



Aquatic, Water Quality, Geomorphology, & Hydrology Resources

Technical Working Group Meeting

Date:

Time:

Location:

Directions

Parking:

Discussion Topic:

Agenda

Attendees

Summary

Handouts, Attachments & Presentations

Directions to SMUD's Customer Service Center

SMUD has two four-story buildings located adjacent to Highway 50 on the north side, between 59th Street exit and 65th Street exit. The Customer Service Center (CSC) is the newer building of the two located at 6301 S Street, and houses the Rubicon Room, Forestview 1,2, & 3, Sequoia 1,2,& 3, Timberline 1,2, & 3, and the HRL Conference Room located on the third floor (Northwest wing). The Headquarters building is located at 6201 S Street, directly west of the CSC. It houses the Headquarters' Customer Center (HCC), the Auditorium and several other conference rooms.

The Field Reporting Facility (aka FRF) is located behind the SMUD Headquarters building: go under the Light Rail overpass, then to the left about 150 yards.

Directions:

Heading East: From downtown Sacramento, head east on Highway 50, exit at **59th Street**. This exit will take you up-and-over Highway 50. Go straight at the first intersection, travel about a half mile. On your left (north) is the SMUD Headquarters building, the next building is the Customer Service Center.

Heading West: From Placerville, take Highway 50 to Sacramento and exit at **65th Street**. Go straight about one block after the first intersection. The Customer Service Center is the four-story building on your right (north).

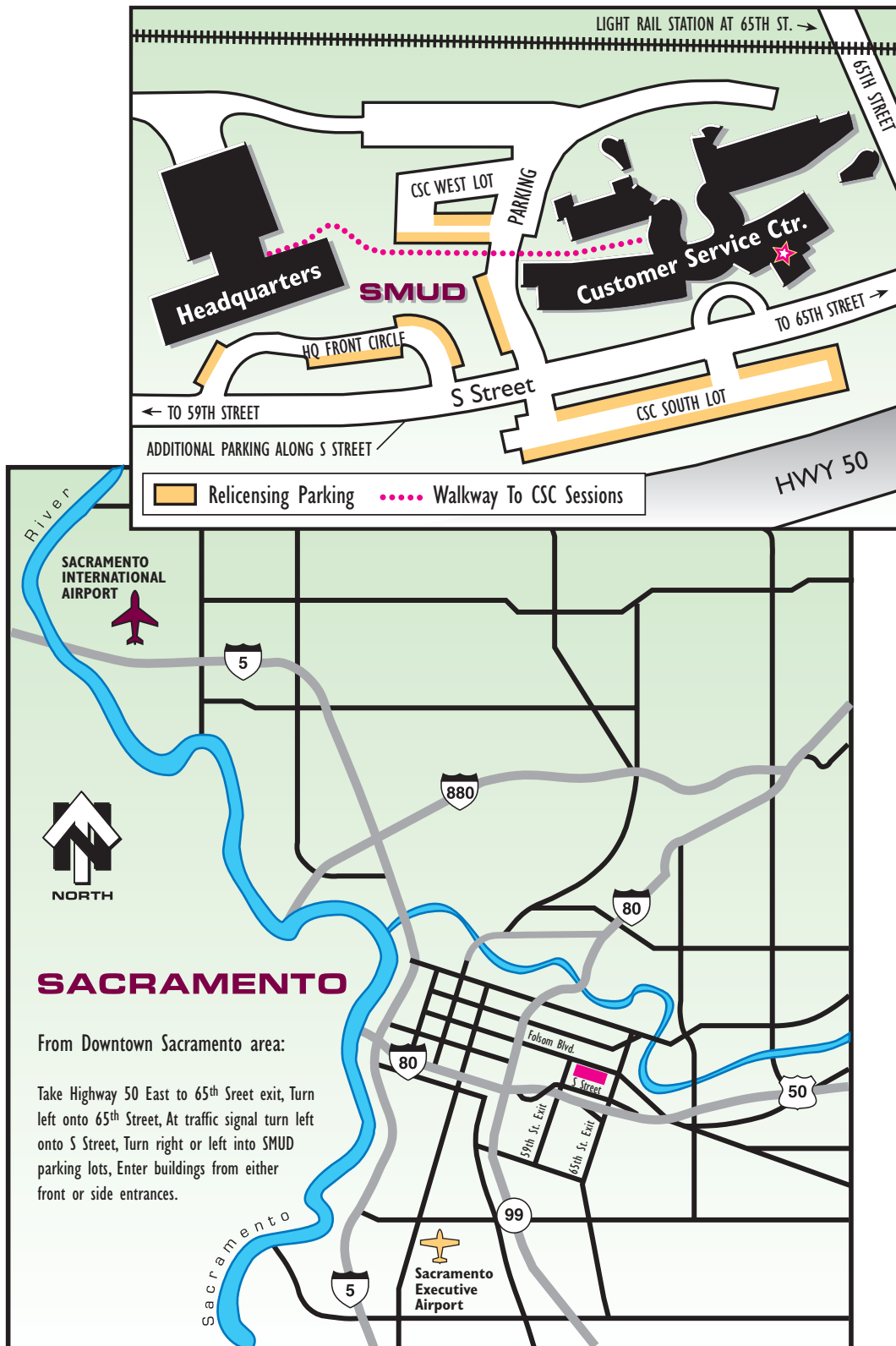
You should be able to find parking spaces for visitors located in the area between the two buildings. There is also parking available in a parking lot on Folsom Blvd. behind the SMUD complex.

If you need assistance to find the Rubicon Room, Timberline 1,2,& 3, Sequoia 1,2,& 3, Forestview 1,2, & 3, and the Hydro Relicensing's Conference Room located on the third floor of the Northwest wing, see the guard at the lobby desk. The Headquarters Customer Center (HCC) room is located in the Headquarters building opposite the board of directors Auditorium in the first floor. Drive Safely.

Note: Downloadable maps can be found at hydrorelicensing.smud.org/meetings/meet_loc.htm

SMUD HEADQUARTERS AND CUSTOMER SERVICE CENTER

Relicensing Parking Lot Locations



**Sacramento Municipal Utility District (SMUD)
Upper American River Project (UARP) Hydro Relicensing Project**

**Aquatic Resources, Water Quality, Geomorphology and Hydrology
Technical Work Group Meeting**

**Sacramento Municipal Utility District (SMUD)
Customer Service Center (CSC) Sequoia 2 & 3
6301 "S" Street Sacramento, California**

**May 19, 2004
9:00 a.m. - 1:00 p.m.**

Proposed Agenda

Time	Topic
9:00 a.m.	Introductions
9:05	Review meeting agenda
9:10	Key and timely issues
9:25	Brief report for the fish tissue sampling study plan meeting held May 10, 2004
9:35	Discussion of the field work for 2004
10:30	Brief discussion on benthic macroinvertebrate work in 2004 in the fluctuation zone for the reach downstream of Chili Bar
11:30	Discussion of Plenary Group's Assignment letter to the TWGs and data report meetings schedule for June
12:45 p.m.	Next meeting agenda items
1:00	Adjourn




DATE: 5/19/2004




LOCATION: SMUD ~ CSC BUILDING ~ SEQUOIA 2 & 3 ~ 9:00
AM - 4:00 PM

UARP Hydro Relicensing

Aquatic/Water Quality/Hydrology/Geomorphology Technical Working Group

Initials	Name	AffiliationName	Email
<u>BP</u>	Alicia Pool (Lm)	Pacific Gas & Electric Company	acpa@pge.com
	Beth Paulson	U.S. Forest Service	bapaulson@fs.fed.us
<u>BC</u>	Bill Center	American River Recreation Association & Camp Lotus	bclotus@innercite.com
	Bill Hetland (by phone)	El Dorado County Water Agency	bhetland@co.el-dorado.ca.us
<u>BM</u>	Bruce McGurk	Pacific Gas & Electric Company	bjmo@pge.com
	Carol Szuch	Sacramento Municipal Utility District	cszuch@smud.org
	Carson Cox	California Department of Fish & Game	ccox@dfg.ca.gov
	Catherine Fonseca	Shingle Springs Band of Miwok Indians	cfonseca@ca.ihs.gov
	Charles Bertolette	Citizen	charlosb@cal.net
<u>CM</u>	Cheryl Mulder	U.S. Forest Service	cmulder@fs.fed.us
	Chris Burnett	Citizen	caburnett@ucdavis.edu
	Chris Shutes	Citizen	blancapaloma@msn.com
	Chris Williams	El Dorado County	cwilliam@goldrush.com
	Christine Champe	Stillwater Sciences	christine@stillwatersci.com
	Craig Thomas	Center for Sierra Nevada Conservation	cthomas@innercite.com
	Daniel B Steiner	SMUD Consultant	steinerd@ix.netcom.com
<u>DFN</u>	David Hanson	Sacramento Municipal Utility District	dhanson@smud.org
	David Witter	El Dorado Irrigation District	dwitter@eid.org
	David K. Rogers	MWH Americas Incorporated	david.k.rogers@us.mwhglobal.com

Initials	Name	AffiliationName	Email
_____	Dennis Smith	U.S. Forest Service	dennismith@fs.fed.us
_____	Dudley McFadden	Sacramento Municipal Utility District	dmcfadd@smud.org
_____	Dudley Reiser	R2 Resource Consultants, Inc.	dreiser@r2usa.com
_____	Ed Cheslak	Pacific Gas & Electric Company	efc3@pge.com
_____	Ed Horton	Placer County Water Agency	ed@hortonfarm.com
_____	Einar Maisch	Placer County Water Agency	planning@pcwa.net
_____	Eric Theiss	National Marine Fisheries Service	eric.theiss@noaa.gov
_____	J. Thomas King	Bioassessment Services	bioassess@comcast.net
	Jann Williams	U.S. Forest Service	jowilliams@fs.fed.us
_____	Jeff Horn	U.S. Bureau of Land Management	jhorn@ca.blm.gov
_____	Jim Eicher	U.S. Bureau of Land Management	jeicher@ca.blm.gov
	Jim Lynch	Devine Tarbell & Associates Incorporated	james.lynch@devinetarbell.com
_____	Judy Mathat	El Dorado County Republican Central Committee	mathat@cwnet.com
_____	Justin Klaurens	Devine Tarbell & Associates Incorporated	justin.klaurens@devinetarbell.com
_____	Karen Smith	Sacramento Municipal Utility District	ksmith@smud.org
_____	Katherine Hill	California Department of Fish & Game	khill@dfg.ca.gov
_____	Kent Doughty	EES Consulting	doughty@eesconsulting.com
	Lonn Maier	Sacramento Municipal Utility District	lmaier@smud.org
_____	Margaret Hannaford	Hydroconsult Engineers, Inc. (SMUD Consultant)	maggyhanna1@aol.com
_____	Marie Davis	Placer County Water Agency	mledavis@hotmail.com
_____	Marie Rainwater	Rainwater & Associates, LLC	marie@rainwater-associates.com
_____	Mark Egbert	El Dorado County Resource Conservation District	Mark-Egbert@ca.nacdn.org

Initials	Name	AffiliationName	Email
_____	Mary Meyer	Devine Tarbell & Associates Incorporated	
_____	Matt Paquette	Devine Tarbell & Associates Incorporated	matthew.paquette@devinetarbell.com
_____	Mel Johnson	City of Sacramento	mjohnson@cityofsacramento.org
_____	Michael Carbiener	Pacific Gas & Electric Company	MRCO@pge.com
_____	Mike Henry	Federal Energy Regulatory Commission	mike.henry@ferc.gov
_____	Mike Preszler	Mead & Hunt, Incorporated	mike.preszler@meadhunt.com
_____	Mike Ramey	R2 Resource Consultants, Inc.	mramey@r2usa.com
_____	Nate Rangel	California Outdoors	nate@raftcalifornia.com
_____	Parvez Mody	Sacramento Municipal Utility District	pmody@smud.org
_____	Paul DeVries	R2 Resource Consultants, Inc.	pdevries@r2usa.com
_____	Paul Kubicek	Pacific Gas & Electric Company	PFK1@pge.com
_____	Peggy Cranston	U.S. Bureau of Land Management	pcransto@ca.blm.gov
_____	Peter Epanchin	U.S. Fish & Wildlife Service	peter_epanchin@fws.gov
_____	Robert W. Hughes	California Department of Fish & Game	rwhughes@dfg.ca.gov
_____	Ron Corso	Mead & Hunt, Incorporated	ron.corso@meadhunt.com
_____	Ron Stork	Friends of the River	rstork@friendsoftheriver.org
_____	Russ Kanz	State Water Resources Control Board	rkanz@waterrights.swrcb.ca.gov
 (by phone)	Sapna Khandwala	Stillwater Sciences	sapna@stillwatersci.com
_____	Scott Flake	Sacramento Municipal Utility District	sflake@smud.org
	Scott Wilcox	Stillwater Sciences	scott@stillwatersci.com
_____	Sharon Stohrer	State Water Resources Control Board	sstohrer@waterrights.swrcb.ca.gov
	Stafford Lehr	California Department of Fish and Game	slehr@dfg.ca.gov

Initials	Name	AffiliationName	Email
_____	Stephen Reynolds	California Department of Conservation	sdreynol@consrv.ca.gov
_____	Steve Barber	South Fork Dialogue Group	steve@paradigmpilgrim.com
_____	Steve Peirano	Pacific Gas & Electric Company	slp2@pge.com
_____	Steve Sorey	Sacramento Municipal Utility District	ssorey@smud.org
_____	Sue Britting	Citizen	britting@linnercite.com
_____	Thomas D. Cumpston	El Dorado Irrigation District	tcumpston@eld.org
_____	William Foster	U.S. Fish and Wildlife Service	William_Foster@fws.gov

**Upper American River Project (UARP)
Aquatic/Water Quality/Geomorphology/Hydrology Resources Technical
Working Group (TWG) Meeting Summary**

May 19, 2004 9:00 a.m. to 1:00 p.m.

**Sacramento Municipal Utility District (SMUD)
Customer Service Center (CSC), Sequoia 2 & 3
6301 "S" Street, Sacramento, California**

Summary

The Aquatic/Water Quality/Geomorphology/Hydrology ("Aquatic") Resources Technical Working Group (TWG) met on May 19, 2004 at the SMUD's Customer Service Center (CSC). Participants included:

- Beth Paulson, US Forest Service (USFS)
- Bill Center, Camp Lotus
- Bruce McGurk Pacific Gas and Electric (PG&E) (by phone)
- Cheryl Mulder, USFS
- Dave Hanson, Sacramento Municipal Utility District (SMUD)
- Dudley McFadden, SMUD
- Jann Williams, USFS
- Jim Lynch, Devine Tarbell and Associates (DTA)
- Lon Maier, SMUD
- Sapna Khandwala, Stillwater Sciences (by phone)
- Scott Wilcox, Stillwater Sciences
- Stafford Lehr, California Department of Fish and Game (CDFG)

The Aquatic TWG met to accomplish the following tasks:

1. Review agenda
2. Discuss key and timely issues
3. Update on the fish tissue sampling study plan meeting held May 10, 2004
4. Discussion of the field work for 2004
5. Brief discussion on benthic macroinvertebrate work in 2004 in the fluctuation zone for the reach downstream of Chili Bar
6. Discussion of Plenary Group's Assignment letter to the TWGs and data report meetings schedule for June

During the meeting, the following topics/questions were addressed.

Review agenda. No changes in the agenda were made.

Key and timely issues. There were no key and timely issues discussed

Update on the fish tissue sampling study plan meeting held May 10, 2004. DTA reported that a meeting was held between SMUD, SWRCB, CDFG, Office of

Environmental Health Hazard Assessment (OEHHA) and DTA to discuss the methods that would be employed for fish tissue sampling. There was general agreement amongst parties as to methods, number of fish and area to be sampled, however specifics of the study are being discussed between SWRCB and OEHHA. It is expected that within a short time the study methodologies will be completely agreed upon. Also discussed was the finding of significant deposits of mercury in the South Fork American River. Further research may be done on behalf of the SWRCB to determine if deposits are remnants from the 1850s Gold Rush era, or if “mercury recruitment” is occurring from the banks of the river.

Discussion of the field work for 2004. In response to the April 9, 2004 USFS request for additional study/study modifications for the 2004 field season, the group discussed the following.

1) Water quality: The Water Quality study Plan identifies two categories of samples in the survey effort: “take sample” and “take and hold”. Since the “hold” samples are proposed to be analyzed anyway, it was recommended that the terminology change to be consistent with the effort. It was suggested and noted that changing probes and calibration for the *in situ* meters be documented. It was also noted that the YSI meter had recently been calibrated in the lab.

2) Water Temperature: No comments on the 2004 work, except that battery life for all units should be assessed.

3) Stream fisheries: Studies will be done as listed in the May 14, 2004 memo, except to replace Slab Creek Reach with a series of longitudinal snorkel surveys to record distribution of bass and other transition zone species between White Rock powerhouse and upstream areas (i.e., Mosquito Bridge). Species composition, age class distribution and spatial distribution will be assessed in the Slab Creek reach. **Agreement:** It was recognized that a management goal consensus between CDFG, USFS, BLM and SWRCB has not been reached, and that further information may be needed to reach that determination. It was further noted that the upcoming agenda should include this as an item for discussion.

4) Channel Morphology: Additional work in 2004 may be requested, to be determined after additional meetings and site visits with USFS and other interested staff. The May 14, 2004 memo is to be revised to specify that additional field studies may be necessary. It was requested that the memo be attached as part of the meeting summary.

5) Amphibians: **Agreement:** Add some additional Chili Bar tributary sites on tributaries previously surveyed, where access to BLM land to trib sections further upstream can be surveyed. Bill Center indicated that south side tributaries (Shingle, Jacobs, Clark) generally have abundant bullfrog populations and low likelihood of FYLF. BLM access will be confirmed by next Thursday’s TWG meeting. **Agreement:** The aerial DVD will be reviewed for cobble bar habitats at lower end of Junction Reach, for possible survey.

Also, presence/absence surveys below Akin powerhouse should extend to high water level of Slab Creek Reservoir.

6) Aquatic Bioassessment: **Agreement:** CSBP studies for remaining sites in the Reach Downstream of Chili Bar will be done. Approved, with no comment.

Benthic macroinvertebrate work in 2004 in the fluctuation zone for the reach downstream of Chili Bar. Current study to be distributed to TWG by May 21, 2004 to agencies. We will discuss at next week's TWG meeting, with Tom King in attendance.

Plenary Group's Assignment letter to the TWGs and data report meetings schedule for June. The assignment letter was not discussed, but the schedule was. See the tentative schedule as agreed below.

Other Agreement Items.

- The "integrative process" flow chart needs to be made available to TWG participants. USFS will coordinate with SMUD.
- The "master matrix" will be brought to the next meeting May 27, 2004.
- SMUD will secure low-level outlet drawings for review by the TWG.
- DTA will provide engineering drawings for review
- Bathymetry files will be made available in PDF format

Future meeting dates and agenda items

Date	Agenda items
May 27	Discussion of general matrix, BMI work in the fluctuation zone downstream of Chili Bar, Schedule Geomorph work, Ice House boating flow study,
June 3	General overview of the projects and ecosystems by reach; discussion of management objectives by reach development of a Monthly Matrix of Ecosystem Attributes for each reach (or group of reaches)
June 10	Fish Surveys (passage/migration), Deep Water Entrainment, Benthic Macroinvertebrates
June 14	Water Quality, Water Temperature
June 16	Fish habitat (PHABSIM and Reservoir Fish Habitat), Hydrology
June 24	Amphibians and Amphibian Test Flows
July 1	Geomorphology

Meeting dates and locations may also be found on SMUD's web page at <http://www.smud.org/relicensing/index.html>

Ongoing commitments:

- Field schedules will be provided to the TWG on a monthly basis. The schedules are tentative. Contact Lonn Maier if attendance is desired for any of the fieldwork underway.

- SMUD will advise participants of any particular focus that an upcoming meeting may have, and develop an agenda for the meeting.
- SMUD commits to sending out draft study plans at least five working days before meeting to discuss the plans.

Attachments available with this summary. None.

If you would like copies of any past document, please e-mail hmaier@smud.org with your request or visit the SMUD relicensing web page at <http://www.smud.org/relicensing/index.html>.

These summaries are not intended to be a transcript of the meeting, but only to serve as a brief synopsis. Please provide any comments you may have regarding these summaries to hmaier@smud.org

**Aquatic Technical Working Group
Upper American River Project, FERC No. 2101
Chili Bar Hydroelectric Project, FERC No. 2105
Proposed 2004 Aquatic Field Studies
May 14, 2004**

Following discussions at the Aquatic Technical Work Group meeting on April 8, 2004, and receipt of a subsequent email from the USFS, Sacramento Municipal Utility District and Pacific Gas and Electric Company are currently proposing the following aquatic field studies for 2004. These investigations are continuations and/or amendments to existing approved study plans, and there are no plans to develop additional or revised study plans for formal approval by the TWG or Plenary Group, although comments on the proposed studies are welcome.

Water Quality

- An additional year of data collection for all metals, analyzed for dissolved and total concentrations, for all seasonal periods at all reservoir and stream-reach stations (contingency and triage), including pH, temperature, dissolved oxygen, and hardness (measured value analyzed in the lab).

Water Temperature

- Thermographs will be left in through the end of September.
- Thermographs will be checked as soon as practical in the spring or early summer to ensure they are functioning. Remaining battery life will be assessed, where possible.

Stream Fisheries

An additional year of survey at electrofishing sites in UARP reaches with substantial differences in biomass between 2002 and 2003. Candidate reaches identified by CDFG are:

- Gerle Creek/Loon Lake Dam (F1 and F2).
- South Fork Silver/Ice House Dam (F1 and F2). The lower F2 site is not trout dominated, but may be of special interest due to recreational flow issues in the watershed.
- Silver Creek/Junction Dam (Electrofishing site F1).
- Silver Creek/Camino Dam (New electrofishing site). A multiple pass electrofishing sample site to be established for more quantitative baseline biomass estimates, subject to a safe and logistically feasible location being identified.
- Slab Creek Dam (F2 electrofishing site). The lower F2 site is not trout dominated, but may be of special interest due to recreational flow issues in the watershed, and the presence of hardhead.

Snorkeling at all sampling sites in the Reach Downstream of Chili Bar. No margin electrofishing is proposed in 2004, since 1) species identification of juvenile fishes was confirmed in 2003, and 2) results are unlikely to be much different in 2004.

Channel Morphology

SMUD/PG&E consultants will review data presented in the channel morphology report, and meet with interested technical representatives to discuss the material and methodologies. A field trip will be scheduled to visit selected study sites with interested TWG members.

Amphibians

Surveys in 2004 will include the following locations:

- Evaluate habitat conditions and reported frog sighting, and determine appropriate areas to target for presence/absence surveys in the upper 1-2 miles of the Junction Dam Reach, including tributaries.
- Evaluate habitat conditions at up to three tributary confluences below Camino Dam for potential presence/absence surveys. Discuss results with TWG representatives prior to surveying any additional tributary confluences.
- Presence/absence surveys in the Slab Creek Dam Reach: from Rock Creek to White Rock Powerhouse and in Rock Creek until gradient steepens markedly (approximately ½ mile from mouth).
- Presence/absence surveys below Akin Powerhouse to Camino Powerhouse in the SF American Reach for presence/absence of FYLF.
- Presence/absence surveys in major tributaries not yet surveyed in the Reach Downstream of Chili Bar: Big Canyon, Shingle, Jacobs, Clark, and Norton Ravine creeks
- Targeted surveys on Indian Creek from mouth to 1 mile upstream to evaluate extent of known FYLF population.

Aquatic Bioassessment

- CSBP surveys of BMI in the Reach Downstream of Chili Bar (all 2003 sites)