From: "Andrea Fuller" <andreafuller@fishbio.com>

Subject: RE: FISHBIO SCPs - Tuolumne River predation study

Date: August 15, 2013 10:22:58 AM PDT

To: "Harrison, Dustin@Wildlife" < <a href="Dustin.Harrison@wildlife.ca.gov">Dustin.Harrison@wildlife.ca.gov</a>>,

<permits@fishbio.com>

**Cc:** <<u>jasonguignard@fishbio.com</u>>, <<u>mikekersten@fishbio.com</u>>, <<u>johnmontgomery@fishbio.com</u>>, <<u>jeremypombo@fishbio.com</u>>

Hi Dustin,

Please find attached the updated study plan for the 2014 Tuolumne River Predation Study. I will also be submitting the revised plan to NOAA Fisheries for our Section 10 application. Please note that we will be re-submitting SCP amendment requests for me, Robert Fuller, and Ben Griffith which were not processed when originally submitted.

Thank you, Andrea

**From:** Harrison, Dustin@Wildlife [mailto:Dustin.Harrison@wildlife.ca.gov]

**Sent:** Friday, July 26, 2013 4:38 PM

To: permits@fishbio.com

Cc: jasonquignard@fishbio.com; mikekersten@fishbio.com; johnmontgomery@fishbio.com; jeremypomb

o@fishbio.com

Subject: FISHBIO SCPs - Tuolumne River predation study

Hello Fishbio,

The Fisheries Branch of the Department of Fish and Wildlife has received your SCP Amendment Form regarding the Lower Tuolumne River as part of the Don Pedro Project FERC No. 2299.

It has been recommended by the Department that the 2013 Predation Study Plan be updated for the 2014 year since it is already halfway through the 2013 season.

Suggestions of a reservoir biological management plan with FERC and other interested stakeholders has been discussed but is not required.

Data that helps with the management of California's natural aquatic resources will continue to benefit society.

Your applications will be held until an updated plan has been submitted with more species-specific targeting methods.

If you have any questions feel free to contact me.

Thank you,

**Dustin Harrison** 

Scientific Aide

Fisheries Branch California Dept. Fish and Wildlife 830 S St. Sacramento, CA (916) 445-7636

# Staples, Rose

From: Craig, Nancy

**Sent:** Friday, August 16, 2013 8:55 AM

**To:** peter@tuolumne.org; Bowes, Stephen (stephen\_bowes@nps.gov); Theresa - American

Whitewater < theresa@americanwhitewater.org > (theresa@americanwhitewater.org);

'Guptill.C ; 'deinhel ; 'steve.avila

'jrego@ucdavis.edu'; 'mtomkehoe

'steven5qc ; 'vanderm1 ; 'deborahdavisnesto

timihorn ; 'keith1252 ; 'gary.johnson09

Subject: RE: Lower Tuolumne River boating study survey instrument
Attachments: BOATING SURVEY for the LOWER TUOLUMNE RIVER 2013.pdf

#### Hello volunteer boaters,

Attached is the survey instrument for the lower Tuolumne River study. We will have hard copies available on August 17 for you to fill out at the end of your run. The attached is provided if you would like to preview the questions. Thank you,

Nancy H. Craig, Project Manager HDR Engineering, Inc. 1825 N. Tegner St. Wickenburg, AZ 85390 (928) 273-5772 Nancy.Craig@hdrinc.com

# **BOATING SURVEY for the LOWER TUOLUMNE RIVER**

Thank you for participating in the Lower Tuolumne River Boatable Flow Study.

The following questionnaire will help MID and TID understand more about boatable flow on the Lower Tuolumne River.

Your name:
1. Approximately how many times have you boated this reach?
<ul> <li>a. Total number of times (including today)</li> <li>b. Number of time in the last 12 months (including today)</li> <li>c. What months of the year do you normally boat this reach? (Circle all that apply)</li> </ul>
Jan Feb Mar Apr Ma Jun Jul Aug Sep Oct Nov Dec
2. How many years have you been boating the reach?
3. In general, how many days per year do you spend flatwater boating?
4. What type of boats do you commonly use for flatwater boating?
□ Canoe □ Sit-on-top kayak □ Tube □ Kayak □ Drift raft □ Other. Specify:
5. How would you rate your flatwater boating skill level?
☐ Expert ☐ Highly skilled ☐ Intermediate ☐ Novice/Beginner
6. What sources of information do you use for Lower Tuolumne River flow information? (Check all that apply.)
☐ USGS website ☐ Visual observation ☐ TID or MID websites ☐ Other boaters ☐ I don't look for flow information ☐ TID or MID websites ☐ Other boaters
7. How far in advance do you need flow information to use it for planning trips to the Lower Tuolumne River
☐ More than 48 hours ☐ 12-24 hours ☐ 24-48 hours ☐ Fewer than 12 hours
8. Approximately how many miles is it from your home to here?

9. Based on your expe	rience, list co	mparable river reaches	s to this one.	
10. Please identify you	r put-in & tak	e-out locations.		
Put-in:				
Take-out:				
11. What type of water	craft did you	use?		
		<ul><li>□ Drift boat</li><li>□ Inflatable kayak</li></ul>	☐ Other. Specify	
12. Did you encounter	other boaters	during this run (not p	art of this study group)?	
□ No □ Yes ► H	ow many?	What type of watercr	aft?	
13. What type of hazard	ds and challe	nges did you encounte	er on this run?	
☐ Portages. How man				
			id. How many locations? _ ot stop. How many times?	
			out did not have to get out	
How many times?	ll my boat off o	of the hottom rocks or o	ther obstacles. How many	times?
☐ Exciting or fun runs				unies :
Using the map provided,				F-Fyoiting/fun run or obuto
(P =Portage, D=Debris/ove	rmanging veget	аноп, 5с =5стареа вонот	, St=Stopped, P-Drag or pull,	E=Exciting/iun run or chate
14. How long did it take	e you to comp	olete the run?	hoursminutes	
15. For the watercraft-t	ype you boat	ed in for this run, was	this flow boatable?	
□ No □ Yes				
16. For the watercraft-t	ype you boat	ed in for this run, was	this flow enjoyable?	
□ No □ Yes	,		<b>, . ,</b>	

18. If you feel qualified to offer an opiniplease respond to the following statemer craft. (Circle one number for each type)  This run at this flow would work well for:  Catarafts  Drift boats  Open Canoes  Inflatable Kayaks  19. Describe the quality & functionality of the country of the co			`	ct one)		
please respond to the following statemed craft. (Circle one number for each type)  This run at this flow would work well for:  Disa  Kayaks  Rafts  Catarafts  Drift boats  Open Canoes  Inflatable Kayaks  19. Describe the quality & functionality of Put-In:  Take-Out:	,	☐ Probably		□ Definitely Yes		
Kayaks Rafts Catarafts Drift boats Open Canoes Inflatable Kayaks  19. Describe the quality & functionality of Put-In: Take-Out:	ents. Leave b	•		•	•	• .
Kayaks Rafts 1 Catarafts 1 Drift boats Open Canoes Inflatable Kayaks 1 19. Describe the quality & functionality of Put-In: Take-Out:	מצפונו	gree No (	Opinion	Agree	Strongly	
Rafts 1 Catarafts 1 Drift boats 1 Open Canoes 1 Inflatable Kayaks 1  19. Describe the quality & functionality of Put-In: Take-Out:	gree	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<b>J</b>	7.9.00	agree	
Catarafts 1  Drift boats 1  Open Canoes 1  Inflatable Kayaks 1  19. Describe the quality & functionality of the position of th	1 2	<u>.</u>	3	4	5	
Drift boats  Open Canoes  Inflatable Kayaks  19. Describe the quality & functionality of Put-In:  Take-Out:	1 2		3	4	5	
Open Canoes  Inflatable Kayaks  19. Describe the quality & functionality of Put-In:  Take-Out:	1 2		3	4	5	
Inflatable Kayaks  19. Describe the quality & functionality of the property of	1 2		3	4	5	
19. Describe the quality & functionality of Put-In:  Take-Out:	1 2		3	4	5	
Put-In: Take-Out:	1 2		3	4	5	
20. Did you observe any recreation						
	activity besid	des boating	g during t	this run?		
□ Swimming □ Bicycling		Relaxing of shore	r playing o	on the		
☐ Fishing ☐ Hiking or walking						

# Staples, Rose

From: Craig, Nancy

**Sent:** Friday, August 16, 2013 7:20 AM

**To:** peter@tuolumne.org; Bowes, Stephen (stephen\_bowes@nps.gov); Theresa - American

Whitewater < theresa@americanwhitewater.org > (theresa@americanwhitewater.org);

Guptill.C ; 'deinhel ; 'steve.avila

'jrego@ucdavis.edu'; 'mtomkehoe; 'brbrbarber'

'steven5qc ; 'vande<u>rm1</u> '; 'deborahdavi<u>snesto</u>

timihorn ; 'keith1252 ; 'gary.johnson09

**Subject:** Lower Tuolumne River boating study liability waiver form **Attachments:** Lowest Boatable\_Flow\_LiabilityForm\_revised08-16-13.pdf

#### Hello volunteer boaters,

Attached is the liability waiver form for volunteer participants in the lower Tuolumne River study. We will have hard copies available on August 17. The attached is provided if you would like to review, print it out, and sign it before we gather on August 17.

Thank you,

Nancy H. Craig, Project Manager HDR Engineering, Inc. 1825 N. Tegner St. Wickenburg, AZ 85390 (928) 273-5772 Nancy.Craig@hdrinc.com

# Lower Tuolumne River Lowest Boatable Flow Study

# ASSUMPTION OF RISK AND GENERAL RELEASE OF LIABILITY AGREEMENT

1. I recognize that the Lower Tuloumne River Lowest Boatable Flow Study in which I am about to participate is a potentially rigorous and hazardous activity that may be physically and mentally stressful and may aggravate existing physical or mental conditions or cause new ones. I recognize that boating is dangerous and that the dangers may include damage to or destruction of personal property, serious physical injury or even death arising from a variety of hazards including, but not limited to and by way of example only, rocks, trees, powerful waves, waterfalls, hydraulics and various other man-made or natural hazards, and difficulty or improbability of rescue. I will have previously observed the river segments both on United States Geological Survey 1: 24,000 topographic maps, and, should I participate in the study, by scouting ahead on foot prior to boating segments of the river to determine for myself the nature and extent of the hazards that may exist. I understand that the river segments on which the study is taking place may not be suitable for boating. I acknowledge that, under these circumstances, the usual hazards associated with boating may be more unknown, uncertain, severe and dangerous. I acknowledge that I understand the intent of this activity is to evaluate various flows for boatability, and acknowledge that I have read a description of the purpose, stated below:

For the purposes of relicensing the Don Pedro Project, one of the studies being conducted by the Modesto Irrigation District and the Turlock Irrigation District (the Districts) is a lowest boatable flow study on the Lower Tuolumne from the Old LaGran ge Bridge to the Turlock Lake State Recreation Area, from TLSRA to Waterford, and from Riverdale Park to Shiloh Bridge Fishing Access. The primary goal of the study is to determine if the Project's minimum flows result in boatable flows for non-m otorized, recreational riv er boating in portions of the lower Tuolumne River where put-ins and take-outs are available. The Districts are seeking participation from boaters in a variety of non-motorized watercraft – canoes, kayaks, drift rafts, etc.

The Districts are requesting boater feedback on the Lower T uolumne Riv er from the Old LaGran ge Bridge to TLSRA (approximately 9 miles), from TLSRA to Waterford (approx imately 10 miles) and from Riverdale Park to Shiloh Bridge Fishing Access (approximately 8 miles). The Districts will be present with a boater survey to complete at the end of the each run, based on the following tentative schedule:

8/17 – study flow of 200 cfs (10 am - 4 pm)

8/24 – study flow of 150 cfs (10 am - 4 pm)

9/7 – study flow of 175 cfs or 125 cfs (10 am - 4 pm)

9/14 – study flow of 100 cfs (10 am - 4 pm)

### 2. I acknowledge that:

- (a) I am participating in this lowest boatable flow study for my own personal recreational purpose and not at the request of the Districts,
- (b) I am not a volunteer or agent acting on behalf of the Districts;
- (c) none of the other participants will be acting as a professional river guide for me;
- (d) I am not being compensated by the Districts to engage in this activity;
- (e) I am personally responsible for determining whether I have the skill and expertise to safely navigate any particular river segment;
- (f) I am solely responsible for selecting equipment suitable for use during this study; and

- (g) no other person or entity associated with this study has any obligation to attempt to rescue me and that any attempted rescue may exacerbate my condition and cause injury or death.
- ON BEHALF OF MYSELF, MY HEIRS, REPRESENTATIVES, EXECUTORS, 3. ADMINISTRATORS AND ASSIGNS, I UNDERSTAND AND EXPRESSLY ASSUME ALL THE RISKS AND DANGERS INCIDENT TO THE LOWEST BOATABLE FLOW STUDY AND HEREBY KNOWLINGLY WAIVE AND RELEASE ALL CLAIMS INCLUDING, BUT NOT LIMITED TO, CLAIMS BASED ON PROPERTY DAMAGE OR DESTRUCTION, PERSONAL INJURY OR DEATH, WHETHER CAUSED BY NEGLIGENCE, BREACH OF CONTRACT OR OTHERWISE, THAT I MAY EVER HAVE AGAINST: (A) THE DISTRICTS, ITS OFFICERS, DIRECTORS, EMPLOYERS, AGENTS, ASSIGNS OR SUCCESSORS, (B) ANY SUPPLIER OF MATERIALS AND EQUIPMENT EMPLOYED IN CONNECTION WITH THE LOWEST BOATABLE FLOW STUDY; (C) THE MODESTO IRRIGATION DISTRICT, AND THE TURLOCK IRRIGATION DISTRICTS, AND THEIR AFFILIATES, AGENCIES, EMPLOYEES, OFFICERS, DIRECTORS, AGENTS, ASSIGNS, REPRESENTATIVES AND SUCCESSORS, OR ANY OTHER PERSON OR ENTITY THAT MAY BE INVOLVED IN FACILITATING ANY USE AND ENJOYMENT OF THE RIVER REACHES INVOLVED IN THIS STUDY: AND (D) EACH AND EVERY OTHER PARTICIPANT IN THIS LOWEST BOATABLE FLOW STUDY.

### 4. I represent that:

- (a) I am 18 years of age or older;
- (b) I am submitting this release and waiver voluntarily and of my own free will;
- (c) I have no physical or emotional problems, nor any history of any such problems, that will impair my ability to participate in the activities of the lowest boatable flow study.
- 5. I recognize that neither Districts, nor their affiliates, repr esentatives, officers, directors, employees, agents, successors or assigns are providing liability, health or other insurance in connection with this lowest boatable flow study and I agree to assume all financial responsibility for any medical, rescue or other expenses that I may incur, and to defend, hold harmless and indemnify, the Districts, and its affiliates, officers, directors, employees, agents, successors and assigns for any liability, loss or damage, including attorneys' fees, that the y may suffer should I pursue an action or claim that is waived or barred by this release and waiver.
- 6. I assume full responsibility for and agree to defend, hold harmless and indem nify the Districts and their affiliates, officers, directors, employees, agents, successors and assigns against claims, losses or judgments that may arise from any damage or harm that I may do or cause while participating in this lowest boatable flow study.
- 7. I have carefully read this docum ent and I understand its terms and legal significance. I understand that it is the express intention of this docum ent to relieve the Districts and their affiliates, off icers, directors, employees, agents, successors and assigns from liability and responsibility for property damage, person al injury or death. I am providing this waiver, release and indemnification freely and voluntarily.

This waiver shall be binding upon me, my heirs, executors, representatives and administrators.

(Print Name)	(Date)		
(Signature)	(Address and Telephone)		

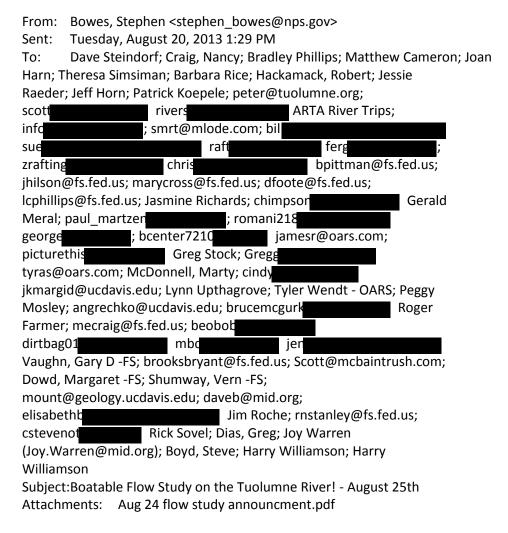
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From: Bowes, Stephen <stephen\_bowes@nps.gov>

Sent: Tuesday, August 20, 2013 1:35 PM

To: Craig, Nancy Subject: the flow study

Thanks for organizing a successful day! I stuck around until Sunday morning and surveyed four more people who paddled from Lagrange to the campground Saturday evening! I'll put them in the mail today.



Volunteers Needed!

Where: Turlock Lake SRA, 25 miles east of Modesto. 22600 Lake Road, La Grange CA.

When: Saturday, August 24th, 10 AM at the campground's boat ramp

Contacts: Steve Bowes, National Park Service, 510.277.2166, stephen\_bowes@nps.gov Nancy Craig, HDR, 928.273.5772, nancy.craig@hdrinc.com

Turlock Irrigation District (TID) and Modesto Irrigation District (MID) are seeking volunteers for a Boatable Flow Study on the Lower Tuolumne River. The primary goal of this study is to determine if the Don Pedro Hydroelectric Project's minimum flows result in boatable flows for non-motorized, recreational river boating on the lower Tuolumne River.

We are seeking participation from boaters in the following types of non-motorized watercraft – hardshell kayaks, inflatable kayaks, canoes and drift boat/rafts. Come just for the day or join some of us who will be camping the night before! (For reservations go to http://www.reserveamerica.com)

We had a highly successful study last weekend at 200 cfs (cubic feet per second) and next Saturday we well get a chance to see what it's like to paddle the river at 150 cfs. If you can't make it this weekend there will be two more study days on September 7th and 14th, so mark your calendars!

The reaches that will be available to paddle are the following:

Old LaGrange Bridge (RM 51) to Turlock Lake State Recreation Area (RM 42)

Length of Reach: 9 miles.

Elevation Range: 173 ft to 123 ft.

Turlock Lake State Recreation Area (RM 42) to Riverwalk Park in Waterford (RM 32)

Length of Reach: 10 miles. Elevation Range: 123 ft to 68 ft.

Riverdale Park (RM 12) to Shiloh Bridge Fishing Access (RM 4)

Length of Reach: 8 miles.

General characterization: Open, wide, flat-water.

See you there!

--

Stephen M. Bowes Hydropower Assistance Program National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104



Where: Turlock Lake SRA. The forested campground is on the Tuolumne River about 25 miles east of Modesto. 22600 Lake Road, La Grange CA.

When: Saturday, August 24th, 10 AM at the campground's boat ramp

Contacts: Steve Bowes, National Park Service, 510.277.2166, stephen\_bowes@nps.gov Nancy Craig, HDR, 928.273.5772, nancy.craig@hdrinc.com

Turlock Irrigation District (TID) and Modesto Irrigation District (MID) are seeking volunteers for a Boatable Flow Study on the Lower Tuolumne River. The primary goal of this study is to determine if the Don Pedro Hydroelectric Project's minimum flows result in boatable flows for non-motorized, recreational river boating in portions of the lower Tuolumne River.

We are seeking participation from boaters in the following types of non-motorized watercraft – hardshell kayaks, inflatable kayaks, canoes and drift boat/rafts. Come just for the day or join some of us who will be camping the night before! (For reservations go to http://www.reserveamerica.com)

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Length of Reach: 9 miles.

Elevation Range: 173 ft to 123 ft.

Turlock Lake State Recreation Area (RM 42) to Riverwalk Park in Waterford (RM 32)

Length of Reach: 10 miles. Elevation Range: 123 ft to 68 ft.

Riverdale Park (RM 12) to Shiloh Bridge Fishing Access (RM 4)

Length of Reach: 8 miles.

General characterization: Open, wide, flat-water.

See you on the river!

From: Craig, Nancy

Sent: Friday, August 23, 2013 9:31 AM

To: Bowes, Stephen (stephen\_bowes@nps.gov); 'Guptill.C
'mtomkehoe 'brbrbarber'; 'steven5qc;
'vanderm1 'deborahdavisnestor'; 'sam baca'
(samuelfm23 ; timihorr Noah Hughes;
rebecca@tuolumne.org; 'garyesims; ; jpatter; ;
Steve Avila (steve.avila )

Cc: Theresa - American Whitewater < theresa@americanwhitewater.org > (theresa@americanwhitewater.org); peter@tuolumne.org Subject:Lower Tuolumne River boating study - August 24

Hello lower Tuolumne volunteers,

Thank you for your interest and commitment to the Lower Tuolumne River Lowest Boatable Flow Study. This email will provide final logistics for August 24, 2013, our second study day. I will appreciate it if you can share this information with other volunteers you may be coordinating with who are not on this email.

Volunteers boating REACH 1: Old La Grange Bridge to Turlock Lake State Recreation Area and REACH 2: Turlock Lake State Recreation Area to Riverwalk Park at Waterford will meet at Turlock Lake State Recreation Area Boat Launch at 10:00 AM for introductions, signing liability waivers (if not completed last week), and coordinating shuttles as needed among volunteers.

Volunteers boating REACH 3: Riverdale Park to Shiloh Bridge Fishing Access will meet at Shiloh Bridge Fishing Access at 8:00 AM for introductions, signing liability waivers (if not completed last week), and coordinating shuttles as needed among volunteers.

Volunteers must provide their own equipment and vehicle shuttles. Also, please note that the study methods call for volunteer boaters to repeat the paddle at various flows as we look for the lowest boatable flow. Your participation this week and then again on September 7, September 14, and September 21 (as needed to find the lowest boatable flow) will provide the best input for this study

MEETING LOCATIONS

Turlock Lake State Recreation Area 22600 Lake Rd. La Grange, CA 94329

There is a parking fee at this location and parking is limited. If you camp at the Park, you can leave vehicles at your campsite which is conveniently close to the boat ramp.

Shiloh Bridge Fishing Access 2724 Shiloh Road Modesto, CA 95358

For your information if helpful, camping accommodations in the area: Turlock Lake State Recreation Area camping is managed by California State Parks and its concessionaire. Reservations are online: http://www.parks.ca.gov/?page\_id=555

Fleming Meadows and Blue Oaks Campgrounds, managed by Don Pedro Recreation Agency are approximately 20 miles from Turlock Lake State Recreation Area). These DPRA sites can also be reserved online: http://www.donpedrolake.com/reservations

Thank you again for our commitment to this study. And please call or email with any questions,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772, cell Nancy.Craig@hdrinc.com

#### Hi Susan,

I remembered! I think Dr. Deanne Meyer will be your best bet for information regarding manure management, and may be able to touch on some of the other aspects. Her email is <a href="mailto:dmeyer@ucdavis.edu">dmeyer@ucdavis.edu</a>.

She and I are working on the same silage project, so her schedule might be as difficult to navigate as mine in the next couple weeks – of course, all depending on harvest!

Have a great weekend,

Jennifer

#### **Jennifer Heguy**

Dairy Farm Advisor UCCE Stanislaus & San Joaquin Counties

Phone: (209) 525-6800

Email: <a href="mailto:jmheguy@ucdavis.edu">jmheguy@ucdavis.edu</a>

From: Susan Burke [mailto:susan.burke@cardno.com]

Sent: Wednesday, August 28, 2013 9:54 AM

To: Jennifer Heguy

**Subject:** thanks for you time today

Below is my contact info for the data on manure management. Thanks!!

Susan Burke, Ph.D.
SENIOR CONSULTANT / SENIOR ECONOMIST
CARDNO ENTRIX



Phone (+1) Fax 206-269-0098 Direct (+1) 360-734-1317 Mobile (+1) 530-400-4458 Address 1506 Austin Lane, Bellingham, WA 98229 USA Email <a href="mailto:susan.burke@cardno.com">susan.burke@cardno.com</a> Web <a href="mailto:sww.cardno.com">www.cardno.com</a> - <a href="mailto:sww.cardno.com">www.ca

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Date: September 2, 2013

To: Peter Drekmeier, Tuolumne River Trust

From: Charlie Pike, Author Paddling Northern California

Subject: Tuolumne River 150 cfs flow comments

Hello Peter:

Thank you for the follow-up note regarding the Tuolumne River flow study between LaGrange and Turlock State Recreation Area.

I really enjoyed meeting the people last Sat and appreciated the organization of the operation. The smoke cleared away by put-in time, and the weather was beautiful.

My experience at 150 cfs between LaGrange and Turlock SRA could be restated beyond the comments on the survey form.

<u>Summary:</u> Although the water was clear and attractive, and the streamside scenery pleasant, the flow was too shallow for an enjoyable paddling experience. Paddling this reach requires some whitewater paddling skills to 'read' the water and maneuver the boats in a timely fashion. I judge the level of difficulty to be American White Water Affiliation<sup>1</sup> Class 1.5. There are several turns where the flow direction is obscure, brush block the channel and adroit maneuvering is required.

Brush management and spawning gravel management should be substantially improved.

River access should be improved and more public access sites added.

<u>Detailed description:</u> The river reach is characterized by long slow pools separated by shallow gravel/cobble riffles.

Canoes and kayaks draw about 4-6 inches of water with adults paddling. At 150 cfs, the riffles were too shallow for the canoes to avoid scraping the bottom. My aluminum canoe, with two adults paddlers, left a silver trail of scrape marks. This occurred even though the paddlers searched diligently for the deepest channel. At least 8- 10 times I walked beside the boat to push over the cobbles.

**Class I**: Easy. Fast-moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.

**Class II**: Novice. Straightforward rapids with wide, clear channels that are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed. Rapids that are at the upper end of this difficulty range are designated "Class II+."

<sup>&</sup>lt;sup>1</sup> The AWWA definitions are:

Deeper channels often flow to the outside or river bends. Following this 'less shallow' water usually lead into overhanging brush and trees. The vegetation hangs down to water level producing a hazard to boaters. The hazard takes the form of cuts and bruises to paddler's face and arms as well as capsizing the boats. Higher flows (300 cfs minimum) would allow paddlers to maintain a course further away from the brush hazard.

There are few large rocks or boulders in the reach, so they are not a problem.

An underwater hazard exists approximately 1/4 mile upstream of Basso bridge. The top of steel sheeting emerges from the river bed. Perhaps once used to support an abutment, the sheeting is sharp enough to tare boats and people. Higher flows would provide slightly deeper water that would only slightly reduce the hazard. At least the top two feet of the sheeting should be removed and covered with cobbles.

Closer to Turlock SRA, the river meanders through gravel bars supporting thick stands of willow and other riparian vegetation. The vegetation not only impedes navigation but also reduces fish spawning habitat. Mechanical alterations and high spring /winter flows might reduce some of this problem. See the Trinity River Restoration Program (<a href="www.trrp.net/">www.trrp.net/</a>) for examples of this type of work.

Flow schedule should be made available to the public months in advance. "Dreamflows" (<a href="www.dreamflows.com">www.dreamflows.com</a>) is a popular web site for flow information. Several paddling clubs plan their outings up to 6 months in advance. Often this advance planning is needed to secure camping reservations at state facilities.

Improved access along the river would be desirable. Improvements at old LaGrange Road should include toilet facilities, increased parking and turn around space. Other locations should be added between Turlock SRA and Waterford. An example is the Stanislaus River Parks

(<a href="https://www.spk.usace.army.mil/Locations/SacramentoDistrictParks/StanislausRiverParks.aspx">www.spk.usace.army.mil/Locations/SacramentoDistrictParks/StanislausRiverParks.aspx</a>) below Knights Ferry where the US Corps of Engineers established access and camping sites along the Stanislaus River as

partial mitigation for New Melones Reservoir inundation of the Camp Nine to Parrots Ferry whitewater

Please feel free to contact me regarding questions or more information.

Charlie Pike

Mobile phone:

Email: charliepike

run.

From: Craig, Nancy

Sent: Tuesday, September 03, 2013 7:07 AM

To: 'Bowes, Stephen' Subject:RE: this saturday

#### Steve,

We are set for Saturday, September 7. I think we should do 125 cfs because we have many canoeists/kayakers who found 150 cfs boatable and enjoyable with likelihood of returning at that flow. We only had 3 drift rafts/boats on August 24 for the 150 cfs flow, all of whom found it not boatable. But we are getting so few rafts, I do not want to move the study flow up to 175 cfs for that craft type. We have limited data that reports boatability at 200 cfs but not at 150 cfs for drift/boats rafts. I'd like to concentrate on canoes/kayaks for September 7 and get volunteers' input on 125 cfs. What's your availability to participate in a conference call today or tomorrow? Thanks,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com

From: Bowes, Stephen [mailto:stephen bowes@nps.gov]

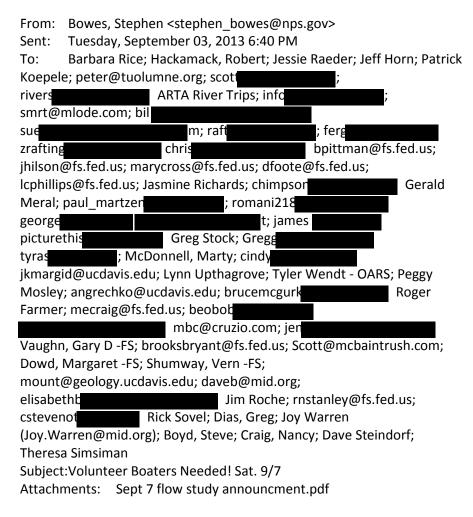
Sent: Monday, September 02, 2013 6:07 PM

To: Craig, Nancy Subject: this saturday

Are we set for the 175 flow this saturday? Peter and I are making arrangements to access the property where the tree is down so we can cut it up Friday afternoon.

Stephen M. Bowes
Hydropower Assistance Program
National Park Service
333 Bush Street, Suite 500
San Francisco, CA 94104

Phone: 415-623-2321 Fax: 415-623-2387



Where: Turlock Lake SRA. The forested campground is on the Tuolumne River about 25 miles east of Modesto. 22600 Lake Road, La Grange CA.

When: Saturday, Sept. 7th, 10 AM at the campground's boat ramp

Contacts: Steve Bowes, National Park Service, 510.277.2166, stephen\_bowes@nps.gov Nancy Craig, HDR, 928.273.5772, nancy.craig@hdrinc.com

Turlock Irrigation District (TID) and Modesto Irrigation District (MID) are seeking volunteers for a Boatable Flow Study on the Lower Tuolumne River. The primary goal of this study is to determine if the Don Pedro Hydroelectric Project's minimum flows result in boatable flows for non-motorized, recreational river boating in portions of the lower Tuolumne River.

We are seeking participation from boaters in the following types of non-motorized watercraft – hardshell kayaks, inflatable kayaks, canoes and drift boat/rafts. Come just for the day or join some of us who will be camping the night before! (For reservations go to http://www.reserveamerica.com)

We have had two highly successful study weekends in August and on the 7th we will get a chance to see what it's like to paddle the river at 175cfs.

The reaches that will be available to paddle are as follows:

Old LaGrange Bridge (RM 51) to Turlock Lake State Recreation Area (RM 42)

Length of Reach: 9 miles.

Elevation Range: 173 ft to 123 ft.

Turlock Lake State Recreation Area (RM 42) to Riverwalk Park in Waterford (RM 32)

Length of Reach: 10 miles.

Elevation Range: 123 ft to 68 ft.

Riverdale Park (RM 12) to Shiloh Bridge Fishing Access (RM 4)

Length of Reach: 8 miles.

General characterization: Open, wide, flat-water.

See you on the river!



Where: Turlock Lake SRA. The forested campground is on the Tuolumne River about 25 miles east of Modesto. 22600 Lake Road, La Grange CA.

When: Saturday, Sept. 7th, 10 AM at the campground's boat ramp

Contacts: Steve Bowes, National Park Service, 510.277.2166, stephen\_bowes@nps.gov

Nancy Craig, HDR, 928.273.5772, nancy.craig@hdrinc.com

Turlock Irrigation District (TID) and Modesto Irrigation District (MID) are seeking volunteers for a Boatable Flow Study on the Lower Tuolumne River. The primary goal of this study is to determine if the Don Pedro Hydroelectric Project's minimum flows result in boatable flows for non-motorized, recreational river boating in portions of the lower Tuolumne River.

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Length of Reach: 10 miles. Elevation Range: 123 ft to 68 ft.

Riverdale Park (RM 12) to Shiloh Bridge Fishing Access (RM 4)

Length of Reach: 8 miles.

General characterization: Open, wide, flat-water.

See you on the river!

From: Martin, Ramon [mailto:ramon martin@fws.gov]
Sent: Wednesday, September 04, 2013 4:32 PM

To: Dennis Halligan

Cc: Borovansky, Jenna; Noah Hume; Alison Willy

Subject: Re: Don Pedro Relicensing (FERC No. 2299) W&AR 12 LWD Info

Dennis,

Attached is the reference we have from the Yakima that we discussed over the phone but this only presents IFIM results for juvenile salmonids utilizing woody debris in the Yakima River. I've contacted our Trinity Program biologists to see if we have any LWD assessments for that watershed which may be more representative and comparable to the Tuolumne. Again sorry for taking so long to respond to your request.

Sincerely,
Ramon Martin
Assistant Program Manager
Anadromous Fish Restoration Program
US Fish and Wildlife Service
850 S. Guild Ave., Suite 105
Lodi, CA 95240
(209) 334-2968 ext. 401
(209) 334-2171 Fax

Our mission is, working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

On Thu, Aug 22, 2013 at 11:56 AM, Dennis Halligan < Dennis@stillwatersci.com > wrote:

Hello Ramon,

I hope that you are well.

I am following-up on Noah Hume's email to you last Sunday.

Please contact me if you have any questions about the Yakima LWD request.

Thank you

**Dennis Halligan** 

Senior Fish Biologist, Stillwater Sciences office 707-822-9607 x205; cell 707-407-7287 dennis@stillwatersci.com

From: Noah Hume

**Sent:** Sunday, August 18, 2013 4:31 PM

To: 'Ramon Martin@fws.gov'

**Cc:** Dennis Halligan; 'Borovansky, Jenna' **Subject:** FW: Don Pedro W&AR 12 LWD Info

Importance: High

Hi Ramon,

Dennis Halligan is wrapping up edits to the W&AR-12 *O. mykiss* Habitat Survey report for Don Pedro and we are looking for some source information that was referenced in the USFWS comments on the study in the Service's March 11, 2013 letter regarding the Don Pedro Dam Relicensing (FERC No. 2299) ISR. The comments noted that the Yakima River is an example of a similar stream outside of the Central Valley that could be used for a comparative analysis of large woody debris with the lower Tuolumne River. Dennis has had no success in finding any LWD data that were collected downstream of the dam on the Yakima River. Do you have information from the Yakima or could you send us contact information for people that may have Yakima River LWD inventory data? This information is necessary to complete the W&AR-12 study in compliance with the May 21, 2013 FERC determination.

Please contact Dennis Halligan in our Arcata office (cc'd above) or at 707-822-9607 ext. 205 if you have any questions.

Thank you for your help.

Noah Hume PE, PhD Aquatic Ecologist/Senior Scientist

Stillwater Sciences | 2855 Telegraph Avenue, Suite 400, Berkeley, CA 94705 510.848.8098 x129 | 510.541.2131 cell www.stillwatersci.com

From:	Craig, Nancy				
Sent:	Thursday, Septe	ember 05, 2013 10:35	PM		
To:	Bowes, Stepher	ı (stephen_bowes@n	ps.gov); 'Guptill.C		;
'mtomk	ehoe	'brbrbarber	; 'steven5qc	;	_
'vander	m1	; 'deborahdavisnesto	; 'sam baca'	_	
(samue	lfm23	; timihorn	'Noah Hughes';		
rebecca	a@tuolumne.org	; 'garyesims	; jpatten	;	
Steve A	vila (steve.avila	); There	esa - American Whitewater	_	
<theres< td=""><td>a@americanwh</td><td>itewater.org&gt; (theres</td><td>a@americanwhitewater.org);</td><td></td><td></td></theres<>	a@americanwh	itewater.org> (theres	a@americanwhitewater.org);		
peter@	tuolumne.org				
Subject	:Lower Tuolumn	e River boating study	- September 7		

Hello lower Tuolumne volunteers,

Thank you for your interest and commitment to the Lower Tuolumne River Lowest Boatable Flow Study. This email will provide final logistics for September 7, 2013, our third study day. I will appreciate it if you can share this information with other volunteers you may be coordinating with who are not on this email.

Volunteers boating REACH 1: Old La Grange Bridge to Turlock Lake State Recreation Area and REACH 2: Turlock Lake State Recreation Area to Riverwalk Park at Waterford will meet at Turlock Lake State Recreation Area Boat Launch at 10:00 AM for introductions, signing liability waivers (if not already completed), and coordinating shuttles as needed among volunteers.

Volunteers boating REACH 3: Riverdale Park to Shiloh Bridge Fishing Access will meet at Shiloh Bridge Fishing Access at 8:00 AM for introductions, signing liability waivers (if not already completed), and coordinating shuttles as needed among volunteers.

Volunteers must provide their own equipment and vehicle shuttles. Also, please note that the study methods call for volunteer boaters to repeat the paddle at various flows as we look for the lowest boatable flow. Your participation this week and then again on September 14 (if needed to find the lowest boatable flow) will provide the best input for this study.

#### MEETING LOCATIONS

Turlock Lake State Recreation Area Boat Ramp 22600 Lake Rd.

La Grange, CA 94329

There is a parking fee at this location and parking is limited. If you camp at the Park, you can leave vehicles at your campsite which is conveniently close to the boat ramp.

Shiloh Bridge Fishing Access 2724 Shiloh Road Modesto, CA 95358

For your information if helpful, camping accommodations in the area: Turlock Lake State Recreation Area camping is managed by California State Parks and its concessionaire. Reservations are online: http://www.parks.ca.gov/?page id=555 Fleming Meadows and Blue Oaks Campgrounds, managed by Don Pedro Recreation Agency are approximately 20 miles from Turlock Lake State Recreation Area). These DPRA sites can also be reserved online: http://www.donpedrolake.com/reservations

Thank you again for our commitment to this study. And please call or email with any questions,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772, cell Nancy.Craig@hdrinc.com From: Craig, Nancy Tuesday, September 10, 2013 1:41 PM To: Bowes, Stephen (stephen bowes@nps.gov); 'Guptill.C 'mtomkehoe ; 'brbrbarber ; 'steven5qo 'vanderm1 'deborahdavisnestor ; 'sam baca' (samuelfm23 'Noah Hughes'; ; timihorr rebecca@tuolumne.org; 'garyesims ; jpatter Steve Avila (steve.avila ); Theresa - American Whitewater <theresa@americanwhitewater.org> (theresa@americanwhitewater.org); peter@tuolumne.org Subject:Lower Tuolumne River boating study - September 14

Hello lower Tuolumne volunteers,

Thank you for your interest and commitment to the Lower Tuolumne River Lowest Boatable Flow Study. This email will provide final logistics for September 14, 2013, our fourth study day. I will appreciate it if you can share this information with other volunteers you may be coordinating with who are not on this email.

Volunteers boating REACH 1: Old La Grange Bridge to Turlock Lake State Recreation Area and REACH 2: Turlock Lake State Recreation Area to Riverwalk Park at Waterford will meet at Turlock Lake State Recreation Area Boat Launch at 10:00 AM for introductions, signing liability waivers (if not already completed), and coordinating shuttles as needed among volunteers.

WE WILL NOT RETURN TO REACH 3: Riverdale Park to Shiloh Bridge Fishing Access due to water hyacinth growth encountered on September 7.

Volunteers must provide their own equipment and vehicle shuttles. Also, please note that the study methods call for volunteer boaters to repeat the paddle at various flows as we look for the lowest boatable flow. We are especially seeking volunteers who have already boated at least one of the study flows to come and repeat the same reach at this 125 cfs flow on Saturday, September 14.

#### MEETING LOCATION

Turlock Lake State Recreation Area Boat Ramp 22600 Lake Rd.

La Grange, CA 94329

There is a parking fee at this location and parking is limited. If you camp at the Park, you can leave vehicles at your campsite which is conveniently close to the boat ramp.

For your information if helpful, camping accommodations in the area:

Turlock Lake State Recreation Area camping is managed by California State Parks and its concessionaire. Reservations are online: http://www.parks.ca.gov/?page\_id=555

Fleming Meadows and Blue Oaks Campgrounds, managed by Don Pedro Recreation Agency are approximately 20 miles from Turlock Lake State Recreation Area). These DPRA sites can also be reserved online: http://www.donpedrolake.com/reservations

Thank you again for our commitment to this study. And please call or email with any questions,

Nancy H. Craig, Project Manager HDR Engineering, Inc. 1825 N. Tegner St. Wickenburg, AZ 85390 (928) 273-5772, cell Nancy.Craig@hdrinc.com From: Craig, Nancy

Sent: Tuesday, September 10, 2013 1:33 PM

To: Bowes, Stephen (stephen bowes@nps.gov); peter@tuolumne.org;

patrick@tuolumne.org; Theresa - American Whitewater

<theresa@americanwhitewater.org> (theresa@americanwhitewater.org);

Guptill, Chris <Guptill.C@ > (Guptill.C@

Dave Steindorf (dave@americanwhitewater.org)

Subject:Lower Tuolumne River flow study

The Districts will conduct the flow study at 125 cfs this Saturday, September 14 from the Old La Grange Bridge (RM 51) to Riverwalk Park in Waterford (RM 32). This is the two upper reaches of our study. At the 150 cfs flow on August 24, slightly more than half of respondents found these reaches to be boatable or enjoyable. So the study will explore a little lower for the lowest boatable flow.

We are not proposing to conduct the study on the reach from Riverdale Park (RM 12) to Shiloh Bridge (RM 4) due to dwindling participation and major problems with water hyacinth growth encountered on September 7.

I will appreciate your participation and your help in getting the word out about the September 14 study day. We will all meet at Turlock Lake State Recreation Area at 10 AM. We are especially seeking volunteers who have already boated at least one of the study flows to come and repeat the same reach at this 125 cfs flow. [Chris, you and the rest of the Riverdale – Shiloh Bridge paddlers are of course welcome to join us on one of these two upper reaches.]

As before, volunteers must provide their own equipment, gear, shuttles, etc.

Thank you, Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com On Tue, Sep 10, 2013 at 10:40 AM, Craig, Nancy < Nancy. Craig@hdrinc.com wrote: Hello lower Tuolumne volunteers,

Thank you for your interest and commitment to the Lower Tuolumne River Lowest Boatable Flow Study. This email will provide final logistics for September 14, 2013, our fourth study day. I will appreciate it if you can share this information with other volunteers you may be coordinating with who are not on this email.

Volunteers boating REACH 1: Old La Grange Bridge to Turlock Lake State Recreation Area and REACH 2: Turlock Lake State Recreation Area to Riverwalk Park at Waterford will meet at **Turlock Lake State Recreation Area Boat Launch at 10:00 AM** for introductions, signing liability waivers (if not already completed), and coordinating shuttles as needed among volunteers.

**WE WILL NOT RETURN TO REACH 3**: Riverdale Park to Shiloh Bridge Fishing Access due to water hyacinth growth encountered on September 7.

Volunteers must provide their own equipment and vehicle shuttles. Also, please note that the study methods call for volunteer boaters to repeat the paddle at various flows as we look for the lowest boatable flow. We are especially seeking volunteers who have already boated at least one of the study flows to come and repeat the same reach at this 125 cfs flow on Saturday, September 14.

#### MEETING LOCATION

Turlock Lake State Recreation Area Boat Ramp 22600 Lake Rd. La Grange, CA 94329

There is a parking fee at this location and parking is limited. If you camp at the Park, you can leave vehicles at your campsite which is conveniently close to the boat ramp.

For your information if helpful, camping accommodations in the area: Turlock Lake State Recreation Area camping is managed by California State Parks and its concessionaire. Reservations are online: <a href="http://www.parks.ca.gov/?page\_id=555">http://www.parks.ca.gov/?page\_id=555</a>

Fleming Meadows and Blue Oaks Campgrounds, managed by Don Pedro Recreation Agency are approximately 20 miles from Turlock Lake State Recreation Area). These DPRA sites can also be reserved online: http://www.donpedrolake.com/reservations

Thank you again for our commitment to this study. And please call or email with any questions,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772, cell Nancy.Craig@hdrinc.com From: Martin, Ramon [mailto:ramon martin@fws.gov]
Sent: Wednesday, September 11, 2013 3:57 PM

To: Caldwell, Jarvis

**Cc:** Adams, Nolan; Zachary Jackson **Subject:** Re: W&AR-21 Questions

Jarvis,

Here are the two requested reports. We would like the floodplain discharge relationship presented in 250 cfs increments similar to how its presented in Table 1 in the attached CM 06 Stanislaus Floodplain Inundation Report. We then would like to develop 4 different Tables showing the Maximum Wetted Acres of 1) 7 Day, 2) 14 Day, 3) 21 Day, and 4) 30 Day Duration between February to May for each year from 1971 to 2012 at (a) observed La Grange Flows, (b) Unimpaired Flows, (c) % of unimpaired flows that were evaluated in the Substitute Environmental Document (ICF International 2012), and (d) USFWS (2005) Chinook doubling flow recommendations (Attached). See Table 2 in the attached CM 06 Stanislaus Floodplain Inundation Report for an example of the requested Table that only looked at the 14 day Maximum Wetted Acres. Let me know if you have any additional questions on our comments.

Thanks,
Ramon Martin
Assistant Program Manager
Anadromous Fish Restoration Program
US Fish and Wildlife Service
850 S. Guild Ave., Suite 105
Lodi, CA 95240
(209) 334-2968 ext. 401
(209) 334-2171 Fax

Our mission is, working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

On Wed, Sep 11, 2013 at 3:01 PM, Caldwell, Jarvis < jarvis.caldwell@hdrinc.com> wrote:

Ramon,

If you have a minute or two today, can you give me or Nolan a call? We wanted to ask you some clarification questions regarding some of the language in the UWFWS September 09, 2013 comment letter to FERC for W&R-21 – Lower Tuolumne Floodplain Hydraulic Assessment Study Plan.

Thanks in advance Ramon.

From: Bowes, Stephen <stephen\_bowes@nps.gov>

Sent: Friday, September 13, 2013 7:09 PM

To: Craig, Nancy

Subject:Re: Lower Tuolumne River boating study - September 14

Hi Nancy,

You can expect between 15-20 volunteers tomorrow, including me. I have a commitment in the morning and will be floating the Basso Bridge section between 5-8pm. I expect you'll be gone by the time I take out and I just wanted to give you a heads up. Thanks so much for making this study happen!

Steve

Stephen M. Bowes Hydropower Assistance Program National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104 Phone: 415-623-2321

Fax: 415-623-2387

On Tue, Sep 10, 2013 at 10:40 AM, Craig, Nancy < Nancy.Craig@hdrinc.com> wrote: Hello lower Tuolumne volunteers,

Thank you for your interest and commitment to the Lower Tuolumne River Lowest Boatable Flow Study. This email will provide final logistics for September 14, 2013, our fourth study day. I will appreciate it if you can share this information with other volunteers you may be coordinating with who are not on this email.

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MEETING LOCATION
Turlock Lake State Recreation Area Boat Ramp
22600 Lake Rd.

La Grange, CA 94329

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Fleming Meadows and Blue Oaks Campgrounds, managed by Don Pedro Recreation Agency are approximately 20 miles from Turlock Lake State Recreation Area). These DPRA sites can also be reserved online: http://www.donpedrolake.com/reservations

Thank you again for our commitment to this study. And please call or email with any questions,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772, cell Nancy.Craig@hdrinc.com

# Borovansky, Jenna

From: John Wooster - NOAA Federal <john.wooster@noaa.gov>

Sent: Monday, September 16, 2013 4:24 PM

To: Jay Stallman

Cc: Larry Thompson - NOAA Federal

Subject: Study W&AR-4: Potential Sediment Transport Model Nodes

Attachments: Potential Tuolumne Sediment Model Nodes.kmz

Dear Jay,

Attached is a kmz file (Google Earth) with potential reach breaks on the Tuolumne River between La Grange Dam and Robert's Ferry Bridge, which are recommended for use in your ongoing sediment budget analysis as part of Study W&AR-4 on the Tuolumne River that utilizes a sediment transport model and DEM differencing approach to estimate changes in the mass balance of coarse sediment within the reach.

The attached reach breaks remain unchanged relative to the last time you and I spoke on the phone, when we slightly refined them. The proposed reach breaks result in 5 reaches or "budget cells" between La Grange powerhouse and Robert's Ferry Bridge. The proposed reach breaks are primarily driven by differences in channel width, channel confinement, degree of active in-channel sediment deposits / bars, degree of channel bifurcation, and anthropogenic influence, with some additional refinement to align reach breaks with recently mapped habitat unit breaks. Rationale for each reach break is added in the properties of each marker.

These reach breaks were circulated to staff at the USFWS (Ramon Martin, Michelle Workman, Alison Willy, and Kes Benn), CADFW (Bob Hughes, Annie Manji, and Tim Heyne), the State Water Board (Peter Barnes and Amber Villalobos), and representatives from the NGO community (Chris Shutes and Patrick Koepele) for comment. I received feedback from Kes Benn of the USFWS, who is a geomorphologist that has been working on multiple gravel augmentations in this section of the Tuolumne River, he concurred that these reach breaks were appropriate and did not propose any changes, a portion of his response is pasted below:

"These reach breaks make absolute perfect sense to me. The channel definitely shifts in terms of confinement and single vs. multiple channel pathways, dominant morphological unit types (primarily caused by historic dredging), and dominant sediment sizes."

I did not receive any additional feedback from the other relicensing participants contacted.

Please let me know if you have any questions or concerns.

Regards,

John

\_\_

John Wooster
Hydrologist
NOAA Fisheries
john.wooster@noaa.gov



## Hi Susan,

How about we try for 10am on Friday morning. If I end up in the field, I will shoot you an email Friday AM to reschedule.

#### Jennifer

## **Jennifer Heguy**

Dairy Farm Advisor

UCCE Stanislaus & San Joaquin Counties

Phone: (209) 525-6800

Email: jmheguy@ucdavis.edu

**From:** Ryan Stifter [mailto:ryan.stifter@cardno.com]

Sent: Monday, September 16, 2013 4:33 PM

**To:** Jennifer Heguy **Cc:** Susan Burke

**Subject:** Call with Cardno ENTRIX regarding dairy grower response to water shortages

Dear Jennifer,

My name is Ryan Stifter and I am an economist working with Susan Burke at Cardno ENTRIX on a study requiring us to have good understanding of solutions dairy growers could potentially implement in response to water shortages as they impact on-farm operations and area feed crop operations. I believe you have been coordinating with Susan recently about setting up a time when we could discuss some of our recent findings and questions with you.

I am writing to see if 10 am tomorrow morning will work for your schedule. I can send a call-in number for a conference line we can all join to have our discussion. We realized this is short notice and that you are quite busy, so if that time can't work please suggest another that works for you.

In advance of our call we want to pass along for your review the attached list of questions that have come up as we started researching trends in dairy industry structure and profitability and reading more about manure management requirements under R5-2007-0035.

Thanks in advance for your time and we look forward to learning from you.

Cheers, Ryan

# **Questions regarding Stanislaus County dairy farming:**

Have any dairies in the area made permanent reductions in herd size recently? Why? How large were the dairies?

Have any dairies in the area added to the herd recently? Why? How large were these dairies?

What portion of the area dairies raise heifers onsite as opposed to offsite (having someone else raise them and then purchasing them)?

What portion of the dairies in the area hire laborers as opposed to providing it themselves?

What is the typical herd size of area dairies and how much does that vary from dairy to dairy?

Is there a majority breed of dairy cattle in the area? According to the CDFA Annual Cost of Production Reports, Jersey cows seems to generate a significantly lower yield than Holstein and crossbreeds, but perhaps that is due to milking frequency?

Are the silage crops grown within the area mostly grown on dairy farms to satisfy internal feed requirements or are they grown on non-dairy operations and then sold to area dairies or feed mills?

Is Stanislaus County a feed deficit or feed surplus regions?

If deficit, where (counties) do local dairies or feed mills in import the feed from?

Who are some of the major local dairy cattle/livestock feed companies?

What is the delivered price of corn silage imported into the region?

Have growers in the area turned to alternative feed sources in the face of high corn prices to achieve the same nutrient levels for their cows? If so, have they noticed measurable changes in yield?

What are the alternatives to corn and hay in order to maintain the same nutrient level?

Would/could dairy farmers reduce the volume of nutrients to the cows without also reducing the frequency of milking, and thus reducing total annual production?

Could reducing the daily milking frequency help maintain total annual productivity in the case of a feed shortage?

What percentage of the dairy farms in the area have to remove at least some manure from the farm instead of managing it onsite?

Of those that remove manure, what percentage do you estimate remove more than half the manure produced?

What are the most common manure removal strategies?

How common is manure separator, digestor and dewatering technology? What is the recent trend regarding investments in these technologies?

Ryan Stifter

SENIOR PROJECT ECONOMIST CARDNO ENTRIX



Phone (+1) 925-935-9920 Fax (+1) 925-935-5368 Direct (+1) 925-988-1241 Mobile (+1) 925-200-5895 Address 2300 Clayton Road, Suite 200, Concord, CA 94520 USA Email ryan.stifter@cardno.com Web www.cardno.com - www.cardnoentrix.com

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From: Malkin, Devin

To: <u>"annie.manji@wildlife.ca.gov"</u>

Cc: <u>Borovansky, Jenna; Malkin, Devin (Devin.Malkin@hdrinc.com)</u>; <u>Devine, John</u>

**Subject:** Don Pedro relicensing: special-status plant reference populations

**Date:** Friday, October 18, 2013 8:46:00 AM

# Dear Ms. Manji,

At the Initial Study Report Meeting for the relicensing of the Don Pedro Project, Federal Energy Regulatory Commission (FERC) No. 2299, held January 30 and 31, 2012, the California Department of Fish and Wildlife (CDFW) requested information on the use of reference populations of special -status plants for Study TR -01 Special Status Plants and Study TR-02 Endangered Species Act (ESA) and California Endangered Species Act (CESA) Listed Plants.

Per the CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (2009), "When special status plants are known to occur in the type(s) of habitat present in the project area, observe reference sites (nearby accessible occurrences of the plants) to determine whether those species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community."

As part of the botanical studies for Don Pedro, reference populations were visited for previously recorded, nearby, and accessible occurrences of special-status plants that were included in the FERC-approved study plan. A trip was taken to the Red Hills Interpretive Nature Trail, maintained by the United States Department of the Interior, Bureau of Land Management, on April 20 and May 10, 2012. The trail contains occurrences of Red Hills onion (*Allium tuolumnense*), tripod buckwheat (*Eriogonum tripodum*), Congdon's lomatium (*Lomatium congdonii*), Red Hills soaproot (*Chlorogalum grandiflorum*), Red Hills ragweed (*Packera clevelandii*) and the ESA-listed California verbena (*Verbena californica*). A nearby California Native Diversity Database (CNDDB) occurrence of shaggy-haired lupine (*Lupinus spectabilis*) was also viewed. The visits occurred prior to surveys in the areas of the Red Hills Area of Critical Environmental Concern for the Project. The area of a recorded CNDDB occurrence of the ESA-listed Layne's ragwort (*Packera layneae*) was visited on March 8, 2012, although no plants were located. Later checks of this area also located no Layne's ragwort, so the occurrence was presumed to no longer be extant.

Additionally, herbarium records from the Consortium of California Herbaria were used to help determine the specific blooming periods of special-status plants on the Project, and members of the botanical team viewed herbarium specimens from the Jepson Herbarium of Mariposa cryptantha (*Cryptantha mariposae*) prior to surveys.

If you have any questions or comments regarding this information, please contact Devin Malkin at 425-306-1957 or at <a href="devin.malkin@hdrinc.com">devin.malkin@hdrinc.com</a>.

Sincerely,

Devin Malkin

From: Bowes, Stephen <stephen\_bowes@nps.gov>

Sent: Thursday, October 31, 2013 1:22 PM

To: Craig, Nancy

Subject:Re: Lower Tuolumne River study

Thanks Nancy. Be sure to let me know when the update study report is out.

Stephen M. Bowes Hydropower Assistance Program National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104 Phone: 415-623-2321

Fax: 415-623-2387

On Fri, Oct 25, 2013 at 11:33 AM, Craig, Nancy < Nancy.Craig@hdrinc.com> wrote:

Steve,

Welcome back!

Surveys from September 14 are attached. I'll send others by separate emails due to file size. The Districts will file and distribute the Updated Study Report, including Lower Tuolumne Lowest Boatable Flow Study 2013 results in early December. I have requested TRT provide the surveys they collected during Paddle-to-the-Sea this year. Hopefully we will have them in time to include a discussion of them in the report.

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com

From: Bowes, Stephen [mailto:stephen bowes@nps.gov]

Sent: Thursday, October 24, 2013 2:40 PM

To: Craig, Nancy

Subject: Re: Paddle-to-the-Sea surveys

Nancy,

I'd really like to hear how things wrapped up this summer and what the next steps are.

Steve

Stephen M. Bowes Hydropower Assistance Program National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104 Phone: 415-623-2321

Fax: 415-623-2387

On Thu, Oct 17, 2013 at 2:23 PM, Bowes, Stephen <stephen\_bowes@nps.gov> wrote: Hi Nancy, The NPS is back in business! Could you send me copies of all the surveys that were filled out this summer? Thanks.

Stephen M. Bowes Hydropower Assistance Program National Park Service 333 Bush Street, Suite 500 San Francisco, CA 94104 Phone: 415-623-2321

Fax: 415-623-2387

On Mon, Oct 14, 2013 at 10:28 AM, Craig, Nancy < Nancy.Craig@hdrinc.com> wrote: Hello Rebecca,

AS we discussed during one of our study coordination calls a few weeks ago, I am requesting copies of any boatable flow surveys that TRT collected during Paddle-to-the-Sea this year. I have our 2013 surveys available in pdf if you or others are interested. I have covered up the respondents' names and have the surveys organized by date. There are 6 pdf files, ranging in size from 2 MB to 8 MB. Let me know if you would like me to email them to you.

Thanks,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com From: Patrick Koepele <patrick@tuolumne.org>
Sent: Monday, November 04, 2013 11:51 PM

To: Craig, Nancy

Cc: 'Bowes, Stephen'; peter@tuolumne.org; 'Rebecca Stievater'

Subject:RE: Paddle-to-the-Sea surveys

Hi Nancy – I've been out of the office for a few days. I'll try to track down those surveys and send them to you on Wed.

#### -Patrick

From: Craig, Nancy [mailto:Nancy.Craig@hdrinc.com]

Sent: Thursday, October 31, 2013 12:25 PM

To: Patrick Koepele

Cc: Bowes, Stephen (stephen bowes@nps.gov); peter@tuolumne.org; Rebecca Stievater

Subject: RE: Paddle-to-the-Sea surveys

## Hello Patrick,

During one of our study coordination calls with Rebecca and Peter for the lowest boatable flow study conducted late this summer, I requested copies of any boatable flow surveys that TRT collected during Paddle-to-the-Sea this year. Rebecca replied that you would have the surveys, so I am re-directing this request to you.

I would like to include the results of the surveys you collected in the relicensing study report on lower Tuolumne River lowest boatable flow that is under development at this time. I have the 2013 surveys that HDR collected available in pdf if you or others are interested. I have covered up the respondents' names and organized the surveys by date. There are 6 pdf files, ranging in size from 2 MB to 8 MB. Let me know if you would like me to email them to you. Thanks,

Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com

From: Rebecca Stievater [mailto:rebecca@tuolumne.org]

Sent: Tuesday, October 15, 2013 10:05 AM

To: Craig, Nancy

Cc: Bowes, Stephen (stephen\_bowes@nps.gov); peter@tuolumne.org; Patrick Koepele

Subject: Re: Paddle-to-the-Sea surveys

Hi Nancy,

Patrick Koepele would have any of the boatable flow surveys from Paddle to the Sea, so I'm cc'ing him here.

Thanks! Rebecca

Rebecca Stievater Paddle to the Sea Coordinator; Advancement Associate **Tuolumne River Trust** 111 New Montgomery Street, Suite 205 San Francisco, CA 94105 rebecca@tuolumne.org (415) 882-7252 x 301 On October 14, 2013, Craig, Nancy wrote:

Hello Rebecca,

AS we discussed during one of our study coordination calls a few weeks ago, I am requesting copies of any boatable flow surveys that TRT collected during Paddle-to-the-Sea this year.

I have our 2013 surveys available in pdf if you or others are interested. I have covered up the respondents' names and have the surveys organized by date. There are 6 pdf files, ranging in size from 2 MB to 8 MB. Let me know if you would like me to email them to you.

Thanks, Nancy H. Craig, Project Manager HDR Engineering, Inc. (928) 273-5772 Nancy.Craig@hdrinc.com

#### Hi Monica

Some information resources for your use. I'm attaching a Word Table of the population estimates Stillwater conducted, which are cited below with hyperlinks to the TRTAC site. I have a bunch of qualifications to the data I'd like to discuss, but there is a little more size information in the Appendices of each report.

Stillwater Sciences 2008. July 2008 population size estimate of Oncorhynchus mykiss in the Lower Tuolumne River. Prepared for the Turlock Irrigation District and the Modesto Irrigation District by Stillwater Sciences, Berkeley, California. October.

http://tuolumnerivertac.com/Documents/BCE Report 20081015.pdf

Stillwater Sciences 2009. March and July 2009 population size estimates of Oncorhynchus mykiss in the Lower Tuolumne River. Prepared for the Turlock Irrigation District and the Modesto Irrigation District by Stillwater Sciences, Berkeley, California. October.

http://tuolumnerivertac.com/Documents/2009%20BCE%20Report2009Nov.pdf http://tuolumnerivertac.com/Documents/2009%20BCE%20Report2009NovAppendices.pdf

Stillwater Sciences 2011. March and August 2010 population size estimates of Oncorhynchus mykiss in the Lower Tuolumne River. Prepared for the Turlock Irrigation District and the Modesto Irrigation District by Stillwater Sciences, Berkeley, CA. March.

http://tuolumnerivertac.com/Documents/2010%20BCE%20Report.pdf

Stillwater Sciences 2012. September 2011 population size estimates of Oncorhynchus mykiss in the Lower Tuolumne River. Prepared by Stillwater Sciences, Berkeley, California for the Turlock Irrigation District and the Modesto Irrigation Districts, California. March.

http://tuolumnerivertac.com/Documents/2011%20BCE%20Report%20DRAFT.pdf

Ford, T., and S. Kirihara. 2010. Tuolumne River Oncorhynchus mykiss monitoring report. Prepared by Turlock Irrigation District/Modesto Irrigation District, California and Stillwater Sciences, Berkeley, California for Federal Energy Regulatory Commission, Washington, D.C. January <a href="http://tuolumnerivertac.com/Documents/OmykissJan2010SummaryRptFinal.pdf">http://tuolumnerivertac.com/Documents/OmykissJan2010SummaryRptFinal.pdf</a>

Other sources of information include passage of adult sized O. mykiss at the Tuolumne River weir (RM 24.5). Since counting weir operations were initiated in 2009, upstream passage of a single O. mykiss was documented on November 7th in the first year of operation (TID/MID 2010, Report 2009-8), no observations occurred in Fall 2010, four individuals were detected in 2011 (two on September 20, one on September 23 and one on November 15) (TID/MID 2012, Report 2011-8), three were detected in October 2012 (TID/MID 2013, Report 2012-6).

Lastly, the current "Redd Mapping Study (Study W&AR-08)" has documented 39 O. mykiss redds between RM 39 and RM 50. This study is not yet published but I suppose you can cite to the "Draft O. mykiss Population Study (W&AR-10)" which we sent out in October 2013.

#### **Noah Hume**

Aquatic Ecologist/Senior Scientist, Stillwater Sciences office 510-848-8098 x129 noah@stillwatersci.com

From: Monica Gutierrez - NOAA Federal [mailto:monica.gutierrez@noaa.gov]

Sent: Wednesday, November 20, 2013 5:36 PM

**To:** Noah Hume

Subject: Re: O. mykiss Population Estimate

Sounds good. I will call you tomorrow at 10 am.

On Wed, Nov 20, 2013 at 4:42 PM, Noah Hume <<u>noah@stillwatersci.com</u>> wrote: I'm typing from my phone so no contact info, but how about 10AM tomorrow?

510.848.8098 x129

Noah

On Nov 20, 2013, at 16:00, "Monica Gutierrez - NOAA Federal" < monica.gutierrez@noaa.gov > wrote:

I will be heading out soon. I am working from home tomorrow. What would be the best time and number to reach you tomorrow? Thanks so much.

On Wed, Nov 20, 2013 at 3:57 PM, Noah Hume < noah@stillwatersci.com > wrote: I think we can get you what you need from the published reports. I'll try calling from the road in a bit, but is there a good time I could try calling you tomorrow?

Noah

On Nov 20, 2013, at 15:27, "Monica Gutierrez - NOAA Federal" < monica.gutierrez@noaa.gov > wrote:

Hi Noah,

Did Stillwater Sciences conduct a population estimate for the Tuolumne River? I am looking for a population estimate for O. mykiss spawners. If so, can you provide that info to me or direct me to where I can find that information? Thank you.

--

**Monica Gutierrez** 

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916-930-3657
Monica.Gutierrez@noaa.gov

www.westcoast.fisheries.noaa.gov



#### Hi Monica!

Unfortunately, I don't think anything has been issued publicly on the Redd Mapping Study (W&AR-8). The plan is to issue the report as part of the USR filing this month (I forget the date). The two salmon modeling reports which were distributed use the data from W&AR-8 to develop a longitudinal RM preference curve for Chinook (3 years of data with no "n" shown on Figure 4-2 in WAR-06) and O. mykiss/steelhead (1 year of data with n=38 redds shown on Figure 4-2 in WAR-10).

Hope this helps for now.

#### **Noah Hume**

Aquatic Ecologist/Senior Scientist, Stillwater Sciences office 510-848-8098 x129 noah@stillwatersci.com

**From:** Monica Gutierrez - NOAA Federal [mailto:monica.gutierrez@noaa.gov]

Sent: Tuesday, December 17, 2013 12:35 PM

To: Noah Hume

**Subject:** Redd Mapping Study (Study W&AR-08)

Hi Noah,

I was inquiring about the Redd Mapping Study in the Tuolumne River. Is this study available yet? If so, where may I be able to locate this document? Thanks!

\_\_

#### **Monica Gutierrez**

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916-930-3657
Monica.Gutierrez@noaa.gov
www.westcoast.fisheries.noaa.gov



From: Andrea Fuller <andreafuller11@comcast.net>
Sent: Wednesday, January 08, 2014 9:52 PM

To: 'Hensley, Brian@Wildlife'; Lehr, Stafford@Wildlife

**Subject:** RE: Doodle Poll - TID/MID SCP Meeting

## Brian and Stafford,

Thank you so much for putting together this Doodle poll so quickly to move this discussion forward. Based on the responses, most of the invited individuals are available next Monday, January 13 during 10-11 or 11-12. Since these blocks are consecutive and folks are available, perhaps we could schedule for 10-12 on January 13? Face to face dialogue preferred, but for those needing to participate remotely, the dial-in info below can be used to access our conference line.

(888) 296-6500 Pass code: 305409

Regards, Andrea

From: Hensley, Brian@Wildlife [mailto:Brian.Hensley@wildlife.ca.gov]

Sent: Monday, January 06, 2014 10:50 AM

To: Manji, Annie@Wildlife; Lehr, Stafford@Wildlife; Bellmer, Russ@Wildlife; Marston, Dean@Wildlife; Heyne, Tim@Wildlife;

Murphey, Gretchen@Wildlife; jasonguignard@fishbio.com; andreafuller@fishbio.com; amanda.cranford@noaa.gov;

zac jackson@fws.gov

Subject: Doodle Poll - TID/MID SCP Meeting

# Hello Everyone:

Please see the link below to participate in the Doodle Poll for the "TID/MID SCP Meeting". I know these dates are not the most ideal, but I hope everyone can do the best they can to attend. Please feel free to invite any relevant participants who I have left off the email invitation.

# http://doodle.com/uz5kkzmqgrum3m9g

The meeting should take about an hour, and will be held at the Fisheries Branch Office in Downtown Sacramento (see address below). There will also be a Conference Line available to participate in the meeting as well.

Please respond to the Doodle Poll ASAP, by close of business on Tuesday, January 7, 2014.

Again, I apologize about the immediacy. If you have any questions please feel free to contact me.

Brian C. Hensley Fisheries Branch Department of Fish & Wildlife (916) 445-3935

From: Andrea Fuller <andreafuller@fishbio.com>
Sent: Tuesday, January 14, 2014 11:03 AM

To: Lehr, Stafford@Wildlife

Cc: 'Director@wildlife.ca.gov'

Subject: Tuolumne Predation Study

# Stafford,

It has been more than a week since we set out to schedule a meeting regarding SCP amendments for the Tuolumne Predation Study. The Doodle poll was set to close at the end of the day January 7. I was informed by Brian Hensley on January 9 that scheduling was contingent on the availability of Russ Bellmer who was out on vacation and may be back January 10, but more likely on January 13. We would definitely have a date and time by Monday, January 13 when he returned. Brian confirmed that Russ was back and a date would be set yesterday. We still do not have a date and time scheduled for the requested one hour meeting. Meanwhile, several opportunities to meet when you, I, Annie, and others were available January 9, 10, 13, and today have come and gone.

Sampling is scheduled to begin in February in accordance with the FERC approved study plan developed in collaboration with biologists from CDFW, USFWS, and NOAA Fisheries, and other relicensing participants, so there is an urgent need to identify and resolve permitting concerns. Please advise as to when we can meet to move this issue forward.

Thank you, Andrea

FISHBIO andreafuller@fishbio.com (209) 847-6300 www.fishbio.com

From: Andrea Fuller <andreafuller11@comcast.net>

**Sent:** Friday, January 17, 2014 11:40 AM

To: 'Lehr, Stafford@Wildlife'
Cc: 'Hensley, Brian@Wildlife'
Subject: RE: TID/MID SCP Meeting

Thank you.

From: Lehr, Stafford@Wildlife [mailto:Stafford.Lehr@wildlife.ca.gov]

**Sent:** Friday, January 17, 2014 11:18 AM

To: Andrea Fuller

Cc: Hensley, Brian@Wildlife

Subject: Re: TID/MID SCP Meeting

We'll have appropriate people at the meeting. I was the party the had to change availability on the 22nd.

Stafford Lehr -sent from remote

On Jan 17, 2014, at 11:15 AM, "Andrea Fuller" < andreafuller11@comcast.net > wrote:

Does this mean that Russ will not be participating or has his availability changed since responding to the poll?

From: Hensley, Brian@Wildlife [mailto:Brian.Hensley@wildlife.ca.gov]

**Sent:** Friday, January 17, 2014 11:01 AM

To: Andrea Fuller

Cc: Lehr, Stafford@Wildlife

Subject: RE: TID/MID SCP Meeting

## Andrea:

The date of Wednesday, January 22, 2014 is not available for all participants. The next available date, Tuesday, January 28, 2014, was chosen to accommodate all required participants in this meeting. This still accommodates your request to have the meeting prior to the February 1st deadline.

Brian C. Hensley Fisheries Branch Department of Fish & Wildlife (916) 445-3935

From: Andrea Fuller [mailto:andreafuller11@comcast.net]

**Sent:** Friday, January 17, 2014 10:58 AM

To: Hensley, Brian@Wildlife

Subject: RE: TID/MID SCP Meeting

## Brian,

I am curious as to why the meeting has been set for the 28th rather than the 22nd? Based on the results of the poll, all respondents are available on the 22nd.

#### Andrea

-----Original Appointment-----

From: Hensley, Brian@Wildlife [mailto:Brian.Hensley@wildlife.ca.gov]

**Sent:** Friday, January 17, 2014 10:38 AM

To: Lehr, Stafford@Wildlife; Manji, Annie@Wildlife; Bellmer, Russ@Wildlife; Kratville, Daniel@Wildlife; Shaffer,

Kevin@Wildlife; Marston, Dean@Wildlife; Heyne, Tim@Wildlife; Murphey, Gretchen@Wildlife; Tsao, Steve@Wildlife; jasonguignard@fishbio.com; andreafuller@fishbio.com; amanda.cranford@noaa.gov;

zachary jackson@fws.gov **Subject:** TID/MID SCP Meeting

When: Tuesday, January 28, 2014 10:00 AM-12:00 PM (UTC-08:00) Pacific Time (US & Canada).

Where: FB Conference Room (Fisheries Branch Conference Room)

# Please see below for Meeting Details:

Topic: TID/MID SCP Meeting
Date: Tuesday, January 28, 2014
Time: 10:00AM - 12:00PM

Location: CA Department of Fish & Wildlife

Fisheries Branch Office

830 S Street

Sacramento, CA 95811

\*Fisheries Branch Conference Room

Please note there will be a Conference Line available for this meeting as well..

Conference Line:

Dial-In Number: (877) 581-9247 Participant Code: 446837

Please let me know if you should have any questions or concerns regarding the meeting.

Brian Hensley Fisheries Branch (916) 445-3935



# Don Pedro Ops Model Version 3.0 and associated hydrology workbook

From: Borovansky, Jenna S <Jenna.Borovansky@hdrinc.com>
Sent: Jan 23, 2014 13:40:03
To: John Wooster <john.wooster@noaa.gov>
Expires: Feb 13, 2014 23:59:59

CC: John Wooster <john.wooster@noaa.gov>, Devine, John <John.Devine@hdrinc.com>

Attachments: Don Pedro Unimpaired and Other Flow Data Version 3.xlsb (5,493.4 KB), TuolumneDailyModel

(Version3.00).xlsb (137,244.4 KB)

#### .lohn

Per your January 16 email to John Devine, attached please find the requested Don Pedro Operations Model Version 3.0 and associated hydrology file. Please let me know if have issues with the download or prefer receiving a CD.

The Districts are in the process of determining potential dates in early February for training on the O.mykiss model and retraining on the reservoir temperature model. At that time, the O.mykiss and HEC-RAS model files will be available for participants in association with the training workshops.

Thanks for your continued participation in the Don Pedro Relicensing.

Best,

Jenna Borovansky

JENNA BOROVANSKY ASSOCIATE HDR Engineering, Inc. Senior Regulatory Specialist, Hydropower Services 610 West Hubbard, Suite 227 Coeur d'Alene, ID 83814-2288 Direct: 208.665.3987 | Cell: 425.281.9557

jenna.borovansky@hdrinc.com | hdrinc.com

## **Download History**

TuolumneDailyModel(Version3.00).xlsb
TuolumneDailyModel(Version3.00).xlsb

"John Wooster" john.wooster@noaa.gov Don Pedro Unimpaired and Other Flow Data Version 3.xlsb Not Downloaded

"Devine, John" John.Devine@hdrinc.com Don Pedro Unimpaired and Other Flow Data Version 3.xlsb Not Downloaded

## Hi Chris

Yes, >150 mm TL is the operational definition of an O. mykiss adult for the IFIM Study.

#### **Noah Hume**

Aquatic Ecologist/Senior Scientist, Stillwater Sciences office 510-848-8098 x129 noah@stillwatersci.com

From: Chris Shutes [mailto:blancapaloma

**Sent:** Monday, February 03, 2014 1:51 PM

To: Noah Hume

Cc: John Devine; Staples, Rose; Borovansky, Jenna; Scott Wilcox

Subject: RE: CSPA request for a 2003 IFIM vs Temperature report cited by SFPUC

Thank you, Noah. I see that the document was not filed in the FERC docket until April Of 2004. I did look for it prior to making the request; had I been more familiar with the protocol, I might have recognized that the previous year's documents were all filed at once the following year.

I recognize that the new study supersedes the 2003 document. I am trying to follow Ron's analysis in his filing of August 17, 2012, and he did not provide the figures from the 2003 document to which he was referring.

One other brief question I asked at the USR meeting was the size cut-off for juvenile and adult O. mykiss in the 2013 instream flow study. I believe you said it was 150 mm. Were you able to verify if that is the correct number?

Thanks again,

**Chris Shutes** 

Chris Shutes
FERC Projects Director
California Sportfishing Protection Alliance
510 421-2405

Subject: CSPA request for a 2003 IFIM vs Temperature report cited by SFPUC

Date: Mon, 3 Feb 2014 13:14:41 -0800

From: noah@stillwatersci.com
To: blancapaloma@msn.com

CC: <u>John.Devine@hdrinc.com</u>; <u>Rose.Staples@hdrinc.com</u>; <u>Jenna.Borovansky@hdrinc.com</u>;

Scott@stillwatersci.com

Hi Chris

Please find the attached Stillwater Sciences (2003) Draft TRTAC memorandum that was requested during the USR presentation on the O. mykiss population study (W&AR-10). This memo is cited by in Yoshiyama and Moyle's anadromy review attached to a SFPUC submittal in 2012. This memo was developed to explore the interaction of applying various water temperature objectives with the

standard hydraulic calculations of WUA. We called this "effective" WUA, although that term is used in IFIM to describe something else. Although the water temperature model, habitat suitability criteria, and temperature objectives are all superseded by more up to date tools and assessments in the current relicensing, the same approach is what is encoded in the O. mykiss (TROm) model and will be used in completing the effective WUA estimates as a supplemental submittal on the IFIM study report last April.

Noah Hume PE, PhD Aquatic Ecologist/Senior Scientist

Stillwater Sciences | 2855 Telegraph Avenue, Suite 400, Berkeley, CA 94705 510.848.8098 x129 | 510.541.2131 cell www.stillwatersci.com

From: Craig, Nancy

Sent: Monday, February 03, 2014 6:04 PM
To: 'Eicher, James' (james\_eicher@BLM.gov)

Cc: Borovansky, Jenna; Devine, John (john.devine@hdrinc.com)

Subject: Don Pedro - Dispersed recreation data

Attachments: DP\_ShorelineUseAreas.zip.zip; DP\_ShorelineUseImpactSite.zip; Don Pedro

RR-01 Figures 5.5-1 and 5.5-2.pdf

Dear Jim,

During the January 31, 2013 Initial Study Report meeting, the BLM requested the GIS data collected as part of the RR-01 Recreational Facility Condition, Public Accessibility, and Recreation Use Assessment. The requested data is attached.

Each of the two zipped folders attached to this email contain data used during the 2012 field season for RR-01. The Shoreline Use Areas zip folder contains data on recurrent dispersed recreation use sites along the shore of Don Pedro Reservoir, created from coordinates provided by DPRA (Figure 5.5-1 in the RR-01 Report). The Shoreline Use Impact Sites zip folder contains data on recurrent dispersed shoreline recreation sites where impacts were observed, as recorded by HDR field staff (Figure 5.5-2 in the RR-01 Report).

If you have any questions or comments regarding this data, please contact me at 928-273-5772 or at nancy.craig@hdrinc.com or contact Jenna Borovansky at 208-665-3987 or at jenna.borovansky@hdrinc.com.

Sincerely,

Nancy H. Craig Nancy.Craig@hdrinc.com

#### Hi Monica

It appears that the numbers you mention are from the on-line weir reports, whereas the numbers we used for the O. mykiss Population Study report are from the annual Weir Monitoring reports.

The on-line weir updates don't account for "net" passage and I think these are raw counts. For the annual totals, I believe they go back and look at the videography to subtract downstream passage from upstream passage of the same fish. For passage that occurs within a day or so, this is a comparison on the basis of size, sex, fin clips.

In any case, I'm attaching the relevant Counting Weir reports provided by FISHBIO that document the net passage.

2011 Tuolumne Weir report, see page 11 2012 Tuolumne Weir report, see page 13

## **Noah Hume**

Aquatic Ecologist/Senior Scientist, Stillwater Sciences office 510-848-8098 x129 noah@stillwatersci.com

**From:** Monica Gutierrez - NOAA Federal [mailto:monica.gutierrez@noaa.gov]

Sent: Wednesday, February 05, 2014 3:25 PM

To: Noah Hume

Subject: O. mykiss population study report

Hi Noah,

I was reading over the O. mykiss population study report and noticed that on page 4-1, it states 4 individuals reported for 2011 and 3 in 2012. However, in the FISHBIO Tuolumne weir updates, it reports 16 adults in 2011 and 4 in 2012. I just wanted to get clarification regarding the difference in the numbers of adult O mykiss for these years. Thanks!

# **Monica Gutierrez**

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916-930-3657
Monica.Gutierrez@noaa.gov
www.westcoast.fisheries.noaa.gov



From: Andrea Fuller <andreafuller11@comcast.net>

**Sent:** Friday, February 14, 2014 3:52 PM

**To:** Amanda Cranford - NOAA Affiliate (amanda.cranford@noaa.gov)

**Subject:** Tuolumne predation study extension request

Amanda,

Today the Districts filed a request to FERC for a one year extension of time for the Tuolumne Predation Study due to the permitting issues. We will continue to pursue permits to conduct the study in 2015.

Regards, Andrea  $\textbf{From:} \ \, \textbf{Andrea Fuller} \ \, [\underline{mailto:andreafuller11@comcast.net}]$ 

**Sent:** Tuesday, February 25, 2014 11:53 AM

**To:** Kratville, Daniel@Wildlife (<u>Daniel.Kratville@wildlife.ca.gov</u>)

**Subject:** Tuolumne amendment status

Hi Dan,

Just left you a phone message regarding the status of our SCP amendments for the Tuolumne swim tube study. When we spoke about a week and a half ago they were in processing and expected to be completed early last week. Haven't seen anything come through yet, so just circling back to get an update.

Thanks, Andrea

# Kent, Robin

From: Kent, Robin

Sent: Thursday, February 27, 2014 5:01 PM

**To:** Beth Brenneman

**Subject:** RE: Don Pedro ESA and CESA Plant Occurrence Table? **Attachments:** ESA and CESA listed plant occurrence table.docx

#### Beth:

Well, I am very embarrassed. This has been sitting in my draft e-mails unnoticed. I'm so sorry for the delay!

#### **ROBIN KENT**

#### HDR

Terrestrial Resources Manager, Hydropower Services

2379 Gateway Oaks, Suite 200 | Sacramento, CA 95833 916.679.8733 | c: 530.220.4283 robin.kent@hdrinc.com| hdrinc.com

From: Beth Brenneman [mailto:bbrennem@blm.gov]

Sent: Friday, December 13, 2013 9:48 AM

To: Kent, Robin

Subject: RE: Don Pedro ESA and CESA Plant Occurrence Table?

Hi Robin, No worries. I've shifted gears and am working on other things while I await your table.

Thanks for the heads up!

Beth Brenneman

Botanist – Mother Lode Field Office
5152 Hillsdale Circle
El Dorado Hills, CA 96762

Office phone: 916-941-3138

Fax: 916-941-3199 bbrennem@blm.gov

**From:** Kent, Robin [mailto: Robin.Kent@hdrinc.com] **Sent:** Thursday, December 12, 2013 5:58 PM

**To:** Beth Brenneman

**Subject:** RE: Don Pedro ESA and CESA Plant Occurrence Table?

Sorry for the slowness. I am still waiting on a review of the table. Hopefully, it will be to you soon!

**ROBIN KENT** 

HDR

Botanical Resources Manager, Hydropower Services

2379 Gateway Oaks, Suite 200 | Sacramento, CA 95833 916.679.8733 | c: 530.220.4283 robin.kent@hdrinc.com| hdrinc.com



From: Beth Brenneman [mailto:bbrennem@blm.gov]
Sent: Wednesday, December 04, 2013 4:58 PM

To: Kent, Robin

Subject: Don Pedro ESA and CESA Plant Occurrence Table?

Hi Robin, Long time no see! I hope your year went well and work is coming along smoothly. I had a good field season and enjoyed our lovely fall immensely. Now it appears that winter is finally here. Not so excited about that!

Anyway, I've been working on merging all of the GIS data you guys collected at Don Pedro into our BLM rare plants database. For the Special Status Plants, you guys included a handy table in the technical reports, Attachment C, that lists occurrence numbers, site name, ownership, number of plants, etc. This is really handy for me since I have to actually enter by hand all of the data for each GIS point into our rare plant attribute table. I noticed that there is no such Occurrence Table for the ESA and CESA Plants. I just went back to the Don Pedro website to look again and I don't see anything like that.

Can you let me know what happened to that occurrence table, please?

Beth Brenneman Botanist – Mother Lode Field Office 5152 Hillsdale Circle El Dorado Hills, CA 96762 Office phone: 916-941-3138

Fax: 916-941-3199 bbrennem@blm.gov

From: Craig, Nancy

Sent:

Thursday, March 06, 2014 5:26 PM

To:

'Carlos Nava'

Subject:RE: Boatable flow study results on the lower Tuolumne River

Attachments: RR-03\_010514\_FINAL\_with\_Attachments.pdf

Hello Carlos,

Please find attached the Don Pedro Project (FERC No. 2299) Lower Tuolumne River Lowest

Boatable Flow Study Report that presents results from our 2012 and 2013 study effort. We

have conducted no other recreation flow studies on the lower Tuolumne River, and no other

such studies are currently planned.

Complete information on the relicensing of the Don Pedro Hydroelectric Project, including all

relicensing study reports, is available at the website www.donpedro-relicensing.com Sincerely,

Nancy H. Craig, Project Manager HDR Engineering, Inc.

(928) 273-5772

Nancy.Craig@hdrinc.com

----Original Message-----

From: Carlos Nava [mailto:stanislausfire@

Sent: Thursday, March 06, 2014 12:16 AM

To: Craig, Nancy

Subject: Boatable flow study results on the lower Tuolumne River

Hell Nancy,

Hopefully you will be able to help me. I would like to receive the data/results that were gathered in last years flow study. Also I would like to know if you have conducted any flow studies at this location before and do you presently planed?

Please let me know asap. I would like to view the results.

Sincerely,

**Carlos Nava** 

Stanislaus Fire Protection

stanislausfire@g

**From:** Andrea Fuller [mailto:andreafuller11@comcast.net]

**Sent:** Tuesday, March 11, 2014 8:41 PM

To: 'Harrison, Dustin@Wildlife'; 'jasonfaridi@fishbio.com'

Cc: jasonguignard@fishbio.com

Subject: RE: Fishbio Scientific Collecting Permit Amendments

Hi Dustin,

Thank you for the update regarding our pending SCP's and amendments. You noted that the amendments to #2147 (Andrea Fuller) and #9966 (Jason Guignard) have been processed which is consistent with what Dan Kratville relayed to me early last week regarding the status of the Tuolumne swim tunnel study amendments. However, we have not yet received these amendments. Could these processed amendments be re-sent to us?

We understand that amendments for projects with 4(d) apps are still in processing, and look forward to receiving those when CDFW and NOAA have waded through them all. Do you have an ETA on when these might be expected?

Thanks, Andrea

**From:** Harrison, Dustin@Wildlife [mailto:Dustin.Harrison@wildlife.ca.gov]

**Sent:** Tuesday, March 11, 2014 4:15 PM

**To:** jasonfaridi@fishbio.com **Cc:** andreafuller@fishbio.com

**Subject:** Fishbio Scientific Collecting Permit Amendments

Hello Jason,

The Department has been working to process your SCPs, and although you submitted one Amendment in November permits can take up to 26 weeks (6 months) to review depending on the complexity of the proposed projects and amount of detail provided in applications. The Department has been tasked with re-reviewing projects, due to the State's water issues, and place appropriate conditions on permits to protect fishes.

In regards to your Amendments we have been working to maintain consistency with each Fishbio permit as well as the Department's goals. The two requested permits (#2147 and 9966) have been processed and the remaining Fishbio permits will follow shortly.

I will notify you once all Fishbio permits have been processed and are out of the queue.

Feel free to contact me with any questions you may have.

Thank you again for your continued patience,

**Dustin Harrison** 

Scientific Aide