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# Coho and Steelhead Restoration Project

## Annual Section 10 Permit Report July 1 – December 31, 2001



**NATIONAL PARK SERVICE  
Point Reyes National Seashore  
Golden Gate National Recreation Area  
Muir Woods National Monument**

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**July-December 2001 COHO SALMON SECTION 10 PERMIT REPORT  
PERMIT #1046**

**GOAL / PURPOSE OF SAMPLING**

The National Park Service (NPS) implemented a long term watershed restoration project in response to the Federal Endangered Species Act listing of coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*O. mykiss*) along the central California coast. The Coho and Steelhead Restoration Project (CSRP) is a five year cooperative effort between Golden Gate National Recreation Area, Muir Woods National Monument, and Point Reyes National Seashore in western Marin County. The objectives of the CSRP are:

- Collect baseline data on the abundance and distribution of threatened juvenile, outmigrant, and adult salmonids;
- collect baseline watershed and habitat data;
- identify and implement habitat restoration projects;
- develop and implement long term habitat and fish abundance monitoring programs.

The CSRP began monitoring trends in fish abundance and distribution to prioritize habitat restoration efforts in the Olema, Lagunitas, Pine Gulch, and Redwood Creek watersheds in 1997 (Figure 1). Field sampling continued during the second half of 2001 and covered select areas in each watershed (Table 1). To date our efforts have focused on filling gaps in current knowledge and extending existing data sets. Adult spawner surveys are conducted during the fall and winter, juvenile abundance is estimated during summer, and fish distribution is assessed year round in large portions of each watershed. Smolt emigration is monitored in the spring on selected streams. Physical habitat measurements, including water quality and hydrologic characteristics, are collected in conjunction with each survey. In addition, interviews with long time residents and searches in archives have been conducted in an attempt to establish historical trends. Intensive fish sampling will continue and a long-term monitoring plan will be developed based on the results.

This report presents data from sampling pursuant to permit #1046 for threatened coho salmon. The NPS has applied to the National Marine Fisheries Service (NMFS) for an extension of this permit through 2007. In October 2001 the permit was amended and a new reporting period established from January 1 to December 31 of each year. This document is intended to serve as an interim report between the previous period ending June 30 2001, and the new period commencing January 1 2002. The NPS has applied to NMFS for a section 10 permit to take threatened steelhead trout and the report includes data for both species. The format of the report follows a NMFS document attached to permit #1046 dated August 1, 1997.

## SAMPLING ACTIVITIES

### **Index Site Electrofishing**

During July and August 2001, the CSRP conducted electrofishing surveys of three index sites on Cheda Creek, eight sites on the Olema Creek mainstem, and eight on the Pine Gulch mainstem. The index sites were established in 1999 (Olema mainstem) and 2000 (all others) for long-term annual monitoring of juvenile salmonids. Each site consists of a 30-100 meter reach, containing from three to 10 contiguous habitat units. Three index sites on Redwood Creek were sampled in October 2001 using electrofishing. The Redwood Creek sites are intended to complement long-term juvenile salmonid monitoring sites established and surveyed by Dr. Jerry Smith of San Jose State University. Two index sites in the Easkoot Creek watershed were resampled to determine long-term trends in fishery resource. An additional site in Morse Gulch, a tributary to Bolinas Lagoon, was also surveyed.

All electrofishing activities utilized standard multiple pass depletion techniques. Seine nets were used to isolate each habitat unit being sampled. Attempts were made to minimize injuries during electrofishing activities by using new generation electrofishing equipment, accepted sampling and fish handling protocols, and providing adequate training to personnel. CSRP biologists used a state of the art programmable waveform backpack electrofisher (Smith-Root Model 12 B-POW) with an 11-inch ring anode. Fish were captured using either pulsed or straight direct current with the minimum voltage, pulse width, and frequency necessary for immobilization. Under most conditions, a setting of P16 (unpulsed DC) at 200 volts was found to be the most effective while preventing injury to the fish. A log was kept of all settings, pertinent environmental conditions, and fish response (appendix A).

Captured fish were sedated using carbon dioxide, identified to species and age class, measured, and weighed. Some individuals were handled to collect fin clips or scale samples for age and/or genetic analysis. Fish were kept in aerated holding buckets before and after handling, and allowed to recover fully before being released.

Potential sources of mortality or injury included general stress during capture and handling, respiratory failure, and hemorrhaging or spinal injuries associated with shocking. If a pattern of mortality or injury was recognized, techniques were altered to reduce impacts. As during smolt trapping activities, the smaller salmonids were kept in separate buckets from sculpin and other fish to prevent predation. Total mortality rates associated with electrofishing surveys for the reporting period were 0.3% for coho and 0.7% for steelhead.

Index site information is collected annually in conjunction with habitat surveys to compare fish densities between year classes, and changes in habitat characteristics and quality. Analysis and reporting of this data is under development. A qualitative assessment of the Olema Creek surveys show juvenile coho densities much higher in summer 2001 (1207 total juvenile coho captured) than in previous years (359 in 2000 and 216 in 1999), correlating to the strong spawning run during winter 2000-01. In Pine Gulch, juvenile coho were caught at

four of the eight index sites in late August 2001, the first documented occurrence of coho in this watershed since the late 1960's.

### **Intermittent Pool Electrofishing**

In addition to the index sites, several of the intermittent tributaries of Olema Creek are routinely electrofished as they dry up in the spring to determine numbers of potentially stranded fish. As of October 2001 NMFS has modified our permit to allow for moving stranded salmonid juveniles to adjacent stream reaches not subject to dessication. However, no action was taken during this reporting period.

### **Snorkel Surveys**

Pine Gulch: A snorkel survey was conducted on Pine Gulch in early September 2001, following electrofishing of the index sites, to further determine coho distribution and population within this watershed. One or two divers typically made one or more snorkel passes in each selected habitat unit to count the different salmonid species and size or age classes. Standard dive lights were used to search undercut banks and woody debris for fish. Occasional second passes were made in large or complex pools. The potential for injury or mortality from snorkel observations is minimal. No handling of fish occurs from snorkel observations, and only minimal disturbance/ harassment occurs.

A total of 152 coho juveniles were counted during the Pine Gulch survey. However, assuming the divers undercounted the actual number of fish present, a calibrated count of 190 was reported as the number of coho observed/harassed. The presence of steelhead was noted but in most cases they were not counted, so an exact take estimate is not possible. However, previous snorkel counts in this creek found a maximum of 50 young of year and ten 1+ steelhead per pool. Applying a maximum estimate of 60 juvenile steelhead per pool to the 68 pools snorkeled yields a rough estimate of 4,080 fish.

Lagunitas Creek: Snorkel surveys were conducted on the mainstem of Lagunitas Creek July-October 2001 by Leslie Ferguson as part of her research conducted under Peter Moyle of UC Davis in collaboration with NPS and the Marin Municipal Water District (MMWD). The research is intended to characterize coho and steelhead habitat with an emphasis on the role of woody debris during the summer rearing season, and specifically to assess the effectiveness of large woody debris (LWD) structures installed by MMWD in enhancing pool complexity and providing salmonid habitat.

A three-person team (2 divers and 1 recorder) conducted snorkel surveys in reaches from the campgrounds in Samuel P. Taylor Park to Peters Dam. Continuous surveys were conducted from Irving Bridge to Peters dam. Specific reaches were selected from the campground to Irving Bridge based on the presence or absence of MMWD LWD restoration structures. Additionally, specific reaches below the Tocoloma Bridge were selected over a 4-mile reach, approx. every mile. To characterize the quality of habitat associated with LWD structures, physical habitat variables were measured in all units that were snorkeled, including water velocity, depth, substrate composition, in-stream cover complexity, and cover. Results will be documented in a Master's thesis expected in 2003.

### **Spawner and Carcass Surveys**

Coho salmon spawner surveys were conducted November 2001 through February 2002 in the Lagunitas, Olema, Pine Gulch and Redwood Creek watersheds. This report includes only data from surveys completed through December 31, 2001. Surveys on Redwood Creek occurred approximately every 2 weeks during favorable weather and stream flow conditions, with less frequent surveys on other creeks and during less favorable conditions. Surveys were conducted by trained volunteers and CSR staff. Survey protocol involved walking upstream along creek margins and banks where possible and looking for carcasses or live fish. Typically, teams of 2 people surveyed reaches of 2-4 km in length. Live fish were identified to species and assigned to approximate size classes. Occasional steelhead adults were observed and counted incidental to coho observations. Salmonid carcasses were handled to collect length, weight, and sex. When possible, scales and tissues from the operculum were collected for future genetic work. Take during spawner surveys consisted of occasional disturbance of adult fish. Particular care was taken not to disturb redds or actively spawning adults.

Two coho spawners were seen on Pine Gulch in December 2001, representing the second consecutive year class detected in this watershed from which coho were previously assumed extirpated. Unfortunately, no carcasses were recovered to provide genetic samples. However, samples from a carcass found the previous winter and from juveniles captured summer 2001 will hopefully provide some genetic clues as to the origin of the new Pine Gulch coho population. Results from Olema Creek spawner surveys from the last 5 winters have been presented at the 2001 and 2002 annual meetings of the American Fisheries Society Cal-Neva Chapter.

### **Smolt Trapping**

Smolts and other juvenile salmonids are sampled each spring on the John West fork (formerly called Blueline Creek) of Olema Creek using a downstream migrant pipe trap. No smolt trapping occurred during the July-December 2001 period.

### **Other Sampling Activities**

Scientists at the NMFS Southwest Fisheries Science Center are currently conducting a genetic analysis of steelhead population structure in coastal watersheds of California from the Oregon border to Morro Bay, an area that encompasses three steelhead "Evolutionarily Significant Units" (ESUs) currently listed as Threatened under the Federal Endangered Species Act. As part of recovery planning, Technical Recovery Teams (TRT's) of salmonid experts have been formed whose charge it is to first identify independent steelhead populations within each ESU and then develop biological delisting criteria which, if met, would result in removal of the ESU from the endangered species list. Collection of steelhead tissue samples (small fin clips) and subsequent analysis of DNA microsatellites for fish in 60 streams representing 39 different watersheds in coastal California will help define differences in populations among watersheds, as well as provide information on within-basin population structure for a subset of these watersheds. This genetic information will assist the TRT's in defining independent populations and then developing appropriate recovery targets that consider the evolutionary relationships among populations and unique attributes that may be found in certain locations. As part of this study, NMFS biologists

electrofished parts of Redwood Creek during summer/fall 2001 to collect juvenile steelhead for tissue samples. A total of 90 steelhead juveniles were captured, measured, weighed, sampled, and released back into the creek.

The NPS is an active participant in the Russian River Watershed Workgroup, a cooperative project between the California Department of Fish and Game (CDFG) and NMFS to restore coho populations in the Russian River. In September 2001 Workgroup biologists electrofished intermittent sections of the Olema Creek mainstem and the John West Fork under section 10 permit # 1067. Juvenile coho were rescued from drying pools to help start a captive population of wild coho to use as broodstock for future coho reintroduction efforts. A total of 118 juvenile coho were captured for the broodstock program, and an additional 50 were relocated to nearby perennial pools in the Olema mainstem. Juvenile steelhead were also captured but were released without counting or further processing.

Since these sampling activities were conducted under separate permits, associated take numbers are not included in this report.

## **DATA AND SAMPLE PROCESSING**

All field data is entered into a Microsoft Access database, and double checked for accuracy and quality control before and after data entry. Take estimates are derived by querying the database for different species, age, and take categories. The estimates are therefore highly accurate, and in most cases represent exact counts of the actual numbers of fish taken in each category. All tissue and scale samples are air dried, catalogued, and stored in a dessicator. Tissue samples are sent to Dr. Carlos Garza at the NMFS Santa Cruz lab for genetic analysis. Scales will be mounted and read in-house for age analysis.

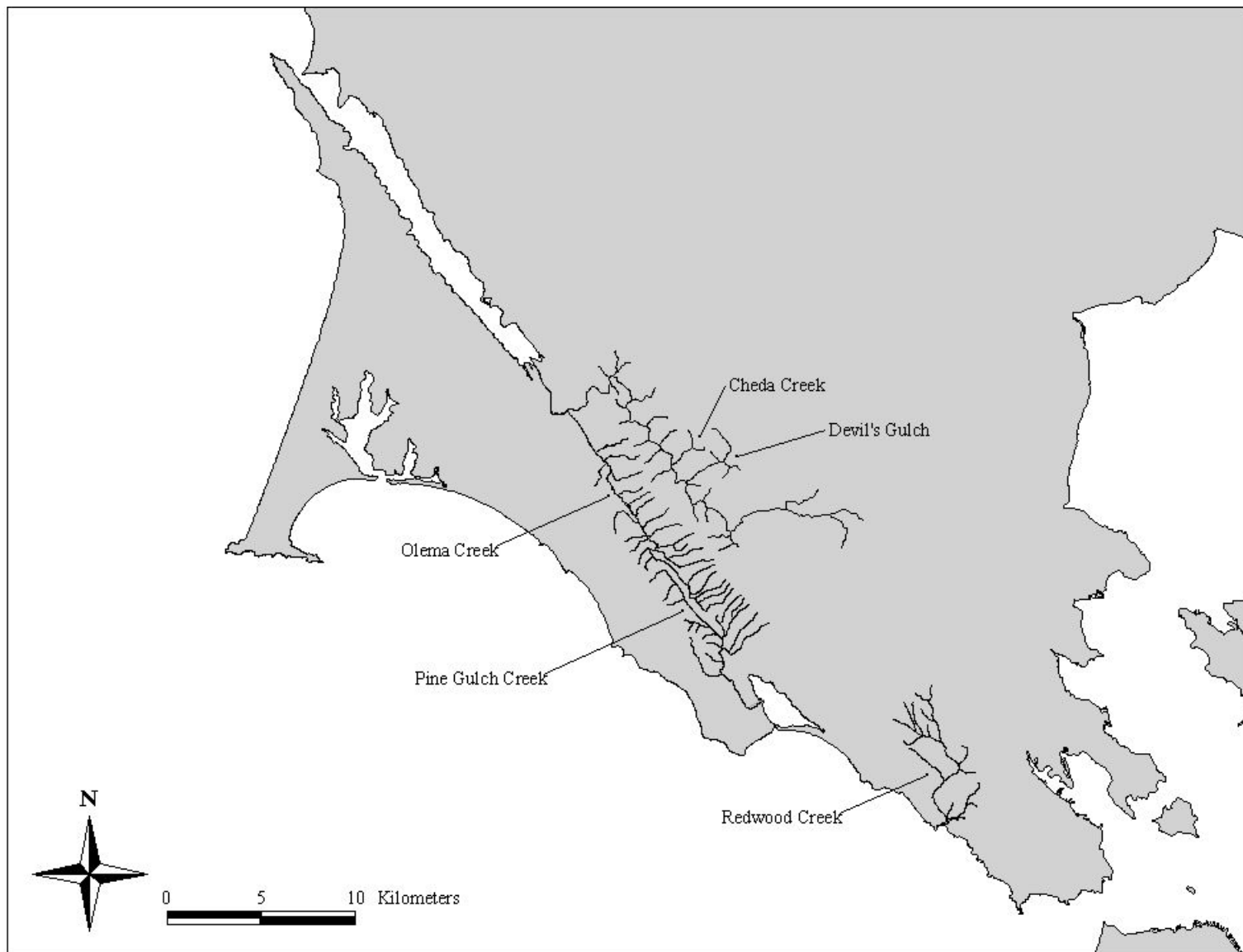


Figure1. Coho and Steelhead Restoration Project watersheds. Marin County, CA.



Table 1. Streams and sampling activities conducted by the National Park Service CSRP during July-December 2001.

Watershed	County	Stream	Activities
Lagunitas	Marin	Cheda Creek	Index Site Electrofishing Survey, Spawner Surveys
		Lagunitas Creek (mainstem)	Snorkel Surveys
Lagunitas - Olema	Marin	Olema Creek (mainstem)	Index Site Electrofishing Survey, Spawner Surveys
		John West Fork (aka Blueline Creek)	Spawner Surveys
		Misc. Olema Tribs	Spawner Survey
Redwood	Marin	Redwood Creek (mainstem)	Spawner Surveys, Index Site Snorkel/Electrofishing Survey
		Fern and Kent Creeks	Spawner Surveys
Pine Gulch	Marin	Pine Gulch (mainstem)	Index Site Electrofishing Survey, Snorkel Survey, Spawner Surveys
Bolinas Lagoon	Marin	Easkoot Creek & Morse Gulch	Index Site Electrofishing Survey

Table 2. Annual allowable versus actual take of ESA listed central California coast ESU coho salmon by age class Jul-Dec 2001. Permit #1046

Type of Take	Age Class					
	Juvenile		Adult		Carcass	
	Allowable	Actual	Allowable	Actual	Allowable	Actual
Observe/Harass	44,400	4,746	1,800	275		
Capture/Handle	5,250	1,507			200	22
Capture/Handle/Mark	2,625	0				
Indirect Mortality	236	3				

Table 3. National Park Service CSRP annual take of coho salmon and steelhead trout by stream, sampling activity, and age class on the Lagunitas / Olema Creek Watershed; Jul-Dec 2001.

Date	Activity	Location	Observe/harass				Capture/handle				Capture/handle/mark		Indirect mortality			
			Coho		Steelhead		Coho		Steelhead		Coho	Steelhead	Coho		Steelhead	
			adult	juve	adult	juve	adult	juve	adult	juve	juve	juve	adult	juve	adult	juve
7/5/01-7/10/01	Index Site Electrofishing	Cheda Creek (Lagunitas)						1	120				0	0		
7/12/01-8/7/01	Index Site Electrofishing	Olema mainstem						1207	1143				3	9		
7/5/01-10/10/01	Snorkel Surveys	Lagunitas mainstem		4556		6304										
11/27/01-12/12/01	Spawner Surveys (2)	Olema mainstem	77		0		6									
12/9/01-12/26/01	Spawner Surveys (3)	John West Fork (Olema) (aka Blueline Creek)	41		0		3									
12/10/01	Spawner Survey	Misc. Olema Tribs	0		0		0									
11/30/01-12/27/01	Spawner Surveys (4)	Cheda Creek (Lagunitas)	4		0		0									
Totals			122	4556	0	6304	*9	1208	0	1263	0	0	0	3	0	9

\*carcasses

Table 4. National Park Service CSRP annual take of steelhead trout by stream, sampling activity, and age class within Bolinas Lagoon Watershed; Jul-Dec 2001.

Date	Activity	Location	Observe/harass				Capture/handle				Capture/handle/mark		Indirect mortality			
			Coho		Steelhead		Coho		Steelhead		Coho	Steelhead	Coho		Steelhead	
			adult	juve	adult	juve	adult	juve	adult	juve	juve	juve	adult	juve	adult	juve
8/6/01	Index Site Electrofishing	Easkoot/Laurel Creeks							90							0
10/3/01	Index Site Electrofishing	Morse Gulch							6							0
Totals			0	0	0	0	0	0	0	96	0	0	0	0	0	0

Table 5. National Park Service CSRP annual take of coho salmon and steelhead trout by stream, sampling activity, and age class on the Pine Gulch Watershed; Jul-Dec 2001.

Date	Activity	Location	Observe/harass				Capture/handle				Capture/handle/mark		Indirect mortality			
			Coho		Steelhead		Coho		Steelhead		Coho	Steelhead	Coho		Steelhead	
			adult	juve	adult	juve	adult	juve	adult	juve	juve	juve	adult	juve	adult	juve
8/9/01-8/28/01	Index Site Electrofishing	Pine Gulch mainstem						51		420				0		6
8/29/01-9/6/01	Snorkel Survey	Pine Gulch mainstem		190		~4080										
12/11/01	Spawner Surveys	Pine Gulch mainstem	2		0		0		0							
Totals			2	190	0	~4080	0	51	0	420	0	0	0	0	0	6

Table 6. National Park Service CSRP annual take of coho salmon and steelhead trout by stream, sampling activity, and age class on the Redwood Creek Watershed; Jul-Dec 2001.

Date	Activity	Location	Observe/harass				Capture/handle				Capture/handle/mark		Indirect mortality			
			Coho		Steelhead		Coho		Steelhead		Coho	Steelhead	Coho		Steelhead	
			adult	juve	adult	juve	adult	juve	adult	juve	juve	juve	adult	juve	adult	juve
10/23/01-10/26/01	Index Site Electrofishing	Redwood mainstem						248		243				0		1
12/8/01-12/19/01	Spawner Surveys (2)	Redwood mainstem + Kent & Fern Creeks	151		5		*13		0							
Totals			151	0	5	0	*13	248	0	243	0	0	0	0	0	1

\*carcasses

## **Appendix A**

### **Coho and Steelhead Restoration Project Annual Section 10 Permit Report**

**July 1, 2001– December 31, 2001**

### **Electrofishing Log**



Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs.

Unit # 1 Unit Type PLP Temp °C Conductivity (µS/cm)

Comments 50 Newts pass 1. 23 Newts pass 2.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	496	p16	200	0	0	22	CO <input type="text" value="0"/>
Pass 2	445	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs

Unit # 11 Unit Type Temp °C Conductivity (µS/cm)

Comments 14 Newts pass 1. 6 Newts pass 2.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	245	p16	200	0	0	3	CO <input type="text" value="0"/>
Pass 2	226	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs.

Unit # 13 Unit Type DPL Temp °C Conductivity (µS/cm)

Comments Unit 12 LGR not fished.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	451	p16	200	0	0	5	CO <input type="text" value="0"/>
Pass 2	339	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs

Unit # 3 Unit Type PLP Temp °C Conductivity (µS/cm)

Comments 23 Newts pass 1. 13 Newts pass 2. Unit 2 LGR Not fished.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	474	p16	200	0	0	14	CO <input type="text" value="0"/>
Pass 2	341	p16	200	0	0	2	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs.

Unit # 5 Unit Type PLP Temp °C Conductivity (µS/cm)

Comments Unit 4 LGR not fished.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	321	p16	200	0	0	8	CO <input type="text" value="0"/>
Pass 2	277	p16	200	0	0	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs

Unit # 7 Unit Type PLP Temp °C Conductivity (µS/cm)

Comments Unit 6 LGR not fished.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	172	p16	200	0	0	6	CO <input type="text" value="0"/>
Pass 2	135	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 2 Date 07/05/01

Description Boulder Weirs.

Unit # 9 Unit Type PLP Temp °C Conductivity (µS/cm)

Comments 4 Newts pass 1. 1 Newt pass 2. Unit 8 LGR not fished.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	142	p16	200	0	0	8	CO <input type="text" value="0"/>
Pass 2	131	p16	200	0	0	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 1 Date 07/10/01

Description stream km 0.5, just upstream of stop sign

Unit # 1 Unit Type LSR Temp °C 14.7 Conductivity (µS/cm) 355.1

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	569	p16	200	1	1	9	CO <input type="text" value="0"/>
Pass 2	573	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Cheda Creek Site Index Site # 1 Date 07/10/01

Description stream km 0.5, just upstream of stop sign

Unit # 2 Unit Type FW Temp °C 14.7 Conductivity (µS/cm) 355.1

Comments 25 Newts

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	365	p16	200	0	0	3	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 1 Date 07/10/01

Description stream km 0.5, just upstream of stop sign

Unit # 3 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments No Fish.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	136	p16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 1 Date 07/10/01

Description stream km 0.5, just upstream of stop sign

Unit # 4 Unit Type MCP/CC Temp °C Conductivity (µS/cm)

Comments 3 Newts pass 1. 2 Newts pass 2.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	265	p16	200	0	1	3	CO <input type="text" value="0"/>
Pass 2	306	p16	200				SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 1 Date 07/10/01

Description stream km 0.5, just upstream of stop sign

Unit # 5 Unit Type Temp °C Conductivity (µS/cm)

Comments 3 Newts, 4 Stickleback.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	250	p16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Cheda Creek Site Index Site # 3 Date 07/10/01

Description Above fish passage structures

Unit # 1 Unit Type LSBK Temp °C 15.4 Conductivity (µS/cm) 308.5

Comments 1 Newt pass 1. 1 Pacific Giant Salamander pass 2.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	356	p16	200	0	7	2	CO <input type="text" value="0"/>
Pass 2	369	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 3 Date 07/10/01

Description Above fish passage structures

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments No fish.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	195	p16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 3 Date 07/10/01

Description Above fish passage structures

Unit # 3 Unit Type LSBR Temp °C Conductivity (µS/cm)

Comments No Fish pass 2.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	173	p16	200	0	8	0	CO <input type="text" value="0"/>
Pass 2	171	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Cheda Creek Site Index Site # 3 Date 07/10/01

Description Above fish passage structures

Unit # 4 Unit Type LGR/LSB Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	70	p16	200	0	1	1	CO <input type="text" value="0"/>
Pass 2	71	p16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							





Stream Cheda Creek Site Index Site # 3 Date 07/10/01

Description Above fish passage structures

Unit # 5 Unit Type LSBO/LS Temp °C Conductivity (µS/cm)

Comments Pacific Giant Salamander pass 1, 65 mm.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	246	p16	200	0	6	7	CO <input type="text" value="0"/>
Pass 2	264	p16	200	0	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Olema Creek Site Lime Kilns Index Site # 8 Date 07/12/01

Description Stream km 13.0

Unit # 2 Unit Type PLP Temp °C 14 Conductivity (µS/cm) 330

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	237	P16	200	4	0	0	CO <input type="text" value="0"/>
Pass 2	199	P16	200	1	0	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Lime Kilns Index Site # 8 Date 07/12/01

Description Stream km 13.0

Unit # 4 Unit Type LSR Temp °C 13.6 Conductivity (µS/cm) 304

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	384	P16	100	26	8	4	CO <input type="text" value="0"/>
Pass 2	376	P16	200	39	7	0	SH YOY <input type="text" value="0"/>
Pass 3	349	P16	200	2	0	0	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	437	P16	200	18	0	3	CO <input type="text" value="0"/>
Pass 2	446	P16	200	2	0	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	204	P16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 3 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1244	P16	200	38	3	13	CO <input type="text" value="1"/>
Pass 2	1164	P16	200	6	1	1	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 4 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	407	P16	200	14	9	0	CO <input type="text" value="1"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 5 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	709	P16	200	26	3	4	CO <input type="text" value="0"/>
Pass 2	588	P16	200	2	0	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 6 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	606	P16	200	13	5	1	CO <input type="text" value="0"/>
Pass 2	469	P16	200	1	1	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Five Brooks Index Site # 7 Date 07/17/01

Description Stream km 10.8

Unit # 7 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1232	P16	200	83	1	3	CO <input type="text" value="0"/>
Pass 2	1032	P16	200	34	3	0	SH YOY <input type="text" value="0"/>
Pass 3	742	P16	200	4	4	1	SH 1+ <input type="text" value="1"/>
Pass 4		P16	200				

Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 1 Unit Type LSBk Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	890	P16	200	84	59	22	CO <input type="text" value="0"/>
Pass 2	886	P16	200	20	24	7	SH YOY <input type="text" value="0"/>
Pass 3	461	P16	200	4	4	2	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 2 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	444	P16	200	11	46	0	CO <input type="text" value="0"/>
Pass 2	426	P16	200	2	14	0	SH YOY <input type="text" value="1"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 3 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	602	P16	100	0	43	0	CO <input type="text" value="0"/>
Pass 2	367	P16	100	0	17	0	SH YOY <input type="text" value="3"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 4 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	416	P16	100	13	43	0	CO <input type="text" value="0"/>
Pass 2	286	P16	100	6	14	0	SH YOY <input type="text" value="1"/>
Pass 3	266	P16	100	2	10	0	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 5 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	441	P16	100	0	14	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Shook's House Index Site # 5 Date 07/18/01

Description Stream km 7.6

Unit # 6 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	656	P16	200	60	55	2	CO <input type="text" value="0"/>
Pass 2	588	P16	200	11	11	1	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1016	P16	200	31	50	5	CO <input type="text" value="0"/>
Pass 2	816	P16	200	9	10	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 2 Unit Type LSL Temp °C Conductivity (µS/cm)

Comments RED LEGGED FROG IN CREEK. SURVEYING WAS HALTED IN THIS UNIT

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	108	P16	200	0	8	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 3 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments electrofishing not completed due to red legged frog

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	261	P16	200	4	6	2	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 4 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	630	P16	200	12	30	5	CO <input type="text" value="0"/>
Pass 2	652	P16	200	1	8	0	SH YOY <input type="text" value="2"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 5 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	611	P16	200	6	41	3	CO <input type="text" value="0"/>
Pass 2	575	P16	200	0	5	1	SH YOY <input type="text" value="1"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Cemetary Pond/Upper Stewart's Pasture Index Site # 3 Date 07/19/01

Description Stream km 4.9

Unit # 6 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments extra unit not sampled in 1999 or 2000

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	513	P16	200	9	34	1	CO <input type="text" value="0"/>
Pass 2	408	P16	200	1	11	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Vedanta Index Site # 2 Date 07/24/01

Description Stream km 3.7

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	617	P16	200	2	32	7	CO <input type="text" value="0"/>
Pass 2	642	P16	200	0	4	1	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Vedanta Index Site # 2 Date 07/24/01

Description Stream km 3.7

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	355	P16	200	0	17	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Vedanta Index Site # 2 Date 07/24/01

Description Stream km 3.7

Unit # 3 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1032	P16	200	2	24	6	CO <input type="text" value="0"/>
Pass 2	868	P16	200	0	4	3	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Vedanta Index Site # 2 Date 07/24/01

Description Stream km 3.7

Unit # 4 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	578	P16	200	2	12	0	CO <input type="text" value="0"/>
Pass 2	435	P16	200	4	3	0	SH YOY <input type="text" value="0"/>
Pass 3	479	P16	200	3	3	0	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Vedanta Index Site # 2 Date 07/24/01

Description Stream km 3.7

Unit # 5 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1304	P16	200	9	28	7	CO <input type="text" value="0"/>
Pass 2	1299	P16	200	1	5	2	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Truttman Index Site # 4 Date 07/26/01

Description Stream km 6.2

Unit # 1 Unit Type LSBk Temp °C Conductivity (µS/cm)

Comments sampled w/ 2 shockers simultaneously

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	3043	P16	200	80	71	8	CO <input type="text" value="1"/>
Pass 2	2093	P16	200	15	25	7	SH YOY <input type="text" value="0"/>
Pass 3	1683	P16	200	6	9	1	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Truttman Index Site # 4 Date 07/26/01

Description Stream km 6.2

Unit # 3 Unit Type LSBk Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	3457	P16	200	132	34	18	CO <input type="text" value="0"/>
Pass 2	2401	P16	200	24	13	2	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Horse Camp Index Site # 6 Date 08/02/01

Description Stream km 9.4

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1122	P16	200	59	7	8	CO <input type="text" value="0"/>
Pass 2	1013	P16	200	15	4	3	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Horse Camp Index Site # 6 Date 08/02/01

Description Stream km 9.4

Unit # 2 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	977	P16	200	32	5	4	CO <input type="text" value="0"/>
Pass 2	817	P16	200	22	5	0	SH YOY <input type="text" value="0"/>
Pass 3	620	P16	200	10	1	1	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Horse Camp Index Site # 6 Date 08/02/01

Description Stream km 9.4

Unit # 3 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1072	P16	200	39	6	13	CO <input type="text" value="0"/>
Pass 2	1036	P16	200	27	11	0	SH YOY <input type="text" value="0"/>
Pass 3	418	P16	200	1	1	0	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				





Stream Easkoot Creek Site Laurel, above Hwy 1 Index Site # Date 08/06/01

Description

Unit # 5 Unit Type STP Temp °C 15.2 Conductivity (µS/cm) 393.2

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	42	P16	200		6		CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site Laurel, above Hwy 1 Index Site # Date 08/06/01

Description

Unit # 6 Unit Type STP Temp °C 15.3 Conductivity (µS/cm) 343.7

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	38	P16	200				CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site Laurel, above Hwy 1 Index Site # Date 08/06/01

Description

Unit # 7 Unit Type STP Temp °C 15.5 Conductivity (µS/cm) 345.7

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	119	P16	200		15		CO <input type="text" value="0"/>
Pass 2	85	P16	200		6		SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site Laurel, above Hwy 1 Index Site # Date 08/06/01

Description

Unit # 8 Unit Type STP Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	170	P16	200		13	3	CO <input type="text" value="0"/>
Pass 2	130	P16	200		3	1	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Easkoot Creek Site N. Lot Index Site # Date 08/06/01

Description

Unit # 1 Unit Type FW Temp °C 15.6 Conductivity (µS/cm) 347.7

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	100				CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site N. Lot Index Site # Date 08/06/01

Description

Unit # 2 Unit Type SC Temp °C 17.2 Conductivity (µS/cm) 409

Comments Barely any surface flow visible

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	441	P16	100				CO <input type="text" value="0"/>
Pass 2	271	P16	100				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site N. Lot Index Site # Date 08/06/01

Description

Unit # 3 Unit Type SC Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	255	P16	200				CO <input type="text" value="0"/>
Pass 2	135	P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Easkoot Creek Site N. Lot Index Site # Date 08/06/01

Description

Unit # 4 Unit Type FW Temp °C Conductivity (µS/cm)

Comments 28 m of emergent wetland/fw habitat

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	100		2		CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Lower Stewart's Pasture Index Site # 1 Date 08/07/01

Description Stream km 1.2

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	553	P16	200	8	4	2	CO <input type="text" value="0"/>
Pass 2	394	P16	200	0	1	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Lower Stewart's Pasture Index Site # 1 Date 08/07/01

Description Stream km 1.2

Unit # 2 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	829	P16	200	11	5	6	CO <input type="text" value="0"/>
Pass 2	600	P16	200	1	1	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Lower Stewart's Pasture Index Site # 1 Date 08/07/01

Description Stream km 1.2

Unit # 3 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	88	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Olema Creek Site Lower Stewart's Pasture Index Site # 1 Date 08/07/01

Description Stream km 1.2

Unit # 4 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	968	P16	200	4	4	4	CO <input type="text" value="0"/>
Pass 2	859	P16	200	5	2	0	SH YOY <input type="text" value="0"/>
Pass 3	340	P16	200	0	0	0	SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Olema Creek Site Lower Stewart's Pasture Index Site # 1 Date 08/07/01

Description Stream km 1.2

Unit # 5 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	583	P16	200	8	5	2	CO <input type="text" value="0"/>
Pass 2	501	P16	200	2	0	1	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Upper Teixeira Index Site # 6 Date 08/09/01

Description Stream km 7.8

Unit # 1 Unit Type LSR Temp °C 14.3 Conductivity (µS/cm) 169.2

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	668	P16	200	0	5	8	CO <input type="text" value="0"/>
Pass 2	558	P16	200	0	2	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Upper Teixeira Index Site # 6 Date 08/09/01

Description Stream km 7.8

Unit # 2 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	337	P16	200	0	2	3	CO <input type="text" value="0"/>
Pass 2	323	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Upper Teixeira Index Site # 6 Date 08/09/01

Description Stream km 7.8

Unit # 3 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	134	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Pine Gulch Site Upper Teixeira Index Site # 6 Date 08/09/01

Description Stream km 7.8

Unit # 4 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	378	P16	200	0	3	4	CO <input type="text" value="0"/>
Pass 2	419	P16	200	0	0	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Upper Teixeira Index Site # 6 Date 08/09/01

Description Stream km 7.8

Unit # 5 Unit Type LSL Temp °C Conductivity (µS/cm)

Comments New unit this year--not sampled in 2000

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	492	P16	200	0	3	7	CO <input type="text" value="0"/>
Pass 2	468	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 1 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	714	P16	200	7	6	6	CO <input type="text" value="0"/>
Pass 2	545	P16	200	0	0	0	SH YOY <input type="text" value="1"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	338	P16	100	0	2	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 3 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	841	P16	200	11	5	8	CO <input type="text" value="0"/>
Pass 2	735	P16	200	1	0	1	SH YOY <input type="text" value="1"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 4 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	559	P16	200	2	4	6	CO <input type="text" value="0"/>
Pass 2	501	P16	200	1	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 5 Unit Type LGR Temp °C 16.1 Conductivity (µS/cm) 231.1

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	112	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Lower Teixeira Index Site # 5 Date 08/14/01

Description Stream km 6.8

Unit # 6 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	639	P16	200	8	9	11	CO <input type="text" value="0"/>
Pass 2	633	P16	200	1	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 1 Unit Type LSR Temp °C 14.2 Conductivity (µS/cm) 248

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	595	P16	200	0	22	4	CO <input type="text" value="0"/>
Pass 2	433	P16	200	0	1	0	SH YOY <input type="text" value="1"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	72	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 3 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	656	P16	200	0	14	11	CO <input type="text" value="0"/>
Pass 2	489	P16	200	0	4	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 4 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	253	P16	200	0	16	4	CO <input type="text" value="0"/>
Pass 2	221	P16	200	0	1	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 5 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	11	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Weber Index Site # 1C Date 08/16/01

Description Stream km 0.7

Unit # 6 Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	424	P16	200	0	6	3	CO <input type="text" value="0"/>
Pass 2	439	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Gorge Index Site # 3 Date 08/20/01

Description Stream km 3.9

Unit # 2 Unit Type LSL Temp °C 13.4 Conductivity (µS/cm) 237

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	627	P16	200	10	28	3	CO <input type="text" value="0"/>
Pass 2	620	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Gorge Index Site # 3 Date 08/20/01

Description Stream km 3.9

Unit # 3 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	235	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							





Stream Pine Gulch Site Gorge Index Site # 3 Date 08/20/01

Description Stream km 3.9

Unit # 4 Unit Type LSBk Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	731	P16	200	1	6	12	CO <input type="text" value="0"/>
Pass 2	677	P16	200	1	2	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Gorge Index Site # 3 Date 08/20/01

Description Stream km 3.9

Unit # 5 Unit Type LSBo Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	618	P16	200	2	8	3	CO <input type="text" value="0"/>
Pass 2	512	P16	200	1	3	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Pine Gulch Site Paradise Valley Index Site # 2 Date 08/21/01

Description Stream km 2.8

Unit # 1 Unit Type LSR Temp °C 15.7 Conductivity (µS/cm) 142.3

Comments Top end blocked by fallen bay. ADULT SH ~50 CM seen in unit but not captured.

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	678	P16	200	1	11	11	CO <input type="text" value="0"/>
Pass 2	599	P16	200	0	2	3	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Paradise Valley Index Site # 2 Date 08/21/01

Description Stream km 2.8

Unit # 2 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments split channel LB unit

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	550	P16	200	0	11	5	CO <input type="text" value="0"/>
Pass 2	437	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Pine Gulch Site Paradise Valley Index Site # 2 Date 08/21/01

Description Stream km 2.8

Unit # 3 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments top of unit 1, cut off by fallen bay

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	132	P16	200	0	2	2	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Paradise Valley Index Site # 2 Date 08/21/01

Description Stream km 2.8

Unit # 4 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	146	P16	100	0	2	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Paradise Valley Index Site # 2 Date 08/21/01

Description Stream km 2.8

Unit # 5 Unit Type LSL Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1150	P16	200	3	25	22	CO <input type="text" value="0"/>
Pass 2	1040	P16	200	0	2	3	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="1"/>
Pass 4		P16	200				

Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOСD land

Unit # 1 Unit Type LSR Temp °C 15.8 Conductivity (µS/cm) 275.4

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	27	P16	200	0	1	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 2 Unit Type DRY Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200				CO 0
Pass 2		P16	200				SH YOY 0
Pass 3		P16	200				SH 1+ 0
Pass 4		P16	200				

Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 3 Unit Type LSR Temp °C 15.6 Conductivity (µS/cm) 272.1

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	83	P16	200	0	0	0	CO 0
Pass 2		P16	200				SH YOY 0
Pass 3		P16	200				SH 1+ 0
Pass 4		P16	200				

Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 4 Unit Type DRY Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200				CO 0
Pass 2		P16	200				SH YOY 0
Pass 3		P16	200				SH 1+ 0
Pass 4		P16	200				

Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 5 Unit Type LSR Temp °C 15.9 Conductivity (µS/cm) 264.1

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	90	P16	200	0	2	0	CO 0
Pass 2		P16	200				SH YOY 0
Pass 3		P16	200				SH 1+ 0
Pass 4		P16	200				



Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 6 Unit Type DRY Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200				CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Open Space Index Site # 1A Date 08/28/01

Description Stream km 0.3, below dredge pool on MCOSD land

Unit # 7 Unit Type LSR Temp °C 17.2 Conductivity (µS/cm) 272.4

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	244	P16	200	0	1	1	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Murch Index Site # 1B Date 08/28/01

Description Stream km 0.4, at Murch's foot bridge

Unit # 1 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	614	P16	200	0	9	0	CO <input type="text" value="0"/>
Pass 2	485	P16	200	0	2	0	SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Murch Index Site # 1B Date 08/28/01

Description Stream km 0.4, at Murch's foot bridge

Unit # 2 Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	27	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2		P16	200				SH YOY <input type="text" value="0"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				



Stream Pine Gulch Site Murch Index Site # 1B Date 08/28/01

Description Stream km 0.4, at Murch's foot bridge

Unit # 3 Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	372	P16	200	0	19	0	CO <input type="text" value="0"/>
Pass 2	306	P16	200	0	2	0	SH YOY <input type="text" value="1"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Pine Gulch Site Murch Index Site # 1B Date 08/28/01

Description Stream km 0.4, at Murch's foot bridge

Unit # 4 Unit Type LSR Temp °C 16.1 Conductivity (µS/cm) 259.3

Comments gage = 0.80

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	610	P16	200	1	20	11	CO <input type="text" value="0"/>
Pass 2	523	P16	200	0	3	0	SH YOY <input type="text" value="1"/>
Pass 3		P16	200				SH 1+ <input type="text" value="0"/>
Pass 4		P16	200				

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 14 Unit Type SC Temp °C 13.1 Conductivity (µS/cm) 336

Comments Pool disconnected at top; pink and white fungus on leaves on bottom

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	169	P16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 23 Unit Type SC Temp °C 13.2 Conductivity (µS/cm) 320

Comments H2S smell, white fungus on bottom of leaves, pool disconnected, scared Great Blue Heron in upstream pool

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	186	P16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 32 Unit Type SC Temp °C 13.8 Conductivity (µS/cm) 252

Comments Small isolated pool

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	52	P16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 49 Unit Type SC Temp °C 13 Conductivity (µS/cm) 292

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	119	P16	200	0	0	0	CO <input type="text" value="0"/>
Pass 2	91	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 5 Unit Type SC Temp °C Conductivity (µS/cm)

Comments Pool isolated

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	487	P16	200	3	0	2	CO <input type="text" value="0"/>
Pass 2	315	P16	200	1	0	2	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 57 Unit Type SC Temp °C 13.8 Conductivity (µS/cm) 281

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	197	P16	200	1	0	1	CO <input type="text" value="0"/>
Pass 2	179	P16	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 64 Unit Type SC Temp °C 13.6 Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	575	P16	200	8	0	3	CO <input type="text" value="0"/>
Pass 2	395	P16	200	2	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/23/01

Description

Unit # 71 Unit Type SC Temp °C 18.2 Conductivity (µS/cm) 305

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	180	P16	200	11	2	2	CO <input type="text" value="0"/>
Pass 2	160	P16	200	2	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/23/01

Description

Unit # Unit Type STP Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	663	P16	200	4	8	5	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/23/01

Description

Unit # Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	1141	P16	200	13	9	5	CO <input type="text" value="0"/>
Pass 2	973	P16	200	13	2	1	SH YOY <input type="text" value="0"/>
Pass 3	718	P16	200	3	0	0	SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/23/01

Description

Unit # Unit Type LGR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	275	P16	100	0	4	1	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/23/01

Description

Unit # Unit Type LSBo Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	605	P16	200	15	5	6	CO <input type="text" value="0"/>
Pass 2	439	P16	200	2	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/23/01

Description

Unit # Unit Type GLD Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	400	P16	200	1	8	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/24/01

Description

Unit # 101 Unit Type SC Temp °C 13.7 Conductivity (µS/cm) 219

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	473	P16	200	27	2	0	CO <input type="text" value="0"/>
Pass 2	387	P16	200	5	1	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							





Stream Redwood Creek Site Banducci Index Site # Date 10/24/01

Description

Unit # 74.5 Unit Type BW Temp °C 12 Conductivity (µS/cm) 205

Comments Dry last week

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	31	P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/24/01

Description

Unit # 83 Unit Type SC Temp °C 11.8 Conductivity (µS/cm) 211

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	589	P16	200	9	3	6	CO <input type="text" value="0"/>
Pass 2	474	P16	200	3	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site Banducci Index Site # Date 10/24/01

Description

Unit # 93 Unit Type SC Temp °C 12.8 Conductivity (µS/cm) 213

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	350	P16	200	10	5	0	CO <input type="text" value="0"/>
Pass 2	202	P4	200	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/24/01

Description

Unit # Unit Type LSR Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	541	P16		19	10	14	CO <input type="text" value="0"/>
Pass 2	416	P16		3	2	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/24/01

Description

Unit #	Unit Type FW	Temp °C	Conductivity (µS/cm)
Comments			

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	216	P16	100	0	2	1	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/24/01

Description

Unit #	Unit Type R	Temp °C	Conductivity (µS/cm)
Comments			

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	242	P16	100	1	4	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/24/01

Description

Unit #	Unit Type LSR	Temp °C	Conductivity (µS/cm)
Comments			

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	304	P16		8	8	5	CO <input type="text" value="0"/>
Pass 2	292	P16		1	1	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MuWo Restroom Index Site # 2a Date 10/24/01

Description

Unit # 11	Unit Type FW	Temp °C	Conductivity (µS/cm)
Comments			

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	561	P16		24	12	9	CO <input type="text" value="0"/>
Pass 2	427	P16		2	3	2	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site Banducci Index Site # Date 10/25/01

Description

Unit # 111 Unit Type SC Temp °C 10.6 Conductivity (µS/cm) 199

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	154	P16	200	22	4	0	CO <input type="text" value="0"/>
Pass 2		P16	200	4	2	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 0.5 Unit Type R Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	0	6	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 1 Unit Type SC Temp °C 11.9 Conductivity (µS/cm) 208.6

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	495	P16	100	12	11	2	CO <input type="text" value="0"/>
Pass 2	262	P16		0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 2 Unit Type R Temp °C 12 Conductivity (µS/cm) 163.4

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	173	P16	100	0	5	1	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 3 Unit Type FW Temp °C 12 Conductivity (µS/cm) 213

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	254	P16	100	3	4	0	CO <input type="text" value="0"/>
Pass 2	219	P16	100	0	1	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 4 Unit Type R Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	96	P16	100	0	1	0	CO <input type="text" value="0"/>
Pass 2	25	P16	100	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/25/01

Description

Unit # 5 Unit Type SC Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	397	P16		4	6	1	CO <input type="text" value="0"/>
Pass 2	451	P16		1	4	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 10 Unit Type MCP Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	0	8	2	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 11 Unit Type R Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	0	1	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 12 Unit Type FW Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	355	P16	100	1	6	2	CO <input type="text" value="0"/>
Pass 2	196	P16	100	1	3	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 13 Unit Type R Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	100	0	0	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 6 Unit Type FW Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	172	P16	100	0	2	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 7 Unit Type MCP Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	8	1	1	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 8 Unit Type FW Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	1	4	1	CO <input type="text" value="0"/>
Pass 2		P16	200	0	0	1	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Redwood Creek Site MUWO rip rap Index Site # Date 10/26/01

Description

Unit # 9 Unit Type R Temp °C Conductivity (µS/cm)

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1		P16	200	0	1	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Morse Site Index Site # 1 Date 10/31/01

Description

Unit # 1 Unit Type STP Temp °C 13.9 Conductivity (µS/cm) 437 sp cond

Comments 1 CA giant sal

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	37	P16	100	0	1	0	CO <input type="text" value="0"/>
Pass 2	21	P16	100	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							



Stream Morse Site Index Site # 1 Date 10/31/01

Description

Unit # 2 Unit Type MC Temp °C 13.9 Conductivity (µS/cm) 439 sp cond

Comments

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	70	P16	100	0	2	1	CO <input type="text" value="0"/>
Pass 2	62	P16	100	0	0	0	SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							

Stream Morse Site Index Site # 1 Date 10/31/01

Description

Unit # 3 Unit Type FW Temp °C 13.9 Conductivity (µS/cm) 438 sp cond

Comments 5 Ca giant salamander

	Time	Setting	Volts	CO	SH YOY	SH 1+	Total Mortality
Pass 1	441	P16	100	0	2	0	CO <input type="text" value="0"/>
Pass 2							SH YOY <input type="text" value="0"/>
Pass 3							SH 1+ <input type="text" value="0"/>
Pass 4							