies are described in the following subsections.

Identification of Study Participants

An initial list of potential study participants was developed in consultation with the whitewater boating stakeholders associated with the Recreation TWG, including the Foothills Water Network (FWN). Final boating study team selection was coordinated by Mr. Jared Noceti (a boating study team member).

The boating study teams consisted of volunteers with the requisite technical abilities and experience to boat each study reach. The years of experience of the members of the boating study teams ranged from 7 to 26 years, with all participants being Class V (expert) level boaters. All boating study team members had prior multi-day “expedition” and “exploratory/first descent” river trip experience and had participated in other whitewater flow studies. Completed Boater Profile Forms for all boating study team members are included in Appendix B, including information about their craft type, skill level, and number of years of experience. (Note that all personal information, such as contact information, has been removed at the request of the stakeholders).

Two boating study teams were assembled, one for each study reach on the Middle Fork American River. The members of the boating study team included:

Middle Fork American River Reach	Boating Study Team Members
Middle Fork Interbay Dam to Ralston Afterbay Reach	<ul style="list-style-type: none">• Brad Brewer• Eric Petlock• Jared Noceti¹• Katie Scott• Phil Boyer• Scott Ligare
French Meadows Dam to Middle Fork Interbay Reach	<ul style="list-style-type: none">• Charlie Center• Darin McQuoid• Macy Burnham• Thomas Moore

After identifying the boating study team members, PCWA emailed invitation letters to each team member, along with information about the target flows and logistics. Copies of invitation letters are included in Appendix C. Accompanying the invitation letter was a Boating Flow Study Boater Profile Form, Single Flow Evaluation Form, Study Itinerary, and Liability Waiver, which are also included in Appendix C.

¹ Mr. Jared Noceti was injured immediately after put-in and did not complete the remainder of the run. He did not complete a Single Flow Evaluation Form.

Development of a Whitewater Boating Survey Instrument

Prior to conducting the flow studies, PCWA developed a Single Flow Evaluation Form that was approved by the Recreation TWG. This form was based on the Boating Flow Study Evaluation Form developed for flow studies conducted on the Peaking Reach (PCWA 2010a). The Single Flow Evaluation Form was divided into six main sections, each addressing a specific evaluation topic, as follows: flow assessment, difficulty, time, hazards, flow estimates, and access. Questions were also asked to specifically evaluate changes in flow due to accretion in the river reaches during the flow study. A blank Single Flow Evaluation Form is provided in Appendix D.

Study Logistics

Logistical support for the flow studies was provided by PCWA. PCWA provided transportation for the boating study team members and gear, and food and beverages at the conclusion of the flow studies.

Boating study team members met at pre-determined locations and times for each flow study. Each participant was asked to complete a Boater Profile Form. All boating study team members completed a PCWA liability release form. In addition, each participant was given an opportunity to review the Single Flow Study Evaluation Form and to ask questions.

The boating study team members were shuttled from the meeting location to the put-in. Prior to each flow study, an orientation meeting was conducted, covering the following topics: study objectives; study process; logistics; and emergency protocols. Boating study team members were instructed to boat the run in a manner consistent with their typical boating outing. Team members were instructed to evaluate flow conditions related to:

- Overall nature and character of the resource;
- Types of channel conditions found in the run;
- Difficulty of the whitewater (initial class rating based on the International Scale of River Difficulty Classification System); and
- Flow conditions as related to navigability, safety, and recreational values.

The boating study team was provided with satellite photo maps with river miles and GPS locations plotted in ½-mile increments, a GPS unit with pre-programmed GPS waypoint locations, and a satellite phone for emergency use. Roads, trails, and helicopter landing sites were identified on the maps. The boating study team was provided instruction on how to use the GPS in order to reference their location on the provided maps and gage their rate of progress down the reach. For the study on the Middle Fork American River – French Meadows Dam to Middle Fork Interbay, PCWA also contracted for periodic helicopter reconnaissance of the flow study in case there was a need to provide emergency assistance to the boating study team.

Immediately following each run, the boating study team members completed the Single Flow Evaluation Form. Copies of the completed forms are included in Appendix E.

After collecting the forms, the run was discussed as a group. The purpose of the group discussion was to gather additional information to support of the information gathered during the flow study.

Data Analysis

Data from the Single Flow Evaluation Forms were reviewed and entered into an Excel spreadsheet. Notes of the post-run group discussions were reviewed and summarized to supplement data recorded on the Single Flow Evaluation Forms. The data were then compiled to develop Minimum Acceptable, Optimal, and Maximum Acceptable boatable flow ranges. The data were also used to develop additional information about physical logistics and experiential values for each run.

6.0 STUDY RESULTS

This results section is organized by reach: 1) Rubicon River – Ellicott Bridge to Ralston Afterbay reach; 2) Middle Fork American River – Middle Fork Interbay Dam to Ralston Afterbay reach; and 3) Middle Fork American River – French Meadows Dam to Middle Fork Interbay reach. The summaries of the Single Flow Evaluation Forms and post-run discussion are included in Appendices E and F, respectively.

6.1 RUBICON RIVER – ELLICOTT BRIDGE TO RALSTON AFTERBAY

The proposed flow study on the Rubicon River – Ellicott Bridge to Ralston Afterbay reach was not conducted. The flow study was to be conducted on a spill or high flow event with: (1) flow magnitudes between 500 cfs and 800 cfs (measured at Ellicott Bridge); and (2) sufficient duration to enable a study team to assemble and safely boat the reach in a 1 or 2-day trip. Flow conditions suitable for conducting the flow study on the Rubicon River were not present at any time during the period planned for conducting the flow study. Daily average flow for the Rubicon River at Ellicott Bridge was less than 275 cfs from October 30, 2009 to May 22, 2010 (Appendix A).

As a flow study was not completed for this reach, the best available information on boatable flows in this reach is provided in REC 4 – TSR (PCWA 2010a) and summarized below. These boatable flow ranges were based on a review of available literature (Holbeck and Stanley 1988 and California Creek's website (www.cacreeks.com)), consultation with the Whitewater Boating Focus Group, and through follow-up consultation with experienced boaters.

Rubicon River: Ellicott Bridge to Ralston Afterbay Reach					
Acceptable Flow	Flow Range (cfs)				
	Published Information			Focus Group	Follow-up Consultation
	Holbeck & Stanley (Measured at take-out)	California Creeks (Inflatable Kayaks)	California Creeks (Hardshell Kayaks)		
Minimum Acceptable Flow	500	200	500	400	400
Optimal Flow	1,200	–	–	500–700	700–1,500
Maximum Acceptable Flow	2,000	500	2,000	1,200	3,000

6.2 MIDDLE FORK AMERICAN RIVER – MIDDLE FORK INTERBAY DAM TO RALSTON AFTERBAY

PCWA conducted the single flow whitewater boating study on Saturday, May 8, 2010. The study flow, estimated at the put-in, was 425 cfs. The measured flow at the take-out at the bottom of the reach was 475 cfs. A total of 5 boaters participated in the study, all in hard-shell kayaks. The boating study team put in at approximately 10:15 am and arrived at the take-out at about 5:15 pm (7 hours on-river).

All of the boating study team members rated the run Class V, except for one participant who rated the run Class IV/V. Most boating study team members portaged 3 or 4 times. During the post-run discussion, the boating team members agreed that the run was a Class V “Sierra style” wilderness run. The study reach is considered a single-day run. The boating study team considered the study reach suitable for kayaks and closed-deck canoes; and one member thought it was also suitable for small rafts. Hazards noted by the study team included instream wood and trees growing in the channel.

The boatable flow ranges developed by the study team are summarized below.

Middle Fork American River: Middle Fork Interbay Dam to Ralston Afterbay Reach	
Acceptable Flow	Flow Range (cfs)
	PCWA Flow Study
Minimum Acceptable Flow	400–425 at put-in
Optimal Flow	450 at put-in/500–550 at take-out
Maximum Acceptable Flow	600 at take-out

All boaters indicated they were “Highly Satisfied” with the study flow of 425 cfs (at the put-in) on the Single Flow Evaluation Forms. Two members responded that their preferred flow was the same as the study flow. Three members of the boating study team indicated they would prefer a “slightly higher flow” - approximately 100 cfs of additional flow.

On the Single Flow Evaluation Forms, each boating study team member estimated the Minimum Acceptable Flow was between 400 cfs and 450 cfs. During the post-run

discussion, the boating study team agreed that the Minimum Acceptable Flow was between 400 cfs and 425 cfs (at the put-in). Responses for the Optimal Flow on the individual evaluation forms ranged from 475 cfs to 550 cfs. Post-run discussion refined this range to 450 cfs at the put-in and between 500 cfs and 550 cfs at the take-out. Maximum Acceptable Flow estimates on the individual evaluation forms ranged from 525 cfs to 600 cfs. During the post-run discussion, this was refined to 600 cfs at the take-out. All flow-related characteristics were rated by the boating team members as “Acceptable” or “Highly Acceptable”, except for the “availability of whitewater play areas” (“Unacceptable” rating). Additional information supporting these flow ranges is provided in Appendices D and E.

6.3 MIDDLE FORK AMERICAN RIVER – FRENCH MEADOWS DAM TO MIDDLE FORK INTERBAY

The flow study was conducted on Saturday, May 22, 2010 by four hard-shell kayakers. The study flow measured at the gage at the put-in was 252 cfs. Weather conditions for the study were inclement, with intermittent snow and air temperatures in the 20s and 30s. The boating study team was on-water at 7:45 am.

After about three hours of boating, the team had only travelled approximately 1.75 miles downstream from the put-in due to extensive amounts of logs and downed trees in the river generated from the 2001 Star Fire. These obstacles required the study team to scout, and/or portage about 15 times over the length of the 1.75 mile of reach boated, which took from 45 minutes to an hour of the on-river time. Based on the extremely slow rate of travel and the poor weather conditions, the boating study team decided it was unsafe to continue downstream at 10:45 am. They hiked out to a road and were spotted by the helicopter contracted by PCWA. The boating study team and their equipment were removed from the canyon by helicopter to the put-in where the ground support team was waiting.

PCWA provided the boating study team with the opportunity to helicopter over the remainder of the study reach in order to assess the channel/flow conditions for the entire study reach. All boating study team members evaluated the remainder of the study reach from the helicopter.

The boating study team members felt that their responses on the Single Flow Evaluation Form and in the post-run discussion were applicable for the entire study reach, based on the section of river paddled and the remainder of the reach assessed by helicopter. All members of the study team rated the reach Class V and described the reach as a steep “creeking.” The reach would be considered a multi-day run under the existing conditions due the amount of wood in the river requiring extensive scouting and portaging. The hazards noted by the team members were downed trees and instream wood the channel.

The following table summarizes the acceptable flow ranges identified through PCWA’s flow study.

Middle Fork American River: French Meadows Dam to Middle Fork Interbay Reach	
Acceptable Flow	Flow Range (cfs)
	PCWA Flow Study
Minimum Acceptable Flow	200 at put-in
Optimal Flow	250 at put-in
Maximum Acceptable Flow	300–350 at put-in

Three boating study members indicated they were “Highly Satisfied” with the study flow, with the remaining team member responding that they were “Moderately Satisfied” with the study flow. The flow-related characteristics receiving an “Unacceptable” rating at the study flow were “Boatability”, “Rate of Travel”, “Safety”, and “Number of Portages”. These ratings were based on channel condition, and not flow (Appendices D and E).

On the Single Flow Evaluation Forms, the individual boating study team estimated the Minimum Acceptable Flow was between 200 cfs and 252 cfs, the Optimal Flow was 250 cfs (one response at 252 cfs), and the Maximum Acceptable Flow ranged between 300 cfs and 400 cfs. During the post-run discussion there was consensus that the Minimum Acceptable Flow was 200 cfs, the Optimal flow was 250 cfs, and that the Maximum Acceptable Flow between 300 cfs and 350 cfs (all measured at the put-in). The Maximum Acceptable Flow is for the reach between French Meadows Dam and the Duncan Creek confluence, as the effects of the flow contribution from Duncan Creek are unknown at this time.

In the post- run discussion, all team members stated that the flow was optimal, but it was the in-channel wood that created the “Unacceptable” ratings. Additional information supporting these flow ranges is provided in Appendices D and E.

After the flow study, a section of this run was boated from the Chipmunk Creek confluence (approximately RM 42.5, see Map REC 4-4) to Middle Fork Interbay on May 29, 2010 by Charlie Center, Alex Wolfgram, and Mike Elam. PCWA was not involved with this whitewater boating run and did not provide a flow release or other logistical or support function. The combined inflow from French Meadows Dam, Duncan Creek, and accretion flows into Middle Fork Interbay was 215 cfs (measured at the USGS Middle Fork American River above Middle Fork Powerhouse near Foresthill gage 11427760). The release from French Meadows Dam was 35 cfs. Duncan Creek release on the day of the run was 17 cfs. Considerably less instream woody debris was present within this section of river compared to the section immediately downstream from French Meadows Dam. The run took about 7 hours on-water, with 5 to 6 portages.

The river upstream of the Duncan Creek confluence had the “feel” of a “creek/canyon”. The group identified a gorge section of river located about ½-mile upstream of the confluence with Duncan Creek that would require a long and difficult portage if flows are too high. Just above the confluence with Duncan Creek, the Middle Fork American River changed to a pool/drop channel that was relatively “clean”, and the reach felt more like a “river”. There were no special concerns or issues associated with this section of the run.

Based on this run, the boaters thought that the boating range estimates previously made as part of the Contingency Whitewater Boating Study (200 to 350 cfs, measured below French Meadows Dam) would be too high, especially when combined with springtime flow accretions. For the section of the run upstream of the Duncan Creek confluence, the boating group estimated that the optimal flow range is between 175 and 200 cfs.

The following table summarizes the acceptable flow ranges (measured near the take-out) identified:

Middle Fork American River: French Meadows Dam to Middle Fork Interbay Reach – Follow-Up Consultation	
Acceptable Flow	Flow Range (cfs)
Minimum Acceptable Flow	215 near take-out
Optimal Flow	300-350 near take-out
Maximum Acceptable Flow	450 near take out

7.0 LITERATURE CITED

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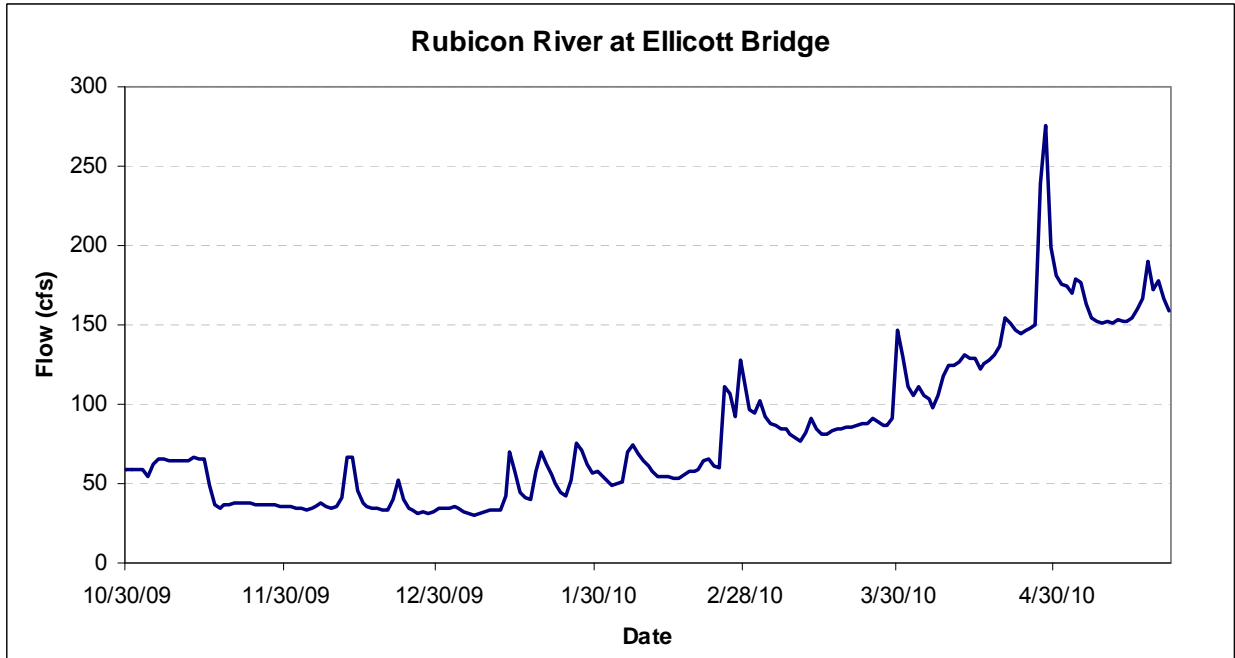
_____. 2010b. 2009 Study Implementation Progress Report for the Middle Fork American River Project (FERC Project No. 2079) per 18 CFR § 5.15 (c)(1).

MAPS

APPENDIX A

**Daily Average Flow for the Rubicon River at Ellicott Bridge
from October 30, 2009 to May 22, 2010**

Figure A-1. Daily Average Flow for the Rubicon River at Ellicott Bridge from October 30, 2009 to May 22, 2010.



The flow study was to be conducted on a spill or high flow event with (1) flow magnitudes between 500 cfs and 800 cfs (measured at Ellicott Bridge) and (2) sufficient duration to enable a study team to assemble and safely boat the reach in a 1 or 2-day trip.

APPENDIX B
Completed Boater Profile Forms

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5-07-10

Name: Phil Boyer

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

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**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
<u>Kayak</u>						<input checked="" type="checkbox"/>	<u>26</u>
Closed deck canoe							_____
<u>Raft</u>						<input checked="" type="checkbox"/>	<u>26</u>
Open canoe							_____
<u>Cataract</u>						<input checked="" type="checkbox"/>	<u>20</u>
Other (specify): _____							_____
Other (specify): _____							_____

2. How many days do you participate in whitewater boating activities annually? 200 +

3a. Are these typically single or multi-day trips?

Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
- Multi-day recreational river trips
- Both Multi-day and single-day recreational river trips
- Multi-day "expedition" river trips
- "Exploratory" single-day or multi-day river trips

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**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: West Fork Carson Reach: Picketts Jct. To White Year: 1997
 River: South Fork Rubicon Reach: Long Lake - 13N20 Year: 1998
 River: Rio Alsa Seca Mexico Reach: Middle section Year: 2006
 River: Rio Xico Mexico Reach: Lower section Year: 2006
 River: Rio Encerradeca Reach: Middle section Year: 2007

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 1992 River: N. Mokelumne Reach: Devils Nose Bear River toifer ck
 Study 2 - Year: 2004 River: San Joaquin Reach: Tied For First
 Study 3 - Year: 2004 River: San Joaquin Reach: Chowanakee Gorge

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**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	26
Professional Guide: Recreational whitewater boating - Kayaking	26
Professional Guide: Expedition boating	20
Instructor – Boating Skills	15
Instructor – Instructor Certification	—
Instructor – Swift Water Safety	—
Safety Support	22
Filming	23
Other <u>Competition</u>	10 yrs

If yes, please explain your experience (year, location, position held, etc.):

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list

certification: Swift Water Rescue / E.M.T. / C.P.R. /
Back Country Food Handlers

9. To which whitewater organizations, groups, or clubs do you belong?

AWA , Grand Canyon River Guide assoc

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Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/8/10

Name: J. Brad Brewer

*Confidentiality Statement

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>18</u>
Closed deck canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>
Open canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 110

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	2
Rubicon River	Long Canyon to Ralston Afterbay	2
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: Kotsina, AK Reach: Lower canyon Year: 1996

River: Ingram Crk, AK Reach: Lower Year: 1996

River: Bird Crk, AK Reach: Lower Year: 1996

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 -Year: 1998 River: N. Yuba Reach: blw Bullards Bar

Study 2 -Year: _____ River: _____ Reach: _____

Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	1
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

Taught beginner kayaking classes in
2003 on the Ocoee River, TN.

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

None

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/7/10

Name: Scott Ligare

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>19</u>
Closed deck canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? >100

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	1
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	3
Rubicon River	Long Canyon to Ralston Afterbay	3
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: French Creek Reach: lower Year: ~~1998~~ 2008

River: Canyon Creek (trinity) Reach: upper Year: 1997

River: Uzungush (Kyrgyzstan) Reach: entire Year: 2003

River: Swift Creek Reach: upper Year: 1999

River: _____ Reach: _____ Year: _____

+ more in Kyrgyzstan, Ecuador, India that I cannot remember the names of.

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 2007 River: Canyon Creek Reach: upper

Study 2 - Year: 2007 River: Fordyce Creek Reach: Fordyce - Spalding

Study 3 - Year: 2009 River: Yuba Gap Reach: Spalding - Washington

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	4
Professional Guide: Expedition boating	
Instructor – Boating Skills	4
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	2
Filming	7
Other <u>River Ranger</u>	5

If yes, please explain your experience (year, location, position held, etc.):

I was head coach / Program director for world class kayak Academy for 2 years. I have been a safety lawyer on raft trips for 10 yrs. I was a River Ranger on the Trinity River for 5 yrs

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

American whitewater Association

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/7/10

Name: JARED NOCETTI

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>23</u>
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>10</u>
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 100

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	0
Middle Fork American River	Duncan Creek to Middle Fork Interbay	0
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	0
Rubicon River	Hell Hole Dam to Ellicott Bridge	0
Rubicon River	Ellicott Bridge to Long Canyon	2
Rubicon River	Long Canyon to Ralston Afterbay	3
Duncan Creek		0
Long Canyon Creek		1

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: SOUTH SILVER Reach: ABOVE ICEHOUSE Year: 1998

River: MIDDLE COSUMES Reach: UPPER / PIPPI TO CRYSTAL LINES Year: 1999

River: CAMP CREEK Reach: 3 RUNS Year: 1997

River: MIDDLE STANISLAUS Reach: HELLS 1/2 ACRE Year: 2003

River: MARBLE FORK KAWKATH Reach: MARBLE FALLS TO POTWISSE Year: 2001

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 1999? River: N. FEATHER Reach: UPPER, UPPER SENECA

Study 2 - Year: 2003 River: MIDDLE STANISLAUS Reach: HELLS 1/2 ACRE

Study 3 - Year: 2002?? River: SAN JOAQUIN Reach: CHAWANACHEE GULCH

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	10
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	10
Filming	3
Other <u>SALES REP KAYAK MANUFACTURER</u>	12

If yes, please explain your experience (year, location, position held, etc.):

RAFT GUIDE INTERNATIONALLY
SALES REP

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

AMERICAN WHITEWATER
ACA
CALI PRODUCT

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/8/10

Name: Eric Petlock

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>20</u>
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>20</u>
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>20+</u>
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>20</u>
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 20-40

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: Lost Creek Reach: Below L.C. Dam Year: 2005
 River: S. Feather Reach: Little Grass, Forbestown Year: 2004
 River: Bear River Reach: Dutch Flat Year: 2010
 River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 2004 River: S. Feather Reach: Little Grass Valley ... Forbestown
 Study 2 - Year: 2005 River: Lost Creek Reach: Lost Creek Dam to S. Feather
 Study 3 - Year: _____ River: Bear River Reach: Dutch Flat

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	20+
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	15
Instructor – Boating Skills	10
Instructor – Instructor Certification	
Instructor – Swift Water Safety	5
Safety Support	10
Filming	
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: EMT, Swift Water Rescue (Rescue 3)

9. To which whitewater organizations, groups, or clubs do you belong?

American Whitewater

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: May 7th

Name: Katie Scott

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>8</u>
Closed deck canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>3</u>
Open canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cataract	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. How many days do you participate in whitewater boating activities annually? 200+

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: French Creek Reach: _____ Year: 2009

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 2009 River: Syuba Reach: 49 - Bridge

Study 2 - Year: 2009 River: N. Yuba Reach: Bullard's Bend

Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	2
Professional Guide: Recreational whitewater boating - Kayaking	4
Professional Guide: Expedition boating	4
Instructor – Boating Skills	2
Instructor – Instructor Certification	2 - AIA
Instructor – Swift Water Safety	3 -
Safety Support	3
Filming	3
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

I have taught Kayaking courses for
California Canoe and Kayak - Been a raft
guide on South F. Am. River. and a professional
whitewater Kayaker for 41 years I help make
a whitewater film - "The Last Be Secret"

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: Swift water rescue

9. To which whitewater organizations, groups, or clubs do you belong?

American whitewater

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing

Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5-21-2010

Name: Macy Buchanan

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>16</u>
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 100+

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	5
Rubicon River	Ellicott Bridge to Long Canyon	1
Rubicon River	Long Canyon to Ralston Afterbay	1
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: Parute Creek Reach: Headwaters to Flores Lake Year: 2009
 River: San Joaquin Tributary Reach: interbay Year: 2007
 River: Beer Creek Reach: Box canyon 2 to Bridge Year: 2008
 River: Middle Fork Box canyon 2 & 3 Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 2009 River: Fordyce Creek Reach: Fordyce Lake to Lake Spaulding
 Study 2 - Year: _____ River: _____ Reach: _____
 Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	4
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	
Other <u>Professional Kayaker, Freestyle/Extreme Racing</u>	12

If yes, please explain your experience (year, location, position held, etc.):

Sponsored Athlete Team Perception 1998-2002 Necky 2002-2006 WaveSport 2007-Present
Instructor OITen Base Kayak School 2001, 2002
RiverQuest Instructor 2003-2004

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

American Whitewater.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/21/10

Name: CHARLIE CENTER

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>16</u>
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 200

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	1
Rubicon River	Hell Hole Dam to Ellicott Bridge	2
Rubicon River	Ellicott Bridge to Long Canyon	2
Rubicon River	Long Canyon to Ralston Afterbay	2
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: NFNF AMERICAN Reach: NFNF Year: 2010

River: SF KING Reach: SF KINGS Year: 2009

River: FUIDA CR. Reach: AMERICAN Year: 2009

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 -Year: 2006 River: Sub creek Reach: American

Study 2 -Year: _____ River: _____ Reach: _____

Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	X
Other <u>PADDLING</u>	X

If yes, please explain your experience (year, location, position held, etc.):

Professional paddler / filmer 2000 - present

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/20/2010

Name: Darin McQuoid

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>8</u>
Closed deck canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>7</u>
Open canoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 150+

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: NF NF American Reach: Upper Year: 2010
 River: Sikhing India Reach: NA Year: 2009
 River: Teesta India Reach: NA Year: 2009
 River: Piattla Mexico Reach: the gorge Year: 2009
 River: NF Kings Reach: Above Wishon Res Year: 2009

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 2009 River: SF Yuba Reach: Yuba Gap
 Study 2 - Year: 2007 River: Lost Creek Reach: NA
 Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	7
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	4
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

Head guide on Klamath River 2001-2006

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: *SWR*

9. To which whitewater organizations, groups, or clubs do you belong?

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing

Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study

BOATER PROFILE FORM

Background Information (Confidential*)

Date: 5/21/10

Name: THOMAS MOORE

*Confidentiality Statement

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>7</u>
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? 100

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the "type" of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day "expedition" river trips
 "Exploratory" single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any "exploratory" or "first-decent" river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____
 River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 - Year: 09 River: 3.F Yuba Reach: yuba gap & purdus to
 Study 2 - Year: 06 River: N.F feather Reach: Rock creek & cresta
 Study 3 - Year: 09 River: Canyon creek Reach: _____

bridgeport

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	1
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

Team Dugger

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

CALiprodukt.com, American white water

APPENDIX C
Invitation to Participate In Boating Flow Studies

FINAL

**Middle Fork American River
Middle Fork Interbay to Ralston Afterbay
Invitation Letter and Attachments**

August 2010

FINAL

Mary Preuss

From: PCWA MFP Relicensing [Relicensing@pcwa.net]
Sent: Monday, May 03, 2010 3:34 PM
To: jared.noceti@kayaker.com; philtheriver@hotmail.com; sligare@yahoo.com; katiescott61@yahoo.com; brewercivil@comcast.net; peetlock@yahoo.com; Andy Fecko; Ben Ransom; Dave Martinez; Sandra Walter-Perry; Mary Preuss; Julie Leimbach
Subject: PCWA/MFP - May 8, 2010 Invitation to Participate in Boating Flow Studies (FERC Project No. 2079)
Attachments: WW Boating Post Run Group Discussion Questions 4-30-10 mtz.doc; MFIB WW Flow Study Boater Profile Form 4-30-10 mtz.doc; MFIB WW Single Flow Itinerary 4-30-10 mtz.doc; MFIB WWSingle Flow Evaluation Form 4-30-10 mtz.doc; PCWA WW Flow Study Liability Waiver.doc

Dear Relicensing Participant -

Placer County Water Agency (PCWA) invites you to participate in a boating flow study on a reach of the Middle Fork American River Project between the Middle Fork Interbay Dam and Ralston Powerhouse. It is our understanding that Jared Noceti has already contacted you in regard to your participation in this study. The flow study will take place on May 8, 2010 and the Study team will meet at the Ralston Picnic area at 8:00am.

The purpose of the flow study is to refine previously developed boating flow information for this reach. Study team members will boat the reach at a flow of about 450-500 cfs.. Upon completion of the run, the boating Study Team will complete a survey form and participate in a group discussion about the run. It is anticipated that the flow study will require a full day to complete.

Boating team members will provide their own boating gear, safety equipment, and transportation to the put-in for the run. PCWA will provide the shuttle logistics, food, and beverages.

It will be the responsibility of the boating team member to make a determination of their ability to boat the target run. On water safety, and if needed, rescue, will be the responsibility of the boating study team. Prior to the flow study, each study team member will be asked to complete and return a Boater Profile Form and Release of Liability Form. Attached is the Boater Profile Form and Liability Waiver. If possible, please complete these forms prior to the Flow Study and provide them to PCWA on the day of the flow study. There will be additional copies available on the day of the Study if needed. Also attached is the proposed itinerary for the flow study, and for your review prior to the run, the Flow Evaluation Form, and Group Discussion Questions.

PCWA appreciates your participation in the Boating Flow Study. If you have any questions regarding this flow study, or need any additional information, please contact Dave Martinez at (916) 502-8523.

Thanks,
 Andrew Fecko
 Resource Planning Administrator
 (530) 823-4889

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Whitewater Boating Flow Study
DRAFT POST-RUN GROUP DISCUSSION QUESTIONS**

1. What would you rate the class of whitewater at this flow?
2. Do you consider this a single-day or multi-day run?
3. What type of boater would you expect to boat this reach?
4. What are the safety concerns on this run?
5. How would you expect the safety concerns to change at a lower flow?
6. How would you expect the safety concerns to change at a higher flow?
7. Are there specific locations you consider hazardous, beyond what would normally be encountered running a river of this difficulty? *[use map to locate]*
8. Are there specific locations that required extensive portaging? *[use map to locate]*
9. Did you experience a change in flow during the run, and if so, how did that affect boating conditions? *[refer back to "upper" and "lower" section breaks]*
10. How would you expect boating conditions to change at a lower flow?
11. How would you expect boating conditions to change at a higher flow?
12. What is the minimum flow you would boat this run?
13. What are the main reasons that you think you could not boat this reach below the minimum flow you identified?
14. What is the maximum flow you would boat this run?
15. What are the main reasons that you think you could not boat this reach above the maximum flow you identified?

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

Background Information (Confidential*)

Date: _____

Name: _____

*Age: _____

Gender: Male Female

*Address: _____

City: _____

State: _____

Zip Code: _____

*Phone Number:

*FAX Number: _____

*Email address: _____

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? _____

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the “type” of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day “expedition” river trips
 “Exploratory” single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any “exploratory” or “first-decent” river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 -Year: _____ River: _____ Reach: _____

Study 2 -Year: _____ River: _____ Reach: _____

Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – MF Interbay to Ralston Afterbay
Whitewater Boating Flow Study**

DRAFT BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay – May 8, 2010**

ITINERARY

8:00 AM	Study Team Meets at Ralston Picnic Area
8:00 – 8:45 AM	Complete Boater Profile forms and Liability Waivers (if needed) and provide Boating Team with Flow Study overview
8:45 – 9:00 AM	Load boats and gear – depart for put-in
9:45 AM	Arrive at put-in
9:45 – 10:30 AM	Unload gear – hike to put-in below MF Interbay Dam
10:30 AM	Put-in
10:30 AM – 4:00 PM	On-water boating time is variable and remainder of itinerary will be adjusted accordingly
4:00 PM	Take-out (bridge crossing on Middle Fork American River) and transport back to Ralston Picnic area
4:15 – 5:30 PM	Complete Flow Evaluation Forms and Groups Discussion

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: _____ Date: _____

River: _____

Put in location: _____ Put in time: _____

Take out location: _____ Take out time: _____

1. What type of craft did you use for this run? _____
2. What type(s) of watercraft would be suitable for this reach at today's flow? (*Circle all that would be appropriate*).
- | | |
|----------------------|---------------------|
| a. Kayak | f. Cataraft |
| b. Closed deck canoe | g. Inflatable kayak |
| c. Raft | h. Other: _____ |
| e. Open canoe | |

3. Was access from the parking area to the river at the put-in adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- | | |
|--------------|--------------------------|
| a. Single | <input type="checkbox"/> |
| b. Multi-day | <input type="checkbox"/> |
| c. Both | <input type="checkbox"/> |

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks _____ Total minutes out of boat _____
 Number of stops for scouting _____ Total minutes out of boat _____
 Number of stops for portaging _____ Total minutes out of boat _____

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
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Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) _____

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Evaluation Study
Assumption of Risk and General Release of Liability**

1. I, _____, recognize that the whitewater evaluation study conducted by Placer County Water Agency, in which I am about to participate, is a rigorous activity that may be physically and mentally stressful and may aggravate existing physical or mental conditions or cause new ones. I recognize that whitewater activities, such as boating, rafting, kayaking, and swimming, in which I am going to participate, are dangerous and may include damage to personal property, serious physical injury, or death arising from a variety of hazards and unavoidable risks, including, but not limited to, rocks, trees, powerful waves, waterfalls, hydraulics, ejection from a water craft, and other hazards, and difficulty or improbability of rescue. I acknowledge that the hazards associated with whitewater activities may be compounded. I also understand that significant variations in river flow may alter the natural character of the river, and that access to the study sections of this river will include transportation along narrow roadways which may involve other potential hazards.

2. As a participant in this whitewater evaluation study, I recognize:
 - a. that my participation is voluntary and I may discontinue participation at any time of my choosing;

 - b. that I am a joint venturer with the other trip participants;

 - c. that I am personally responsible for determining whether I have the skill and expertise to safely navigate the river segments in this study, which may include class IV, V and V+ rapids;

 - d. that I am solely responsible for selecting equipment suitable for use during the whitewater evaluation study;

 - e. that no other person or entity associated with this whitewater evaluation study has any obligation to attempt to rescue or assist me and that any attempted rescue or assistance may exacerbate my condition and cause injury or death; and

 - f. that I have no obligation to attempt to rescue or assist any other person, and that any such attempt on my part may result in injury or death to myself or the other person.

3. I understand and expressly assume all the dangers and risks incident to the whitewater evaluation study and release all claims including, but not limited to, property damage, personal injury or death, whether caused by negligence,

breach of contract or otherwise, which I may have against Placer County Water Agency and its affiliates, officers, directors, employees, agents, assigns or successors or any other company, organization, person or entity that may be involved in facilitating this whitewater evaluation study

4. I represent that:
 - a. I am 18 years of age or older;
 - b. I am signing this release and waiver voluntarily;
 - c. I have no physical or emotional problems, nor any history thereof, which will impair my ability to participate in the activities of the proposed whitewater evaluation study.
5. I recognize that neither Placer County Water Agency nor anyone else involved with this study is providing liability, health, or other insurance in connection with this whitewater evaluation study. I agree to assume all financial responsibility for any medical, rescue or other expenses that I may incur.
6. I assume full responsibility for, and agree to defend, hold harmless and indemnify Placer County Water Agency, its affiliates, its officers, directors, employees, agents, successors and assigns against, any claims, losses or judgments that may arise from any damage or injury either to me or my personal property or that I may cause to others or their personal property while participating in this whitewater evaluation study.
7. This waiver shall be binding upon me, my heirs, executors and administrators.

Dated: _____

(Print)

(Print name)

Signature

Address:

FINAL

**Middle Fork American River
French Meadows Reservoir to Middle Fork Interbay
Invitation Letter and Attachments**

August 2010

FINAL

Mary Preuss

From: PCWA MFP Relicensing [Relicensing@pcwa.net]
Sent: Monday, May 17, 2010 12:34 PM
To: jared.noceti@kayaker.com; charliecenter@hotmail.com; D_mcquoid@hotmail.com; macykayak@hotmail.com; Julie Leimbach; Ben Ransom; Andy Fecko; Dave Martinez; Mary Preuss; kwood4life@yahoo.com
Subject: PCWA/MFP - May 22, 2010 Invitation to Participate in Boating Flow Studies (FERC Project No. 2079)
Attachments: FM WW Single Flow Itinerary 5-14-10 mtz.doc; FM WWSingle Flow Evaluation Form 5-14-10 mtz.doc; WW Boating Post Run Group Discussion Questions 5-14-10 mtz.doc; FM WW Flow Study Boater Profile Form 5-14-10 mtz.doc; PCWA WW Flow Study Liability Waiver.doc

Dear Relicensing Participant -

Placer County Water Agency (PCWA) invites you to participate in a boating flow study on a reach of the Middle Fork American River Project between French Meadow Dam and the Middle Fork Interbay. It is our understanding that Jared Noceti has already contacted you in regard to your participation in this study. The flow study will take place on May 22, 2010 and the Study team will meet at the Middle Fork Interbay on **May 21 at 4:00pm.**

The purpose of the flow study is to develop boating flow information on the upper reach of the river, and, refine previously developed boating flow information on the lower end of the reach. Study team members will boat the reach at a flow of about 200 cfs (at the put-in). In order to maximize the time available to boat the run, the Study Team will be at the put-in on Friday afternoon (May 21), and has a target put-in time of 7:00am on Saturday (May 22). Upon completion of the run, the boating Study Team will fill out survey forms and participate in a group discussion about the run.

Boating team members will provide their own boating gear, safety equipment, and transportation to the take-in for the run. PCWA will provide the shuttle logistics, pre and post run food and beverages.

It will be the responsibility of the boating team member to make a determination of their ability to boat the target run. On water safety, and if needed, rescue, will be the responsibility of the boating study team. Prior to the flow study, each study team member will be asked to complete and return a Boater Profile Form and Release of Liability Form. Attached is the Boater Profile Form and Liability Waiver. If possible, please complete these forms prior to the Flow Study and provide them to PCWA on the day of the flow study. There will be additional copies available on the day of the Study if needed. Also attached is the proposed itinerary for the flow study and for you review prior to the run, the Flow Evaluation Form, and Group Discussion Questions.

PCWA appreciates your participation in the Boating Flow Study. If you have any questions regarding this flow study, or need any additional information, please contact Dave Martinez at (916) 502-8523.

Thanks,
 Andrew Fecko
 Resource Planning Administrator
 (530) 823-4889

FINAL

Mary Preuss

From: PCWA MFP Relicensing [Relicensing@pcwa.net]
Sent: Monday, May 17, 2010 12:34 PM
To: jared.noceti@kayaker.com; charliecenter@hotmail.com; D_mcquoid@hotmail.com; macykayak@hotmail.com; Julie Leimbach; Ben Ransom; Andy Fecko; Dave Martinez; Mary Preuss; kwood4life@yahoo.com
Subject: PCWA/MFP - May 22, 2010 Invitation to Participate in Boating Flow Studies (FERC Project No. 2079)
Attachments: FM WW Single Flow Itinerary 5-14-10 mtz.doc; FM WWSingle Flow Evaluation Form 5-14-10 mtz.doc; WW Boating Post Run Group Discussion Questions 5-14-10 mtz.doc; FM WW Flow Study Boater Profile Form 5-14-10 mtz.doc; PCWA WW Flow Study Liability Waiver.doc

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PCWA appreciates your participation in the Boating Flow Study. If you have any questions regarding this flow study, or need any additional information, please contact Dave Martinez at (916) 502-8523.

Thanks,
 Andrew Fecko
 Resource Planning Administrator
 (530) 823-4889

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Whitewater Boating Flow Study
POST-RUN GROUP DISCUSSION QUESTIONS**

1. What would you rate the class of whitewater at this flow?
2. Do you consider this a single-day or multi-day run?
3. What type of boater would you expect to boat this reach?
4. What are the safety concerns on this run?
5. How would you expect the safety concerns to change at a lower flow?
6. How would you expect the safety concerns to change at a higher flow?
7. Are there specific locations you consider hazardous, beyond what would normally be encountered running a river of this difficulty? *[use map to locate]*
8. Are there specific locations that required extensive portaging? *[use map to locate]*
9. Did you experience a change in flow during the run, and if so, how did that affect boating conditions? *[refer back to "upper" and "lower" section breaks]*
10. How would you expect boating conditions to change at a lower flow?
11. How would you expect boating conditions to change at a higher flow?
12. What is the minimum flow you would boat this run?
13. What are the main reasons that you think you could not boat this reach below the minimum flow you identified?
14. What is the maximum flow you would boat this run?
15. What are the main reasons that you think you could not boat this reach above the maximum flow you identified?

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

Background Information (Confidential*)

Date: _____

Name: _____

*Age: _____

Gender: Male Female

*Address: _____

City: _____

State: _____

Zip Code: _____

*Phone Number:

*FAX Number: _____

*Email address: _____

***Confidentiality Statement**

Background and contact information (name, address, e-mail, etc.) is considered confidential and will not be disclosed to any parties as a result of this study.

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

1. Please identify your skill level for the following craft types by checking the appropriate box (based on the International Whitewater Scale difficulty) for each craft type listed. Check the box under N/A if you have no experience with a craft type. Give your years of experience in the last column.

Craft Type	Skill Level						Years of Experience
	N/A	I	II	III	IV	V	
Kayak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Closed deck canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Open canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

2. How many days do you participate in whitewater boating activities annually? _____

3a. Are these typically single or multi-day trips?

- Single Multi-day Both

3. How would you best describe the “type” of whitewater boating you prefer?

- Single-day recreational river trips
 Multi-day recreational river trips
 Both Multi-day and single-day recreational river trips
 Multi-day “expedition” river trips
 “Exploratory” single-day or multi-day river trips

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

4. Indicate the number of times that you have boated on the following rivers.

River	Reach	# of times run
Middle Fork American River	French Meadows Dam to Duncan Creek	
Middle Fork American River	Duncan Creek to Middle Fork Interbay	
Middle Fork American River	Middle Fork Interbay to Ralston Afterbay	
Rubicon River	Hell Hole Dam to Ellicott Bridge	
Rubicon River	Ellicott Bridge to Long Canyon	
Rubicon River	Long Canyon to Ralston Afterbay	
Duncan Creek		
Long Canyon Creek		

5. Have you participated in any “exploratory” or “first-decent” river trips?

Yes No

If yes, please provide the year, river, and reach for each trip. (Use back of page for additional space if required.)

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

River: _____ Reach: _____ Year: _____

6. Have you participated in a Whitewater Boating Flow Study in the past?

Yes No

If yes, please provide the year, river, and reach for each study. (Use back of page for additional space if required.)

Study 1 -Year: _____ River: _____ Reach: _____

Study 2 -Year: _____ River: _____ Reach: _____

Study 3 - Year: _____ River: _____ Reach: _____

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay – May 22, 2010**

ITINERARY

May 21

4:00 PM	Study Team meets at Middle Fork Interbay
4:00 – 4:30 PM	Complete Boater Profile forms and Liability Waivers (if needed) and provide Boating Team with Flow Study overview
4:30 – 4:45 PM	Load boats and gear depart for put-in
5:45 PM	Arrive at French Meadows Reservoir

May 22

6:30 AM	Unload gear hike to put-in below French Meadows Dam
7:00 AM	Put-in
7:00 AM – 6:00 PM	On-water boating time is variable and remainder of itinerary will be adjusted accordingly
6:00 PM	Take-out (Middle Fork Interbay)
6:30 – 7:30 PM	Complete Flow Evaluation Forms and Group Discussion

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Middle Fork American River – French Meadows Dam to MF Interbay
Whitewater Boating Flow Study**

BOATER PROFILE FORM

7. Have you ever been employed for your whitewater boating skills? Yes No

Type of Employment	# Years
Professional Guide: Recreational whitewater boating - Rafting	
Professional Guide: Recreational whitewater boating - Kayaking	
Professional Guide: Expedition boating	
Instructor – Boating Skills	
Instructor – Instructor Certification	
Instructor – Swift Water Safety	
Safety Support	
Filming	
Other _____	

If yes, please explain your experience (year, location, position held, etc.):

8. Do you have any certifications for whitewater boating? Yes No

If yes, please explain list certification: _____

9. To which whitewater organizations, groups, or clubs do you belong?

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Name: _____ Date: _____

River: _____

Put in location: _____ Put in time: _____

Take out location: _____ Take out time: _____

1. What type of craft did you use for this run? _____
2. What type(s) of watercraft would be suitable for this reach at today's flow? (*Circle all that would be appropriate*).
- | | |
|----------------------|---------------------|
| a. Kayak | f. Cataract |
| b. Closed deck canoe | g. Inflatable kayak |
| c. Raft | h. Other: _____ |
| e. Open canoe | |

3. Was access from the parking area to the river at the put-in adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- | | |
|--------------|--------------------------|
| a. Single | <input type="checkbox"/> |
| b. Multi-day | <input type="checkbox"/> |
| c. Both | <input type="checkbox"/> |

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks _____ Total minutes out of boat _____
 Number of stops for scouting _____ Total minutes out of boat _____
 Number of stops for portaging _____ Total minutes out of boat _____

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) _____

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Evaluation Study
Assumption of Risk and General Release of Liability

1. I, _____, recognize that the whitewater evaluation study conducted by Placer County Water Agency, in which I am about to participate, is a rigorous activity that may be physically and mentally stressful and may aggravate existing physical or mental conditions or cause new ones. I recognize that whitewater activities, such as boating, rafting, kayaking, and swimming, in which I am going to participate, are dangerous and may include damage to personal property, serious physical injury, or death arising from a variety of hazards and unavoidable risks, including, but not limited to, rocks, trees, powerful waves, waterfalls, hydraulics, ejection from a water craft, and other hazards, and difficulty or improbability of rescue. I acknowledge that the hazards associated with whitewater activities may be compounded. I also understand that significant variations in river flow may alter the natural character of the river, and that access to the study sections of this river will include transportation along narrow roadways which may involve other potential hazards.

2. As a participant in this whitewater evaluation study, I recognize:
 - a. that my participation is voluntary and I may discontinue participation at any time of my choosing;
 - b. that I am a joint venturer with the other trip participants;
 - c. that I am personally responsible for determining whether I have the skill and expertise to safely navigate the river segments in this study, which may include class IV, V and V+ rapids;
 - d. that I am solely responsible for selecting equipment suitable for use during the whitewater evaluation study;
 - e. that no other person or entity associated with this whitewater evaluation study has any obligation to attempt to rescue or assist me and that any attempted rescue or assistance may exacerbate my condition and cause injury or death; and
 - f. that I have no obligation to attempt to rescue or assist any other person, and that any such attempt on my part may result in injury or death to myself or the other person.

3. I understand and expressly assume all the dangers and risks incident to the whitewater evaluation study and release all claims including, but not limited to, property damage, personal injury or death, whether caused by negligence,

breach of contract or otherwise, which I may have against Placer County Water Agency and its affiliates, officers, directors, employees, agents, assigns or successors or any other company, organization, person or entity that may be involved in facilitating this whitewater evaluation study

4. I represent that:
 - a. I am 18 years of age or older;
 - b. I am signing this release and waiver voluntarily;
 - c. I have no physical or emotional problems, nor any history thereof, which will impair my ability to participate in the activities of the proposed whitewater evaluation study.
5. I recognize that neither Placer County Water Agency nor anyone else involved with this study is providing liability, health, or other insurance in connection with this whitewater evaluation study. I agree to assume all financial responsibility for any medical, rescue or other expenses that I may incur.
6. I assume full responsibility for, and agree to defend, hold harmless and indemnify Placer County Water Agency, its affiliates, its officers, directors, employees, agents, successors and assigns against, any claims, losses or judgments that may arise from any damage or injury either to me or my personal property or that I may cause to others or their personal property while participating in this whitewater evaluation study.
7. This waiver shall be binding upon me, my heirs, executors and administrators.

Dated: _____

(Print)

(Print name)

Signature

Address:

FINAL

**Middle Fork American River
French Meadows Reservoir to Middle Fork Interbay
Revised Itinerary Letter and Attachment**

August 2010

FINAL

Mary Preuss

From: PCWA MFP Relicensing [Relicensing@pcwa.net]
Sent: Tuesday, May 18, 2010 12:38 PM
To: jared.noceti@kayaker.com; charliecenter@hotmail.com; D_mcquoid@hotmail.com; macykayak@hotmail.com; Julie Leimbach; Ben Ransom; Andy Fecko; Dave Martinez; Mary Preuss; kwood4life@yahoo.com
Subject: PCWA/MFP - May 22, 2010 Revised Itinerary
Attachments: FM WW Single Flow Itinerary Revised 5-18-10 mtz.doc

Dear Relicensing Participant –

Attached is a revised itinerary for the May 22 French Meadows to MF Interbay whitewater flow study. The May 21 meeting time has been changed to accommodate for travel considerations for the boating team. The Study team will meet at the Middle Fork Interbay on May 21 at **7:00 pm**.

Thanks,
Beverly

Beverly Bell
Administrative Aide
(530) 823-4973
(530) 823-4960 (fax)

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

**Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay – May 22, 2010**

**ITINERARY
Revised May 18, 2010**

May 21

- | | |
|----------------|---|
| 7:00 PM | Study Team meets at Middle Fork Interbay |
| 7:00 – 7:30 PM | Complete Boater Profile forms and Liability Waivers (if needed) and provide Boating Team with Flow Study overview |
| 7:30 PM | Load boats and gear depart for put-in |
| 8:30 PM | Arrive at French Meadows Reservoir – unload gear at camp |

May 22

- | | |
|-------------------|---|
| 6:30 AM | Put-in |
| 6:30 AM – 6:00 PM | On-water boating time is variable and remainder of itinerary will be adjusted accordingly |
| 6:00 PM | Take-out (Middle Fork Interbay) |
| 6:30 – 7:30 PM | Complete Flow Evaluation Forms and Group Discussion |

APPENDIX D
Blank and Completed Single Flow Evaluation Forms

**Middle Fork American River
Middle Fork Interbay to Ralston Afterbay
Blank Single Flow
Evaluation Form**

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: _____ Date: _____

River: _____

Put in location: _____ Put in time: _____

Take out location: _____ Take out time: _____

1. What type of craft did you use for this run? _____
2. What type(s) of watercraft would be suitable for this reach at today's flow? (*Circle all that would be appropriate*).
- | | |
|----------------------|---------------------|
| a. Kayak | f. Cataraft |
| b. Closed deck canoe | g. Inflatable kayak |
| c. Raft | h. Other: _____ |
| e. Open canoe | |

3. Was access from the parking area to the river at the put-in adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- | | |
|--------------|--------------------------|
| a. Single | <input type="checkbox"/> |
| b. Multi-day | <input type="checkbox"/> |
| c. Both | <input type="checkbox"/> |

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks _____ Total minutes out of boat _____
 Number of stops for scouting _____ Total minutes out of boat _____
 Number of stops for portaging _____ Total minutes out of boat _____

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) _____

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

**Middle Fork American River
Middle Fork Interbay to Ralston Afterbay
Completed Single Flow
Evaluation Form**

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: Phil Boyer Date: 5-08-10

River: Middle Fork

Put in location: Inter Bay Dam Put in time: 10:15

Take out location: Ralston Picnic Area Take out time: 5:15

1. What type of craft did you use for this run? Kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?
- a. Yes
 - b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- a. Yes
 - b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- a. Single
 - b. Multi-day
 - c. Both

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1. Fast Middle section	Large Gravel + wooded benches
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>1</u>	Total minutes out of boat	<u>30 min</u>
Number of stops for scouting	<u>12</u>	Total minutes out of boat	<u>1.5 hr</u>
Number of stops for portaging	<u>3</u>	Total minutes out of boat	<u>1 hr</u>

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
Lower Steep Section	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lowered Boats w/ Rope	Left	30 min
Lower Steep Section	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Right	5 min
Lower Steep Section	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Left	20 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	Plenty of Trees in River Channel
2.	
3.	
4.	

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Raiston Afterbay
Single Flow Evaluation Form**

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

The run has plenty of technical rapids at beginning & end of run ✓
 The middle section consisting of great road & run rapids.
 The scenery & wildlife is fantastic

- 3 Black Bear
- 1 Great Blue Heron
- Ducks Galat

The flow made for great channels in all rapids when needed
 The flow covered alot of the small boulders in the middle road & run section making for a much cleaner fun run

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain:

a similar to slightly higher flow would clean up the runs tight channels

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			400
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			500
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			600

15a. Please provide any additional comments about the reach at this flow.

*Great wildlife - 3 black bear, Great blue heron Ducks
 Awesome scenery*

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: Brad Brewer Date: 5/8/10

River: MF American

Put in location: Inner Bay Put in time: 10:15

Take out location: Ralston Picnic Area Take out time: 5:15

1. What type of craft did you use for this run? kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?

- a. Yes
- b. No

If No, please explain:

steep, difficult, & slippery trail

4. Was egress from the river to the parking area at the take-out adequate?

- a. Yes
- b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?

- a. Single
- b. Multi-day
- c. Both

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1. Clear bend above river on lft. abt 1/2 way	Cleared flat area on ror left
2. Clear bend above river on rt abt 3/4 way down	Cleared flat area on ror rt.
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>1</u>	Total minutes out of boat	<u>30 min</u>
Number of stops for scouting	<u>12</u>	Total minutes out of boat	<u>1 hr</u>
Number of stops for portaging	<u>2.5</u>	Total minutes out of boat	<u>45 min</u>

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
Long rapid w/ wood 3/4 down	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Left	5 min
1st rapid w/ large sieve 3/4 way	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Left	15 min
2nd rapid w/ wood 3/4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ropes	Left	30 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. several downed trees along river	wood/trees - pin/broach hazard
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) √

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

Flow of 480 cfs was perfect, to much lower ^{is higher} would not be acceptable

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

Much higher & lower would be dangerous

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.	<input checked="" type="checkbox"/>		400
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.	<input checked="" type="checkbox"/>		480
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.	<input checked="" type="checkbox"/>		550

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: Scott Ligarc Date: 5/8

River: Middle Fork American

Put in location: Interbay Dam Put in time: _____

Take out location: Ralston Picnic Area Take out time: _____

1. What type of craft did you use for this run? Kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?
- a. Yes
 - b. No

If No, please explain:
Had to use ropes to lower boats to water

4. Was egress from the river to the parking area at the take-out adequate?
- a. Yes
 - b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- a. Single
 - b. Multi-day
 - c. Both

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>1</u>	Total minutes out of boat	<u>35 min</u>
Number of stops for scouting	<u>15</u>	Total minutes out of boat	<u>30 min</u>
Number of stops for portaging	<u>3</u>	Total minutes out of boat	<u>30 min</u>

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
Near put in	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No	RT	3 min
~1.5 miles above takeout	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes	RT	15 min
~1.5 miles above takeout	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No	RT	12 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. Wood Through out run	Trees in channel
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	3	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

Perfect flow. less would be very rocky in places
and more flow could produce big holes.

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			425
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			475
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			525

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: Eric Petlock Date: 5/8/10

River: Upper Middle Fork American Inner Bay Run

Put in location: ~~Ralston~~ Interbay Dam Put in time: 10:15 A

Take out location: Ralston Take out time: 5:15 P

1. What type of craft did you use for this run? Hard Shell Kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).

- a. Kayak
- b. Closed deck canoe
- c. Raft
- e. Open canoe
- f. Cataract
- g. Inflatable kayak
- h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?
 - a. Yes
 - b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
 - a. Yes
 - b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
 - a. Single
 - b. Multi-day
 - c. Both

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>2</u>	Total minutes out of boat	<u>35 min</u>
Number of stops for scouting	<u>12</u>	Total minutes out of boat	<u>1.5 hrs</u>
Number of stops for portaging	<u>4</u>	Total minutes out of boat	<u>1 hr</u>

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
Just Below Put-in	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Left	5 min
Upper Part of Lower steep Sect.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		left	5 min
Approx 1/2 mile above falls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Left	20 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. Numerous logs wood in river throat	Logs & Wood
2. Trees growing in channel	Trees growing in channel
3. Throughout Run	
4.	

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

Maybe 100 cfs more would be better. Things were covered, channels clean for the most part

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

Upper Part of Reach (Put-in to Inver Bay to Ralston)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain: Maybe 100 cfs more

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.	X		450
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.	X		550
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.	X		600

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Name: Katie Scott Date: May 8th

River: Upper Middle Fork

Put in location: Interbay Dam Put in time: 10:00

Take out location: Ralston Picnic Area Take out time: 5:15

1. What type of craft did you use for this run? Whitewater Kayak

2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).

- a. Kayak
- b. Closed deck canoe
- c. Raft
- e. Open canoe
- f. Cataract
- g. Inflatable kayak
- h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?

- a. Yes
- b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?

- a. Yes
- b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?

- a. Single
- b. Multi-day
- c. Both

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u> 1 </u>	Total minutes out of boat	<u> 20 min </u>
Number of stops for scouting	<u> </u>	Total minutes out of boat	<u> </u>
Number of stops for portaging	<u> </u>	Total minutes out of boat	<u> </u>

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
2nd steep section	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		River Left	20 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	
2.	
3.	
4.	

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) ~~IV~~ V ✓

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

Current flow - would not want any less
water - could use boat more CFS
It was very manageable for first time run.

**PLACER COUNTY WATER AGENCY
 Middle Fork American River Project Relicensing
 Whitewater Boating Flow Study
 Middle Fork American River – MF Interbay to Ralston Afterbay
 Single Flow Evaluation Form**

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain:

see previous page

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.	✓		400
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.	✓		520
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.	✓		1050

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – MF Interbay to Ralston Afterbay
Single Flow Evaluation Form

Lower Part of Reach (to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

**Middle Fork American River
French Meadows Dam to Middle Fork Interbay
Blank Single Flow
Evaluation Forms**

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Name: _____ Date: _____

River: _____

Put in location: _____ Put in time: _____

Take out location: _____ Take out time: _____

1. What type of craft did you use for this run? _____
2. What type(s) of watercraft would be suitable for this reach at today's flow? (*Circle all that would be appropriate*).
- | | |
|----------------------|---------------------|
| a. Kayak | f. Cataract |
| b. Closed deck canoe | g. Inflatable kayak |
| c. Raft | h. Other: _____ |
| e. Open canoe | |

3. Was access from the parking area to the river at the put-in adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- | | |
|--------|--------------------------|
| a. Yes | <input type="checkbox"/> |
| b. No | <input type="checkbox"/> |

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- | | |
|--------------|--------------------------|
| a. Single | <input type="checkbox"/> |
| b. Multi-day | <input type="checkbox"/> |
| c. Both | <input type="checkbox"/> |

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks _____ Total minutes out of boat _____
 Number of stops for scouting _____ Total minutes out of boat _____
 Number of stops for portaging _____ Total minutes out of boat _____

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1.	
2.	
3.	
4.	

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) _____

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15a. Please provide any additional comments about the reach at this flow.

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today’s study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

**Middle Fork American River
French Meadows Dam to Middle Fork Interbay
Completed Single Flow
Evaluation Forms**

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing
Whitewater Boating Flow Study

Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Flow 252 cfs

Name: Macy Burnham Date: 5-22-10

River: Middle American

Put in location: French Meadows Boating Station Put in time: 7:45

Take out location: 2 miles Below Take out time: 10:40

1. What type of craft did you use for this run? Kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?
- a. Yes
 - b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- a. Yes
 - b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- a. Single
 - b. Multi-day
 - c. Both

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6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No - Did not get down far enough

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>1</u>	Total minutes out of boat	<u>20</u>
Number of stops for scouting	<u>10</u>	Total minutes out of boat	<u>40</u>
Number of stops for portaging	<u>5</u>	Total minutes out of boat	<u>60</u>

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8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
Bishop 1 mi. below put in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Left	20 min
Wood in small slide just 1.2 mi.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Right	5 min
Save Gate 1.3 mi	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Left	30 min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. Yes	Excessive Amounts of wood in The river from Fire
2.	
3.	
4.	

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10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) IV

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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	①	-1	-2
Overall whitewater challenge	2	①	0	-1	-2
Safety	2	1	0	-1	-2
Length of run	2	①	0	-1	-2
Rate of travel	2	①	0	-1	-2
Number of portages	2	①	0	-1	-2

N/A - not a play run

N/A - not due to flow

↳ Low Factor was wood in river not flow

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	①	0	-1	-2

Please explain your rating:

Flow seemed good. It would be an acceptable level, wood in the river was the major obstacle

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Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

Flow good

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			<i>200</i>
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			<i>250</i>
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			<i>350</i>

15a. Please provide any additional comments about the reach at this flow.

Steep technical creek, Expect only run. Slow practice due to wood.

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Whitewater Boating Flow Study
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Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

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Single Flow Evaluation Form

Name: CHARLIE CENTER Date: 5/22

River: UPPER MF AMERICAN

Put in location: French meadow gauging station Put in time: 7:45

Take out location: 2 miles down R/LT Take out time: 10:40

1. What type of craft did you use for this run? KAYAK
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?

- a. Yes
- b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?

- a. Yes
- b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?

- a. Single
- b. Multi-day
- c. Both

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6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1.	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>0</u>	Total minutes out of boat	<u>0</u>
Number of stops for scouting	<u>10</u>	Total minutes out of boat	<u>30 min</u>
Number of stops for portaging	<u>5</u>	Total minutes out of boat	<u>45 min.</u>

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8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
logs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
↓	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
↓	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
1 mile down	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		LFT	20min
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. TONS OF LOGS	SAFETY HAZARD/EVERY RAPID HAD LOG ISSUES.
2.	
3.	
4.	

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10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	2	①	0	-1	-2
Availability of challenging technical boating	2	①	0	-1	-2
Availability of powerful hydraulics	2	1	①	-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 -1	-2
Length of run	2	1	① 0	-1	-2
Rate of travel	2	1	0	① -1	-2
Number of portages	②	1	0	-1	-2

N/A

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
②	1	0	-1	-2

Please explain your rating:

Great flow

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Middle Fork American River Project Relicensing
Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			200
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			250
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			300

15a. Please provide any additional comments about the reach at this flow.

The flow was good. The character would be good except for the enormous amount of logs. Basically w/ the number of fallen trees the desire to come back would not be high.

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Whitewater Boating Flow Study
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Single Flow Evaluation Form

Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

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Whitewater Boating Flow Study
Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Name: Darin McQuoid Date: 9/22/2010

River: MF American

Put in location: French Meadows Put in time: 7:45

Take out location: 2 miles down Take out time: 10:45

1. What type of craft did you use for this run? kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).

a) <input checked="" type="checkbox"/> Kayak	f. <input type="checkbox"/> Cataract
b. <input type="checkbox"/> Closed deck canoe	g. <input type="checkbox"/> Inflatable kayak
c. <input type="checkbox"/> Raft	h. Other: _____
e. <input type="checkbox"/> Open canoe	

3. Was access from the parking area to the river at the put-in adequate?

- a. Yes
- b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?

- a. Yes
- b. No

If No, please explain:

Helicopter was awesome

5. Would you typically boat this reach as a single or multi-day trip?

- a. Single
- b. Multi-day
- c. Both

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Whitewater Boating Flow Study
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Single Flow Evaluation Form

6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1. 2 miles in	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>0</u>	Total minutes out of boat	
Number of stops for scouting	<u>10</u>	Total minutes out of boat	<u>10</u>
Number of stops for portaging	<u>5+</u>	Total minutes out of boat	<u>45</u>

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 Whitewater Boating Flow Study
 Middle Fork American River – French Meadows Dam to MF Interbay
 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
1 mile	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		left	30
many logs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. Everywhere	Downed trees
2.	
3.	
4.	

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Single Flow Evaluation Form

10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	(0)	-1	-2
Rate of travel	2	1	0	-1	(-2)
Number of portages	2	1	0	(-1)	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
(2)	1	0	-1	-2

Please explain your rating:

Great perfect flow, just too many logs

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Whitewater Boating Flow Study
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Single Flow Evaluation Form

Upper Part of Reach (Put-in to 2 miles)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			200
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			252
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			300

15a. Please provide any additional comments about the reach at this flow.

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Single Flow Evaluation Form

Lower Part of Reach (NA) to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

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Whitewater Boating Flow Study

Middle Fork American River – French Meadows Dam to MF Interbay
Single Flow Evaluation Form

Name: THOMAS MOORE Date: 5/22/10

River: MID F Amer.

Put in location: French meadows Put in time: 7:45

Take out location: 2 mi below ↑ Take out time: 10:45

1. What type of craft did you use for this run? Kayak
2. What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).
- a. Kayak
 - b. Closed deck canoe
 - c. Raft
 - e. Open canoe
 - f. Cataract
 - g. Inflatable kayak
 - h. Other: _____

3. Was access from the parking area to the river at the put-in adequate?
- a. Yes
 - b. No

If No, please explain:

4. Was egress from the river to the parking area at the take-out adequate?
- a. Yes
 - b. No

If No, please explain:

5. Would you typically boat this reach as a single or multi-day trip?
- a. Single
 - b. Multi-day
 - c. Both

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6. If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?

- a. N/A
- b. Yes
- c. No

Location	Description
1. 2 mi in	
2.	
3.	
4.	

7. Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.

Number of stops for breaks	<u>2</u>	Total minutes out of boat	
Number of stops for scouting	<u>10 +</u>	Total minutes out of boat	<u>30 min</u>
Number of stops for portaging	<u>5 +</u>	Total minutes out of boat	<u>45 min</u>

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 Single Flow Evaluation Form**

8. Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level).

Location Description	Portage Difficulty				Requires Technical Portage Ropes/Gear	Portage Route (River Right or Left)	Estimated Portage Time
	Easy	Slightly Difficult	Moderately Difficult	Extremely Difficult			
1 mi	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO	L	30min
many logs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO	L & R	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

9. Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below.

Location Description	Safety Hazard
1. first 2 mi	many logs
2.	
3.	
4.	

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10. How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI) V

11. Please evaluate this flow for each of the following characteristics. (Circle one number for each characteristic).

Characteristic	Rating				
	Acceptable		Neutral	Unacceptable	
	Highly	Moderately		Moderately	Highly
Boatability	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
Length of run	2	1	0	-1	-2
Rate of travel	2	1	0	-1	-2
Number of portages	2	1	0	-1	-2

12. Please rate your overall satisfaction with today's flow.

Rating				
Satisfied		Neutral	Unsatisfied	
Highly	Moderately		Moderately	Highly
2	1	0	-1	-2

Please explain your rating:

flow was perfect for a first time

PLACER COUNTY WATER AGENCY
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Upper Part of Reach (Put-in to _____)

13a. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
 (Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14a. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.	X		252
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			250 250
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.	X		250 400

15a. Please provide any additional comments about the reach at this flow.

The flow of 250 was optimal because the river picks up natural flow down river

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Lower Part of Reach (_____ to Take-out)

13b. In general, would you prefer a flow that was higher, lower, or about the same as this flow?
(Check one)

Much Lower Flow	Slightly Lower Flow	About the Same Flow	Slightly Higher Flow	Much Higher Flow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain:

14b. Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach. Yes No

	yes	no	Flow (cfs)
Minimum Acceptable: The lowest flow at which you would be willing to return to boat on this run.			
Optimal: The flow that creates the best combination of characteristics for your craft type and skill level.			
Maximum Acceptable: The highest flow at which you would be willing to return to boat this run.			

15b. Please provide any additional comments about the reach at this flow.

APPENDIX E
Single Flow Evaluation Form Summary Data

**Middle Fork American River
Middle Fork Interbay to Ralston Afterbay
Single Flow Evaluation Form**

Middle Fork Interbay to Ralston Afterbay: Single Flow Evaluation Survey Results (May 8, 2010).

Question	Respondent ¹				
	EP	KS	BB	SL	PB
Q1 What type of craft did you use for this run?	Kayak	Kayak	Kayak	Kayak	Kayak
Q2 What type(s) of watercraft would be suitable for this reach at today's flow? (<i>Circle all that would be appropriate</i>).	Kayak Closed deck canoe	Kayak Raft	Kayak Closed deck canoe	Kayak Closed deck canoe	Kayak Closed deck canoe
Q3 Was access from the parking area to the river at the put-in adequate? If No, please explain	Yes	Yes	No Steep, difficult, slippery trail	No Had to use ropes to lower boats to the water	Yes
Q4 Was egress from the river to the parking area at the take-out adequate?	Yes	Yes	Yes	Yes	Yes
Q5 Would you typically boat this reach as a single or multi-day trip?	Single	Single	Single day Multi-day	Single	Single
Q6 If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?	N/A	N/A	Clear bench on river right about 1/2 way down Clear bench on river right about 3/4 of the way down	N/A	Middle section of river - lot of gravel and wooded beaches
Q7 Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.					
Number of stops for breaks	2	1	1	1	1
Total minutes out of boat	35	20	30	35	30
Number of stops for scouting	12	x	12	15	12
Total minutes out of boat	90	x	60	30	90
Number of stops for portaging	4	x	2.5	3	3
Total minutes out of boat	60	x	45	30	60
Q8 Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level) ² .	Just below put-in - Slightly difficult - RL - 5 minutes	Second steep section Moderately difficult - RR - 20 minutes	Long rapid with wood about 1/3 of the way down - Slightly difficult - RL - 5 minutes	Near put in - Easy - RR - 3 minutes	Lower steep section - Moderately difficult - Lowered boats with rope - RL - 30 minutes
	Upper Part of lower steep section - Moderately difficult - RL - 5 minutes		1st rapid with large sieve about 3/4 of the way down - Moderate difficult - RL - 15 minutes	About 1.5 miles upstream of take-out - Moderately difficult - RR - 15 minutes	Lower steep section - Easy - RR - 5 minutes
	Approximate 1/2 mile above falls - Extremely difficult - RL - 20 minutes		2nd rapid with wood 3/4 - Slightly difficult - RL - 30 minutes	About 1.5 miles upstream of take-out - Slightly difficult - RR - 12 minutes	Lower steep section - Slightly difficult - RR - 20 minutes

Middle Fork Interbay to Ralston Afterbay: Single Flow Evaluation Survey Results (May 8, 2010).

Question	Respondent ¹				
	EP	KS	BB	SL	PB
Q9 Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below	Numerous logs and wood throughout run	x	Several downed trees along river	Wood throughout the run	Trees in river channel
	Trees growing in channel throughout run			Trees in channel	
Q10 How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI)	V	IV/V	V	V	V
Q11 Please evaluate this flow for each of the following characteristics.					
Boatability	2	2	2	2	2
Availability of challenging technical boating	2	2	2	2	2
Availability of powerful hydraulics	1	2	2	1	2
Availability of whitewater "play areas"	0	1	-2	-2	-1
Overall whitewater challenge	2	1	2	1	2
Safety	0	1	1	1	2
Length of run	2	1	1	1	2
Rate of travel	2	1	1	1	2
Number of portages	1	2	1	1	2
Q12 Please rate your overall satisfaction with today's flow.	2	2	2	2	2
Please explain your rating -	Maybe 100 cfs more would be better - Things were covered, channels clean for the most part	Great flow - would not want any less water - could use 100+ more cfs - it was very manageable for first time run	Flow of 480 was perfect - too much lower or higher would not be acceptable	Perfect flow - less would be very rocky in places - more flow could produce big holes	The run has plenty of technical rapids at the beginning and end of the run - Middle section consisting of great "read and run" rapids - Scenery and wildlife fantastic The flow made for great channels in all rapids when needed - The flow covered a lot of the smaller boulders in the middle read and run section making for a much clear run

Middle Fork Interbay to Ralston Afterbay: Single Flow Evaluation Survey Results (May 8, 2010).

Question	Respondent ¹				
	EP	KS	BB	SL	PB
Q13 In general, would you prefer a flow that was higher, lower, or about the same as this flow Please explain	Slightly higher flow	Slightly higher flow	About the same	About the same	Slightly higher flow
	Maybe 100cfs more	Maybe 100cfs more	Much higher or lower would be dangerous		A similar to slightly higher flow would clean up the flow in the tight channels
Q14 Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach <u>Minimum Acceptable:</u> The lowest flow at which you would be willing to return to boat on this run. <u>Optimal:</u> The flow that creates the best combination of characteristics for your craft type and skill level. <u>Maximum Acceptable:</u> The highest flow at which you would be willing to return to boat this run.	Yes	Yes	Yes	Yes	Yes
	450	400	400	425	400
	550	520	480	475	500
	600	650	550	525	600
Q15 Please provide any additional comments about the reach at this flow					Great wildlife - 3 different black bear sightings - great blue herons - ducks - awesome scenery

Flow at put-in: 425 cfs Flow at take-out 475
 Upramp travel time: about 4 hours to hit gage - 5.5 hours to stabilize
 Downramp travel time: about 3.25 hours to hit gage

¹Boating Team Members: EP (Eric Petlock), KS (Katie Scott), BB (J. Brad Brewer), SL (Scott Ligure), PB (Phil Boyer)

²RL=river left; RR=river right

**Middle Fork American River
French Meadows Dam to Middle Fork Interbay
Single Flow Evaluation Forms**

French Meadow Dam to Middle Fork Interbay: Single Flow Evaluation Survey Results (May 22, 2010).

Question	Respondent ¹			
	DM	MB	CC	TM
Q1 What type of craft did you use for this run?	Kayak	Kayak	Kayak	Kayak
Q2 What type(s) of watercraft would be suitable for this reach at today's flow? (Circle all that would be appropriate).	Kayak	Kayak	Kayak	Kayak
Q3 Was access from the parking area to the river at the put-in adequate?	Yes	Yes	Yes	Yes
Q4 Was egress from the river to the parking area at the take-out adequate?	Yes	Yes	Yes	Yes
Q5 Would you typically boat this reach as a single or multi-day trip?	Multi-day	Multi-day	Multi-day	Multi-day
Q6 If this reach was boated as a two-day run, did you notice any sites that would be suitable for overnight camping?	N/A	N/A	N/A	N/A
Q7 Estimate the number of times you stopped and got out of your boat for breaks, scouting, or for portaging and estimate the total amount of time spent.				
Number of stops for breaks	0	1	0	0
Total minutes out of boat	0	20	0	0
Number of stops for scouting	10	10	10	10+
Total minutes out of boat	10	40	30	30
Number of stops for portaging	5+	5	5	5+
Total minutes out of boat	45	60	45	45
Q8 Please identify rapids or sections you needed to portage and rate the difficulty of those portages (using your type of craft at this flow level) ² .	1 mile DS of Put-in - Moderately difficult - RL - 30 minutes	Big drop 1 mile DS of put-in - Moderately difficult - RL - 20 minutes	Logs -easy	1 mile DS of put-in - Moderately difficult - RL - 30 minutes
		Wood in small slides - 1.2 miles DS put-in - easy - RR - 5 minutes	Logs -easy	Many logs - Moderately difficult - RR & RL
		Wood in small slides - 1.3 miles DS put-in - Moderately difficult - RL - 30 minutes	Logs -easy	
			Logs 1 mile DS put-in - Moderately difficult - RL - 20 minutes	
Q9 Did you observe any specific safety hazards beyond those normally encountered running a river of this difficulty at this flow? If so, please describe them below	Downed trees everywhere	Excessive amount of wood in the river from Star Fire	Tons of logs - every rapid has log issues	Many logs
Q10 How would you rate the whitewater difficulty of this run? (Use American Whitewater's International Scale of Whitewater Difficulty that ranges from Class I to Class VI)	V	V	V	V

French Meadow Dam to Middle Fork Interbay: Single Flow Evaluation Survey Results (May 22, 2010).

Question	Respondent ¹			
	DM	MB	CC	TM
Q11 Please evaluate this flow for each of the following characteristics.				
Boatability	-1	1	1	1
Availability of challenging technical boating	1	1	1	1
Availability of powerful hydraulics	1	1	0	0
Availability of whitewater "play areas"	0	n/a*	n/a*	0
Overall whitewater challenge	0	1	1	1
Safety	-1	n/a**	-1	-1
Length of run	0	1	0	1
Rate of travel	-2	1	-1	-1
Number of portages	-1	1	2	-2
Q12 Please rate your overall satisfaction with today's flow. Please explain your rating -	2	1	2	2
	Great - perfect, just too many logs	Flow seemed good - it would be acceptable - wood in the river was the main obstacle *not a play run ** not due to flow	Great flow	Flow was perfect for first time
Q13 In general, would you prefer a flow that was higher, lower, or about the same as this flow Please explain	About the same	About the same	About the same	About the same
		Good flow		
Q14 Based on today's study and your experience, can you identify a range of flows that would be suitable for boating this part of the reach <u>Minimum Acceptable:</u> The lowest flow at which you would be willing to return to boat on this run.	Yes	Yes	Yes	Yes
	200	200	200	252
<u>Optimal:</u> The flow that creates the best combination of characteristics for your craft type and skill level.	252	250	250	250
<u>Maximum Acceptable:</u> The highest flow at which you would be willing to return to boat this run.	300	350	300	400
Q15 Please provide any additional comments about the reach at this flow		Steep technical creek - expert only run - slow progress due to wood	The flow was good. The character would be good except for the enormous amount of logs. Basically, with the number of fallen tress, the desire to come back would not be high.	The flow of 250 was optimal because the river picks up natural flow down river.

Flow at put-in: 252 cfs

¹Boating Team Members: CC (Charlie Center), DM (Darin Mc Quoid), TM (Thomas Moore), MB (Marcy Burnham)

²RL=river left; RR=river right; DS=downstream

APPENDIX F
Post-Run Discussion Summary Notes

FINAL

**Middle Fork American River
Middle Fork Interbay to Ralston Afterbay
Post-Run Group Discussion Questions**

August 2010

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

Whitewater Boating Flow Study – POST-RUN GROUP DISCUSSION QUESTIONS

**Middle Fork American River (Middle Fork Interbay to Ralston Afterbay Reach)
May 8, 2010**

1. What would you rate the class of whitewater at this flow?
Class 5 – difficulty of access; high consequences; instream wood; need to be on-line
2. Do you consider this a single-day or multi-day run?
Single day run – length; no real good camping areas; portages with heavy boat a problem; would not go to this run for a camping experience, i.e., the Feather River
3. What type of boater would you expect to boat this reach?
Class 5 expert boaters – “Sierra style”; wilderness run; not going to hike out, felt confined – closed canopy; multiple bear sightings, surprised by the degree of wilderness feeling; appeal to “creeking-boaters” as opposed to a “river-run”
4. What are the safety concerns on this run?
Typical Class 5 considerations; lots of instream wood – more than typical; some metal; most of the wood was in easy rapids – Class 3; top 3 miles (steep) was clean; needs to be “cleaned-out; there are not specific locations or sections that are overtly dangerous or required running or blind running
5. How would you expect the safety concerns to change at a lower flow?
Instream wood considerations would not change – rapids would become rocky; more boat damage; more potential for pinning; more dangerous
6. How would you expect the safety concerns to change at a higher flow?
In channel and bank riparian growth would make it harder to catch eddies; more strainers
7. Are there specific locations you consider hazardous, beyond what would normally be encountered running a river of this difficulty? *[use map to locate]*
Instream and bank-side wood
8. Are there specific locations that required extensive portaging? *[use map to locate]*
No
9. Did you experience a change in flow during the run, and if so, how did that affect boating conditions? *[refer back to “upper” and “lower” section breaks]*
No

**PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing**

Whitewater Boating Flow Study – POST-RUN GROUP DISCUSSION QUESTIONS

**Middle Fork American River (Middle Fork Interbay to Ralston Afterbay Reach)
May 8, 2010**

10. How would you expect boating conditions to change at a lower flow?
The lower the flow, the less “fun” it would be - would not meet your boating experience needs; more difficult to navigate; lack of cushions to maneuver off of, i.e., “boofing”
11. How would you expect boating conditions to change at a higher flow?
Bigger holes; moving faster and linked up; could get continuous in some sections
12. What is the minimum flow you would boat this run?
400-425 cfs
Would come back at this flow
Optimal Flow – 450 at put-in/500-550 cfs at take-out
13. What are the main reasons that you think you could not boat this reach below the minimum flow you identified?
Safety considerations and experiential requirements, boat damage; higher potential for injury
14. What is the maximum flow you would boat this run?
600 cfs at the take-out
15. What are the main reasons that you think you could not boat this reach above the maximum flow you identified?
Linking up; bank encroachment; instream wood; hydraulics; and speed of transit

**Middle Fork American River
French Meadows Dam to Middle Fork Interbay
Post-Run Group Discussion Questions**

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing

Whitewater Boating Flow Study – POST-RUN GROUP DISCUSSION QUESTIONS

Middle Fork American River (French Meadow Dam to Middle Fork Interbay Reach)
May 22, 2010

Note: The flow study was terminated by the boating study team approximately 1.75 miles below the put-in due to slow downstream progress. It took the boating study team approximately three hours to run the first 1.75 miles of the reach. This was due to the extensive amount of scouting and portaging necessitated by the presence of instream wood. In addition, weather conditions were poor on the day of the study. It was snowing and temperatures were in the 20s and 30s. Due to the slow rate of progress down the river, the potential for an unplanned overnight in the canyon in severe weather conditions was very high. All members of the boating study team and their equipment were evacuated by helicopter back to the put-in.

PCWA provided the boating study team with the opportunity to helicopter over the remainder of the study reach in order to assess the channel/flow conditions for the entire run. All boating study team members evaluated the remainder of the run from the helicopter. The team members felt that their responses on the Single Flow Evaluation Form and in the post-run discussion were applicable for the entire run, based on the section of river paddled and the remainder of the reach assessed by helicopter. They noted that that the run “cleaned-up” about ½ mile upstream of the confluence with Duncan Creek.

1. What would you rate the class of whitewater at this flow?
Class 5
2. Do you consider this a single-day or multi-day run?
Multi-day run - based on the existing condition of the channel, with prevalent instream wood requiring extensive portaging
3. What type of boater would you expect to boat this reach?
Class 5 - Expert – with low volume, steep “creeking” preference
4. What are the safety concerns on this run?
Extensive amount of wood and steep portages
5. How would you expect the safety concerns to change at a lower flow?
More exposed wood with more portages
6. How would you expect the safety concerns to change at a higher flow?
They would not change

PLACER COUNTY WATER AGENCY
Middle Fork American River Project Relicensing

Whitewater Boating Flow Study – POST-RUN GROUP DISCUSSION QUESTIONS

Middle Fork American River (French Meadow Dam to Middle Fork Interbay Reach)
May 22, 2010

7. Are there specific locations you consider hazardous, beyond what would normally be encountered running a river of this difficulty? [use map to locate]
No locational considerations – instream wood is prevalent throughout the run
8. Are there specific locations that required extensive portaging? [use map to locate]
No specific locations
9. Did you experience a change in flow during the run, and if so, how did that affect boating conditions? [refer back to “upper” and “lower” section breaks]
N/A
10. How would you expect boating conditions to change at a lower flow?
More contact with instream wood and more portaging
11. How would you expect boating conditions to change at a higher flow?
Instream wood more dangerous; need to scout longer sections; and more risk of washing into trees
12. What is the minimum flow you would boat this run?
200 cfs, at the put-in
Optimal Flow – 250 cfs at put-in
13. What are the main reasons that you think you could not boat this reach below the minimum flow you identified?
Instream wood and extensive portaging
14. What is the maximum flow you would boat this run?
300-350 cfs at put-in – The Duncan Creek contribution, which is unknown at this time, is a big consideration. The 300-350 cfs is for the section between French Meadows Dam and Duncan Creek.
15. What are the main reasons that you think you could not boat this reach above the maximum flow you identified?
Instream wood; speed of transit; need to scout longer sections; and more risk of washing into trees