**NOAA Technical Memorandum NMFS** 



AUGUST 2005

### RECENT EFFORTS TO MONITOR ANADROMOUS ONCORHYNCHUS SPECIES IN THE CALIFORNIA COASTAL REGION: A COMPILATION OF METADATA

Sarah Helmbrecht David A. Boughton

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U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Marine Fisheries Service Southwest Fisheries Science Center **NOAA Technical Memorandum NMFS** 

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### <u>Abstract</u>

In the coastal zone of California, recent efforts to monitor salmon and steelhead populations are insufficient for assessing extinction risk, which by law must be done at the scale of entire ESUs (Evolutionarily Significant Units). Recent efforts tend to be conducted at a smaller scale, and are not useful for assessing risk because 1) they are not co-ordinated with one another, and 2) they are designed for other purposes. To assess risk, it is necessary to make and implement a monitoring plan; and to make a plan, it is useful to have an understanding of where these recent efforts are taking place, what data they are collecting, and why. Therefore, we collected this information. We identified recent monitoring efforts, and collected descriptive information (metadata) for 270 monitoring efforts, where a unit "effort" is defined as a data-collection effort conducted on a particular ESU by a particular organization using a consistent study design for each life stage monitored. As expected, recent monitoring efforts are quite diverse in design and intent. Notably, geographic consistency is quite low—some basins get monitored intensively, whereas for many others data gets collected sporadically (opportunistically) or not at all. Randomized-sampling—necessary for statistical inference—was popular at the reach scale (*i.e.*, habitat units within reaches), but not at the basin scale (*i.e.*, reaches within basins). Study designs tended to fall into two categories—"snapshots" in which a large number of basins are concurrently monitored for 1 or 2 years (usually with low-density, non-random sampling within basins); and "time-series" in which a basin is chosen for logistical reasons or to address a specific management concern, and then monitored over the long term. Overall, the diversity of sampling designs and field methods is likely problematic for ESU-scale risk assessment. We provide a list of the 270 efforts, and maps of where they are being conducted, as a resource for stakeholders interested in recent efforts to monitor salmon and steelhead in the coastal zone.

### Part 1: Collection of Metadata

#### Introduction

The coastal region of California is inhabited by three anadromous species of *Oncorhynchus*, and in most parts of the coastal region one or more of these species is currently listed as threatened or endangered under the Federal Endangered Species Act or California Endangered Species Act. The listing of a species under either Act engages an extensive regulatory process aimed at preventing the further decline of the species, and, it is hoped, the eventual recovery of the species to non-threatened status. A key part of the process is the collection of data describing the ongoing trajectory of the species toward either extinction or recovery. Such data-collection activities are clearly not "boots on the ground" salmon conservation, but neither are they properly described as research and development. They are monitoring efforts, aimed at tracking the responses of the three species to the vast array of threats and recovery actions to which they are exposed. By providing feedback on how each species is responding to the sum total of human activities impacting it, monitoring efforts provide an information feedback loop by which to judge progress towards recovery.

Both legally and ecologically, progress toward recovery vs. extinction is assessed at the scale of an entire Evolutionarily Significant Unit, or ESU. At present there is no co-ordinated effort to monitor entire ESUs in the coastal zone, in part because the geographic ranges of ESUs span multiple jurisdictions and ecological regions. Existing monitoring efforts tend to be conducted by a diverse set of entities operating at smaller geographic scales; these entities include county, state, and federal agencies; watershed groups; environmental consultants; timber companies; academic researchers; and so on. Their monitoring efforts appear to have arisen piecemeal in response to specific needs for information, and tend to be uniquely tailored to specific goals and circumstances. Not surprisingly, the resulting datasets, though suitable for their intended purposes, are not suitable for assessing the risk status of entire ESUs. In a recent assessment of extinction risk in salmonid ESUs (West Coast BRT 2003), Federal scientists considered sparse data on fish abundance to be one of the most widespread risk factors. Sparse data affected more ESUs than any other risk except habitat degradation (Figure 1). In essence, uncertainty about risk was itself considered one of the primary risks to the fish.



Figure 1. Prevalence of risk factors across Evolutionarily Significant Units (ESUs) inhabiting the coastal region of California, as noted by Federal biological review teams. Compiled from qualitative descriptions of risk in the text of West Coast BRT (2003).

This report describes a comprehensive summary of the existing efforts to monitor *Oncorhynchus* species in the coastal region of California. Our intent is that citzens with a stake in salmon recovery can better understand what sorts of data are, and are not, being collected for each ESU. The information we describe is metadata, or "data about data," and does not describe the salmon and steelhead themselves, but rather the efforts to monitor them. What is the geographic or temporal scope of each of these individual efforts? What are their goals? What types of data are they producing, and with what regularity? And finally, what is lacking that limits their application to risk assessment at the scale of entire ESUs? While we do not attempt to answer this last question in this report, our intent is to provide information that will help others to do so.

For the purposes of this report, the coastal region is defined as the watersheds draining directly into the ocean or into San Francisco Bay below the Carquinez Straits (Figure 2). We endeavored to systematically identify and characterize all extant monitoring efforts in the coastal region of California as of 1 January 2004, where "monitoring" is understood to mean collection of data on the fish populations themselves rather than some aspect of their environment. The primary method for gathering the information was to methodically identify persons and organizations conducting monitoring efforts anywhere in the coastal region, and then contact each with a request to complete a standard questionnaire. Follow-up phone-calls were conducted and usually became informational interviews of the correspondent. Beyond simple classification schemes for organizing the metadata, it was beyond the scope of this project to independently evaluate our correspondents' accounts of their efforts. The metadata



Figure 2. The coastal region

should thus be regarded as representing a diversity of viewpoints and interpretations of the questionnaire.

#### Methods

#### Strategy for identifying existing monitoring efforts

A pilot effort was conducted by T. Williams and B. Spence of the NOAA Fisheries Santa Cruz Lab in 2001. This effort involved mailing one-page questionnaires to professional contacts of the fisheries staff at the Santa Cruz Lab. The authors of the present study began a more concerted effort to gather monitoring metadata in July 2003.

Given the nature and scope of the project, it was not possible to conduct a complete census of data-gathering activities currently underway in the coastal region; nor was there even a clear way to determine when the set of metadata should be judged reasonably complete. We adopted the following strategy to identify as many monitoring efforts as practical. First, we attempted to contact everyone who had submitted a response to the 2001 pilot study. Second, we met with the chairs of the three Federal Technical Recovery Teams (TRTs) that are currently active in the coastal region of California: the Southern Oregon/Northern California Coast TRT (chair: T.

Williams); the North-Central California Coast TRT (chair: E. Bjorkstedt); and the South-Central California Coast TRT (chair: D. Boughton). These TRTs are teams of scientists convened for the purpose of developing viability criteria for ESUs listed as Federally threatened or endangered, and were assumed to be familiar with most of the datasets currently being produced in their domain. The chairs provided us with extensive information on groups they knew to be collecting data on salmon or steelhead, as well as names of professional contacts in a position to know of additional monitoring efforts in specific geographic areas. This latter group included individuals in NOAA Fisheries' SW Regional Office who manage databases of monitoring permit-holders; authors of studies cited in various status reviews published by NOAA Fisheries; researchers from NOAA Fisheries, the California Department of Fish and Game (CDFG), the US Forest Service, various academic institutions (*e.g.*, Humboldt State University, UC Davis, San Jose State University, *etc.*), private timber companies, and volunteer organizations potentially involved in salmonid population monitoring, such as watershed groups.

A third tactic for acquiring metadata was to identify categories of sources that seemed underrepresented in our database, such as non-profit organizations, volunteer groups, water districts, other municipal entities, and private consultants. By searching under these categories on the internet and initiating contact via phone or email, we identified additional monitoring efforts. We also entered metadata from written reports brought to our attention if they identified relevent monitoring activities. Finally, in the course of gathering the metadata itself from our list of contacts, we queried each correspondent on his awareness of other salmonid monitoring efforts going on in his vicinity; this led us to still more contacts and was a source of much useful information. We believe that this "networking approach" to gathering metadata was the most efficient way to build a relatively complete database of existing programs within a reasonable time.

Although we believe that this process made us aware of all the major monitoring efforts in the coastal region (and many of the smaller ones), there are some unknown number of efforts that we missed. There is no objective way to estimate this number. As success in tracking down leads and identifying new useful information slowed down to a trickle, we were eventually forced to set an arbitrary cut-off day (22 December 2003) to end the metadata collection itself, so that we could proceed with the project. The probability of a given monitoring effort being omitted from our database is likely influenced by the following factors: lack of co-ordination within governmental agencies; difficulty in identifying programs not legally mandated to monitor but which do so anyway (particularly volunteer organizations); and lack of external documentation of monitoring activities by private entities.

#### Characterization of monitoring efforts

We developed a standard questionnaire and datasheet for collecting metadata from each correspondent. Correspondents were either sent the materials to complete and return to us; or we contacted them via phone and filled out the datasheet while conducting an informational interview.

A separate datasheet was completed for each "unit monitoring effort," where a unit effort is defined as a data collection effort conducted on a particular ESU by a particular entity using a consistent study design for each life stage monitored. Note that under this definition a single

effort can involve multiple life stages or only a single life stage, and can be conducted at any geographic scale. Many correspondents had numbers of loosely-connected data-gathering activities that might be validly classified into "unit efforts" in a number of different ways; thus our definition is subjective. We allowed correspondents to divide up their activities into unit efforts in the way that they saw fit. However, when correspondents included information for several species or ESUs on a single datasheet; we divided these responses into a separate response for each species/ESU.

The information solicited on the questionnaire was as follows:

Species and ESU: The name of the species and ESU monitored.

- <u>Target</u>: Binary response on whether the effort was specifically designed to collect data on the species (= "target"), or the data were collected incidentally to data collection on another species (= "incidental") (for example, counts of juvenile steelhead gathered during a coho salmon study).
- <u>Geographic location</u>: A written description of the geographic location(s) of monitoring activities. Ideally, the description was specific to exact location, given by Lat/Long coordinates or kilometers upstream of the river mouth.
- <u>Method of site selection</u>: The correspondents were asked to classify their method of site selection as one of the following: 1) randomly sampled; 2) dictated by logistics or the circumstances of the study; 3) qualitative selection, in which the site selection was not random but <u>was</u> under the control of the investigator; 4) other.
- <u>Life stages monitored</u>: Correspondents could indicate any combination of the following categories: juvenile, smolt, or adult. "Smolt" was used to refer to downstream migrants as well as to fish that had fully transformed into smolts.
- <u>Field methods used</u>: For each life stage monitored, correspondents were queried as to the field methods used to gather data. They could indicate any combination of the following categories (see Table 2 for further description of field techniques):
  - 1) Downstream traps: rotary screw traps, pipe traps, inclined pipes, fyke nets, weirs (category for juveniles and smolts only).
  - 2) Direct observation: bankside observations or snorkel surveys.
  - 3) Electrofishing.
  - 4) Minnow traps.
  - 5) Ladders or weirs (adults only).
  - 6) Spawner counts (adults only).
  - 7) Redd counts (adults only).
  - 8) Carcass counts (adults only).
  - 9) Seining.
  - 10) Other.
- <u>Data type</u>: For each life stage/field method combination, correspondents were queried as to the type of data being collected. They could indicate any combination of the following categories (see Table 1 for further description): Presence/absence data; population indices; population abundance; demographic or life-history; population genetic structure.
- <u>Formal field protocol used</u>: Whether a formal protocol was used during data collection, and if so, what type. Categories were as follows:

- 1) Yes, in-house: a protocol was developed by the individual or program for their specific project.
- 2) Yes, external: a protocol was developed by someone else, usually widely used.
- 3) Yes, modified external: an external protocol was used, but was modified for the particular study according to specific needs.
- 4) No: no formal protocol was used.
- <u>Method for assessing uncertainty</u>: For each life stage monitored, correspondents were asked to classify the method for characterizing uncertainty in estimates made from the data; categories were as follows:
  - 1) Qualitative: estimates are accompanied by a descriptive, non-numerical assessment of their uncertainty, or a subjective numerical assessment.
  - 2) Basic quantitative: estimates include a numerical estimate of uncertainty, but the method is not based on probabilistic sampling.
  - 3) Statistical: estimates of uncertainty are based on probabilistic sampling (*i.e.*, standard errors, 95% confidence intervals, *etc.*)
  - 4) None: no effort was made to assess uncertainty.
- <u>Impact study</u>: Three checkboxes indicating whether the monitoring effort was in response to a 1) positive impact (*e.g.*, restoration of habitat or fish passage); 2) a negative impact (*e.g.*, logging or dam construction); and 3) whether control populations were also monitored.
- <u>Years data were collected</u>: Length in years of study, subsequently categorized by us as 0–5 yrs,
  - 6–10 yrs, 11–20 yrs, 20+ yrs, or unknown.
- Field season: Months of the year during which data were collected.
- Sampling interval: Frequency of sampling during the field season: 1) daily; 2) weekly; 3) monthly; 4) yearly; 5) one-time; and 6) other.
- <u>Funding source</u>: Correspondents chose one of the following categories: 1) Fisheries Restoration Grant Program (FRGP); 2) Sportfish Restoration Act (CDFG SFRA); 3) NOAA Fisheries; 4) agency base funding; 5) private grant; 6) commercial; 7) unfunded.
- <u>Data summaries</u>: The frequency with which data are summarized or analyzed; categories were 1) monthly; 2) seasonally; 3) yearly; 4) once; 5) none.
- Intended duration of study: Years into the future (from 2003) that the correspondent intends to continue the data collection effort, assuming funding is not limiting. Categories were 1) 0–5 yrs; 2) 6–10 yrs; 3) 11–20 yrs; 4) ongoing (no intent to stop collecting data); 5) indefinite (intended duration of the effort has not yet been determined by the principals); 6) unknown (unreported intent); and 7) ended (as of 31 Dec. 2003).
- Duration of committed support: Years into the future that the monitoring is currently funded. Categories were 1) 2–5 yrs; 2) 6–10 yrs; 3) 11–20 yrs; 4) 20+years/ongoing; 5) year-to year; 6) indefinite (unknown by correspondent); 7) unknown (unreported); 8) ended; 9) currently unfunded.
- <u>Circumstances under which monitoring would stop</u>: Partially redundant to the previous two questions, but asked in order to gauge whether data were being collected in response to either a particular research question, monitoring goal, or restoration goal and would stop when the goal was reached. Also asked in terms of priority of project within a program's budget (*e.g.*, whether it would be cut in response to programmatic necessity). Correspondents answered with a short description, and answers were subsequently evaluated by us under the general categories of restoration criteria, monitoring criteria, research question, budget concerns, or no stopping criteria.

Correspondents were also asked to provide brief descriptions of the technical and programmatic goals of the monitoring effort; brief characterizations of preliminary results (if any); citations of any reports or scientific papers; and additional comments if necessary.

Table 1. Descriptions of the data categories considered in this study.

Data types	
Presence/absence:	A presence/absence survey is a simple determination of whether or not a target species is observed in a particular stream or watershed. If the species is observed the result of the survey will indicate presence; otherwise it will indicate absence of observation although not necessarily of occurrence.
Population index:	A rough count of population size between a high and low value; an ordinal variable with a monotonic but otherwise unknown relationship with population size.
Population abundance:	An estimate of the size or density of a population.
Demographic and life history:	Information on the distribution, run timing, life span, and related factors of a population.
Population genetic	Information about the genetic make-up of a population, usually obtained by analyzing
structure:	tissue samples.

Table 2. I	Descriptions	of selected	field tec	chniques	considered i	n this study.
	••••••••••••••	01 0010000			••••••••	

Field techniques	
Rotary screw trap:	A trap with a rotating drum, placed in a stream and built to move up and down with varying river flows. Samples only a fraction of the water column.
Pipe trap:	Consists of a pipe through which fish are transported into a holding trap. Typically used
	with a fyke net to direct fish into the pipe, or constructed on a weir in order to move fish
	and water into the pipe. An inclined pipe will follow a gradient and can allow water to
	drain from the pipe while moving fish into a trap.
Fyke net:	A fyke net functions as a funnel to direct fish into a trap. In this case the fyke net will
	direct fish into a net where they can be sampled.
Minnow trap:	A small wire or mesh trap. Not commonly used in California; more common in Alaska and
	British Columbia.
Seine:	A net circled around an area in order to trap fish. Depending on the size of the stream this
	can be done by two or more people directly in the stream, by using a single boat to circle
	the seine or by using a boat on both ends.
Direct observation:	Refers to either snorkel surveys or stream bank observations along a pre-determined length
	of stream. For snorkel surveys divers typically count and record fish of the species being
	sampled as they slowly ascend the stream. Stream bank observations are done by walking
	a length of stream and recording all observed fish of the species being sampled. Adult
	direct observation surveys (in coastal California) generally target spring-run chinook in the
	Klamath Basin or summer steelhead in the Klamath or Eel Basins. Other adult 'direct
F1 ( C1'	observation surveys are spawner, redd and carcass counts (see below).
Electrofishing:	The use of electrical current to stun and collect fish (usually juveniles). Typically, one
	person (occasionally two) directs electrical current into the stream using a back-pack
	electronisher. Netters positioned bening the electronishers collect stunned fish and place
	them into buckets of live cars. Electronishing to derive quantitative estimates of abundance
	the disturbed area) and mulitule pages of the electroficher to obtain either depletion or
	mere recenture estimates. Electrofishing of adults is rere because of high risk of mortality
Snowner redd and/or	Snawner counts are observations of snawning fish: redd counts are systematic observations
carcass counts.	of redds (egg clutches deposited in stream gravel); carcass counts are counts of dead
carcass counts.	snawned-out adults. A survey can include one or more of these methods. They are used to
	develop either an estimate of abundance or a population index. The combination of
	methods will usually depend on their effectiveness in a given river or creek. Different
	techniques are used within as well as across methods depending on whether the goal is a
	nonulation index or a statistical estimate of abundance
	population mater of a statistical estimate of abaliquite.

#### Georeferencing

The descriptive geographic information provided by correspondents was used to geo-reference their data-collecting activities in a GIS (Geographic Information System). Specifically, we obtained a route-based coverage of California streams from T. Christy of the Pacific Marine Fisheries Commission ("Bigroutes"); this coverage was based on 100k hydrography, modified to approximate the natural flow pattern in each basin. We then used ESRI (Environmental Systems Research Institute) ArcMap software to superimpose this routed stream network on digitized versions of USGS 7.5' topographic maps (National Geographic Society). Locations of monitoring activities were pinpointed on the topographic maps using the descriptive information, and then georeferenced on the stream network using route-based linear referencing. In route-based linear referencing, the geographic location of an activity is specified in terms of three variables: 1) a unique stream identifier; 2) a variable indicating the downstream end of the study reach (also in meters from the mouth of the stream); and 3) a variable indicating the upstream end of the study reach (also in meters from the mouth of the stream). Certain data, such as the location of downstream traps, could be characterized as point locations rather than as stream reaches.

The various correspondents provided descriptive geographic information of varying levels of detail and precision. To account for this variation, during the process of georeferencing we assigned a geoprecision score to each monitoring effort. The seven scores were defined thus:

- 1) Located within 400 m of the true location ("very precise").
- 2) Located within 1600 m of the true location ("precise").
- 3) Located to within 3000 m of the true location or within the same first-order stream as the true location ("accurate").
- 4) Accurate to named stream.
- 5) Accurate to subwatershed.
- 6) Accurate to watershed.
- 7) Not determined.

#### **Summary Results**

Of 57 correspondents to the 2001 pilot study, 18 provided us with updated information. In addition we identified 57 new correspondents, for a total of 75. These 75 correspondents (see Part 4) provided us with metadata on 270 monitoring efforts throughout the coastal region of California. Immediately below we describe the aggregated properties of these monitoring efforts, and investigate their suitability for assessing salmonid status at the population (basin) or ESU level. More detailed summaries at the ESU level are provided in Part 2 of this report, and a listing of all monitoring efforts is provided in Part 3.

#### Geoprecision

Three-fourths of our correspondents provided geographic information that was accurate enough to map to individual streams in our stream layer (Figure 3), but less than a quarter of the efforts could be georeferenced at a precision within 1600 m of the true location. Thus, it was not possible for us to make a reasonable estimate of monitoring effort in terms of "stream kilometers surveyed," *etc.* All subsequent discussion of relative amounts of effort devoted to this or that

activity are in terms of our original definition of a "unit monitoring effort." a data collection effort conducted on a particular ESU by a particular entity using a consistent study design. It is



Figure 3. Precision achieved in georeferencing the various monitoring metadata collected. Approximately half of the records could be referenced at a precision greater than that of "named stream." Most of the highly precise georeferences were for point locations, particularly weirs and up/downstream traps.

important to note that under this convention, a unit effort may denote a large-scale project, an extremely local-scale project, or anything in between.

In general, correspondents tended to report the locations of surveys conducted at single points with greater accuracy than stream reach surveys. The proportion of reach versus single location surveys was quite high in southern California, where particular individuals are sometimes responsible for conducting general descriptive surveys of extremely large geographic areas. In addition, various types of data and sampling methods seemed to correlate with varying levels of geoprecision; for example, stream bank walking to assess presence/absence tended to be imprecise and was more common in poorly studied areas such as southern California.

Life stages, field methods and data types The metadata we collected indicated that more than 90% of data-collection was on "target" species. Most monitoring efforts focused on collecting data during a particular stage of the life cycle, but a significant minority of projects were more comprehensive, collecting data on multiple life stages (Figure 4). For Chinook salmon, projects were about equally split among those that focused on adult data, those that focused on juvenile data (including outmigrants), and those that collected both types of data. In contrast, for coho salmon and especially steelhead, there was a marked emphasis on the collection of juvenile data, presumably because of the flexibility and practicality offered by methods involving direct observation or electrofishing.



Figure 4. Distribution of monitoring effort among juvenile and adult populations in the freshwater stage of the life-cycle. Depicts only targetted observations.

In Figure 5, we have depicted for each species the frequency of the most popular field techniques. For

Chinook salmon there was a slight emphasis on upstream and downstream traps, whereas for coho salmon and steelhead there was a definite emphasis on the use of direct observation or electrofishing. This result largely corresponds to our expectations, which were that the predominant approach to estimating salmonid abundance in coastal California would be reach-level surveys of juvenile abundance, conducted using bankside observations or combinations of snorkel surveys and electrofishing (*e.g.*, Hankin-Reeves sampling). We also expected that these techniques would be most emphasized in steelhead studies. Informal bankside observations were common in southern California where steelhead are the only *Oncorhynchus* present.



Figure 5. Distribution of monitoring effort among different field techniques. Numbers and sizes of squares indicate the number of unit efforts for each combination of field techniques. Vertices of the triangles refer to studies in which a single technique is used; internal nodes refer to studies where a combination of field techniques are used. Seining, minnow traps, and the category "other" are not depicted in this figure. Depicts both targetted and incidental observations.

Less expected were the number of programs employing some combination of techniques (as depicted in the internal boxes in Figure 5); generally, such projects were simultaneously monitoring several life stages, but were not necessarily collecting the same type of data for each. For example, population indices might be collected for juveniles at the reach level, whereas ladder counts of adults might yield abundance data for entire basins.

Many correspondents reported that they collected multiple data types; for example, we had 15 reports of correspondents collecting all three of the following data types: presence/absence, population index, and population abundance. Overall, presence/absence data were the most commonly collected data-type (the figures below exclude "incidental" data):

Data type	Number of reported "unit efforts"
Presence/absence data	148 (62%)
Population abundance	122 (51%)
Demographic and life-history studies	121 (51%)
Population indices	98 (41%)
Genetic studies	81 (34%)

It seems reasonable to assume that abundance data are the type most appropriate for assessing long-term trends in population size. The numbers of unit efforts producing data on adult abundance were:

17 out of 49 total efforts for Chinook salmon (35%),16 out of 70 for coho salmon (23%),22 out of 118 for steelhead (19%).

Correspondents were asked to state the geographic extent for which they intended to make inferences about adult abundance. Their answers indicated that about 30%-40% of the efforts to monitor adult abundance were intended to collect data for an entire coastal basin, corresponding roughly to scale necessary to monitor an entire population. The others appear to monitor sub-units of populations, such as the number of adults spawning in a particular tributary. The numbers of unit efforts estimating juvenile or outmigrant abundance were

17 out of 49 for Chinook salmon (35%),26 out of 70 for coho salmon (37%),44 out of 118 for steelhead (37%).

Of the efforts targetting Chinook salmon, uncertainty was estimated statistically in 7 efforts focused on downstream migrants (41%), and 6 efforts focused on non-migratory juveniles (35%). For coho salmon the corresponding figures were 8 (31%) and 13 (50%) efforts respectively. For juvenile coho salmon the statistical inferences were mainly limited to the reach that was actually being sampled for fish. Only three efforts (11%) reported randomized site selection, which would be necessary for estimating statistical uncertainty at the population level rather than the stream-reach level. The situation for steelhead was similar. Uncertainty was estimated statistically for 14 efforts (32%) targetting smolts, and 20 efforts (45%) targetting juveniles, but only 3 of the latter involved randomized site selection (7%). More detailed information on the breakdown of the type of data collected for each ESU may be found in Part 2.

A variety of field techniques were used for acquiring data on adults (Table 3). In general the methods used to describe uncertainty were not based on statistical inference; various qualitative methods were more popular. They did not appear to be a result of operational constraints of a particular field technique: Each technique (except seining) had some examples in which statistical methods were used to quantify uncertainty (except electrofishing; see Table 3).

Table 3. Methods used for describing uncertainty in adult data under various field techniques. Integers are
the numbers of unit efforts combining the given field technique and uncertainty method. Numbers include
both targetted and incidental monitoring efforts.

	Field technique							
Method for describing uncertainty	Weirs/traps	Spawner counts	Redd counts	Carcass counts	Direct observation	Electrofishing	Seining	Other
Basic quantitative	9	1			3	1	1	
None	2	2	3	1	2			
Qualitative	7	24	28	22	16	4		
Statistical	12	12	15	17	8			2
Unknown	21	13	5	1	9	1		20

Site selection itself was rarely randomized (Figure 6); most studies had site selection dictated by the circumstances or logistics of the study. This might be appropriate for wholepopulation monitoring in cases where the life stage being monitored is either the upstream or downstream migrants-one would want to place the counting stations strategically so that all spawning areas are upstream from it. However, in many of these cases the circumstances were not dictated by biological considerations but by pre-existing infrastructure. For example, in the Carmel River a pre-existing dam is used to make counts of adult steelhead ascending the fishway, even though the dam is positioned such that some fraction of the population spawns below it and does not get counted. For reach-based monitoring strategies, such as juvenile electrofishing, spawner surveys, or redd surveys, some sort of randomized sampling of reaches would be necessary for producing wholepopulation estimates of abundance. Many correspondents were aware of this limitation,



Site Selection

Figure 6. Frequency of different methods for site selection, as reported by correspondents. Numbers are for targetted efforts only.

indicating for example that a statistically rigorous estimate of juvenile abundance at the reach level did not necessarily allow valid inferences beyond that reach.

#### Duration of data-collecting activities

Most of the correspondents reporting metadata on steelhead indicated a fairly recent initiation of their monitoring effort, *i.e.*, 0 to 5 years ago (Figure 7). A similar pattern was also present for coho salmon, but was less striking. Chinook salmon had monitoring efforts that were about equally divided among recently-initiated and longer term. Overall, each species had about 9 to 12 monitoring efforts that have been collecting data for 20+ years. These were not evenly distributed across ESUs.

For the future, most of the correspondents indicated an intended duration of either very short term (0 to 5 yr) or very long term (ongoing without plans to stop; Figure 7). This suggests that monitoring efforts tend to be divided between "snapshot" style studies intended to answer a specific question relatively quickly, and studies collecting time-series data over the long term. Many of the long-term studies were reported to be "ramping up," that is, adding sites over the years and collecting data with greater consistency with each passing year. A substantial fraction of the correspondents indicated "indefinite" future intent; in other words, the principals of the monitoring effort had yet to decide on a time horizon.



Figure 7. Past duration and intended future duration of monitoring efforts as of the year 2003. For the intended future duration, "ongoing" means that an intention to monitor as long as possible, whereas "indefinite" means that no decision has been made on a time horizon of the effort. "Ended" indicates the effort had terminated within the past two years.

#### Considerations regarding status reviews under the ESA

One of the striking features of the metadata is the concentration of monitoring in a relative handful of watersheds across the region (evident in the maps in Part 2). It appears that the majority of streams in the region with the potential to support salmonid runs are not monitored. Most watersheds are either not surveyed at all or are occasionally surveyed by single-event sampling. This indicates that population-level assessments of risk—which require at least a modicum of information on trends over time—are currently possible for only a small minority of populations. Consequently, ESU-level assessments of risk are also problematic. ESU-level assessments must necessarily be made "on the basis of the best scientific and commercial data available,"<sup>1</sup> which in this case would be the high-quality data from the small minority of heavily-monitored populations, combined with an assumption that they are representative of the entire ESU. This assumption seems questionable, since intensively-monitored populations are going to tend to occur in intensively-managed basins. In essence, these populations serve as "index populations" for the entire ESU, reminiscent of the well-known problem of using "index reaches" to infer status of populations.

Many of the contributors to our study indicated that they monitor Oncorhynchus in conjunction with assessments of habitat quality. For example, the California Coastal Conservancy (CCC) monitors the Gualala River and its estuary along the border of Sonoma and Mendocino counties. They conduct population monitoring with the purpose of assessing habitat quality and determining appropriate enhancement actions (Michael Bowen, CCC). The Santa Cruz Lab of NOAA Fisheries monitors estuaries and downstream pools of several streams between Monterey and Marin counties, to determine the role of small estuarine habitat in the lifecycle of coho salmon and steelhead (Ellen Freund, NOAA Fisheries). The City of San Luis Obispo monitors steelhead populations in San Luis Obispo Creek and its tributaries. One of their monitoring goals is to determine how steelhead populations are responding to restoration efforts in the watershed. (Michael Clarke, City of San Luis Obispo). These sorts of studies are often undertaken to increase our understanding of how best to recover the fish, and their production of data useful for assessing response at the level of entire populations is incidental to the primary goal. As such they illustrate the idea that data tends to be produced most often in intensivelymanaged basins. Even so, many are conducted at geographic scales too small, or time scales too short or irregular, to produce useful data for risk assessments at the population- or ESU-level.

The metadata indicate that in many reach-based efforts (juvenile surveys, redd surveys, etc.), stratified-random sampling is popular at the reach scale but is rare at the basin scale (*i.e.*, reaches are rarely randomly sampled from basins). This prevents much of the monitoring effort on reaches from being useful for making inferences about population size, because populations are spread across many reaches throughout entire basins or sub-basins. Consequently, inferences are usually limited to local fish density for each of the particular (non-random) set of reaches being monitored. However, there is apparently a small but growing minority who are instituting stratified-random designs at the basin scale.

<sup>&</sup>lt;sup>1</sup> Endangered Species Act of 1973, Sec 4(b)(1)(A). The California Endangered Species Act similarly states that reviews of listed species should be based on "the best scientific information available to the department" (Fish and Game Code §§2077 (a)).

At present, the intensive monitoring efforts alluded to in the beginning of this section occur mainly in the following streams listed north-to-south: The Upper Klamath River watershed (Siskiyou Co.), the Lower Klamath and Trinity River watersheds (Del Norte Co.), Humboldt Bay and the lower Eel, Van Duzen and Mad rivers (Humboldt Co.), Freshwater and Redwood creeks (Humboldt Co.), the South Fork and Upper Trinity River basins (Trinity Co.), the Upper Noyo River, the Russian River (Sonoma and Mendocino Co.), a few coastal streams in southern Mendocino and northern Sonoma counties such as Pudding and Hare Creeks, the Napa River (Sonoma Co.), Lagunitas Creek (Marin Co.), Scott Creek and the San Lorenzo River (Santa Cruz Co.), the Carmel River, San Luis Obispo Creek (San Luis Obispo Co.), Arroyo Hondo (Santa Barbara County) and San Mateo Creek (San Diego Co.). The concentration of monitoring can be seen most clearly in the maps in Part 2. Note that the maps of southern California seem to show extensive monitoring, but that the low level of geographic precision and the focus on "opportunistic" sampling belies this somewhat misleading impression. While the intensity of monitoring is generally higher in northern California, it is nevertheless focused on a minority of watersheds.

#### **Reference Cited**

West Coast Salmon BRT. 2003. Preliminary conclusions regarding the updated status of listed ESUs of West Coast salmon and steelhead. NOAA Fisheries Co-manager Draft Report. Available from: http://www.nwfsc.noaa.gov/trt/brt/brtrpt.cfm

### Part 2: Brief Summaries of Monitoring in Each ESU

### Overview

Part 2 summarizes data on the monitoring efforts in each ESU, depicted in terms of "unit efforts." A unit effort is defined as a data collection effort conducted on a particular ESU by a particular entity using a consistent study design for each life stage monitored. We do not include incidental efforts in the summary. These are monitoring efforts in which the data for a species was collected incidentally to a program targetting one of the other two species of *Oncorhynchus*.

The summary tables include the total number of monitoring efforts being conducted on the ESU; their distribution among juvenile, smolt (outmigrant), and adult data-collection efforts; the field techniques used; and the types of data being collected. Note that the columns do not sum to equal the righthand-side "overall" column, because a given "unit effort" might involve data collection on any number of life stages using any number of techniques.

The variety of methods used to characterize uncertainty and to make site selections are also depicted (as counts of unit efforts for each category of each variable), as are the past duration of data collection and the intended future duration. For more complete descriptions of these categories, please see the methods section of Part 1.

The maps depict the geographic distribution of the monitoring efforts to give a rough idea of the amount of area covered and the evenness of coverage. These maps were generated from written locality descriptions reported to us by correspondents, and are necessarily imprecise. Note that for each entry the legend lists the geoprecision (assigned by us during the georeferencing process), as an aid to interpreting the maps.

All monitoring efforts are keyed via their ID numbers, which provide the means to crossreference with their individual descriptions in Part 3. If you wish to look up an entry in Part 3, please note that the entries in that section are sorted first by ESU and then alphabetically by the name of the corresponding organization, and that ID numbers are clearly marked in the header of each entry.

# Monitoring efforts for Chinook salmon, Southern Oregon/Northern California ESU Integers indicate the number of efforts for each category

		Out-		
	Juvenile	migrant	Adult	Overall*
Total number of monitoring efforts	4	4	3	7
Percent targetting Chinook salmon	100%	100%	100%	100%
Field techniques used				
Weirs or downstream traps	2	2	1	29%
Spawner counts			2	29%
Redd counts			2	29%
Carcass counts			2	29%
Direct obs. (snorkel, bankside)	1	1		14%
Electrofishing	1	1		29%
Minnow traps	1			14%
Seining	1	3		43%
Other			1	14%
Type of data collected				
Presence/absence	3	2	2	71%
Population index		3	1	57%
Abundance estimates	1	1	1	29%
Demographic or life history studies	1	3	1	43%
Genetic			2	29%
Method for assessing uncertainty				
None				
Qualitative				
Basic quantitative	2	1		
Statistical	1	1	2	
Unknown		2		
Method of site selection	Past duration	on Int	ended future	duration
Dictated by circumstance 4			Ended:	1
Qualitative 2	0–5 yr:	3	0–5 yr:	2
Randomized	6–10 yr:	3	6–10 yr:	
Unknown	11–20 yr:		11–20 yr:	
Other 1	20+:	1	Ongoing:	4
	Unknown:		Indefinite:	
			Unknown:	



# Monitoring efforts for Chinook salmon, Upper Klamath-Trinity ESU Integers indicate the number of efforts for each category

		Out	t <b>-</b>	
	Juvenile	migra	ant Adult	<b>Overall*</b>
Total number of monitoring effo	rts 8	10	18	21
Percent targetting Chinook salm	<b>on</b> 100%	90%	6 94%	95%
Field techniques used				
Weirs or downstream traps	3	7	4	52%
Spawner counts			8	38%
Redd counts			10	48%
Carcass counts			9	43%
Direct obs. (snorkel, bankside)	7	2	6	52%
Electrofishing	2	1		14%
Minnow traps				-
Seining				-
Other		2	3	19%
Type of data collected				
Presence/absence	6	6	11	62%
Population index	4	2	9	52%
Abundance estimates	2	6	12	62%
Demographic or life history stud	lies 4	4	5	43%
Genetic	2	3	3	19%
Method for assessing uncertainty	<i>i</i>			
None	1	1		
Qualitative	1		8	
Basic quantitative	1	3		
Statistical	2	3	5	
Unknown	1	1	2	
Method of site selection	Past dura	tion	Intended future	e duration
Dictated by circumstance 8			Ended:	
Qualitative 5	0–5 yr:	7	0–5 yr:	3
Randomized	6–10 yr:	3	6–10 yr:	
Unknown 5	11–20 yr:	6	11–20 yr:	
Other 3	20+:	4	Ongoing:	7
	Unknown:	1	Indefinite:	8
			Unknown:	3



# Monitoring efforts for Chinook salmon, California Coastal ESU Integers indicate the number of efforts for each category

		Out-				
	Juvenile	migra	nt Adult	Overall*		
Total number of monitoring effor	rts 5	17	12	28		
Percent targetting Chinook salmo	on 100%	76%	92%	86%		
Field techniques used						
Weirs or downstream traps	1	13	6	61%		
Spawner counts			6	21%		
Redd counts			5	18%		
Carcass counts			4	14%		
Direct obs. (snorkel, bankside) Electrofishing	4	3	2	21%		
Minnow traps Seining				-		
Other		2	2	11%		
Type of data collected						
Presence/absence	3	6	6	43%		
Population index	3	7	4	39%		
Abundance estimates	5	13	7	64%		
Demographic or life history studi	ies 3	11	5	57%		
Genetic	3	6	4	32%		
Method for assessing uncertainty						
None			1			
Qualitative			4			
Basic quantitative	1	2	1			
Statistical	4	11	1			
Unknown		3	3			
Method of site selection	Past dura	tion I	ntended future	e duration		
Dictated by circumstance 15			Ended:			
Qualitative 3	0–5 yr:	13	0–5 yr:	5		
Randomized	6–10 yr:	4	6–10 yr:	4		
Unknown 5	11–20 yr:	3	11–20 yr:			
Other 5	20+:	6	Ongoing:	8		
	Unknown:	2	Indefinite:	7		
			Unknown:	4		



# Monitoring efforts for Chinook salmon, no specific ESU Integers indicate the number of efforts for each category

	Juvenile	Out- migrant	Adult	Overall <sup>*</sup>
Total number of monitoring efforts	0	0	1	1
Percent targetting Chinook salmon	-	-	100%	100%
Field techniques used				
Weirs or downstream traps Spawner counts Redd counts Carcass counts				- - -
Direct obs. (snorkel, bankside) Electrofishing Minnow traps			1	100% - -
Seining Other				-
Type of data collected				
Presence/absence Population index				-
Abundance estimates			1	100%
Demographic or life history studies Genetic			1 1	100% 100%
Method for assessing uncertainty				
None Qualitative Basic quantitative				
Statistical Unknown			1	
Method of site selection	Past duration	n Inte	nded future	duration
Dictated by circumstance 1 Qualitative Randomized Unknown Other	0–5 yr: 6–10 yr: 11–20 yr: 20+: 1 Unknown:	I ( ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Ended: )–5 yr: 5–10 yr: 11–20 yr: Ongoing: ndefinite:	1
		τ	J <b>nknown</b> :	

# Monitoring efforts for coho salmon, Southern Oregon/Northern California Coastal ESU Integers indicate the number of efforts for each category

				Out-		
		Juvenile	1	nigrant	Adult	<b>Overall*</b>
Total number of monitoring ef	fforts	26		21	24	46
Percent targetting coho salmo	n	92%		95%	96%	91%
Field techniques used						
Weirs or downstream traps		8		14	10	48%
Spawner counts					12	26%
Redd counts					12	26%
Carcass counts					10	22%
Direct obs. (snorkel, bankside	2)	16		5	5	43%
Electrofishing		13		3	2	33%
Minnow traps		2				4%
Seining		3		3		7%
Other		2		1	3	11%
Type of data collected						
Presence/absence		15		8	16	61%
Population index		11		9	8	41%
Abundance estimates		13		14	13	57%
Demographic or life history st	tudies	13		12	6	43%
Genetic		7		8	7	33%
Method for assessing uncertain	nty					
None		2				
Qualitative		3		2	10	
Basic quantitative		2		4	2	
Statistical		11		9	6	
Unknown		4		5	4	
Method of site selection		Past durat	ion	Int	tended future	duration
Dictated by circumstance 1	8				Ended:	3
Qualitative	)	0–5 yr:	22		0–5 yr:	6
Randomized	3	6–10 yr:	8		6–10 yr:	3
Unknown 8	3	11–20 yr:	8		11–20 yr:	
Other 8	3	20+:	7		Ongoing:	18
		Unknown:	1		Indefinite:	13
					Unknown:	3



# Monitoring efforts for coho salmon, Central California Coast ESU Integers indicate the number of efforts for each category

		Out-			
	Juvenile	migra	nt Adult	<b>Overall</b> *	
Total number of monitoring effo	<b>rts</b> 26	11	13	35	
Percent targetting coho salmon	92%	82%	92%	89%	
Field techniques used					
Weirs or downstream traps	5	5	6	31%	
Spawner counts			5	14%	
Redd counts			4	11%	
Carcass counts			3	9%	
Direct obs. (snorkel, bankside)	14	4	3	51%	
Electrofishing	15	3		43%	
Minnow traps				-	
Seining	6	4		17%	
Other	1	1	2	9%	
Type of data collected					
Presence/absence	14	6	7	60%	
Population index	12	3	4	43%	
Abundance estimates	9	6	6	46%	
Demographic or life history stud	lies 15	7	6	54%	
Genetic	10	5	7	43%	
Method for assessing uncertainty	<i>i</i>				
None	3	1	1		
Oualitative	3	1	2		
Basic quantitative	5		2		
Statistical	11	5	2		
Unknown	3	3	3		
Method of site selection	Past durat	Past duration Intended future du		e duration	
Dictated by circumstance 17			Ended:	2	
Qualitative 11	0–5 yr:	21	0–5 yr:	8	
Randomized 2	6–10 yr:	2	6–10 yr:		
Unknown 2	11–20 yr:	7	11–20 yr:		
Other 3	20+:	5	Ongoing:	20	
	Unknown:		Indefinite:	4	
			Unknown:	1	



# Monitoring efforts for coho salmon, no specific ESU Integers indicate the number of efforts for each category

	Out-			
	Juvenile	migrant	Adult	<b>Overall*</b>
Total number of monitoring efforts	2	0	0	2
Percent targetting coho salmon	100%	-	-	100%
Field techniques used				
Weirs or downstream traps				-
Spawner counts				-
Redd counts				-
Carcass counts				-
Direct obs. (snorkel, bankside)	2			100%
Electrofishing	2			100%
Minnow traps				-
Seining	1			50%
Other				-
Type of data collected				
Presence/absence	2			100%
Population index				-
Abundance estimates				-
Demographic or life history studies				-
Genetic				-
Method for assessing uncertainty				
None	1			
Qualitative	1			
Basic quantitative				
Statistical				
Unknown				
Method of site selection	Past duration	n Inter	Intended future duration	
Dictated by circumstance 1		E	Ended:	
Qualitative 1	0–5 yr:	0	–5 yr:	
Randomized	6–10 yr: 1	6	–10 yr:	
Unknown	11–20 yr:	1	1–20 yr:	
Other	20+:	(	Ongoing:	
	Unknown:	I	ndefinite:	1
		U	J <b>nknown</b> :	1
# Monitoring efforts for steelhead, Klamath Mountain Province ESU Integers indicate the number of efforts for each category

		Out	t-	
	Juvenile	migr	ant Adult	<b>Overall</b> *
Total number of monitoring effe	orts 15	12	16	25
Percent targetting steelhead	93%	92%	vo 94%	96%
Field techniques used				
Weirs or downstream traps	7	8	5	48%
Spawner counts			7	28%
Redd counts			9	36%
Carcass counts			8	32%
Direct obs. (snorkel, bankside)	7	2	4	40%
Electrofishing	8	1	2	36%
Minnow traps	2			8%
Seining	3	3		12%
Other	2	2	4	24%
Type of data collected				
Presence/absence	10	6	11	68%
Population index	7	5	7	56%
Abundance estimates	6	6	7	40%
Demographic or life history stu	dies 9	8	7	60%
Genetic	3	3	6	32%
Method for assessing uncertaint	У			
None	1			
Qualitative	1		7	
Basic quantitative	3	5		
Statistical	5	3	6	
Unknown	3	3	1	
Method of site selection	Past dura	tion	Intended futur	e duration
Dictated by circumstance 10			Ended:	2
Qualitative 9	0–5 yr:	12	0–5 yr:	7
Randomized 2	6–10 yr:	6	6–10 yr:	
Unknown 2	11–20 yr:	3	11–20 yr:	
Other 2	20+:	2	Ongoing:	9
	Unknown:	2	Indefinite:	5
			Unknown:	2



# Monitoring efforts for steelhead, Northern California ESU Integers indicate the number of efforts for each category

		Out-		
	Juvenile	migrant	t Adult	Overall*
Total number of monitoring efforts	18	16	13	34
Percent targetting steelhead	89%	81%	85%	91%
Field techniques used				
Weirs or downstream traps	4	12	7	53%
Spawner counts			4	12%
Redd counts			4	12%
Carcass counts			4	12%
Direct obs. (snorkel, bankside)	10	2	1	32%
Electrofishing	11	1		32%
Minnow traps				-
Seining	1	1		3%
Other	1		3	12%
Type of data collected				
Presence/absence	7	6	7	47%
Population index	8	5	3	38%
Abundance estimates	11	12	8	62%
Demographic or life history studies	11	10	4	53%
Genetic	8	5	6	41%
Method for assessing uncertainty				
None	2			
Qualitative	3	2	3	
Basic quantitative			1	
Statistical	12	9	2	
Unknown	3	3	4	
Method of site selection	Past duration	on In	tended future	duration
Dictated by circumstance 13			Ended:	
Qualitative 8	0–5 yr:	17	0–5 yr:	4
Randomized	6–10 yr:	4	6–10 yr:	5
Unknown 5	11–20 yr:	5	11–20 yr:	
Other 8	20+:	7	Ongoing:	13
	Unknown:	1	Indefinite:	9
			Unknown:	3



# Monitoring efforts for steelhead, Central California Coast ESU Integers indicate the number of efforts for each category

				Out-		
		Juvenile	]	migrant	Adult	Overall*
Total number of monitoring ef	forts	22		13	15	32
Percent targetting steelhead		95%		85%	100%	94%
Field techniques used						
Weirs or downstream traps		3		6	8	38%
Spawner counts					7	22%
Redd counts					4	13%
Carcass counts					1	3%
Direct obs. (snorkel, bankside)	)	12		5	3	50%
Electrofishing		14		5	1	44%
Minnow traps						-
Seining		6		3		19%
Other		1		2	2	9%
Type of data collected						
Presence/absence		12		7	8	63%
Population index		9		5	5	44%
Abundance estimates		9		4	6	47%
Demographic or life history st	udies	15		5	5	56%
Genetic		9		5	4	38%
Method for assessing uncertain	nty					
None		1		2	2	
Qualitative		4		2	1	
Basic quantitative		7		1	3	
Statistical		8		3	1	
Unknown		2		4	7	
Method of site selection		Past durat	tion	Int	tended future	duration
Dictated by circumstance 17	7				Ended:	1
Qualitative 6		0–5 yr:	17		0–5 yr:	5
Randomized 2		6–10 yr:	8		6–10 yr:	1
Unknown 2		11–20 yr:	2		11–20 yr:	1
Other 5		20+:	5		Ongoing:	22
		Unknown:			Indefinite:	2
					Unknown:	



# Monitoring efforts for steelhead, South-Central California Coast ESU Integers indicate the number of efforts for each category

	Out-			
	Juvenile	migra	nt Adult	Overall*
Total number of monitoring efforts	12	8	4	14
Percent targetting steelhead	100%	100%	b 100%	100%
Field techniques used				
Weirs or downstream traps Spawner counts	4	1	1	36%
Carcass counts				-
Direct obs. (snorkel, bankside)	6	4	2	43%
Electrofishing	6	2		43%
Minnow traps				-
Seining	4	4		29%
Other	1		2	14%
Type of data collected				
Presence/absence	11	8	4	86%
Population index		3	1	29%
Abundance estimates	7	2	1	57%
Demographic or life history studies	8	4	1	64%
Genetic	1	1		7%
Method for assessing uncertainty				
None	3			
Qualitative				
Basic quantitative	2	2		
Statistical	3	1	1	
Unknown	4	3	1	
Method of site selection	Past durati	on I	ntended future	duration
Dictated by circumstance 8			Ended:	1
Qualitative 5	0–5 yr:	8	0–5 yr:	3
Randomized 1	6–10 yr:	2	6–10 yr:	
Unknown	11–20 yr:		11–20 yr:	
Other	20+:	1	Ongoing:	3
	Unknown:	3	Indefinite:	4
			Unknown:	3



# Monitoring efforts for steelhead, Southern California ESU Integers indicate the number of efforts for each category

	Juvenile	Out- migrar	nt Adult	Overall*
Total number of monitoring efforts	16	12	14	23
Percent targetting steelhead	100%	100%	100%	100%
Field techniques used				
Weirs or downstream traps	3	5	3	26%
Spawner counts			l 1	4%
Carcass counts			1	4%
Direct obs (snorkel bankside)	13	8	11	- 74%
Electrofishing	2	0	1	9%
Minnow trans	-		1	-
Seining			1	4%
Other			-	-
Type of data collected				
Presence/absence	14	9	12	70%
Population index	4	2	3	26%
Abundance estimates	4	5	3	30%
Demographic or life history studies	6	5	3	35%
Genetic	3	2	3	17%
Method for assessing uncertainty				
None	3	5	4	
Qualitative	3	1	1	
Basic quantitative	3	3	3	
Statistical	2	1	2	
Unknown	4	1	1	
Method of site selection	Past durat	ion I	ntended future	duration
Dictated by circumstance 16			Ended:	1
Qualitative 5	0–5 yr:	17	0–5 yr:	1
Randomized	6–10 yr:	1	6–10 yr:	
Unknown 1	11–20 yr:	2	11–20 yr:	
Other 1	20+:	2	Ongoing:	14
	Unknown:		Indefinite:	5
			Unknown:	4



# **Monitoring efforts for Steelhead, no specific ESU** Integers indicate the number of efforts for each category

	Out				
	Juvenile	migrant	Adult	Overall*	
l otal number of monitoring efforts	 100	0	0	l 100	
Percent targetting Steelnead	100	-	-	100	
Field Techniques Used					
Weirs or Downstream Traps				-	
Spawner Counts				-	
Redd Counts				-	
Carcass Counts Direct Obs (sporkel bankside)	1			- 100%	
Flectrofishing	1			100%	
Minnow Traps	1			-	
Seining				-	
Other				-	
Type of Data Collected					
Presence/Absence	1			100%	
Population Index				-	
Abundance Estimates				-	
Demographic or Life History Studies				-	
Genetic				-	
Method for Assessing Uncertainty					
None					
Qualitative	1				
Basic Quantitative					
Statistical					
UIKIIOWII		_			
Method of Site Selection	Past Duration	Inter	ded Future	e Duration	
Dictated by circumstance 1	0–5 yr:	E	nded:		
Qualitative	6–10 yr:	0-	–5 yr:		
Randomized	11–20 yr:	6	-10  yr:		
Unknown Othor	20+: Unknown:		1–20 yr:		
Uniti	UIIKIIUWII.	U Ir	ngoing. Idefinite		
		U	nknown:	1	

# Part 3: Detailed Listing of Monitoring Efforts

## Overview

Part 3 is a complete listing of every monitoring effort reported to us during the course of preparing this report. Correspondents were asked to report their activities in terms of a "unit effort," defined as a data collection effort conducted on a particular ESU by a particular entity using a consistent study design for each life stage monitored. Each entry in Part 3 corresponds to one of these reported unit efforts. The listing does not include incidental monitoring efforts, defined as data collected on one species during a monitoring effort targetting another species. Further detail on compilation methods is described in Part 1.

The diversity of monitoring efforts reported to us was quite high, both in terms of study design and in terms of goals. The reader should bear in mind that the metadata reported here are a relatively terse description of this diversity, and are intended to give an overall picture of the types of datasets being produced for each ESU. Errors should be brought to the attention of D. Boughton<sup>2</sup>. Part 3 is organized as follows:

### Arrangement of entries:

Sorted by species (Chinook salmon, coho salmon, steelhead). Sorted by ESU (from north to south) Sorted alphabetically by the name of the corresponding organization.

<u>Identification of entries:</u> Each unit effort is listed once, and is identified by the name of the corresponding organization; the name of the correspondent who sent us the metadata (or in some cases, authored a report from which we obtained metadata); and a unique ID number that cross-references the entries with the maps in Part 2.

<u>Metadata:</u> We report selected fields from those described in the methods section of Part 1. Refer to that section for more details on the meaning of each particular item.

<u>Stream Names and HUCs</u>: For each entry, we solicited from correspondents a list of the streams or watersheds included in the monitoring effort, along with a description of sampling localities. We then used this information to identify localities in the CDFG 100k stream layer (as described in the methods section of Part 1), and later cross-referenced the information with USGS Hydrologic Unit Codes (HUCs) using a GIS. This allowed us to present standardized locality information for the entire set of monitoring efforts: Names and LLID numbers for streams, and USGS names and HUC numbers for watersheds. Refer to the map on the next page for a guide to HUCs. Note that for brevity we omit the first 3 digits of HUC numbers; for all watersheds in the coastal region of California these first three digits are "180" (For example, HUC 10101 is equivalent to 18010101 in the USGS National Hydrological Database). Also note that some entries could not be georeferenced for various reasons; in these cases we printed the descriptive geographic information that was reported to us by our correspondents.

<sup>&</sup>lt;sup>2</sup> email: David.Boughton@noaa.gov



HUC*	Name	HUC*	Name
10101	Smith.	60002	Pajaro.
10102	Mad-Redwood.	60004	Estrella.
10102	Mad-Redwood.	60005	Salinas.
10103	Upper Eel.	60006	Central Coastal.
10104	Middle Fork Eel.	60007	Cuyama.
10105	Lower Eel.	60008	Santa Maria.
10106	South Fork Eel.	60009	San Antonio.
10107	Mattole.	60010	Santa Ynez.
10108	Big-Navarro-Garcia.	60011	Alisal-Elkhorn Sloughs.
10109	Gualala-Salmon.	60012	Carmel.
10110	Russian.	60013	Santa Barbara Coastal.
10111	Bodega Bay.	70101	Ventura.
10206	Upper Klamath.	70102	Santa Clara.
10207	Shasta.	70103	Calleguas.
10208	Scott.	70104	Santa Monica Bay.
10209	Lower Klamath.	70105	Los Angeles.
10210	Salmon.	70106	San Gabriel.
10211	Trinity.	70201	Seal Beach.
10212	South Fork Trinity.	70202	San Jacinto.
50002	San Pablo Bay.	70203	Santa Ana.
50002	San Pablo Bay.	70204	Newport Bay.
50002	San Pablo Bay.	70301	Aliso-San Onofre.
50003	Coyote.	70302	Santa Margarita.
50004	San Francisco Bay.	70303	San Luis Rey-Escondido.
50004	San Francisco Bay.	70304	San Diego.
50005	Tomales-Drake Bays.	70304	San Diego.
50006	San Francisco Coastal South.	70305	Cottonwood-Tijuana.
60001	San Lorenzo-Soquel.		-

## Key to coastal HUC names referenced in Part 3.

\* Prefix "180" omitted for brevity. For example, HUC 10101 is equivalent to 18010101 in the National Hydrological Database.

CDFG Correspon

#### ID# 132

Correspondent: Larry Preston				
<u>Juvenile</u>	<u>C</u>	<u>outmigrants</u>	Adults	
Field techniques: n/a	n	/a	other	
<b>Data types:</b> n/a	n	/a	presence/	absence
Uncertainty:				
Site selection: qualitative selecti	on Year began:	2000	Interval:	daily
Geoprecision: accurate to subwatershed	Year ended:	2003	Duration:	0–5 yr
Response to:	Years missed:	complete, regular	Summaries:	one-time
Positive impact? no	Season:	C	Funding source:	various:CDFG SFRA/FRGP
Negative impact? no	Start:	May	Support:	2004
Impact controls? no	End:	Oct	Future intent (yr):	0–5
Technical Goal:				
Programmatic Goal:				
<u>Stream name</u>	<u>LLID</u>	Waters	hed name	HUC
Eighteenmile Creek	1239208418458	Smith.		10101
Griffin Creek	1237628419202	Smith.		10101
Hardscrabble Creek	1240250418387	Smith.		10101
Hutsinpillar Creek	1241317418786	Smith.		10101
Idlewild Creek	1237703418976	Smith.		10101
Kelly Creek	1238554418635	Smith.		10101
Knopti Creek	1237366419316	Smith.		10101
Little Jones Creek	1238320418677	Smith.		10101
Little Mill Creek	1241231418733	Smith.		10101
Mill Creek	1240825417920	Smith.		10101
Monkey Creek	1238189418830	Smith.		10101
Morrison Creek	1241566419048	Smith.		10101
Myrtle Creek	1240535418010	Smith.		10101
North Fork Smith River	1239681418479	Smith.		10101
Packsaddle Creek	1237664419111	Smith.		10101
Patrick Creek	1238422418744	Smith.		10101
Rock Creek	1240805418093	Smith.		10101
Rowdy Creek	1241650419119	Smith.		10101
Siskiyou Fork	1238096418841	Smith.		10101
South Fork Smith River	1240565417956	Smith.		10101

### CDFG Correspon

Correspondent:	Michael Wallace			
	<u>Juvenile</u>	<b>Outmigrants</b>	Adults	
Field technique	ues: n/a	electrofishing, seining	n/a	

ID# 187

Data types:	n/a		population index, demographic	n/a	
Uncertainty:			unknown		
Site selection:	dictated by logistics/circumstance	Year began:	1993	Interval:	weekly
Geoprecision: <u>Response to:</u>	accurate	Year ended: Years missed	ongoing <b>i:</b> complete with gaps, regular	Duration: Summaries:	6–10 yr seasonally
Positive impact? Negative impact Impact controls	no ? no ? no	Season: Start: End:	Mar Sept	Funding source: Support: Future intent (yr):	CDFG SFRA ongoing ongoing
Programmatic C	Goal: Determine and Klamath. Mo basin.	nual proportion nitor timing a	ons of natural vs. hato and patterns of juveni	chery juveniles emig le salmonids leaving	rating from the Klamath
<u>Stream name</u> Unknown. Use Klamath River Klamath River	LLID 12 12 12	LID 24074941543 24080741547 24080741547	6 Lower K 1 Upper K 1 Lower K	<u>ed name</u> lamath. lamath. lamath.	HUC 10209 10206 10209
CDFG Correspondent: 1	Michael Wallace <u>Juvenile</u>		<u>Outmigrants</u>	<u>Adults</u>	ID# 188
Field technique	es: downstream trap observation	, direct	downstream trap, din observation, seining	rect n/a	
Data types:	presence/absence	•	presence/absence, population index, demographic	n/a	
Uncertainty:			unknown		
Site selection:	dictated by logistics/circumstance	Year began:	1997	Interval:	weekly
Geoprecision: <u>Response to:</u> Positive impact? Negative impact Impact controls <sup>4</sup> Technical Goal:	no ? no ? no ? no	Year ended: Years missed Season: Start: End:	1999 I: snapshot Mar Sept	Duration: Summaries: Funding source: Support: Future intent (yr):	6–10 yr seasonally FRGP ongoing ongoing
Programmatic C	<b>Coal:</b> Determine crip patterns on a b	tical mainster pasin-wide lev	n river rearing areas t	for juvenile salmoni	ds and emigration
<u>Stream name</u> Unknown. Use Klamath River Klamath River	LLID 12 12 12	LID 240749415439 24080741547 24080741547	Watersh6Lower K1Upper K1Lower K	<u>ed name</u> lamath. lamath. lamath.	HUC 10209 10206 10209

#### **Mill Creek Fisheries Monitoring Program** Correspondent: Zack Larson

#### **ID# 135**

onespondent. Zaek	Laison				
Field techniques:	Juvenile downstream trap minnowtrap	, <u>(</u>	Dutmigrants lownstream trap	<u>Adults</u> upstream count, re count	trap, spawner dd count, carcass
Data types:	population abund demographic	dance, p d	oopulation index, lemographic	presence abundanc genetic	/absence, population ce, demographic,
Uncertainty:	statistical	S	tatistical	statistica	1
Site selection:quaGeoprecision:accResponse to:	litative selection urate	Year began: Year ended: Years missed:	1994 ongoing complete, regular	Interval: Duration: Summaries:	daily 6–10 yr yearly
Positive impact? y Negative impact? y Impact controls? n Technical Goal:	es es 0	Season: Start: End:	Feb Jul	Funding source: Support: Future intent (yr):	CDFG SFRA 2005 ongoing
Programmatic Goal:	Long-term po	pulation trend	monitoring. Mill C	reek is considered a	typical tributary of

Long-term population trend monitoring. Mill Creek is considered a typical tributary of the Smith - disturbed with some old growth. Treated as reference stream.

<u>Stream name</u>	LLID	Watershed name	HUC
East Fork Mill Creek	1240987417345	Smith.	10101
West Branch Mill Creek	1240987417344	Smith.	10101

#### University of California, Davis

#### ID# 202 Correspondent: Jim Waldvogel Adults <u>Juvenile</u> **Outmigrants** n/a **Field techniques:** n/a spawner count, redd count, carcass count Data types: n/a n/a population index, genetic **Uncertainty:** statistical 1980 Site selection: unknown Year began: Interval: weekly Geoprecision: accurate Year ended: 2002 **Duration:** 20+ yr complete, seasonally **Response to:** Years missed: **Summaries:** regular **Positive impact? Funding source:** agency base no Season: Negative impact? Start: Nov Support: completed no Mar Future intent (yr): 0-5 **Impact controls?** End: no **Technical Goal:** Long-term monitoring of Chinook salmon population-related data to inform **Programmatic Goal:**

management decisions. Implemented due to lack of historic spawning data.

<u>Stream name</u> West Branch Mil	l Creek 12	LID 240987417344	Watersho Smith.	<u>ed name</u>	<u>HUC</u> 10101
Yurok Tribe Correspondent: M	onica Hiner			4 1 14	ID# 143
Field techniques	seining	-	<u>Outmigrants</u> seining	<u>Adults</u> n/a	
Data types:	presence/absence	; ]	presence/absence, population abundance	n/a	
Uncertainty:	basic quantitative	e 1	basic quantitative		
Site selection: 0	lictated by ogistics/circumstance	Year began:	2002	Interval:	other
Geoprecision: a <u>Response to:</u> Positive impact? Negative impact? Impact controls?	no no no	Year ended: Years missed: Season: Start: End:	2003 snapshot see notes	Duration: Summaries: Funding source: Support: Future intent (yr):	0–5 yr one-time CDFG 2003 ongoing
Technical Goal:	Beach seining salmonids. Pu juvenile Chino CDFG beach	in South Slou urse seining: I pok salmon; al seine efforts.	gh: Determine habit Determine relative at so compare size of j	at suitability and use bundance and emigra uvenile Chinook salr	by juvenile tion patterns for non compared w/
Programmatic Go	al: Management	evaluation.			
<u>Stream name</u> Unknown. Use I Klamath River Klamath River	LID 12 12 12	LID 240749415436 240807415471 240807415471	Watershi Lower Kl Lower Kl Upper Kl	e <b>d name</b> lamath. lamath. amath.	<u>HUC</u> 10209 10209 10206
Yurok Tribe					ID# 144
Correspondent: M Field techniques	onica Hiner Juvenile electrofishing	1	<u>Outmigrants</u> n/a	<u>Adults</u> n/a	
Data types:	presence/absence		n/a	n/a	
Uncertainty:	basic quantitative	e			
Site selection: C	lictated by ogistics/circumstance	Year began:	2002	Interval:	other
Geoprecision: a <u>Response to:</u> Positive impact? Negative impact?	nccurate to stream	Year ended: Years missed: Season: Start:	2002 snapshot May	Duration: Summaries: Funding source: Support:	0–5 yr none agency base single sampling
Impact controls?	no	End:	May	Future intent (yr):	event ended

Technical Goal:	Assessment of fish presence for proposed study: Sarah Beesley's study of salmonid habitat quality for restoration recommendations.					
Programmatic Goal:	Assessment of fish presence.					
<u>Stream name</u>	LLID	Watershed name	HUC			
High Prairie Creek	1240705415679	Lower Klamath.	10209			

Lower Klamath.

1240589415474

## Chinook salmon, Upper Klamath-Trinity ESU

CDFG					ID# 131
Correspondent: La	rry Preston				
Field techniques	Juvenile : n/a		Outmigrants direct observation, electrofishing	Adults other	
Data types:	n/a		presence/absence	presence/a	absence
Uncertainty:			none		
Site selection: q Geoprecision: a <u>Response to:</u> Positive impact?	ualitative selection ccurate to watershed no	Year began: Year ended: Years missed Season:	2000 2003 : snapshot	Interval: Duration: Summaries: Funding source:	once 0–5 yr one-time various:CDFG SFRA/FRGP
Negative impact?	no	Start:	May	Support:	2004
Impact controls?	no	End:	Oct	Future intent (yr):	0–5
Technical Goal: Programmatic Goa <u>Stream name</u> Not georeferenced	al: Respond to Ca	llifornia ESA L <u>ID</u> 9999999999999999	and develop recover <u>Watersh</u>	ry parameters. <b>ed name</b>	<u>HUC</u>
CDEC					

CDFG
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ID# 209

10209

Correspondent: Larry	Preston				
Field techniques:	Juvenile direct observation electrofishing	l,	<u>Outmigrants</u> n/a	<u>Adults</u> other	
Data types:	presence/absence		n/a	presence/a	absence
Uncertainty:	none				
Site selection: qua	litative selection	Year began:	2000	Interval:	once
Geoprecision: acc	urate to watershed	Year ended:	2003	Duration:	0–5 yr
Response to:		Years missed	: snapshot	Summaries:	one-time
<b>Positive impact?</b> n	0	Season:		Funding source:	various:CDFG SFRA/FRGP
Negative impact? n	0	Start:	May	Support:	2004

Salt Creek

Impact controls?	no	End:	Oct	Future intent (yr):	0–5
<b>Technical Goal:</b>					
Programmatic Goa	al: Respond to C	alifornia ESA a	nd develop recover	y parameters.	
Stream name	L	LID	Watersh	ed name	HUC
Not georeferenced	1 9	9999999999999999			
CDFG					ID# 180
Correspondent: Gar	ry Ramsden				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques:	n/a	n/	a	upstream t	rap
Data types:	n/a	n/	a	population	index, genetic
Uncertainty:				statistical	
Site selection: di	ictated by ogistics/circumstanc	Year began: e	1963	Interval:	daily
Geoprecision: ac <u>Response to:</u>	ccurate	Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	20+ yr yearly
Positive impact? Negative impact? Impact controls?	no no no	Season: Start: End:	Sept Mar	Funding source: Support: Future intent (yr):	CDFG (assume) ongoing (assume) ongoing
Technical Goal: Programmatic Goa	nl: Hatchery-ope River Projec	erated as compent.	sation for spawnin	g and rearing areas l	ost to the Trinity
Stream name	L	LID	Watersh	ed name	<u>HUC</u>
Trinity River	1	237076411855	Trinity.		10211
CDFG					ID# 93
Correspondent: Wa	de Sinnen				
Field techniques:	<u>Juvenile</u> n/a	<u>O</u> n/	<b>utmigrants</b> a	<u>Adults</u> upstream t	rap
Data types:	n/a	n/	a	population demograp	abundance,
Uncertainty:				statistical	
Site selection: di	ictated by ogistics/circumstanc	Year began:	1997	Interval:	other
Geoprecision: ac SU	ccurate to ubwatershed	Year ended:	ongoing	Duration:	6–10 yr
<u>Response to:</u>		Years missed:	complete with gaps, regular	Summaries:	other
Positive impact?	no	Season:		Funding source:	Bureau of Reclamation
Negative impact?	no	Start:	May	Support:	yr-to-yr

Impact controls Technical Goal:	? no	End:	Dec	Future intent (yr):	indefinite
Programmatic (	Goal: Multiple obje	ctives, fall chind	ook salmon.		
<u>Stream name</u> Trinity River	<u>L</u> 12	LID 237076411855	<u>Watersh</u> Trinity.	<u>ed name</u>	HUC 10211
CDFG					ID# 159
Correspondent:	Wade Sinnen				
Field techniqu	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	tran
Dete types	<b>cs.</b> 11/a	11/	a /a	upsucam	uap nahundanaa
Data types:	n/a	n/	a	demograr	n abundance,
Uncertainty:				statistical	
Site selection:	dictated by logistics/circumstance	Year began: e	1997	Interval:	other
Geoprecision:	accurate to subwatershed	Year ended:	ongoing	Duration:	6–10 yr
<b>Response to:</b>		Years missed:	complete with gaps, regular	Summaries:	other
Positive impact?	no	Season:		Funding source:	Bureau of Reclamation
Negative impact	? no	Start:	May	Support:	yr-to-yr
Impact controls	? no	End:	Dec	Future intent (yr):	indefinite
Technical Goal:			L		
Programmatic C	Joal: Multiple obje	ctives, spring C	hinook salmon.	. J	шс
<u>Stream name</u> Trinity River	<u>L</u> 11	LID 237076411855	<u>watersn</u> Trinity	<u>ed name</u>	<u>HUC</u> 10211
	12	257070411855	Timity.		10211
CDFG S-RAM	Pill Chasney				ID# 167
Correspondent.	Juvenile	0	lutmigrants	Adults	
Field technique	es: downstream trap observation	, direct de ol	ownstream trap, dir bservation	rect $n/a$	
Data types:	presence/absence population index population abund demographic, ge	e, pr , po dance, do netic	resence/absence, opulation abundanc emographic, geneti	n/a c	
Uncertainty:					
Site selection:	unknown	Year began:	2000	Interval:	daily
Geoprecision:	precise	Year ended:	2002	Duration:	0–5 yr
<u>Response to:</u>		Years missed:	complete, incremental	Summaries:	weekly

Negative impact	? no ? no	Start: End:	Feb	Support: Future intent (vr):	unknown
Technical Goal:	. 110	Enq.	Jui	Future intent (yr).	ulikilöwli
Programmatic G	Goal:				
Stream name		LLID	Waters	shed name	<u>HUC</u>
Scott River		1230355417791	Scott.		10208
CDFG S-RAM	P				ID# 52
Correspondent: I	Patrick Garrison				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	Adults	
Field technique	es: n/a	n/	a	direct obs	ervation
Data types:	n/a	n/	a	presence/ index, der	absence, population mographic
Uncertainty:				qualitativ	e
<b>Positive impact?</b>	no	Season:		Funding source:	unknown
Site selection:	other - historic	Year began:	2000	Interval:	yearly
~	comparison				o -
Geoprecision:	accurate	Year ended:	ongoing	Duration:	0–5 yr
<u>Response to:</u>		rears misseu:	gaps, regular	Summaries:	gpec
Positive impact?	no no	Season:	<b>A</b> 110	Funding source:	CDFG
Impact controls	2 110 2 110	Start: Fnd:	Aug Sent	Support: Future intent (vr):	ongoing
Tachnical Coal:	. no Monitor	size of spring Chinor	ok salmon in SE [	Future intent (yr). Frinity Basin in comn	arison with
rtennicai Obai.	historic o	data.	samon in 51	Thinty Dasin in comp	
Programmatic C	Goal: Population	on index of holding s	pring-run Chinoc	ok salmon in SF Trinit	ty Basin.
<u>Stream name</u>		<u>LLID</u>	Waters	shed name	<u>HUC</u>
East Fork South	n Fork Trinity	1231253402458	South F	Fork Trinity.	10212
River		122440040(120	0 4 5	1 m <sup>1</sup>	10212
Hayfork Creek	ity Divor	1234499406139	South F	ork Irinity.	10212
South Fork The	iity Kivei	1250015408901	South F	ork minty.	10212
CDFG S-RAM	IP				ID# 178
Correspondent: H	Kimball Rushton				
Field technique	<u>Juvenile</u> es: n/a	<u>O</u> ot	<b>utmigrants</b> her	<u>Adults</u> upstream	trap, other
Data types:	n/a	de	emographic, gene	etic populatio	n abundance, genetic
Uncertainty:		ur	nknown	unknown	
Site selection:	dictated by logistics/circum	Year began: stance	1966	Interval:	unknown
Geoprecision:	very precise	Year ended:	ongoing	Duration:	20+ yr

Response to:		Years missed:	complete regular	, Summar	ies:	yearly
Positive impact? n	0	Season:	C	Funding	source:	various: Pac. Power & Light/hatchery/CD FG(assume)
Negative impact? n Impact controls? n	0	Start: End:	Feb Mar	Support: Future ii	ntent (vr):	ongoing (assume)
Technical Coal:	Determine rel	ationshin betw	een hatcher	v-based and natur	al nonulati	one in the basin
Programmatic Goal:	In response to by Pacific Pow blocked by the	uncertainty as wer and Light ( e Iron Gate Pro	to Iron Gat Co. to 'comp ject.	e Stock ESU statu bensate' for spawn	is. Hatcher	y constructed rsery areas
<u>Stream name</u>	L	LID	7	Vatershed name		<u>HUC</u>
Klamath River	12	40807415471	Ι	ower Klamath.		10209
Klamath River	12	40807415471	τ	pper Klamath.		10206
USFS	o Vilgoro					ID# 142
Correspondent. Jame			<b>.</b>		A .]]	
Field techniques	<u>Juvenile</u>	direct d	Jutmigran	trop	Adults rodd cours	a araass a aunt
Field techniques.	observation, elect	trofishing	lowiistieaiii	uap		i, carcass count
Data types:	presence/absence population index population abund demographic, gen	e, p , p lance, p netic d	presence/abs population is population a lemographic	ence, ndex, bundance, c, genetic	presence/a index, pop demograp	bsence, population pulation abundance, hic, genetic
Uncertainty:	statistical	S	tatistical		statistical	
Site selection: oth	er	Year began:	2000	Interval:		other
Geoprecision: acc sub	urate to watershed	Year ended:	ongoing	Duration	:	0–5 yr
Response to:		Years missed:	complete incremen	, <b>Summar</b> tal	ies:	yearly
Positive impact? n	0	Season:		Funding	source:	agency base
Negative impact? n	0	Start:		Support:		ongoing
Impact controls? n	0	End:		Future in	tent (yr):	ongoing
<b>Technical Goal:</b>						
<b>Programmatic Goal:</b>						
Stream name	L	LID	V	Vatershed name		HUC
Barkhouse Creek	12	28482418204	ī	Jpper Klamath.		10206
Beaver Creek	12	28157418694	Ţ	pper Klamath.		10206
Empire Creek	12	27377418668	Ĭ	pper Klamath.		10206
Horse Linto Creek	12	36196410002	1	rinity.		10211
Humbug Creek	12	26643418342	I	Jpper Klamath		10206
Lumgrev Creek	12	27378418673	Ĩ	pper Klamath.		10206
McKinnev Creek	12	28905418428	Ī	opper Klamath		10206
Scott River	12	230355417791	S	cott.		10208

USFS					ID# 90
Correspondent: Brenda	Olsen				
<u>Ju</u> Field techniques: di	uvenile irect observation	<u>O</u> n/	Dutmigrants /a	<u>Adults</u> spawner co carcass co observatio	ount, redd count, unt, direct n
Data types: pr	resence/absence	n/	/a	presence/a index, pop	bsence, population ulation abundance
Uncertainty:				qualitative	;
Site selection: other Geoprecision: accura	ate to stream	Year began: Year ended:	1980	Interval: Duration:	once 20+ yr
<u>Response to:</u>		Years missed:	complete, incremental	Summaries:	yearly
Positive impact? no	S	Season:		Funding source:	agency base
Negative impact? no	S	Start:	Jul	Support:	yr-to-yr
Impact controls? no	l	End:	Jul	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic Goal:	Management ar Basin).	nd population	monitoring (largest	remaining wild run	in Klamath
North Fork Salmon Riv	ver 123	33222412571	Salmon.		10210
Salmon River	123	34923413776	Salmon.		10210
South Fork Salmon Riv	ver 123	33222412570	Salmon.		10210
USFS					ID# 91
Correspondent: Brenda	Olsen				
<u>Jı</u>	<u>uvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques: di	irect observation	n/	/a	spawner co carcass co observatio	ount, redd count, unt, direct n
Data types: pr	resence/absence	n/	/a	presence/a index, pop	bsence, population ulation abundance
Uncertainty:				qualitative	;
Site selection: other		Year began:	1992	Interval:	other
Geoprecision: accura	te to stream	Year ended:	ongoing	Duration:	11–20 yr
<u>Response to:</u>		Years missed:	complete, incremental	Summaries:	yearly
Positive impact? no	S	Season:		Funding source:	agency base
Negative impact? no	S	Start:	Oct	Support:	yr-to-yr
Impact controls? no	]	End:	Nov	Future intent (yr):	ongoing
<b>Technical Goal:</b>		,			
Programmatic Goal:	USFS managen (CDFG).	nent (redd loca	ations); population	estimate for harvest	allocation

\_\_\_\_\_

Stream name		LID		Watershe	ed name	HUC
North Fork Salmon F	River 12	233222412571		Salmon.		10210
Salilloll Kivel	liver 12	234923413770		Salmon		10210
South Fork Samon F		255222412570		Sannon.		10210
USFS - Klamath/ 6	<b>Rivers</b> NF					ID# 35
Correspondent: John	Grunbaum					
	<u>Juvenile</u>	<u>0</u>	utmigra	<u>nts</u>	<u>Adults</u>	
Field techniques:	direct observation	n n/	а		direct obs	ervation
Data types:	population index demographic	, n/	a		population	n index
Uncertainty:	unknown					
Site selection: dicta logis	ated by stics/circumstance	Year began:	1990		Interval:	once
Geoprecision: accu subv	rate to vatershed	Year ended:	ongoing	5	Duration:	11–20 yr
<u>Response to:</u>		Years missed:	complet increme	e, ntal	Summaries:	yearly
Positive impact? no	)	Season:			Funding source:	agency base
Negative impact? no	)	Start:	Jul		Support:	currently
Impact controls? no	)	End:	Aug		Future intent (yr):	0–5
<b>Technical Goal:</b>	Distribution a	nd relative abun	dance of	Chinook s	salmon.	
Programmatic Goal:	Monitor popul	lations of spring	g-run Chi	nook salm	on.	
<u>Stream name</u> Not georeferenced	<u>L1</u> 99	<u>LID</u> 999999999999999		Watershe	ed name	<u>HUC</u>

USFS - Klamat Correspondent: J	th/ 6 Rivers NF				ID# 37
Field technique	<b>Juvenile</b> es: n/a	<u>O</u> n/	<mark>Jutmigrants</mark> /a	<u>Adults</u> spawner co direct obse	ount, redd count, ervation
Data types: Uncertainty:	n/a	n/	/a	population unknown	index
Site selection:	dictated by logistics/circumstance	Year began:	1990	Interval:	other
Geoprecision: <u>Response to:</u>	accurate to watershed	Year ended: Years missed:	ongoing complete, incremental	Duration: Summaries:	11–20 yr yearly
Positive impact? Negative impact? Impact controls?	no ? no ? no	Season: Start: End:	Oct Nov	Funding source: Support: Future intent (yr):	agency base ongoing ongoing
<b>Technical Goal:</b>	Track abundar	nce and distribu	tion of fall Chinoc	ok salmon spawning.	

Programmatic Goal:	: Contributes to monitor to det	database for c termine sensiti	letermining comme vity to USFS projec	rcial, tribal and spo ets.	rt limits. Also
<u>Stream name</u> Not georeferenced	<u>L</u> 99	<u>LID</u> )99999999999999	Watersh	ied name	<u>HUC</u>
USFS - Klamath/ Correspondent: John	6 Rivers NF Grunbaum				ID# 38
Field techniques:	<u>Juvenile</u> downstream trap	<u>(</u>	<u>Outmigrants</u> lownstream trap	<u>Adults</u> n/a	
Data types:	population index demographic	, <u>I</u>	population index, demographic	n/a	
Uncertainty:	statistical	S	statistical		
Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? r Negative impact? r Impact controls? r	er purate to stream no no	Year began: Year ended: Years missed: Season: Start: End:	2002 2003 snapshot Apr Jul	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	daily 0–5 yr yearly agency base unknown unknown
Technical Goal:	Assessment o timing, behav	f anadromous i ior and life his	fish populations in I tory patterns.	Red Cap Creek, incl	luding migration
Programmatic Goal: <u>Stream name</u> Red Cap Creek	: <u>L</u> 12	<u>LID</u> 236043412589	<mark>Watersh</mark> Lower K	<mark>led name</mark> lamath.	<u>HUC</u> 10209
USFS Lower Trin	nity Ranger Sta	ntion			ID# 190
Correspondent. Ant	Iuvonilo		Outmigrants	Adults	
Field techniques:	n/a	(	lownstream trap	spawner carcass c	count, redd count, count
Data types:	n/a	I	presence/absence, population abundan	ce abundan	/absence, population ce
Uncertainty:	basic quantitative	e t	basic quantitative	qualitativ	ve
Site selection: qua Geoprecision: ver <u>Response to:</u>	alitative selection y precise	Year began: Year ended: Years missed:	1991 ongoing complete, regular	Interval: Duration: Summaries:	irregularly 11–20 yr yearly
<b>Positive impact?</b> y	/es	Season:	- 8	Funding source:	various: CDFG/PCFFA/SR NF
Negative impact? n Impact controls? n	10 10	Start: End:	Oct Dec	Support: Future intent (yr):	yr-to-yr indefinite
Technical Goal:	Estimate year effectiveness	ly abundance of instream res	of Chinook salmon. storation efforts.	Technical evaluation	on of the

Programmatic Goal:	Regulatory co work.	mpliance per E	SA; management e	valuation	on instream	restoration
Stream name	L	LID	Watersho	ed name	]	HUC
Cedar Creek	12	36032410062	Trinity.		-	10211
Horse Linto Creek	12	36196410002	Trinity.			10211
USFS Lower Trinity Correspondent: Anita A	<b>Ranger Sta</b> ndazola	tion				ID# 192
Ju	ivenile	0	utmigrants		Adults	
Field techniques: n/	a	do	ownstream trap		spawner co carcass cou	ount, redd count, int
Data types: n/	a	ро	opulation abundanc	e	presence/al index, popu	osence, population
Uncertainty:		ba	asic quantitative		qualitative	
Site selection: qualita	tive selection	Year began:	1991	Interval:		irregularly
Geoprecision: very p	recise	Year ended:	ongoing	Duration	:	11–20 yr
Response to:		Years missed:	complete, regular	Summar	ies:	yearly
<b>Positive impact?</b> yes		Season:		Funding	source:	various: CDFG/PCFFA/SR NF
Negative impact? no		Start:	Mar	Support:		yr-to-yr
Impact controls? yes		End:	Jul	Future in	ntent (yr):	indefinite
Technical Goal:	Estimate yearl effectiveness of	y abundance of instream rest	Chinook salmon.	Fechnical	evaluation	of the
Programmatic Goal:	Regulatory co work.	mpliance per E	SA; management e	valuation	on instream	restoration
Stream name	Ll	LID	Watersho	ed name	]	<u>HUC</u>
Horse Linto Creek	12	36196410002	Trinity.			10211

#### USFS Lower Trinity Ranger Station Correspondent: Anita Andazola

ID# 195

1	<u>Juvenile</u>	<u>C</u>	<u> Dutmigrants</u>	Adults	
Field techniques:	direct observation	n n	/a	spawner carcass c	count, redd count,
Data types:	presence/absence	e n	/a	presence abundan	/absence, population ce
Uncertainty:	qualitative			qualitativ	/e
Site selection: di lo	ctated by gistics/circumstance	Year began:	1982	Interval:	weekly
Geoprecision: ac	curate	Year ended:	ongoing	Duration:	20+ yr
<b>Response to:</b>		Years missed:	complete with	Summaries:	yearly
			gaps, regulai		

Negative impact? no Impact controls? no	Start: End:	Sept Dec	Support: Future intent (yr):	unknown indefinite
Technical Goal: Estimat effectiv	e yearly abundance of eness of instream rest	f Chinook salmon. ' oration efforts.	Technical evaluation	n of the
Programmatic Goal: Regulat work.	ory compliance per E	SA; management e	valuation on instrea	m restoration
<u>Stream name</u> Old Campbell Creek	<u>LLID</u> 1236106408809	<u>Watersh</u> South Fo	<u>ed name</u> rk Trinity.	HUC 10212
USFS Lower Trinity Range Correspondent: Anita Andazola	er Station			ID# 196
Field techniques: n/a	<u>O</u> n/	<u>Dutmigrants</u> /a	<u>Adults</u> redd coun	t, carcass count
Data types: n/a	n/	/a	presence/abundanc	absence, population e
Uncertainty:			qualitative	9
Site selection: unknown Geoprecision: accurate to stre <u>Response to:</u> Positive impact? no Negative impact? yes Impact controls? no	Year began: am Year ended: Years missed: Season: Start: End:	1996 ongoing snapshot Dec Feb	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	weekly 6–10 yr other unknown unknown indefinite
Technical Goal: Estimat Programmatic Goal:	e Chinook salmon poj	pulation.		
<u>Stream name</u> Sharber Creek	<u>LLID</u> 1235638408959	<u>Watersh</u> Trinity.	<u>ed name</u>	HUC 10211
USFS Lower Trinity Range	er Station			ID# 198
Field techniques: n/a	<u>O</u> de	Outmigrants ownstream trap	<u>Adults</u> spawner c carcass co observatio	count, redd count, ount, direct
Data types: n/a	pi po	resence/absence, opulation abundanc	presence/abundanc	absence, population e
Uncertainty:	ba	asic quantitative	qualitativ	e
Site selection:qualitative seleGeoprecision:very preciseResponse to:	ction Year began: Year ended: Years missed:	1991 ongoing complete, regular	Interval: Duration: Summaries:	irregularly 11–20 yr yearly
Positive impact? yes	Season:	-	Funding source:	various:

Negative impact? no Impact controls? no	Start: End:	Mar Jul	Support: Future intent (yr):	indefinite indefinite	
Technical Goal:	Estimate yearly abundance o effectiveness of instream rest	f Chinook salmon. Toration efforts.	Technical evaluation	of the	
<b>Programmatic Goal:</b>	Restore salmonid habitat and	populations to self	-sustaining level.		
<u>Stream name</u> Willow Creek	<u>LLID</u> 1236292409450	<u>Watersh</u> Trinity.	ed name	<u>HUC</u> 10211	
Yurok Tribe Correspondent: Monica	Hiner			ID# 145	
$\frac{Jt}{Jt}$	<u>ivenile</u>	<u>Dutmigrants</u>	Adults		
Field techniques: n/	a o	ther	n/a n/a		
Data types:	a p	alesence/absence	II/a	NF	
Uncertainty:	S	tatistical			
Site selection: dictate logistic	d by Year began: cs/circumstance	2001	Interval:	other	
Geoprecision: accura	te Year ended:	2003	Duration:	0–5 yr	
<b>Response to:</b>	Years missed:	snapshot	Summaries:	one-time	
Positive impact? no	Season:		Funding source:	agency base	
Negative impact? no	Start:	May	Support:	2003	
Impact controls? no	End:		Future intent (yr):	unknown	
Technical Goal:Determine diet of juvenile Chinook salmon in the Klamath River Estuary and determine: 1) whether diet differs from available prey items; 2) whether diet differs between marked and unmarked fish; and 3) conduct bioenergetic modeling.					
Programmatic Goal:	Management question and evilated below.	valuation. To assess	whether hatchery in	npacts factors	
<u>Stream name</u>	LLID	Watersho	ed name	<u>HUC</u>	
Klamath River	1240807415471	Lower Kl	amath.	10209	
Klamath River	1240807415471	Upper Kl	amath.	10206	

# Chinook salmon, California Coastal ESU

## CDFG

CDFG			ID# 28
Correspondent: Gar	y Flosi		
	<u>Juvenile</u>	<u>Outmigrants</u>	<u>Adults</u>
Field techniques:	n/a	n/a	spawner count, redd count, carcass count
Data types:	n/a	n/a	presence/absence
Uncertainty:			

Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal: Programmatic Go	unknown accurate to watershed no no no	Year began: Year ended: Years missed: Season: Start: End:	1987 ongoing unknown	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	irregularly 11–20 yr yearly unknown unknown unknown
Stream name	LLID 1:	LID	<u>Watersh</u>	e <b>d name</b>	HUC
Unknown. Use I	LLID 1:	233961402742	Mad-Red	wood.	10102
Unknown. Use I	LLID 1:	234188402768	Lower Ee	:l.	10105
Unknown. Use I	LLID 1:	233961402742	Lower Ee	:l.	10105

#### **CDFG**

**ID# 184** Correspondent: Alan Grass <u>Adults</u> Juvenile **Outmigrants** Field techniques: n/a n/a upstream trap Data types: n/a n/a population abundance, genetic Uncertainty: unknown unknown Site selection: dictated by Year began: 1933 Interval: daily logistics/circumstance Geoprecision: accurate Year ended: ongoing **Duration:** 20+ yr unknown yearly (assume) **Response to:** Years missed: Summaries: various: **Positive impact?** no Season: **Funding source:** PG&E/CDFG (assume) Negative impact? no assume (assume) Start: Nov Support: Impact controls? no End: Apr Future intent (yr): ongoing **Technical Goal: Programmatic Goal:** Watershed name Stream name LLID HUC 1243106406425 Upper Eel. 10103 Eel River **ID# 41** 

#### **CDFG**

Correspondent: Scot	t Harris		
	<u>Juvenile</u>	<b>Outmigrants</b>	Adults
Field techniques:	n/a	n/a	carcass count
Data types:	n/a	n/a	presence/absence, demographic, genetic
Uncertainty:			none

Site selection:	dictated by logistics/circumstanc	Year began: e	1986	Interval:	other
Geoprecision: <u>Response to:</u>	accurate to stream	Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	11–20 yr yearly
Positive impact? Negative impact	yes ? yes	Season: Start:	Nov	Funding source: Support:	CDFG SFRA ongoing (underfunded)
Impact controls	no	End:	Feb	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Determine pro	esence/absence,	genetic samples, li	fe history.	
Programmatic C	oal: Regulatory co	mpliance.			
<u>Stream name</u> Mill Creek Willits Creek	L 12 12	LID 233528394319 233682394164	<b>Watersh</b> Upper Ee Upper Ee	<b>ed name</b> 1. 1.	HUC 10103 10103

### CDFG

Site selection:

Geoprecision:

Response to:

**Positive impact?** 

Negative impact? no

other

no

very precise

CDFG				ID# 96
Correspondent: Michael D. Sparkma	an			
<u>Juvenile</u> Field techniques: n/a	<u>(</u>	<u>Dutmigrants</u> lownstream trap	<u>Adults</u> n/a	
<b>Data types:</b> n/a	I I C	presence/absence, population abundand lemographic	n/a ce,	
Uncertainty:	S	statistical		
Site selection: other Geoprecision: very precise <u>Response to:</u>	Year began: Year ended: Years missed:	2000 2003 complete, regular	Interval: Duration: Summaries:	daily 0–5 yr yearly
Positive impact? no	Season:		Funding source:	various: CDFG/private
Negative impact? no Impact controls? no	Start: End:	Mar Aug	Support: Future intent (yr):	2010+ 6–10
Technical Goal: Hypothesis	, estimates.			
Programmatic Goal: Evaluation.				
<u>Stream name</u> Redwood Creek	LLID 1240905412924	<u>Watersh</u> Mad-Rec	led name dwood.	<u>HUC</u> 10102
<b>CDFG</b> Correspondent: Michael D. Sparkma	an			ID# 97
Juvenile           Field techniques:         n/a	<u>(</u>	<u>Dutmigrants</u> lownstream trap	<u>Adults</u> n/a	
<b>Data types:</b> n/a	I I C	presence/absence, population index, lemographic	n/a	
Uncertainty:	S	statistical		

2000

2003

complete,

regular

Mar

Year began:

Year ended:

Season:

Start:

Years missed:

daily

0–5 yr

yearly

various: CDFG/private

2010 +

Interval:

**Duration:** 

Support:

Summaries:

Funding source:

Impact controls? no	End:	Aug	Future intent (yr):	6–10
Technical Goal: Hypothesis, e	estimates.			
<b>Programmatic Goal:</b> Evaluation.				
Stream nameIRedwood Creek1	. <u>LID</u> 240905412924	<u>Watersho</u> Mad-Red	ed name wood.	HUC 10102
CDFG				ID# 179
Correspondent: Brett Wilson				
<u>Juvenile</u> Field techniques: n/a	<u>(</u> d	<u>Dutmigrants</u> lownstream trap, oth	er upstream count, oth	trap, spawner her
Data types: n/a	p g	oopulation abundanc	e, population	n abundance, genetic
Uncertainty:	u	inknown	unknown	
Site selection: dictated by logistics/circumstand	Year began:	1979	Interval:	unknown
Geoprecision: very precise	Year ended:	ongoing	Duration:	20+ yr
Response to:	Years missed:	complete, regular	Summaries:	unknown
Positive impact? no	Season:	-	Funding source:	various: Cal Fed/EPA
Negative impact? no	Start:	Aug	Support:	2006
Impact controls? no	End:	Apr	Future intent (yr):	0–5
Technical Goal: Genetic analy	ysis is to identif	y individuals and de	termine spawning p	orotocol.
Programmatic Goal: Compensatio Sonoma Proj	n for spawning ect.	and nursery areas bl	ocked by Warm Sp	rings Dam, Lake
Stream name I	LID	Watershe	ed name	HUC
Dry Creek 1	228562385862	Russian.		10110
CDFG S-RAMP Correspondent: Seth Ricker				ID# 169
<u>Juvenile</u> Field techniques: n/a	<u>(</u>	<u>Dutmigrants</u> lownstream trap	<u>Adults</u> n/a	
Data types: n/a	r	opulation abundanc	e n/a	
Dutu types.	d	lemographic, genetic		
Uncertainty:	u	inknown		
Site selection: unknown	Year began:	see note	Interval:	daily
Geoprecision: accurate to stream	Year ended:	see notes	Duration:	unknown yr
Response to:	Years missed:	snapshot	Summaries:	one-time
Positive impact? no	Season:		Funding source:	CDFG (assume)
Negative impact? no	Start:	Mar	Support:	unknown

Impact controls? no	1	End:	Jun	Future intent (yr):	unknown
<b>Technical Goal:</b>					
Programmatic Goal:	<ol> <li>Determine yi smolts from bas</li> <li>Determine tin salmonids into ta assumptions ass</li> </ol>	ield of coho sa sin. ming of outmi that produced sociated with r	lmon and Chinook gration of salmonid by tribs vs. mainste nark-recapture juve	salmon smolts and st ls. 3) Partition the ba m areas. 4) Investig mile salmonids out-n	teelhead parrs and usin yield of gate nigrant models.
St	1	ID	n J		
<u>Stream name</u>		<u>ID</u>	<u>watersne</u>	<u>ed name</u>	HUC
Not georereneed	999	99999999999999			
		_			
Eel River Salmon R	estoration Pro	oject			ID# 128
Correspondent: Harry V	/aughn				
J	<u>uvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques: n	/a	do	ownstream trap	n/a	
Data types: n.	/a	рс	opulation abundance	e n/a	
Uncertainty:		ba	sic quantitative		
·			1		
Site selection: quality	ative selection	Year began:	1999	Interval:	daily
Geonrecision: verv r	precise	Vear ended:	ongoing	Duration:	0-5  vr
Response to:	Neelise N	Vears missed	complete	Summaries.	vearly
<u>Response to:</u>		r car s misseu.	regular	Summaries.	yearry
<b>Positive impact?</b> ves	S	Season:	8	Funding source:	CDFG SFRA
Negative impact? no	S	Start:	Mar	Support:	2004
<b>Impact controls</b> ? no	1	End:	Jun	Future intent (vr):	6-10
Technical Goal:	1) Develop new	trap models:	2) trend analysis: 3	) implement protocol	L
<b>Programmatic Goal:</b>	Long term to m	onitor populat	ion trends.		
Stream name		ID I I	Watershe	d name	HUC
West Fork Sproul Cree	-k <u>123</u>	8657400410	South For	k Eel	10106
	in 123	0007 100 110	South I of		
E al Dirran Calman D	astanation Du	a <b>.</b> a a <b>4</b>			ID# 120
Correspondent: Harry V	Vaughn	oject			ID# 150
		0	ntmiquanta	A duita	
<u>J</u> Field techniques: n	<u>uvenne</u> /a	$\frac{0}{\mathbf{n}}$	<u>utiligrants</u>	<u>Auuits</u> unstream ti	an
Data typage n	/a	n/	a	upsucain in	up index
Data types: n/	/a	n/	a	population	Index
Uncertainty:				qualitative	
Site selection: dictate logisti	ed by y sics/circumstance	Year began:	1983	Interval:	other
Geoprecision: precis	e y	Year ended:	ongoing	Duration:	20+ yr
Response to:	Ţ	Years missed:	complete with	Summaries:	yearly
			gaps, regular		
<b>Positive impact?</b> ves	S	Season:		Funding source:	CDFG SFRA
Negative impact? no	S	Start:	Nov	Support:	vr-to-vr
8 I	~			* *' · · · ·	J - J

Impact controls? no	End:	Feb	Future intent (yr):	0–5
<b>Technical Goal:</b>	Collect eggs for planting.			
<b>Programmatic Goal:</b> Fish populations have been depressed. Egg-collecting station used as a source to plant other restoration projects in the SF Eel River.				
<u>Stream name</u>	LLID	Waters	shed name	<u>HUC</u>
Redwood Creek 12383534		South I	Fork Eel.	10106
Institute for Forest and Watershed Management/HSU Correspondent: Dana McCanne				ID# 75
<u>Jr</u>	<u>ivenile</u>	<u> Dutmigrants</u>	<u>Adults</u>	
Field techniques: n/	a c	lownstream trap	n/a	
Data types: n/	a f	oopulation index, lemographic	n/a	
Uncertainty:	t	basic quantitative		
Site selection: other	Vear hegan.	2002	Interval·	daily
Geoprecision: accura	te to Year ended:	ongoing	Duration:	0-5  vr
subwa	tershed	- 0- 0		
<u>Response to:</u>	Years missed:	complete, incremental	Summaries:	yearly
Positive impact? no	Season:		Funding source:	various: NOAA/CDFG/co mmercial-extractio n
Negative impact? no	Start.	Mar	Support:	vr-to-vr
Impact controls? no	End:	Jun	Future intent (vr):	ongoing
Technical Goal: Population estimates to determine trends over time				
Programmatic Goal: Determine trends in population and ESA status				
Stream name	ne LLID Watershed name HUC			
Unknown Use LLID	1241042407668	Mad-R	edwood	<u>10102</u>
Unknown. Use LLID	1239932407391	Mad-Redwood		10102
Unknown, Use LLID	1240107407367	Mad-Redwood.		10102
Unknown, Use LLID	1240331407318	Mad-Redwood.		10102
Unknown. Use LLID	1240648407427	Mad-R	edwood.	10102
Unknown. Use LLID	1240957408018	Mad-R	edwood.	10102
Unknown. Use LLID	1241176407779	Mad-R	edwood.	10102
Unknown. Use LLID	1240641407322	Mad-R	edwood.	10102
Unknown. Use LLID	1241410407191	Mad-R	edwood.	10102
Unknown. Use LLID	1241398408058	Mad-R	edwood.	10102
Unknown. Use LLID	1241381408050	Mad-R	edwood.	10102
Unknown. Use LLID	1241359408039	Mad-R	edwood.	10102
Unknown. Use LLID	1241301407488	Mad-R	edwood.	10102
Unknown. Use LLID	1241289407456	Mad-R	edwood.	10102
Unknown. Use LLID	1241246407489	Mad-R	edwood.	10102
Unknown. Use LLID	1240974408015	Mad-Redwood.	10102	
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Unknown. Use LLID	1241191407532	Mad-Redwood.	10102	
Unknown. Use LLID	1241029407863	Mad-Redwood.	10102	
Unknown. Use LLID	1241067408013	Mad-Redwood.	10102	
Unknown. Use LLID	1241067408012	Mad-Redwood.	10102	
Unknown. Use LLID	1241052407257	Mad-Redwood.	10102	
Unknown. Use LLID	1241433407186	Mad-Redwood.	10102	
Unknown. Use LLID	1241246407233	Mad-Redwood.	10102	
Cloney Gulch	1240482407577	Mad-Redwood.	10102	
Eureka Slough	1241459408108	Mad-Redwood.	10102	
Falls Gulch	1240384407635	Mad-Redwood.	10102	
Freshwater Creek	1241165408023	Mad-Redwood.	10102	
Graham Gulch	1240475407539	Mad-Redwood.	10102	
Henderson Gulch	1241322407550	Mad-Redwood.	10102	
Horse Gulch	1240492407761	Mad-Redwood.	10102	
Little Freshwater Creek	1240624407569	Mad-Redwood.	10102	
McCready Gulch	1240638407639	Mad-Redwood.	10102	
Ryan Creek	1241135407887	Mad-Redwood.	10102	
South Fork Freshwater Creek	1240467407317	Mad-Redwood.	10102	

#### Institute for Forest and Watershed Management/HSU Correspondent: Dana McCanne

Field techniques:	<u>Juvenile</u> n/a	<u>Out</u> n/a	<u>tmigrants</u>	<u>Adults</u> upstream observati	trap, direct on
Data types:	n/a	n/a		populatio abundanc	n index, population e, demographic
Uncertainty:				basic qua	ntitative
Site selection: other Geoprecision: accur subw	Year rate to Year ratershed	began: 2 ended: 0	2002 ongoing	Interval: Duration:	daily 0–5 yr
Response to:	Year	s missed: c i	complete, ncremental	Summaries:	yearly
Positive impact? no	Seaso	on:		Funding source:	various: NOAA/CDFG/co mmercial-extractio n
Negative impact? no	Start	: (	Oct	Support:	yr-to-yr
Impact controls? no	End:	Ν	Mar	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Population estimate	s to determi	ine trends over tin	ne.	
Programmatic Goal:	Determine trends in	population	and ESA status.		
<u>Stream name</u>	<u>LLID</u>		<u>Watershe</u>	ed name	<u>HUC</u>
Unknown. Use LLID	124141	0407191	Mad-Red	wood.	10102
Unknown. Use LLID	124104	2407668	Mad-Red	wood.	10102
Unknown. Use LLID	) 124119	1407532	Mad-Red	wood.	10102

Unknown. Use LLID	1241067408012	Mad-Redwood.	10102
Unknown. Use LLID	1241067408013	Mad-Redwood.	10102
Unknown. Use LLID	1241433407186	Mad-Redwood.	10102
Unknown. Use LLID	1241176407779	Mad-Redwood.	10102
Unknown. Use LLID	1241246407233	Mad-Redwood.	10102
Unknown. Use LLID	1241246407489	Mad-Redwood.	10102
Unknown. Use LLID	1241029407863	Mad-Redwood.	10102
Unknown. Use LLID	1241398408058	Mad-Redwood.	10102
Unknown. Use LLID	1241381408050	Mad-Redwood.	10102
Unknown. Use LLID	1241359408039	Mad-Redwood.	10102
Unknown. Use LLID	1241301407488	Mad-Redwood.	10102
Unknown. Use LLID	1241289407456	Mad-Redwood.	10102
Unknown. Use LLID	1240974408015	Mad-Redwood.	10102
Unknown. Use LLID	1240648407427	Mad-Redwood.	10102
Unknown. Use LLID	1240641407322	Mad-Redwood.	10102
Unknown. Use LLID	1240107407367	Mad-Redwood.	10102
Unknown. Use LLID	1240331407318	Mad-Redwood.	10102
Unknown. Use LLID	1241052407257	Mad-Redwood.	10102
Unknown. Use LLID	1240957408018	Mad-Redwood.	10102
Unknown. Use LLID	1239932407391	Mad-Redwood.	10102
Cloney Gulch	1240482407577	Mad-Redwood.	10102
Eureka Slough	1241459408108	Mad-Redwood.	10102
Falls Gulch	1240384407635	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Graham Gulch	1240475407539	Mad-Redwood.	10102
Henderson Gulch	1241322407550	Mad-Redwood.	10102
Horse Gulch	1240492407761	Mad-Redwood.	10102
Little Freshwater Creek	1240624407569	Mad-Redwood.	10102
McCready Gulch	1240638407639	Mad-Redwood.	10102
Ryan Creek	1241135407887	Mad-Redwood.	10102
South Fork Freshwater Creek	1240467407317	Mad-Redwood.	10102

#### Marin Municipal Water District Correspondent: Eric Ettlinger (for Greg Andrews)

onespondent.	Elle Eulinger (10	Oleg Allulews)			
Field techniqu	<u>Juvenile</u> es: n/a	<u>O</u> n/	<b>utmigrants</b> ′a	Adults spawn direct	er count, redd count, observation
Data types:	n/a	n/	a	presence/absence, popu abundance, demograph genetic	
Uncertainty:				qualita	tive
Site selection:	dictated by logistics/circums	Year began: stance	'70's	Interval:	weekly
Geoprecision: <u>Response to:</u>	accurate	Year ended: Years missed:	ongoing complete with gaps, incremental	Duration: Summaries:	20+ yr other

Positive impact?	no		Season:	mid. O Feb.	ct early	Funding	source:	municipal
Negative impact?	yes		Start:	Oct		Support	:	ongoing
Impact controls?	no		End:	Feb		Future in	ntent (yr):	ongoing
Technical Goal:		Monitor popul	lation trends.					
Programmatic Go	oal:	h ob m						
Stream name		L	LID		Watersh	ed name		HUC
Devils Gulch		12	27359380291		Tomales-	Drake Ba	VS.	50005
Lagunitas Creek		12	28246380899	)	Tomales-	Drake Ba	VS.	50005
San Geronimo C	reek	12	27078380050	)	Tomales-	Drake Ba	VS.	50005
San Geronimo Ci	reek	12	27078380050	)	San Pablo	o Bay.	5	50002
Mattole Salmon Correspondent: M	Gro aureer	<b>up</b> 1 Roche						ID# 136
	Ju	venile		<b>Outmigr</b>	ants		Adults	
Field techniques	s: n/a	a	:	n/a			spawner c carcass co	ount, redd count, ount
Data types:	n/a	1		n/a			presence/a index	absence, population
Uncertainty:							qualitative	2
Site selection: 0	dictate ogistic	d by cs/circumstance	Year began:	1981		Interval:	:	weekly
Geoprecision: a	accurat	te to watershed	Year ended:	ongoin	g	Duration	1:	20+ yr
Response to:			Years missed	comple regular	ete,	Summar	ies:	yearly
Positive impact?	no		Season:	-		Funding	source:	various: CDFG/BLM
Negative impact?	yes		Start:	Dec		Support:	1	indefinite
Impact controls?	no		End:	Jan		Future in	ntent (yr):	indefinite
Technical Goal:		Test ecologica temperature an	al hypotheses on a sediment d	on limiting ynamics).	g factors ar	nd effects	of disturba	ance (especially
Programmatic Go	al:	Species status	knowledge.					
<u>Stream name</u> Mattole River		<u>L</u> ] 12	L <b>ID</b> 243528403022	2	<u>Watersho</u> Mattole.	<u>ed name</u>		<u>HUC</u> 10107
Mattole Salmon	Gro	<b>up</b> Roche						ID# 150
conceptinent. M	I.	venile		Outmiard	nte		Adulte	
Field techniques	s: n/a	a		n/a	<u>11115</u>		upstream 1	trap
Data types:	n/a	1		n/a			presence/a abundance	absence, population
Uncertainty:							qualitative	e

Site selection:	dictate logisti	ed by cs/circumstance	Year began: e	1982	Interval:	daily
Geoprecision:	accura	ite to stream	Year ended:	ongoing	Duration:	20+ yr
<u>Response to:</u>			Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no		Season:		Funding source:	various:
Negative impact	? yes		Start:	Nov	Support:	indefinite
Impact controls	? no		End:	Jan	Future intent (yr):	indefinite
Technical Goal:		Test ecologica temperature a	al hypotheses or nd sediment dyr	n limiting factors an namics).	nd effects of disturba	nce (especially
<b>Programmatic Goal:</b> Learn extent of rearing habitat, the limiting factor, based on flow, temp, SCD thresholds (coho salmon). Need for genetic rescue (Chinook salmon). Unique adaptation to 80 deg. F water, needs protection & education for poachers (steelhead).					np, SCD ). Unique ners (steelhead).	
<u>Stream name</u>		$\mathbf{L}$	LID	Watersh	ed name	<u>HUC</u>
Mattole River		12	243528403022	Mattole.		10107

# Mattole Salmon Group Correspondent: Maureen Roche

sitespondent. I	viaureer	ii Roene				
Field technique	es: da	<u>avenile</u> ownstream trap		<u>Outmigrants</u> downstream trap	<u>Adults</u> n/a	
Data types:	po	opulation abund	lance	population abundand	ce n/a	
Uncertainty:	sta	atistical		statistical		
Site selection:	dictate logisti	ed by cs/circumstance	Year began:	1985	Interval:	other
Geoprecision:	accura	te to stream	Year ended:	ongoing	Duration:	11–20 yr
Response to:			Years missed	l: complete, regular	Summaries:	yearly
Positive impact?	no		Season:		Funding source:	various: CDFG/BLM
Negative impact	? yes		Start:	Apr	Support:	indefinite
Impact controls?	no		End:	Jun	Future intent (yr):	indefinite
Technical Goal:Test ecological hypotheses on limiting factors and effects of disturbance (especially temperature and sediment dynamics).Programmatic Goal:Chinook salmon 2x greater than coho salmon; sensitive to limiting factor of quality nursery habitat and quantity of flow.						
<u>Stream name</u>		L	LID	Watersh	ed name	HUC
Mattole River		12	24352840302	2 Mattole.		10107

# Mattole Salmon Group Correspondent: Maureen Roche

orrespondent: Mau	reen Roche				
	<u>Juvenile</u>		<u>Outmigrants</u>	<u>Adults</u>	
Field techniques:	direct observatio	n	direct observation	n/a	
Data types:	presence/absence population index population abund demographic, ge	e, j lance, netic	presence/absence, population index, population abundand demographic, geneti	n/a ce,	
Uncertainty:	statistical	:	statistical		
Site selection: diction	tated by istics/circumstanc	Year began: e	1996	Interval:	other
Geoprecision: acc	urate to stream	Year ended:	ongoing	Duration:	6–10 yr
<b>Response to:</b>		Years missed	complete, regular	Summaries:	yearly
Positive impact? n	10	Season:		Funding source:	various: CDFG/BLM
Negative impact? y	ves	Start:	see notes	Support:	indefinite
Impact controls? n	10	End:		Future intent (yr):	indefinite
Technical Goal:	Test ecologication temperature a	al hypotheses on all hypotheses of a sediment d	on limiting factors a ynamics).	nd effects of disturba	nce (especially
<b>Programmatic Goal:</b>					
Stream name	L	LID	Watersh	ed name	HUC
Mattole River	12	243528403022	Mattole.		10107

# Mattole Salmon Group Correspondent: Maureen Roche

#### ID# 153

onespondent. Mad	neen koene				
F' 114 1 '	<u>Juvenile</u>		<u>Outmigrants</u>	Adults	
Field techniques:	direct observatio	n	direct observation	n/a	
Data types:	presence/absence population index population abund demographic, ge	e, , lance, netic	presence/absence, population index, population abundand demographic, geneti	n/a ce, ic	
Uncertainty:	statistical		statistical		
Site selection: dic	etated by gistics/circumstance	Year began: e	1996	Interval:	yearly
Geoprecision: acc	curate to stream	Year ended:	ongoing	Duration:	6–10 yr
Response to:		Years missed	: complete, regular	Summaries:	yearly
Positive impact?	10	Season:		Funding source:	various: CDFG/BLM
Negative impact?	yes	Start:	Aug	Support:	indefinite
Impact controls?	no	End:	Aug	Future intent (yr):	indefinite
<b>Technical Goal:</b>	Test ecologica	al hypotheses	on limiting factors a	nd effects of disturba	nce (especially

temperature and sediment dynamics).

<b>Programmatic Goal:</b>	Reveals turtles, crayfish, birds as well as annual overview of Mattole.					
Stream name	LLID	Watershed name	<u>HUC</u>			
Mattole River	1243528403022	Mattole.	10107			

#### Mattole Salmon Group Correspondent: Maureen Roche

#### ID# 154

Correspondent. M	aureen Koche				
	<u>Juvenile</u>	<u>C</u>	<u> Dutmigrants</u>	<u>Adults</u>	
Field techniques	: direct observatio	on d	irect observation	n/a	
Data types:	presence/absence population index population abund demographic, ge	e, p , p dance, p netic d	resence/absence, opulation index, opulation abundanc emographic, genetic	n/a c	
Uncertainty:	statistical	S	tatistical		
Site selection:	lictated by ogistics/circumstanc	Year began: e	1996	Interval:	yearly
Geoprecision: a <u>Response to:</u> Positive impact?	accurate to stream	Year ended: Years missed: Season:	and 1999 snapshot	Duration: Summaries: Funding source:	6–10 yr yearly various: CDFG/BLM
Negative impact? Impact controls?	yes no	Start: End:	Aug Aug	Support: Future intent (yr):	indefinite indefinite
Technical Goal:	Test ecologication temperature a	al hypotheses of nd sediment dy	n limiting factors ar namics).	nd effects of disturba	ince (especially
Programmatic Go	oal:				
<u>Stream name</u> Mattole River	<u>L</u> 12	<u>LID</u> 243528403022	<u>Watersh</u> Mattole.	ed name	<u>HUC</u> 10107
NOAA Fish Correspondent: Br	ruce MacFarlane				ID# 138
Field techniques	s: n/a	<u>C</u> 0	<b>Jutmigrants</b> ther	<u>Adults</u> n/a	
Data types:	n/a	d	emographic, genetic	c n/a	
Uncertainty:		S	tatistical		
Site selection: Geoprecision: N Geoprecision: N <u>Response to:</u>	other very precise	Year began: Year ended: Years missed:	1995 ongoing complete, regular	Interval: Duration: Summaries:	biweekly 6–10 yr yearly

NOAA Fish Positive impact? Funding source: yes Season: Negative impact? yes May Support: ongoing Start: 0-5 Impact controls? no End: Jun Future intent (yr): **Technical Goal:** 

Determine interannual variability of juvenile salmon growth, development, and feeding during migration through the estuary and the influences of natural and anthropogenic

Programmatic Goal:	To determine whether passage through the estuary is beneficial or detrimental to juvenile salmon, and what anthropogenic factors may be influencing juvenile statu						
Stream name Not georeferenced	<u>LLID</u> 999999999999999	Watershed name	<u>HUC</u>				

#### Sonoma Co. Water Agency

Correspondent: S	Sean White				
Field technique	<u>Juvenile</u> es: n/a	-	Outmigrants downstream trap	<u>Adults</u> upstream count, re	trap, spawner dd count
Data types:	n/a	]	population index, population abundanc	population ce demogra	on abundance, phic
Uncertainty:		:	statistical	unknowr	1
Site selection:	dictated by logistics/circumstance	factors.	Year began:	1999	Interval: daily
Geoprecision:	accurate to watershed	Year ended:	2003	<b>Duration:</b>	0–5 yr
Response to:		Years missed	complete, regular	Summaries:	yearly
<b>Positive impact?</b>	no	Season:		Funding source:	commercial: utility
Negative impact	no? no	Start:	Aug	Support:	ongoing
Impact controls?	no	End:	Dec	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Obtain baselin	ne data.			
<b>Programmatic</b> G	Goal: Collecting bas	eline data for	Section 7 consultation	on.	
Stream name	L	LID	Watersh	ed name	HUC
Russian River	12	231278384507	Russian.		10110
Russian River	12	31278384507	Bodega E	Bay.	10111

#### Chinook salmon, no specific ESU

#### ID# 92

CDFG					ID# 92
Correspondent:	Melodie Palmer-Zw	rahlen			
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	Adults	
Field techniqu	ies: n/a	n	/a	direct of	observation
Data types:	n/a	n	/a	popula demog	tion abundance, raphic, genetic
Uncertainty:				statistic	cal
Site selection:	dictated by logistics/circumsta	Year began:	1952	Interval:	other
Geoprecision:	accurate to waters	hed Year ended:	ongoing	<b>Duration:</b>	20+ yr
Response to:		Years missed:	complete, incremental	Summaries:	yearly

#### Chinook salmon, no specific ESU

Negative impact? yes	Start:	Apr	Support:	ongoing	
Impact controls? yes	End:	Nov	Future intent (yr):	ongoing	
<b>Technical Goal:</b> Estimate population structure and abundance; estimate catch per effort (CPUE).					
Programmatic Goal:	Regulatory compliance and managing populations and fisheries. Tribes, CDFG Region 1, CDF, USFWS form the Klamath River Tech advisory team.				
Stream name	LLID		Watershed name	<u>HUC</u>	
Not georeferenced	999999999999999				

Campbell/Hawthorne	e Timber Co.			ID# 108
Positive impact? yes Adults CDFC	Ignt J <b>uvenile</b> G SFRA	Season:	<u>Outmigrants</u>	Funding source:
Field techniques: elec	ctrofishing	electrofishing	spawner c	ount
Data types: pop den	oulation index, nographic, genetic	population index	presence/a	absence
Uncertainty: qua	litative	qualitative	unknown	
Site selection: unknow	m Year began:	1993	Interval:	yearly
Geoprecision: accurate	e Year ended:	ongoing	Duration:	11–20 yr
<u>Response to:</u>	Years missee	I: complete, incremental	Summaries:	yearly
Positive impact? no	Season:		Funding source:	commercial: extraction
Negative impact? yes	Start:	Sept	Support:	ongoing
Impact controls? no	End:	Nov	Future intent (yr):	ongoing
Technical Goal:	Determine trends in salmon long period of time.	nid densities - relative	e abundance on an an	nual basis over
Programmatic Goal:	Determine health of popula	ations.		
Stream name	LLID	<u>Watersh</u>	ed name	HUC
Anderson Creek	123898239946	5 South Fo	rk Eel.	10106
Anderson Creek	123898239946	5 Big-Nava	arro-Garcia.	10108
Dutch Charlie Creek	123657639690	4 Big-Nava	arro-Garcia.	10108
Dutch Charlie Creek	123657639690	4 South Fo	rk Eel.	10106
Indian Creek	123804239976	8 Mattole.		10107
Indian Creek	123804239976	8 Big-Nava	arro-Garcia.	10108
Indian Creek	123804239976	8 South Fo	rk Eel.	10106
Wildcat Creek	123759439912	7 Big-Nava	arro-Garcia.	10108
Wildcat Creek	123759439912	7 South Fo	rk Eel.	10106

# Campbell/Hawthorne Timber Co.

**Impact controls?** 

**Technical Goal:** 

no

End:

Oct

Future intent (yr):

indefinite

Correspondent: David Wright				
Juvenile	<u>0</u>	<u>utmigrants</u>	Adults	
Field techniques: n/a	n/	n/a		trap
<b>Data types:</b> n/a	n/	/a	presence/absence	
Uncertainty:			basic qua	ntitative
Site selection: unknown	Year began:	1993	Interval:	yearly
Geoprecision: accurate to strea	m Year ended:	ongoing	Duration:	11–20 yr
Response to:	Years missed:	complete,	Summaries:	yearly
		incremental		
Positive impact? no	Season:		Funding source:	commercial: extraction
Negative impact? yes	Start:	Dec	Support:	ongoing
Impact controls? no	End:	Apr	Future intent (yr):	ongoing
Technical Goal: Determining	ne trends in salmonid	l densities - relative	e abundance on an a	nnual basis over
Brogrommatic Cool Determi	na haalth af nanulatic	200		
Stucen neme		JIIS.		
<u>Stream name</u>	<u>LLID</u> 1228082200465	<u>vvatersi</u> Dia Nau	<u>leu name</u>	<u>nuc</u>
Anderson Creek	1238982399465	Big-Nav South Es	arro-Garcia.	10108
Anderson Creek	1238982399403	South FC	ork Eel.	10100
Dutch Charlie Creek	12303/0390904	Big-Nav South Ec	arro-Garcia.	10108
Indian Crash	12303/0390904	South Fo	ork ECI.	10100
Indian Creek	1238042399708	South FC	ork eel.	10100
Indian Creek	1238042399708	Dia Nati	omo Consia	10107
Wildoot Crools	1236042399708	Dig-Inav	allo-Galcia.	10108
Wildest Creek	123/39439912/	Dia Nav	ork Eel.	10100
wildcat Creek	123/39439912/	Big-Nav	arro-Garcia.	10108
CDFG				ID# 2
Correspondent: Doug Albin				
Field techniques: <u>Juvenile</u> direct obser electrofishi	rvation, n/ ng	outmigrants /a	<u>Adults</u> n/a	
Data types: presence/ab	osence n/	/a	n/a	
Uncertainty: qualitative				
<b>Site selection:</b> qualitative selec	tion Vear began.	1999	Interval:	vearly
<b>Geoprecision:</b> accurate to wate	ershed Year ended:	ongoing	Duration:	0-5  vr
Response to:	Years missed:	rotating, opportunistic	Summaries:	other
<b>Positive impact?</b> no	Season:	July to October	Funding source:	state bond funds
Negative impact? no	Start:	Jul	Support:	yr-to-yr

Programmatic Goal: Habitat resto presence/abs	ration prescriptic	ons & correlation	n of habitat conditions	with species
Stream nameINot georeferenced9	. <u>LID</u> 19999999999999999	<u>Water</u>	rshed name	HUC
CDFG				ID# 183
Correspondent: Wilbur Cartwright				
Juvenile	<u>0</u>	utmigrants	Adults	
Field techniques: n/a	n/	a	upstream	trap
Data types: n/a	n/	a	population	n abundance, genetic
Uncertainty:	u	nknown	unknown	
Site selection: dictated by logistics/circumstand	Year began:	1971	Interval:	daily
Geoprecision: precise	Year ended:	ongoing	<b>Duration:</b>	20+ yr
Response to:	Years missed:	unknown	Summaries:	yearly
Positive impact? no	Season:		Funding source:	CDFG/hatchery (assume)
Negative impact? no	Start:	Nov	Support:	ongoing (assume)
Impact controls? no	End:	Apr	Future intent (yr):	ongoing
Technical Goal:				
March-May. lbs for releas (natural) fem	Current product e March-May. <i>A</i> ale and 45 unma	tion goal for stee Also to obtain ap rked male steell	elhead: 250,000 yearlin pprox. 60,000 eggs from head.	gs raised to 4-8 1 30 unmarked
<u>Stream name</u> <u>I</u> Mad Diver	<u>LID</u> 241266400562	<u>Water</u> Mad I	rsned name	<u>HUC</u> 10102
	241200409302	Iviau-r	Xeuwoou.	10102
CDFG				ID# 215
Correspondent: Larry Preston	-			
<b>Juvenile</b>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques: n/a	n/	a	other	1
<b>Data types:</b> n/a	n/	a	presence/a	absence
Uncertainty:				
Site selection: qualitative selection	Year began:	2000	Interval:	daily
Geoprecision: accurate to subwatershed	Year ended:	2003	Duration:	0–5 yr
<u>Response to:</u>	Years missed:	complete, regular	Summaries:	one-time
Positive impact? no	Season:		Funding source:	various:CDFG SFRA/FRGP
Negative impact? no	Start:	May	Support:	2004
Impact controls? no	End:	Oct	Future intent (yr):	0–5

Technical Goal:			
Programmatic Goal:			
<u>Stream name</u>	LLID	Watershed name	HUC
Unknown. Use LLID	1240367410284	Mad-Redwood.	10102
Unknown. Use LLID	1240116410305	Mad-Redwood.	10102
Unknown. Use LLID	1239829410348	Mad-Redwood.	10102
Unknown. Use LLID	1239677410532	Mad-Redwood.	10102
Unknown. Use LLID	1239543410395	Mad-Redwood.	10102
Unknown. Use LLID	1239677410533	Mad-Redwood.	10102
Bulwinkle Creek	1240899410106	Mad-Redwood.	10102
Eighteenmile Creek	1239208418458	Smith.	10101
Freeman Creek	1240539410224	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Griffin Creek	1237628419202	Smith.	10101
Hardscrabble Creek	1240250418387	Smith.	10101
Hutsinpillar Creek	1241317418786	Smith.	10101
Idlewild Creek	1237703418976	Smith.	10101
Kelly Creek	1238554418635	Smith. 10101	
Knopti Creek	1237366419316	Smith.	10101
Little Jones Creek	1238320418677	Smith.	10101
Little Mill Creek	1241231418733	Smith.	10101
Lower South Fork Little River	1240177410288	Mad-Redwood.	10102
Mattole River	1243528403022	Mattole.	10107
Mill Creek	1241479410616	Mad-Redwood.	10102
Mill Creek	1240825417920	Smith.	10101
Monkey Creek	1238189418830	Smith.	10101
Morrison Creek	1241566419048	Smith.	10101
Myrtle Creek	1240535418010	Smith.	10101
North Fork Smith River	1239681418479	Smith.	10101
Packsaddle Creek	1237664419111	Smith.	10101
Patrick Creek	1238422418744	Smith.	10101
Railroad Creek	1240490410281	Mad-Redwood.	10102
Rock Creek	1240805418093	Smith.	10101
Rowdy Creek	1241650419119	Smith.	10101
Siskiyou Fork	1238096418841	Smith.	10101
South Fork Little River	1240612410123	Mad-Redwood.	10102
South Fork Smith River	1240565417956	Smith.	10101
Upper South Fork Little River	1239946410269	Mad-Redwood.	10102

## CDFG

CDFG			ID# 251
Correspondent: Larr	y Preston		
Field techniques:	Juvenile direct observation, electrofishing	<u>Outmigrants</u> n/a	<u>Adults</u> other
Data types:	presence/absence	n/a	presence/absence
Uncertainty:	none		

Site selection: qualitative s <u>Response to:</u> Positive impact? no various:CDFG	election Year began: Year ended: Years missed:	2000 2003 snapshot	Interval: Duration: Summaries: Season:	once 0–5 yr one-time <b>Funding source</b> :
Negative impact? no Impact controls? no Technical Goal:	Start: End:	May Oct	Support: Future intent (yr):	SFRA/FRGP 2004 0–5
Programmatic Goal:RespStream nameNot georeferenced	ond to California ESA an LLID 99999999999999999	nd develop recover <u>Watersh</u>	ry parameters. I <mark>ed name</mark>	<u>HUC</u>

#### CDFG

ID# 247

statistical

\_\_\_\_

Correspondent: C	Gary Ramsden				
	<u>Juvenile</u>	<u>0</u>	utmigrants	<u>Adults</u>	
Field technique	es: n/a	n/	′a	upstream t	rap
Data types:	n/a	n/	′a	population	index, genetic
Uncertainty:				statistical	
Site selection:	dictated by logistics/circumstand	Year began:	1963	Interval:	daily
Geoprecision:	accurate	Year ended:	ongoing	Duration:	20+ yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
<b>Positive impact?</b>	no	Season:		Funding source:	CDFG (assume)
Negative impact?	no? no	Start:	Sept	Support:	ongoing (assume)
Impact controls?	no	End:	Mar	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic G	oal: Hatchery-ope River Projec	erated as comper t.	sation for spawnin	g and rearing areas lo	ost to the Trinity
<u>Stream name</u>	Ī	<u>LID</u>	Watersh	ed name	HUC
Trinity River	1	237076411855	Trinity.		10211
<b>CDFG</b> Correspondent: W	Vade Sinnen				ID# 257
e en espenaent.	Juvenile	0	utmigrants	Adults	
Field technique	es: $n/a$	<u>n</u> /	a a	upstream t	rap
Data types:	n/a	n/	/a	population demograpl	abundance,

#### Uncertainty:

Site selection:	dictated by	Year began:	1997	Interval:	other
	logistics/circumstance	e			

		Year ended:	ongoing	Duration:	6–10 yr
Response to:		Years missee	d: complete with gaps regular	Summaries:	other
<b>Positive impact?</b> no	0		8.F., 8	Season:	Funding source:
Negative impact? n Impact controls? n Technical Goal:	0 0	Start: End:	May Dec	Support: Future intent (yr):	Reclamation yr-to-yr indefinite
Programmatic Goal:	Multiple obie	ectives			
Stream name Geoprecision: Trin	nity River a	<u>LID</u> ccurate to	<u>Watersh</u> 12370764	<u>ed name</u> 411855	HUC Trinity. 10211
CDFC	watershed				ID# 05
Correspondent: Mich	ael D. Sparkman				ID# 95
Field techniques:	Juvenile n/a		Outmigrants downstream trap	<u>Adults</u> n/a	
Data types:	n/a		presence/absence, population abundanc demographic	n/a	
Uncertainty:			statistical		
Site selection: othe Geoprecision: very <u>Response to:</u>	er y precise	Year began: Year ended: Years missec	2000 2003 d: complete, regular	Interval: Duration: Summaries:	daily 0–5 yr yearly
<b>Positive impact?</b> n	0	Season:		Funding source:	various: CDFG/private
Negative impact? n Impact controls? n Technical Goal:	o o Hypothesis, e	Start: End: estimates.	Mar Aug	Support: Future intent (yr):	2010+ 6–10
Programmatic Goal:	Evaluation.				
<u>Stream name</u> Redwood Creek	<u>I</u> 1	. <u>LID</u> 24090541292	4 <u>Watersho</u> 4 Mad-Red	<u>ed name</u> wood.	HUC 10102
CDFG	aal Wallaca				ID# 239
Field techniques:	Juvenile downstream trap observation, sein	o, direct ning	Outmigrants downstream trap, dir observation, seining	ect n/a	
Data types:	presence/absenc population index demographic	e, x,	presence/absence, population index, demographic	n/a	
Uncertainty:	unknown		unknown		

Site selection:	dictated by logistics/circumstanc	Year began: e	1997	Interval:	weekly
Geoprecision:	accurate	Year ended:	1999	Duration:	6–10 yr
<b>Response to:</b>		Years missed:	snapshot	Summaries:	seasonally
Positive impact?	no	Season:		Funding source:	FRGP
Negative impact	? no	Start:	Mar	Support:	ongoing
Impact controls	? no	End:	Sept	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic (	Goal: Determine cri patterns on a	tical mainstem i basin-wide level	river rearing areas t l.	for juvenile salmonid	s and emigration

<u>Stream name</u>	<u>LLID</u>	Watershed name	HUC
Unknown. Use LLID	1240749415436	Lower Klamath.	10209
Klamath River	1240807415471	Lower Klamath.	10209
Klamath River	1240807415471	Upper Klamath.	10206

#### **CDFG**

ID# 241

ID# 259

Correspondent: Micha	el Wallace				
Field techniques:	<u>Juvenile</u> electrofishing, se	ining o	<u>Outmigrants</u> electrofishing, seining	g <u>Adults</u> n/a	
Data types:	population index, demographic	, ] (	population index, demographic	n/a	
Uncertainty:	unknown	1	unknown		
Site selection: dicta logis	ted by tics/circumstance	Year began:	1993	Interval:	weekly
Geoprecision: accu <u>Response to:</u>	rate	Year ended: Years missed:	ongoing complete with gaps, regular	Duration: Summaries:	6–10 yr seasonally
Positive impact? no Negative impact? no		Season: Start:	Mar	Funding source: Support:	CDFG SFRA ongoing
Impact controls? no Technical Goal:	Determine crit patterns on a b	End: tical mainstem pasin-wide lev	Sept rearing areas for juv el.	Future intent (yr): renile salmonids and	emigration
Programmatic Goal:	Determine anr Klamath Basir Klamath Basir	nual proportion n. Monitor tin n.	ns of natural vs. hatch ning and patterns of j	nery juveniles emigra uvenile salmonids le	ating from aving the
<u>Stream name</u> Unknown. Use LLIE Klamath River Klamath River	) 12 12 12 12	LID 240749415436 240807415471 240807415471	<b>Watershe</b> Lower Kla Lower Kla Upper Kla	d name <u>d</u> amath. amath. amath.	<u>HUC</u> 10209 10209 10206

#### **CDFG S-RAMP**

Correspondent: Bill	Chesney		
	<u>Juvenile</u>	<u>Outmigrants</u>	Adults
Field techniques:	downstream trap, direct	downstream trap, direct	n/a
	observation	observation	

Data types:	presence/abser population inc population abu demographic,	nce, lex, undance, genetic	presence/abs population a demographic	ence, n/a bundance, e, genetic	
Uncertainty:					
Site selection: Geoprecision: <u>Response to:</u>	unknown precise	Year began: Year ended: Years missed	2000 2002 complete increment	Interval: Duration: Summaries: tal	daily 0–5 yr weekly
Positive impact? Negative impact? Impact controls? Technical Goal:	no no no	Season: Start: End:	Feb Jul	Funding source: Support: Future intent (yr):	unknown unknown unknown
Programmatic G	oal:				
<u>Stream name</u> Scott River		LLID 1230355417791	1 S	Vatershed name cott.	HUC 10208
<b>CDFG S-RAM</b>	<b>P</b> atrick Garrison				ID# 51
Field technique	<u>Juvenile</u> s: n/a		<u>Outmigrant</u> n/a	<u>Adults</u> direct obs	servation
Data types:	n/a		n/a	presence/sindex, der	absence, population mographic
Uncertainty:				qualitativ	e
Site selection:	other - historic comparison	Year began:	2000	Interval:	yearly
Geoprecision: <u>Response to:</u>	accurate	Year ended: Years missed	ongoing complete, regular	Duration: Summaries:	0–5 yr yearly
Positive impact? Negative impact? Impact controls? Technical Goal:	no no no Compariso	Season: Start: End: n to historic data	Aug Sept	Funding source: Support: Future intent (yr):	CDFG yr-to-yr ongoing
Programmatic G	oal: Population	index.			
<u>Stream name</u> East Fork South River	Fork Trinity	LLID 1231253402458	8 <u>V</u> 8 S	<u>Vatershed name</u> outh Fork Trinity.	HUC 10212
Hayfork Creek South Fork Trini	ty River	1234499406139 1236013408901	9 S 1 S	outh Fork Trinity. outh Fork Trinity.	10212 10212

#### **CDFG S-RAMP**

Correspondent: Se	th Ricker				
	Juvenile	<u> </u>	<u>Outmigrants</u>	<u>Adults</u>	
Field techniques	: downstream trap	(	lownstream trap	n/a	
Data types:	population abund demographic, get	lance, j netic o	population abundance demographic, genetic	e, n/a	
Uncertainty:	unknown	ι	unknown		
Site selection: u	inknown	Year began:	see note	Interval:	daily
Geoprecision: a	iccurate to stream	Year ended:	see notes	Duration:	0–5 yr
<u>Response to:</u>	**	Years missed:	snapsnot	Summaries:	One-time
Positive impact?	no	Season: Stort:	Mor	Funding source:	unknown
Impact controls?	110 no	Start. End:	Iviai	Support: Future intent (vr).	unknown
Taghnical Coale	110	Enu.	Juli	Future meent (91).	unknown
Programmatic Go	<ul><li>al: 1) Determine from basin.</li><li>2) Determine salmonids into assumptions a</li></ul>	yield of coho a timing of outm that produced ssociated with	and Chinook salmon nigration of salmonid l by tribs vs. mainste mark-recapture juye	smolts and steelhead s. 3) Partition the bar m areas. 4) Investig nile salmonids out-r	l parrs and smolts asin yield of gate nigrant models
<u>Stream name</u> Not georeference	d 99	<u>LID</u> 9999999999999999	<u>Watershe</u>	ed name	<u>HUC</u>
CDFG S-RAME Correspondent: Ki	mball Rushton				ID# 249
	<u>Juvenile</u>	<u>(</u>	<u>Outmigrants</u>	<u>Adults</u>	_
Field techniques	: n/a	(	other	upstream t	rap, other
Data types:	n/a	(	demographic, genetic	population	abundance, genetic
Uncertainty:		l	unknown	unknown	
Site selection: c	lictated by ogistics/circumstance	Year began: e	1966	Interval:	unknown
Geoprecision: v	very precise	Year ended:	ongoing	Duration:	20+ yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: Pac. Power & Light/hatchery/CD FG (assume)
					• ( )
Negative impact?	no	Start:	Feb	Support:	ongoing (assume)
Negative impact? Impact controls?	no no	Start: End:	Feb Mar	Support: Future intent (yr):	ongoing (assume) ongoing
Negative impact? Impact controls? Technical Goal:	no no Determine rela	Start: End: ationship betw	Feb Mar een hatchery and nat	Support: Future intent (yr): ural populations in t	ongoing (assume) ongoing he basin.
Negative impact? Impact controls? Technical Goal: Programmatic Go	no Determine rel al: In response to constructed by areas blocked	Start: End: ationship betw NMFS ('97), 1 y Pacific Powe	Feb Mar een hatchery and nat uncertainty as to Iron r and Light Co. to co the Project	Support: Future intent (yr): ural populations in t Gate Stock ESU sta mpensate for spawn	ongoing (assume) ongoing he basin. atus. Hatchery ing and nursery

			water	sneu name	HUC
Klamath River	12	240807415471	Upper	Klamath.	10206
Klamath River	12	240807415471	Lower	Klamath.	10209
<b>Eel River Salmon</b> Correspondent: Harry	<b>Restoration P</b>	roject	Outmigrants	Adults	ID# 129
Field techniques:	<u>n/a</u>	<u>-</u>	downstream trap	<u>Aduits</u> n/a	
Data types:	n/a	ſ	population index	genetic n/a	
Uncertainty.		1	nualitative	Berrette II.a	
encertainty.		·	quuntuitte		
Site selection: qual	litative selection	Year began:	1999	Interval:	daily
Geoprecision: very	precise	Year ended:	ongoing	Duration:	0–5 yr
Response to:	1	Years missed:	complete, regular	Summaries:	yearly
Positive impact? ye	es	Season:		Funding source:	CDFG SFRA
Negative impact? no	3	Start:	Mar	Support:	2004
Impact controls? no	)	End:	Jun	Future intent (yr):	6–10
<b>Technical Goal:</b>	1) Develop ne	w trap models	; 2) trend analysis	s; 3) implement protoco	ol.
<b>Programmatic Goal:</b>	Long term to a	monitor popula	ation trends.		
<u>Stream name</u>	$\underline{\mathbf{L}}$	LID	<u>Water</u>	shed name	<u>HUC</u>
Sprout Creek	12	238264400697	South	Fork Eel.	10106
West Fork Sproul Cr	reek 12	238657400410	South	Fork Eel.	10106
Institute for Forest Correspondent: Dave	<b>t and Watersh</b> Hankin	ied Manage	ement/HSU	Adulte	ID# 40
	<u>Juvenile</u>	<u>'</u>	<u>Outmigrants</u>	Adults	
Field techniques:	Juvenile direct observation	n 1	<u>Dutmigrants</u> n/a	n/a	
Field techniques: Data types:	Juvenile direct observation presence/absence	n 1	n/a n/a	n/a n/a	
Field techniques: Data types: Uncertainty:	Juvenile direct observation presence/absence statistical	n 1	<u>Outmigrants</u> n/a n/a	n/a n/a	
Field techniques: Data types: Uncertainty: Site selection: othe	Juvenile direct observation presence/absence statistical	n i ? i Year began:	<u>Outmigrants</u> n/a n/a 2003	n/a n/a Interval:	irregular
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu	Juvenile direct observation presence/absence statistical	n 1 ? 1 Year began: Year ended:	<u>Outmigrants</u> n/a n/a 2003 2003	n/a n/a Interval: Duration:	irregular 0–5 yr
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu <u>Response to:</u>	Juvenile direct observation presence/absence statistical er irate to stream	n Year began: Year ended: Years missed:	n/a n/a 2003 2003 : snapshot	n/a n/a Interval: Duration: Summaries:	irregular 0–5 yr one-time
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu <u>Response to:</u> Positive impact? no	Juvenile direct observation presence/absence statistical T irrate to stream	n Year began: Year ended: Years missed: Season:	Dutmigrants n/a 2003 2003 : snapshot	n/a n/a Interval: Duration: Summaries: Funding source:	irregular 0–5 yr one-time FRGP
Field techniques:Data types:Uncertainty:Site selection:otheGeoprecision:accuResponse to:Positive impact?noNegative impact?no	Juvenile direct observation presence/absence statistical er irate to stream	n Year began: Year ended: Years missed: Season: Start:	Dutmigrants n/a 2003 2003 s snapshot Jun	n/a n/a Interval: Duration: Summaries: Funding source: Support:	irregular 0–5 yr one-time FRGP single sampling event
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu <u>Response to:</u> Positive impact? no Negative impact? no Impact controls? no	Juvenile direct observation presence/absence statistical er irate to stream	n 1 Year began: Year ended: Years missed: Season: Start: End:	n/a n/a 2003 2003 s snapshot Jun Aug	n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	irregular 0–5 yr one-time FRGP single sampling event ended
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu <u>Response to:</u> Positive impact? no Negative impact? no Impact controls? no Technical Goal:	Juvenile direct observation presence/absence statistical er irate to stream ) ) Develop list o streams. For s presence/abse	Year began: Year ended: Years missed: Season: Start: End: f habitat unit s subsequent mo nce protocol.	Dutmigrants n/a n/a 2003 2003 si snapshot Jun Aug sizes, locations an odeling work and	n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): d fish abundance in all statistical analysis relat	irregular 0–5 yr one-time FRGP single sampling event ended units w/in these ting to the
Field techniques: Data types: Uncertainty: Site selection: othe Geoprecision: accu <u>Response to:</u> Positive impact? no Negative impact? no Impact controls? no Technical Goal:	Juvenile direct observation presence/absence statistical er irate to stream D D Develop list o streams. For s presence/abse	Year began: Year ended: Year ended: Years missed: Season: Start: End: f habitat unit s subsequent monce protocol.	Dutmigrants n/a n/a 2003 2003 : snapshot Jun Aug sizes, locations an odeling work and	n/a n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): d fish abundance in all statistical analysis relat	irregular 0–5 yr one-time FRGP single sampling event ended units w/in these ting to the

Coho salmon, Southern Oregon/Northern California Coastal E	SU
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Ah Pah Creek		1239496414	121	Lower Kla	imath.	10209
Ah Pah Creek		1239496414	121	Mad-Redv	vood.	10102
McGarvey Cree	k	1239996415	102	Lower Kla	umath.	10209
Institute for Fo	orest and	d Watershed Man	agement/	HSU		ID# 72
Correspondent: I	Dana McO	Canne	8			
	Juve	enile	<u>Outmig</u>	<u>rants</u>	<u>Adults</u>	
Field technique	es: direct	et observation, rofishing	n/a		n/a	
Data types:	popu gene	llation abundance, tic	n/a		n/a	
Uncertainty:	statis	stical				
Site selection.	dictated 1	Voor bogs			Intomali	voorly
Site selection.	logistics/	circumstance	<b>III.</b> 2002		inter val.	yearry
Geoprecision:	accurate	to Year ende	d: ongoi	ng	Duration:	0–5 yr
-	subwater	shed	-	-		
<u>Response to:</u>		Years mis	sed: comp increr	lete, nental	Summaries:	yearly
Positive impact?	no	Season:			Funding source:	various: NOAA/CDFG/co mmercial-extractio
Negative impact	<b>?</b> no	Start	Δ11σ		Sunnort.	wr-to-wr
Impact controls?	2 no	Start. Fnd:	Sent		Support. Future intent (vr)•	ongoing
Tashnisal Coale	D	opulation estimates to	lotormino tr	ands over tim	ruture intent (yr).	ongoing
Duognommotio (	laala D	opulation estimates to o	ulation and		ic.	
Frogrammatic G	ioal: D			LSA status.	J	шис
<u>Stream name</u>		<u>LLID</u> 1240649407	107	Watersne Mad Dadu	<u>a name</u>	<u>HUC</u> 10102
Unknown. Use		1240048407	427	Mad-Redv	vood.	10102
Unknown. Use		1241246407	489	Mad-Redv	vood.	10102
Unknown. Use	LLID	124119140/	532	Mad-Redv	vood.	10102
Unknown. Use	LLID	12411/640/	779	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241067408	013	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241067408	012	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241052407	257	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241301407	488	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241042407	668	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241029407	863	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241359408	039	Mad-Redv	vood.	10102
Unknown. Use	LLID	1240957408	018	Mad-Redv	vood.	10102
Unknown. Use	LLID	1241289407	456	Mad-Redv	vood.	10102
Unknown. Use	LLID	1240641407	322	Mad-Redv	vood.	10102
Unknown. Use	LLID	1240331407	318	Mad-Redv	vood.	10102
Unknown. Use	LLID	1240107407	367	Mad-Redv	vood.	10102
Unknown. Use	LLID	1239932407	391	Mad-Redv	vood.	10102
Unknown. Use	LLID	1240974408	015	Mad-Redv	vood.	10102

Unknown Use LLID	1241398408058	Mad-Redwood	10102
Unknown Use LLID	12/12/10/07/01	Mad Redwood	10102
UIKIIOWII. USE LLID	1241410407191	Mau-Redwood.	10102
Unknown. Use LLID	1241433407186	Mad-Redwood.	10102
Unknown. Use LLID	1241246407233	Mad-Redwood.	10102
Unknown. Use LLID	1241381408050	Mad-Redwood.	10102
Cloney Gulch	1240482407577	Mad-Redwood.	10102
Eureka Slough	1241459408108	Mad-Redwood.	10102
Falls Gulch	1240384407635	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Graham Gulch	1240475407539	Mad-Redwood.	10102
Henderson Gulch	1241322407550	Mad-Redwood.	10102
Horse Gulch	1240492407761	Mad-Redwood.	10102
Little Freshwater Creek	1240624407569	Mad-Redwood.	10102
McCready Gulch	1240638407639	Mad-Redwood.	10102
Ryan Creek	1241135407887	Mad-Redwood.	10102
South Fork Freshwater Creek	1240467407317	Mad-Redwood.	10102

#### Institute for Forest and Watershed Management/HSU Correspondent: Dana McCanne

J Field techniques: n	<u>uvenile</u> /a	Outmigrants direct observation, electrofishing	<u>Adults</u> n/a	
Data types: n.	/a	population abundance genetic	ce, n/a	
Uncertainty:		statistical		
Site selection: other Geoprecision: accura subwa	Year began ate to Year ended atershed	: 2002 : ongoing	Interval: Duration:	daily 0–5 yr
<b>Response to:</b>	Years misse	ed: complete, incremental	Summaries:	yearly
Positive impact? no	Season:		Funding source:	various: NOAA/CDFG/co mmercial-extractio n
Negative impact? no	Start:	Mar	Support:	yr-to-yr
Impact controls? no	End:	Jun	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Population estimates to de	etermine trends over til	me.	
Programmatic Goal:	Determine trends in popul	ation and ESA status.		
Stream name	LLID	Watersh	ed name	<u>HUC</u>
Unknown. Use LLID	12413014074	88 Mad-Red	lwood.	10102
Unknown. Use LLID	12411764077	79 Mad-Red	lwood.	10102
Unknown. Use LLID	12411914075	32 Mad-Rec	lwood.	10102
Unknown. Use LLID	12412464072	33 Mad-Rec	lwood.	10102
Unknown. Use LLID	12412894074	56 Mad-Rec	lwood.	10102
Unknown. Use LLID	12410524072	57 Mad-Rec	lwood.	10102

Unknown. Use LLID	1241359408039	Mad-Redwood.	10102
Unknown. Use LLID	1241398408058	Mad-Redwood.	10102
Unknown. Use LLID	1241410407191	Mad-Redwood.	10102
Unknown. Use LLID	1241381408050	Mad-Redwood.	10102
Unknown. Use LLID	1241246407489	Mad-Redwood.	10102
Unknown. Use LLID	1241067408012	Mad-Redwood.	10102
Unknown. Use LLID	1241042407668	Mad-Redwood.	10102
Unknown. Use LLID	1241029407863	Mad-Redwood.	10102
Unknown. Use LLID	1240974408015	Mad-Redwood.	10102
Unknown. Use LLID	1240957408018	Mad-Redwood.	10102
Unknown. Use LLID	1240648407427	Mad-Redwood.	10102
Unknown. Use LLID	1240641407322	Mad-Redwood.	10102
Unknown. Use LLID	1240331407318	Mad-Redwood.	10102
Unknown. Use LLID	1240107407367	Mad-Redwood.	10102
Unknown. Use LLID	1239932407391	Mad-Redwood.	10102
Unknown. Use LLID	1241433407186	Mad-Redwood.	10102
Unknown. Use LLID	1241067408013	Mad-Redwood.	10102
Cloney Gulch	1240482407577	Mad-Redwood.	10102
Eureka Slough	1241459408108	Mad-Redwood.	10102
Falls Gulch	1240384407635	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Graham Gulch	1240475407539	Mad-Redwood.	10102
Henderson Gulch	1241322407550	Mad-Redwood.	10102
Horse Gulch	1240492407761	Mad-Redwood.	10102
Little Freshwater Creek	1240624407569	Mad-Redwood.	10102
McCready Gulch	1240638407639	Mad-Redwood.	10102
Ryan Creek	1241135407887	Mad-Redwood.	10102
South Fork Freshwater Creek	1240467407317	Mad-Redwood.	10102

#### Institute for Forest and Watershed Management/HSU Correspondent: Dana McCanne

orrespondent: Dar	na McCanne				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques:	n/a	n	/a	upstream	trap
Data types:	n/a	n/	n/a		n abundance, bhic, genetic
Uncertainty:				basic qua	ntitative
Site selection: ot Geoprecision: ac	her courate to	Year began: Year ended:	2002 ongoing	Interval: Duration:	daily 0–5 yr
su <u>Response to:</u>	lowatersned	Years missed:	complete, incremental	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: NOAA/CDFG/co mmercial-extractio n
Negative impact?	no	Start:	Oct	Support:	yr-to-yr

Impact controls? no	End:	Mar	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Population estimates to deter	rmine trends ov	ver time.	
Programmatic Goal:	Determine trends in populat	ion and ESA st	atus.	
Stream name	LLID	Wat	tershed name	HUC
Unknown. Use LLID	1241029407863	Mac	l-Redwood.	10102
Unknown. Use LLID	1240648407427	Mac	l-Redwood.	10102
Unknown. Use LLID	1240331407318	Mac	l-Redwood.	10102
Unknown. Use LLID	1240107407367	Mac	l-Redwood.	10102
Unknown. Use LLID	1239932407391	Mac	l-Redwood.	10102
Unknown. Use LLID	1240957408018	Mac	l-Redwood.	10102
Unknown. Use LLID	1241246407233	Mac	l-Redwood.	10102
Unknown. Use LLID	1241433407186	Mac	l-Redwood.	10102
Unknown. Use LLID	1241410407191	Mac	l-Redwood.	10102
Unknown. Use LLID	1241398408058	Mac	l-Redwood.	10102
Unknown. Use LLID	1241381408050	Mac	l-Redwood.	10102
Unknown. Use LLID	1241359408039	Mac	l-Redwood.	10102
Unknown. Use LLID	1241301407488	Mac	l-Redwood.	10102
Unknown. Use LLID	1240974408015	Mac	l-Redwood.	10102
Unknown. Use LLID	1241246407489	Mac	l-Redwood.	10102
Unknown. Use LLID	1240641407322	Mac	l-Redwood.	10102
Unknown. Use LLID	1241191407532	Mac	l-Redwood.	10102
Unknown. Use LLID	1241176407779	Mac	l-Redwood.	10102
Unknown. Use LLID	1241067408013	Mac	l-Redwood.	10102
Unknown. Use LLID	1241067408012	Mac	l-Redwood.	10102
Unknown. Use LLID	1241052407257	Mac	l-Redwood.	10102
Unknown. Use LLID	1241042407668	Mac	l-Redwood.	10102
Unknown. Use LLID	1241289407456	Mac	l-Redwood.	10102
Cloney Gulch	1240482407577	Mac	l-Redwood.	10102
Eureka Slough	1241459408108	Mac	l-Redwood.	10102
Falls Gulch	1240384407635	Mac	l-Redwood.	10102
Freshwater Creek	1241165408023	Mac	l-Redwood.	10102
Graham Gulch	1240475407539	Mac	l-Redwood.	10102
Henderson Gulch	1241322407550	Mac	l-Redwood.	10102
Horse Gulch	1240492407761	Mac	l-Redwood.	10102
Little Freshwater Creek	x 1240624407569	Mac	l-Redwood.	10102
McCready Gulch	1240638407639	Mac	l-Redwood.	10102
Ryan Creek	1241135407887	Mac	l-Redwood.	10102
South Fork Freshwater	Creek 1240467407317	Mac	l-Redwood.	10102

## Institute for Forest and Watershed Management/HSU

Correspondent: Dana	a McCanne	0	
	<u>Juvenile</u>	<u>Outmigrants</u>	<u>Adults</u>
Field techniques:	direct observation, electrofishing	n/a	n/a
Data types:	population abundance	n/a	n/a

Uncertainty:	statistical				
Site selection: oth	er	Year began:	1999	Interval:	yearly
Geoprecision: acc	urate	Year ended:	2003	<b>Duration:</b>	0–5 yr
<u>Response to:</u>		Years missed	: complete, regular	Summaries:	yearly
Positive impact? n	0	Season:		Funding source:	various: NOAA/CDFG/Co
Negative impact? n Impact controls? n	0 0	Start: End:	Aug Oct	Support: Future intent (yr):	yr-to-yr ongoing
<b>Technical Goal:</b>	Population est	timates and tr	ends over time.		
<b>Programmatic Goal:</b>	Establishing t	rends in popu	lation for deterr	nining ESA status.	
<u>Stream name</u> Hollow Tree Creek	<u>L</u> ] 12	<u>LID</u> 237265398578	8 Sou	<u>tershed name</u> th Fork Eel.	<u>HUC</u> 10106
Mattole Salmon G Correspondent: Mau	Froup reen Roche				ID# 213
Field techniques:	Juvenile direct observation	n	Outmigrants direct observat	ion n/a	
Data types:	presence/absence	2,	presence/absen	ce, n/a	
	population index population abunc demographic, gen	, lance, netic	population inde population abu demographic, g	ex, ndance, genetic	
Uncertainty:	statistical		statistical		
Site selection: dict	ated by istics/circumstance	Year began: e	1996	Interval:	yearly
Geoprecision: acc	urate to stream	Year ended:	and 1999	<b>Duration:</b>	6–10 yr
<u>Response to:</u> Positive impact? n	0	Years missed Season:	: snapshot	Summaries: Funding source:	yearly various: CDFG/BLM
Negative impact? y	es	Start:	Aug	Support:	indefinite
Impact controls? n	0	End:	Aug	Future intent (yr):	indefinite
Technical Goal:	Test ecologica temperature an	al hypotheses nd sediment d	on limiting fact lynamics).	ors and effects of disturb	bance (especially
<b>Programmatic Goal:</b>					
<u>Stream name</u> Mattole River	<u>L1</u> 12	<u>LID</u> 243528403022	2 Mat	<u>tershed name</u> tole.	<u>HUC</u> 10107
Mattole Salmon G Correspondent: Mau	Froup Treen Roche				ID# 221
r	Juvenile		<b>Outmigrants</b>	Adults	
Field techniques:	n/a		n/a	spawner carcass c	count, redd count, ount

Data types:	n/a	n	n/a	presence/a index	absence, population
Uncertainty:				qualitativo	e
Site selection:	dictated by logistics/circums	Year began: tance	1981	Interval:	weekly
Geoprecision: <u>Response to:</u>	accurate to water	shed Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	20+ yr yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM
Negative impact	yes?	Start:	Dec	Support:	indefinite
Impact controls?	no	End:	Jan	Future intent (yr):	indefinite
Technical Goal:	Test ecolo temperatu	ogical hypotheses our re and sediment dy	n limiting factors a namics).	nd effects of disturba	ance (especially
Programmatic G	oal: Species st	tatus knowledge. N	lo coho salmon real	ring since listing.	
<u>Stream name</u>		LLID	Watersh	ed name	HUC
Mattole River		1243528403022	Mattole.		10107
Mattole Salmo Correspondent: M	n Group Maureen Roche	(	Dutmigrants	Adults	ID# 223
Field technique	es: direct observ	vation d	lirect observation	n/a	
Data types:	presence/abs population in population a demographic	ence, p ndex, p bundance, p c, genetic d	presence/absence, population index, population abundand lemographic, geneti	n/a ce, c	
Uncertainty:	statistical	S	tatistical		
Site selection:	dictated by logistics/circums	Year began: tance	1996	Interval:	other
Geoprecision: <u>Response to:</u>	accurate to strear	m Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	6–10 yr yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM
Negative impact Impact controls?	yes no	Start: End:	see notes	Support: Future intent (yr):	indefinite indefinite
Technical Goal:	Test ecolo temperatu	ogical hypotheses o are and sediment dy	n limiting factors a namics).	nd effects of disturba	ance (especially
Programmatic G	oal:				
<u>Stream name</u> Mattole River		<u>LLID</u> 1243528403022	<u>Watersh</u> Mattole.	<u>ed name</u>	<u>HUC</u> 10107

Mattole Salmon	n Gro	up				ID# 231
Correspondent: M	laureer	n Roche		<b>o</b> <i>i</i> <b>i</b> <i>i</i>		
Field technique	<u>Ju</u> s· n/s	<u>ivenile</u>		<u>Outmigrants</u>	Adults upstread	n tran
Data tur as	<b>5.</b> 11/0	a		11/a	upsitea	alahaanaa manulatian
Data types:	n/a	a		n/a	abundar	e/absence, population
Uncertainty:					qualitat	ive
Site selection:	dictate logistic	d by cs/circumstance	Year began:	1982	Interval:	daily
Geoprecision:	accura	te to stream	Year ended:	ongoing	<b>Duration:</b>	20+ yr
<b>Response to:</b>			Years missed	l: complete, regular	Summaries:	yearly
Positive impact?	no		Season:		Funding source:	various: CDFG/BLM
Negative impact?	yes		Start:	Nov	Support:	indefinite
Impact controls?	no		End:	Jan	Future intent (yr)	: indefinite
Technical Goal:		Test ecologica temperature ar	al hypotheses nd sediment d	on limiting facto lynamics).	rs and effects of distu	bance (especially
Programmatic Go	oal:	Learn extent of thresholds (co adaptation to a	of rearing hab ho salmon). 30 deg. F wat	itat, the limiting Need for genetic er, needs protecti	factor, based on flow, rescue (Chinook salm on & education for po	temp, SCD on). Unique achers (steelhead).
<u>Stream name</u>		L	LID	Wate	ershed name	<u>HUC</u>
Mattole River		12	243528403022	2 Matte	ole.	10107
Mattole Salmon Correspondent: M	n Gro Iaureer	<b>up</b> 1 Roche				ID# 233
Field techniques	s: do	wenile wnstream trap		Outmigrants downstream trap	<u>Adults</u> n/a	
Data types:	ро	pulation abund	lance	population abun	dance n/a	
Uncertainty:	sta	atistical		statistical		
Site selection:	dictate logistic	d by cs/circumstance	Year began:	1985	Interval:	other
Geoprecision: <u>Response to:</u>	accura	te to stream	Year ended: Years missed	ongoing I: complete, regular	Duration: Summaries:	11–20 yr yearly
Positive impact?	no		Season:		Funding source:	various: CDFG/BLM
Negative impact?	yes		Start:	Apr	Support:	indefinite
Impact controls?	no		End:	Jun	Future intent (yr)	: indefinite
Technical Goal:		Test ecologica temperature an	al hypotheses	on limiting facto lynamics).	rs and effects of distu	bance (especially
Programmatic Go	oal:	Know where n water and stat salmon; sensit	iparian protection ility values (control in the second sec	ction is lacking a coho salmon). C g factor of qualit	nd educate 88% privat hinook salmon 2x grea y nursery habitat and c	e ownership of ater than coho quantity of flow

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<u>Stream name</u> Mattole River	<u>L</u> 12	<u>LID</u> 243528403022	2 <u>Waters</u> 2 Mattole.	hed name	<u>HUC</u> 10107
Mill Creek Fisher Correspondent: Zac	<b>ries Monitoring</b> k Larson	g Program			ID# 217
Field techniques:	Juvenile downstream trap minnowtrap	,	Outmigrants downstream trap	Ad up: cou cou	l <b>ults</b> stream trap, spawner .nt, redd count, carcass .nt
Data types:	population abund demographic	lance,	population index, demographic	pre abu gen	esence/absence, population undance, demographic, netic
Uncertainty:	statistical		statistical	sta	tistical
Site selection: qu Geoprecision: ac <u>Response to:</u>	alitative selection curate	Year began: Year ended: Years missed	1994 ongoing I: complete, regular	Interval: Duration: Summaries:	daily 6–10 yr yearly
Positive impact? Negative impact? Impact controls? Technical Goal:	yes yes no	Season: Start: End:	Feb Jul	Funding sou Support: Future inten	rce: CDFG SFRA 2005 t (yr): ongoing
Programmatic Goal	Long-term po- listing. Mill C some old grow	pulation trend Creek is consi- wth. Treated a	l monitoring. Monit dered a typical tribu s reference stream.	toring coho sal tary of the Sm	lmon in response to ith - disturbed with
<u>Stream name</u> East Fork Mill Cre West Branch Mill (	ek 12 Creek 12	<u>LID</u> 24098741734: 240987417344	5 Smith. 4 Smith.	<u>hed name</u>	<u>HUC</u> 10101 10101
USFS Correspondent: Jam	es Kilgore				ID# 229
Field techniques:	Juvenile downstream trap observation, elec	, direct trofishing	<u>Outmigrants</u> downstream trap	<u>Ad</u> rec	l <u>ults</u> ld count, carcass count
Data types:	presence/absence population index population abund demographic, get	e, , lance, netic	presence/absence, population index, population abundan demographic, genet	pre ind ice, der ic	esence/absence, population lex, population abundance, mographic, genetic
Uncertainty:	statistical		statistical	sta	tistical
Site selection: oth Geoprecision: ac sui	her curate to bwatershed	Year began: Year ended:	1993 ongoing	Interval: Duration:	other 6–10 yr

<u>Response to:</u>		Years missed:	complete, incremental	Summaries:	yearly
Positive impact? n	0	Season:		Funding source:	agency base
Negative impact? n	0	Start:		Support:	ongoing
Impact controls? n	0	End:		Future intent (yr):	ongoing
<b>Technical Goal:</b>					
<b>Programmatic Goal:</b>					
Stream name		LLID	Watersh	ed name	HUC
Barkhouse Creek		1228482418204	Upper Kl	lamath.	10206
Beaver Creek		1228157418694	Upper Kl	lamath.	10206
Empire Creek		1227377418668	Upper Kl	lamath.	10206
Horse Linto Creek		1236196410002	Trinity.		10211
Humbug Creek		1226643418342	Upper Kl	lamath.	10206
Lumgrey Creek		1227378418673	Upper Kl	lamath.	10206
McKinney Creek		1228905418428	Upper Kl	lamath.	10206
Scott River		1230355417791	Scott.		10208
USFS Correspondent: Brend	da Olsen				ID# 87
	<u>Juvenile</u>		<u>Outmigrants</u>	Adults	
Field techniques:	direct observation	ion 1	n/a	n/a	
Data types:	presence/absen	ce 1	n/a	n/a	
Uncertainty:					
Site selection: rand Geoprecision: accu <u>Response to:</u> Positive impact? no Negative impact? no Impact controls? no Technical Goal:	dom site selectic urate to stream o o o	on Year began: Year ended: Years missed: Season: Start: End:	1989 ongoing rotating, regular	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	other 11–20 yr one-time agency base indefinite indefinite
Programmatic Coal:	Determine r	ange/distribution	<b>h</b>		
South Fork Salmon South Fork Salmon	River	LLID 1233222412571 1234923413776 1233222412570	<u>Watersh</u> Salmon. Salmon. Salmon.	<u>ed name</u>	HUC 10210 10210 10210
USFS					ID# 88
Correspondent: Bren			0	A .114	
Field techniques:	direct observation	ion 1	n/a	<u>Adults</u> spawner o	count, redd count
Data types:	presence/absen	ce 1	n/a	presence/	absence, populati

Uncertainty:

presence/absence, population
abundance
qualitative

Site selection:	dictated by logistics/circumstance	Year began: ce	1980	Interval:	once
Geoprecision:	accurate to stream	Year ended:	ongoing	Duration:	20+ yr
Positive impact? Negative impact Impact controls?	no ? no ? no	Season: Start: End:	Jul Jul	Funding source: Support: Future intent (yr):	agency base yr-to-yr ongoing
Technical Goal: Programmatic G	Goal: Management	and population r	nonitoring (largest	remaining wild spri	ng run in Klamath
8	Basin).	1 1	5 . 5		0
<u>Stream name</u> North Fork Salr Salmon River South Fork Salr	non River 1 1 non River 1	233222412571 234923413776 233222412570	<u>Watersho</u> Salmon. Salmon. Salmon.	e <u>d name</u>	HUC 10210 10210 10210
USFS - Klama Correspondent: J	<b>th/ 6 Rivers NF</b> John Grunbaum				ID# 36
Field technique	es: direct observation	on <u>O</u> n/	<u>utmigrants</u> a	<u>Adults</u> direct obse	ervation
Data types:	population index demographic	x, n/	a	population	n index
Uncertainty:	none			unknown	
Site selection:	dictated by logistics/circumstand	Year began:	2002	Interval:	once
Geoprecision:	accurate to subwatershed	Year ended:	2004	Duration:	0–5 yr
<u>Response to:</u> Positive impact? Negative impact Impact controls <sup>5</sup>	no ? no ? no	Years missed: Season: Start: End:	snapshot Jul Sept	Summaries: Funding source: Support: Future intent (yr):	yearly agency base currently 0–5
<b>Technical Goal:</b>	Distribution	and relative abun	dance of coho saln	non.	
Programmatic G <u>Stream name</u> Not georeferenc	Goal: Determining Eed 9	Impacts of project <u>LLID</u> 0999999999999999999999999999999999999	ets in the NF and if Watershe	//where they happen. e <u>d name</u>	HUC

#### USFS - Klamath/ 6 Rivers NF Correspondent: John Grunbaum

orrespondent: John	Grunbaum		
	<u>Juvenile</u>	<u>Outmigrants</u>	Adults
Field techniques:	downstream trap	downstream trap	n/a
Data types:	population index, demographic	population index, demographic	n/a
Uncertainty:	statistical	statistical	

Site selection:	other	Year began:	2002	Interval:	daily	
Geoprecision:	accurate to stream	Year ended:	2003	<b>Duration:</b>	0–5 yr	
<b>Response to:</b>		Years missed:	snapshot	Summaries:	yearly	
<b>Positive impact?</b>	no	Season:		Funding source:	agency base	
Negative impact	? no	Start:	Apr	Support:	unknown	
Impact controls	? no	End:	Jul	Future intent (yr):	unknown	
<b>Technical Goal:</b> Assess anadromous fish populations in Red Cap creek, including migration timing, behavior and life history patterns.						
Programmatic (	Goal:					
<u>Stream name</u> Red Cap Creek	<u>L</u> 1	<u>.<b>LID</b></u> 236043412589	<u>Watersh</u> Lower Kl	ed name amath.	<u>HUC</u> 10209	

#### USFS Lower Trinity Ranger Station Correspondent: Anita Andazola

# ID# 191

Field techniques:	Juvenile n/a	<u>O</u> do	<u>utmigrants</u> ownstream trap		<u>Adults</u> spawner co carcass cou observation	ount, redd count, Int, direct 1
Data types:	n/a	ро	opulation abundanc	e	presence/al abundance	osence, population
Uncertainty:		ba	asic quantitative		qualitative	
Site selection: dict	tated by istics/circumstance	Year began:	1991	Interval:	:	other
Geoprecision: ver <u>Response to:</u>	y precise	Year ended: Years missed:	ongoing complete, regular	Duration Summar	ı: ies:	11–20 yr yearly
<b>Positive impact?</b> y	res	Season:		Funding	source:	various: CDFG/PCFFA/SR NF
Negative impact? n	10	Start:	Oct	Support:	:	yr-to-yr
Impact controls? n	10	End:	Dec	Future in	ntent (yr):	indefinite
Technical Goal:	Estimate yearl effectiveness of	y abundance of instream resto	coho salmon. Tech oration efforts.	nnical eva	luation of t	he
Programmatic Goal:	Regulatory co work.	mpliance per E	SA; management ev	valuation	on instream	restoration
Stream name	L	LID	Watershe	ed name	]	HUC
Cedar Creek	12	36032410062	Trinity.			10211
Horse Linto Creek	12	36196410002	Trinity.			10211
USFS Lower Trin Correspondent: Anita	<b>ity Ranger Sta</b> a Andazola	tion				ID# 193

1	<u>Juvenile</u>	<b>Outmigrants</b>	<u>Adults</u>
Field techniques:	n/a	downstream trap	upstream trap, spawner
			count, redd count

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Coho salmon, Southern Oregon/Northern California Coastal ESU	J
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Data types: n/a	a	pı po	resence/absence, opulation abundanc	presence index, p	e/absence, population opulation abundance
Uncertainty:		ba	asic quantitative	qualitati	ve
Site selection: qualita Geoprecision: very pr <u>Response to:</u>	tive selection recise	Year began: Year ended: Years missed:	1991 ongoing complete, regular	Interval: Duration: Summaries:	irregularly 11–20 yr yearly
<b>Positive impact?</b> yes		Season:	0	Funding source:	various: CDFG/PCFFA/SR NF
Negative impact? no		Start:	Mar	Support:	yr-to-yr
Technical Goal: Programmatic Goal:	Estimate yearl effectiveness of Regulatory con	y abundance of of instream rest mpliance per E	f coho salmon. Tech oration efforts. SA; management e	nnical evaluation o valuation on instre	f the am restoration
	work.				
<u>Stream name</u> Horse Linto Creek	<u>L1</u> 12	L <u>ID</u> 36196410002	<u>Watersho</u> Trinity.	ed name	<u>HUC</u> 10211
USFS Lower Trinity Correspondent: Anita An	<b>Ranger Sta</b> ndazola	tion			ID# 197
<u>Ju</u> Field techniques: n/a	i <mark>venile</mark> a	<u>O</u> n/	<u>Outmigrants</u> /a	<u>Adults</u> spawner carcass o	count, redd count, count
Data types: n/a	a	n/	/a	presence abundan	e/absence, population ce
Uncertainty:				qualitati	ve
Site selection: unknow Geoprecision: accurat <u>Response to:</u> Positive impact? no Negative impact? yes Impact controls? no Technical Goal:	wn te to stream Estimate coho	Year began: Year ended: Years missed: Season: Start: End: salmon popula	1996 ongoing snapshot Dec Feb tion.	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	weekly 6–10 yr yearly unknown unknown : indefinite
Programmatic Goal:	Regulatory con densities of co	mpliance per E ho salmon on t	SA, Sharber-Pekha he SRNF.	m Cr. is thought to	have the highest
<u>Stream name</u> Sharber Creek	<u>Ll</u> 12	L <b>ID</b> 35638408959	<u>Watersho</u> Trinity.	ed name	<u>HUC</u> 10211
USFS Lower Trinity Correspondent: Anita An	<b>Ranger Sta</b> ndazola	tion			ID# 199
<u>Ju</u> Field techniques: n/a	i <mark>venile</mark> a	<u>O</u> de	Dutmigrants ownstream trap	<u>Adults</u> spawner	count, redd count,

Data types:	n/	a	I	oopulation abundanc	e	presence/a abundance	bsence, population
Uncertainty:			ł	basic quantitative		qualitative	
						carcass cou	unt
Site selection:	qualita	tive selection	Year began:	1991	Interval:		irregularly
Geoprecision:	very p	recise	Year ended:	2003	Duration	:	11–20 yr
Response to:			Years missed:	complete, regular	Summar	ies:	yearly
Positive impact?	yes		Season:		Funding	source:	various: CDFG/PCFFA/SR NF
Negative impact	? no		Start:	Mar	Support		indefinite
Technical Goal:		Estimate yearl of instream res	y abundance of storation effor	of coho salmon. Tecl ts.	hnical eva	luation of t	he effectiveness
Programmatic G	Goal:	Restore salmo	nid habitat and	d populations to self	sustainin	g level.	
<u>Stream name</u>		L	LID	Watersh	ed name		<u>HUC</u>
Willow Creek		12	36292409450	Trinity.			10211

# USGS Ca. Coop. Fisheries Research Unit HSU Correspondent: Walt Duffy

mespondent. wan	Dully					
Field techniques:	<u>Juvenile</u> direct observation electrofishing, ot	n, do her	Putmigrants ownstream trap		<u>Adults</u> spawner co carcass cou	unt, redd count, nt
Data types:	population abund	lance po	opulation abundanc	e	population abundance,	index, population demographic
Uncertainty:	statistical				statistical	
Site selection: unk	nown	Year began:	varies	Interval:		other
Geoprecision: very	y precise	Year ended:	varies	Duration	:	unknown yr
<b>Response to:</b>		Years missed:	varies	Summari	ies:	seasonally
Positive impact? n	0	Season:		Funding	source:	NOAA Fish
Negative impact? n	0	Start:	see notes	Support:		2004
Impact controls? n	0	End:	see notes	Future in	tent (yr):	indefinite
<b>Technical Goal:</b>						
Programmatic Goal:	Demographic habitat conditi	data for coho to ons.	o use in models to s	ee how th	ey respond	to different
<u>Stream name</u>	<u>Ll</u>	LID	Watershe	ed name	1	HUC
Unknown. Use LLI	D 12	40307413444	Mad-Red	wood.	1	0102
Boyes Creek	12	40211413652	Mad-Red	wood.	1	0102
Browns Creek	12	29895406681	Cottonwo	od Headv	vaters. 2	20113
Browns Creek	12	29895406681	South For	k Trinity.	. 1	0212
Browns Creek	12	29895406681	Trinity.	5	1	0211
Godwood Creek	12	40222413652	Mad-Red	wood.	1	0102

Little Lost Man Cre	ek 12	40299413291	М	ad-Redwood.	10102	
Lost Man Creek	12	40301413317	М	ad-Redwood.	10102	
May Creek	12	40285413485	Μ	ad-Redwood.	10102	
Prairie Creek	12	40487412999	М	ad-Redwood.	10102	
Yurok Tribal Fish	eries				ID# 147	
Correspondent: Sarah	n Beesley	_				
Field techniques:	Juvenile downstream trap, observation, elect minnowtrap, othe	direct n trofishing, er	<u>Dutmigrants</u> /a	<u>8</u>	<u>Adults</u> upstream trap, spawner count, redd count, carcass count, direct observation, electrofishing	
Data types:	presence/absence population index, demographic	e, n	/a		presence/absence	
Uncertainty:	qualitative				qualitative	
Site selection: qua	litative selection	Year began:	2002	Interval:	other	
Geoprecision: very	y precise	Year ended:	2003	Duration	<b>1:</b> 0–5 yr	
<b>Response to:</b>		Years missed:	snapshot	Summar	ies: one-time	
<b>Positive impact?</b> no	0	Season:		Funding	source: various: CDFG SFRA/Cal.Coast.S .Monit.	3
Negative impact? y	es	Start:	Apr	Support:	: 2004	
Impact controls? n	0	End:	Nov	Future ir	ntent (yr): 0–5	
Technical Goal:	Baseline data conditions.	on presence of	coho salmo	n and steelhead p	opulations and habitat	
<b>Programmatic Goal:</b>	Prioritize resto	pration in the S	alt Creek W	atershed.		
Stream name	L	LID	W	atershed name	HUC	
High Prairie Creek	12	40705415679	L	ower Klamath.	10209	
Salt Creek	12	40589415474	Lo	ower Klamath.	10209	
Vunal, Tribal Fish	o <b>wi</b> og				ID# 149	
Correspondent: Sarah	Paglay				ID# 140	
Correspondent. Sarar	I Deesley	(		~	A .J14.0	
Field techniques:	<u>Juvenile</u> n/a	n	Jutmigrants /a	<u>&gt;</u>	Aduits spawner count, redd count, carcass count, direct observation, electrofishing	
Data types:	n/a	n	/a		presence/absence	
Uncertainty:					qualitative	
					4	
Site selection: qua	litative selection	Year began:	2002	Interval:	weekly	
Geoprecision: very	y precise	Year ended:	2003	Duration	<b>1:</b> 0–5 yr	
Response to:	-	Years missed:	snapshot	Summar	ies: one-time	
<b>Positive impact?</b> n	0	Season:		Funding	source: various: CDFG SFRA/Cal.Coast.S	5

Negative impact? y	es	Start:	Nov	Support:	2004
Impact controls? n	0	End:	Mar	Future intent (yr):	0–5
Technical Goal:	Baseline data of conditions.	on presence o	f coho saln	non and steelhead populations	s and habitat
<b>Programmatic Goal:</b>	Prioritize resto	oration in the	Salt Creek	Watershed.	
Stream name	LI	LID		Watershed name	<u>HUC</u>
High Prairie Creek	12	40705415679	)	Lower Klamath.	10209
Yurok Tribal Fish	eries Voicht				ID# 160
Correspondent: Hans	voignt Tuwonilo		Outmiana	nta Adulta	
Field techniques.	direct observation	1	<u>Outinigra</u> n/a	<u>nts</u> <u>Aduits</u> n/a	Monit
i icia teeninques:	electrofishing	1,	11/ u	11/ u	.ivioint.
Data types:	population abund	ance	n/a	n/a	
Uncortainty	population actua				
Uncertainty.					
Site selection ron	dom site	Voorbogon	2000	Intorvali	daily
sele	ection/dictated by	Tear Degan.	2000	Interval.	ually
logi	istics/circum				
Geonrecision: acc	urate to	Year ended:	2003	Duration:	0–5 vr
sub	watershed	1 cm cmucur	2000		o o gr
<u>Response to:</u>		Years missed	: complet	te, Summaries:	yearly
		G	regular		·
Positive impact? n	0	Season:		Funding source:	various: NOAA Fish/BIA
Negative impact? n	0	Start:	Jul	Support:	indefinite
Impact controls? n	0	End:	Oct	Future intent (yr):	ongoing
Technical Goal:	Estimate over-	summering a	bundance (	YOY).	0 0
<b>Programmatic Goal:</b>	ESA - trend da	ata collection	for Tribal t	trust species.	
Stream name	LI	LID		Watershed name	HUC
Unknown. Use LLI	D 12	39800416395	5	Lower Klamath.	10209
Unknown. Use LLI	D 12	39467413658	3	Lower Klamath.	10209
Unknown. Use LLI	D 12	39349414229	)	Lower Klamath.	10209
Unknown. Use LLI	D 12	40241415281	-	Lower Klamath.	10209
Ah Pah Creek	12	39496414121	-	Lower Klamath.	10209
Ah Pah Creek	12	39496414121	-	Mad-Redwood.	10102
Bear Creek	12	39303414030	)	Lower Klamath.	10209
Cappell Creek	12	38228412813	5	Lower Klamath.	10209
Crescent City Fork	l2 Vecale 12	38210414/54	ŀ	Lower Klamath.	10209
East Fork Pecwan C	12 12	.38443413431		Lower Klamath.	10209
Hallmoon Creek	12	333333414/38	)	Salliloll.	10210
Hunter Creek	12	40023413433	)	Lower Klamath	10209
Klamath River	12	4080/4154/1	-	Upper Klamath.	10200
Klamath River	12	4080/4154/1		Lower Klamath.	10209

McGarvey Creek	1239996415102	Lower Klamath.	10209
Mettah Creek	1238707413081	Lower Klamath.	10209
Nickowitz Creek	1238192414576	Lower Klamath.	10209
North Fork Ah Pah Creek	1239413414209	Lower Klamath.	10209
Omogar Creek	1239626414879	Lower Klamath.	10209
Pecwan Creek	1238546413421	Lower Klamath.	10209
Pine Creek	1237509412000	Lower Klamath.	10209
Roach Creek	1238504412771	Lower Klamath.	10209
Tarup Creek	1239627415055	Lower Klamath.	10209
Tectah Creek	1239006413664	Lower Klamath.	10209
Turwar Creek	1240010415197	Lower Klamath.	10209
West Fork Blue Creek	1238933414502	Lower Klamath.	10209

#### **Yurok Tribe**

Correspondent: Monica Hiner Adults Juvenile **Outmigrants** Field techniques: electrofishing n/a n/a presence/absence n/a n/a Data types: **Uncertainty:** basic quantitative Site selection: dictated by Year began: 2002 **Interval:** other logistics/circumstance accurate to stream 2002 **Duration:** 0-5 yr Geoprecision: Year ended: Years missed: **Response to:** snapshot Summaries: none agency base **Positive impact?** no Season: **Funding source:** Start: Negative impact? no May Support: single sampling event **Impact controls?** End: May Future intent (yr): ended no **Technical Goal:** Assess fish presence/absence for proposed study: Sarah Beesley's study of salmonid habitat quality for restoration recommendations. Assessment of fish presence. **Programmatic Goal:** 

<u>Stream name</u>	LLID	Watershed name	HUC
High Prairie Creek	1240705415679	Lower Klamath.	10209
Salt Creek	1240589415474	Lower Klamath.	10209

#### **Yurok Tribe**

Correspondent: Monica Hiner Adults Juvenile **Outmigrants** Field techniques: seining seining n/a presence/absence, presence/absence, n/a Data types: population abundance population abundance **Uncertainty:** basic quantitative basic quantitative Site selection: dictated by Year began: 2002 Interval: other logistics/circumstance

ID# 219

#### Coho salmon, Southern Oregon/Northern California Coastal ESU

	Year ended:	2003	Duration:	0–5 yr		
<b>Response to:</b>	Years missed:	snapshot	Summaries:	one-time		
Positive impact? no	Season:		Funding source:	CDFG		
Negative impact? no	Start:	see notes	Support:	2003		
Impact controls? no	End:	see notes	Future intent (yr):	ongoing		
Technical Goal:	Beach seining in South Slough: Determine habitat suitability and use by juvenile salmonids. Purse seining: Determine relative abundance and emigration patterns for juvenile salmon; also compare size of juvenile salmon compared w/ CDFG beach seine efforts.					
<b>Programmatic Goal:</b>	Management evaluation.					
<u>Stream name</u>	LLID	Watersh	ed name	HUC		
Geoprecision: Unknown. Use LLID		accurate		1240749415436		
Lower Klamath. 10209	1					
Klamath River	1240807415471	Lower K	lamath.	10209		
Klamath River	1240807415471	Upper Kl	amath.	10206		

#### Coho salmon, Central California Coast ESU

#### Campbell/Hawthorne Timber Co.

Correspondent: David Wright <u>Juvenile</u> Adults **Outmigrants Field techniques:** electrofishing electrofishing spawner count Data types: population index, population index presence/absence demographic, genetic **Uncertainty:** qualitative qualitative unknown 1993 Site selection: unknown Year began: Interval: yearly ongoing 11-20 yr Geoprecision: accurate Year ended: **Duration:** complete, Years missed: **Summaries:** yearly **Response to:** incremental **Positive impact?** commercial: no Season: Funding source: extraction Sept ongoing **Negative impact?** yes Start: Support: Nov **Impact controls?** no End: Future intent (yr): ongoing Determine trends in salmonid densities: Relative abundance on an annual basis over a **Technical Goal:** long period of time. Determine health of populations. **Programmatic Goal:** Stream name LLID Watershed name HUC Bearpen Creek 1231149385774 Gualala-Salmon. 10109 Bearpen Creek 1231149385774 Russian. 10110 DeHaven Creek 1237852396593 Big-Navarro-Garcia. 10108 Redwood Creek 1227447386410 Russian. 10110 South Fork Usal Creek 1238286398419 Big-Navarro-Garcia. 10108

# Coho salmon, Central California Coast ESU

# Campbell/Hawthorne Timber Co.

Juvenile Field techniques: Juvenile n/a Outmigrants n/a Adults upstream trap   Data types: n/a n/a presence/absence   Data types: n/a presence/absence   Uncertainty: basic quantitative   Site selection: unknown Year began: 1993 Interval: yearly   Geoprecision: accurate to stream Year ended: ongoing ongoing Duration: 11–20 yr   Response to: Years missed: complete, summaries: yearly uncernental   Positive impact? no Season: complete, summaries: yearly   Positive impact? pres Start: Dec Support: ongoing   Impact controls? no End: Apr Future intent (yr): ongoing   Impact controls? no End: Apr Future intent (yr): ongoing   Bearpen Creek 1231149385774 Gualala-Salmon. HUC   Bearpen Creek 1231149385774 Russian. 10110   Deflaven Creek 1237149385774 Russian. 10110   South Fork Usal Creek 1238286398419 Big-Navarro-Garcia. 10108   CDFG Durmigrants Adults n/a   Field techniques:	Correspondent: Dav	id Wright					
Field techniques:   n/a   upstream trap     Data types:   n/a   presence/absence     Uncertainty:   basic quantitative     Site selection:   unknown   Year began:   1993     Response to:   Vear began:   ongoing   Duration:   yearly     Response to:   Vear model   compoing   Duration:   11–20 yr     Response to:   Vear model   compoing   Duration:   11–20 yr     Positive impact?   no   Season:   Funding source:   commercial:     mark controls?   no   End:   Apr   Future intent (yr):   ongoing     Impact contols?   Determine trends in salmonid densities:   Relative abundance on an anual basis over a long period of time.     Programmatic Goal:   Determine health of populations.   Stream name   HUC     Bearpen Creek   1231149385774   Russian.   1010     Deflaven Creek   1237582396533   Big-Navarro-Garcia.   10108     Redwood Creek   1238286398419   Big-Navarro-Garcia.   10108     South Fork Usal Creek   12382873   Russian.   10110     Soure toffishing	-	Juvenile		<b>Outmigra</b>	<u>nts</u>	Adults	
Data types:   n/a   presence/absence     Uncertainty:   basic quantitative     Site selection:   unknown   Year ended:   ongoing   Interval:   yearly     Geoprecision:   accurate to stream   Year ended:   ongoing   Duration:   11–20 yr     Response to:   'Year smissed:   complete, complete, complete, incremental   Summaries:   yearly     Positive impact?   no   Season:   Funding source:   commercial:   extraction     Negative impact?   no   End:   Apr   Future intent(yr):   ongoing     Technical Goal:   Determine trends in salmonid densities: Relative abundance on an anual basis over a long period of time.   Programmatic Goal:   Determine health of populations.     Programmatic Goal:   Determine health of populations.   HUC   Gualala-Salmon.   10110     Bearpen Creek   1231149385774   Russian.   10110   Detertifee detectoring in a securate to watershed name   HUC     Bearpen Creek   1237852396593   Big-Navarro-Garcia.   10108   Edetorfifishing   10110     Correspondent:   Doug Albin   n/a   n/a   -   -   - <th>Field techniques:</th> <th>n/a</th> <th colspan="2">n/a</th> <th></th> <th colspan="2">upstream trap</th>	Field techniques:	n/a	n/a			upstream trap	
Uncertainty:   basic quantitative     Site selection:   accurate to stream   Year began:   1993   Interval:   yearly     Response fo:   accurate to stream   Year anded:   ongoing   Duration:   11–20 yr     Positive impact?   no   Season:   Funding source:   commercial:   extraction     Negative impact?   no   Season:   Dec   Support:   ongoing     Negative impact?   no   Season:   Determine trends in salmonid densities: Relative abundance on an an-ual basis over a long period of time.     Programmatic Goal:   Determine health of populations.   Stream name   HUC   10100     Bearpen Creek   1231149385774   Russian.   10110   000     Bearpen Creek   123149385774   Russian.   10110     Bearpen Creek   123182306593   Big-Navarro-Garcia.   10100     South Fork Usal Creek   1237852396593   Big-Navarro-Garcia.   10100     South Fork Usal Creek   123782396593   Big-Navarro-Garcia.   10108     Correspondent:   Doug Albin   n/a   n/a	Data types:	n/a	n/a			presence/absence	
Site selection:   unknown   Year began:   1993   Interval:   yearly     Geoprecision:   accurate to stream   Year ended:   ongoing   Duration:   11–20 yr     Response to:   '''   ''''   Summaries:   'yearly'     Positive impact?   no   Season:   Funding source:   commercial:     Positive impact?   pes   Start:   Dec   Support:   ongoing     Impact controls?   no   End:   Apr   Future intent (yr):   ongoing     Technical Goal:   Determine trends in salmonid densities: Relative abundance on an anual basis over a long period of time.   10109     Bearpen Creek   1231149385774   Gualata-Salmon.   10109     Bearpen Creek   1231149385774   Russian.   10110     DeHaven Creek   1231149385774   Russian.   10110     South Fork Usal Creek   123149385273   Russian.   10110     South Fork Usal Creek   1238286398419   Big-Navaro-Garcia.   10108     Correspondent:   Doug Albin   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing </th <th>Uncertainty:</th> <th></th> <th></th> <th></th> <th></th> <th colspan="2">basic quantitative</th>	Uncertainty:					basic quantitative	
Site selection: Geoprecision: accurate to stream Response to:Year began: Year ended: Years missed: Years missed: complete, incrementalInterval: poration: incrementalyearly Il-20 yr yearlyPositive impact? Impact controls?noSeason:Funding source: extraction ongoing incrementalFunding source: extraction ongoing incrementalcomplete, incrementalSummaries: extraction ongoing extractionNegative impact? Impact controls?noSeason:Funding source: 	•					-	
Geoprecision:   accurate to stream   Year ended:   ongoing   Duration:   11-20 yr     Response to:   Years missed:   complete, incremental   Summaries:   yearly     Positive impact?   no   Season:   Funding source:   commercial:   extraction     Negative impact?   yes   Start:   Dec   Support:   ongoing   matrix     Impact controls?   no   End:   Apr   Future intent (yr):   ongoing   extraction     Programmatic Goal:   Determine trends in salmonid densities:   Relative abundance on an annual basis over a long period of time.     Programmatic Goal:   Determine health of populations.   Matershed name   HUC     Bearpen Creek   1231149385774   Gualala-Salmon.   1010     DetHaven Creek   123149385774   Russian.   10110     South Fork Usal Creek   1238286398419   Big-Navarro-Garcia.   10108     Redwood Creek   123999385273   Russian.   10110     South Fork Usal Creek   1238286398419   Big-Navarro-Garcia.   10108     Correspondent:   Doug Albin   Jurentile   Mutaisia   N/a	Site selection: unl	known	Year began:	1993		Interval:	yearly
Response to:Years missed: incrementalcomplete, incrementalSummaries: incrementalyearly'Positive impaet? NonoSeason:Funding source: extractioncommercial: extractionNegative impaet? Impact controls? Technical Goal:Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Programmatic Goal:Determine health of populations.Watershed nameHUCBearpen Creek1231149385774Gualala-Salmon.10109 10109Bearpen Creek1231149385774Russian.10110Detlaven Creek1238236593Big-Navarro-Garcia.10108CDFGLUDAurentikeAdults10110Correspondent:Doug AlbinDuratilon, electrofishingn/an/aField techniques:direct observation, electrofishingn/an/aData types:presence/absencen/an/aSite selection:qualitativeVear ended: ongoingongoing ongoingDuration:Positive impaet?noStart:Jul Support: opportunisticSupport: opportyearlyPositive impaet?noStart:Jul Support: ongoingSummaries: otherother opportPositive impaet?noStart: Start:JulyInterval: Support: opportyearlyGeoprecision:accurate to watershed Year ended: ongoingongoing <th>Geoprecision: acc</th> <th>curate to stream</th> <th>Year ended:</th> <th>ongoing</th> <th>3</th> <th>Duration:</th> <th>11–20 yr</th>	Geoprecision: acc	curate to stream	Year ended:	ongoing	3	Duration:	11–20 yr
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Positive impact?noSeason:Funding source: certractioncommercial: certractionNegative impact?yesStart: End:DecSupport: ongoingongoingImpact controls?noEnd: AprAprFuture intent (yr): ongoingongoingTechnical Goal:Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Matershed nameHUCProgrammatic Goal:Determine health of populations.Matershed nameHUCBearpen Creek1231149385774Gualala-Salmon.10109Bearpen Creek1231149385774Russian.10110DeHaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek1238286398419Big-Navarro-Garcia.10108South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGJuvenileOutmigrantsAdults n/an/aField techniques:direct observation, electrofishingn/an/aData types:presence/absencen/an/aVacertainty:qualitativeYear ended: ongoingongoingDuration: o-5 yrResponse te:Year smissed: rotating, opportunisticFunding source: yearlystate bond fundsPositive impact?noStart: years missed: rotating, opportunisticFunding source: yearlystate bond fundsPositive impact?noStart: yearsSupport: yr-to-yryearly indefinitePositive impact?<				increme	ental		
Negative impact?yesStart: End:DecSupport: ongoingongoing ongoingImpact controls?noEnd:AprFuture intent (yr): ongoingongoingTechnical Goal:Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Programmatic Goal:Determine health of populations.HUCBearpen Creek1231149385774Gualala-Salmon.10109Bearpen Creek1231149385774Russian.10110DeHaven Creek1237852306593Big-Navarro-Garcia.10108Redwood Creek1238286398419Big-Navarro-Garcia.10108South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGJuvenileOutmigrantsAdultsField techniques:JuvenileOutmigrantsAdultsJuncertainty:qualitativen/an/aUncertainty:qualitativerotating, opportunisticsummaries:Site selection:qualitative selectionYear began: ongoing1999Interval: opportunisticyearly opportunisticPositive impact?noStart: start:JulSupport: yr-to-yryr-to-yr indefinitePositive impact?noStart: start:JulSupport: yr-to-yryr-to-yr indefinitePositive impact?noStart: start:JulSupport: yr-to-yryr-to-yr indefinite <th><b>Positive impact?</b> r</th> <th>10</th> <th>Season:</th> <th></th> <th></th> <th>Funding source:</th> <th>commercial: extraction</th>	<b>Positive impact?</b> r	10	Season:			Funding source:	commercial: extraction
Impact controls? noEnd:AprFuture intent (yr):ongoingTechnical Goal:Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Programmatic Goal:Determine health of populations.Watershed nameHUCStream nameLLIDWatershed nameHUCBearpen Creek1231149385774Gualala-Salmon.10110Detlaven Creek1231149385774Russian.10110Detlaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek1238286398419Big-Navarro-Garcia.10108South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGInterval:yearlyInterval:yearlyCorrespondent:Doug AlbinN/an/aID# 122Correspondent:Doug AlbinInterval:yearlyGeoprecision:accurate to watershed Year ended: ongoingongoingDuration:0-5 yrSite selection:qualitative selectionYear smissed: 	Negative impact? y	yes	Start:	Dec		Support:	ongoing
Technical Goal:Determine trends in salmonid densities: Relative abundance on an annual basis over a long period of time.Programmatic Goal:Determine health of populations.Watershed nameHUCBearpen Creek1231149385774Russian.10109Bearpen Creek1231149385774Russian.10110DeHaven Creek12317852396593Big-Navarro-Garcia.10108Redwood Creek1229999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGID# 122Correspondent:Doug AlbinField techniques:direct observation, electrofishingn/an/aData types:presence/absencen/an/aSite selection:qualitative selectionYear began: rotating, Summaries:yearly ongoingJurenile: opportunisticPositive impact?noStart:JulSupport: yr-to-yryr-to-yr indefiniteNegative impact?noStart:JulSupport: yr-to-yryr-to-yrImpact controls?noEnd:OctFuture intent (yr): indefinitePositive impact?noStart:JulSupport: yr-to-yrImpact controls?noEnd:OctFuture intent (yr): indefiniteProgrammatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.End:OttStream nameLLIDWatershed nameHUC	Impact controls? r	10	End:	Apr		Future intent (yr):	ongoing
long period of time.Programmatic Goal:Determine health of populations.Stream nameLLIDWatershed nameHUCBearpen Creek1231149385774Gualala-Salmon.10109Bearpen Creek1237852396593Big-Navarro-Garcia.10108Deflaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek1238286398419Big-Navarro-Garcia.10108South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGUsernileOutmigrantsAdultsField techniques:JuvenileOutmigrantsAdultsdirect observation, electrofishingn/an/an/aData types:presence/absencen/an/aSite selection: Response to:qualitative selection Year smissed:1999Interval: yearly ongoingyearly yearly yearlyPositive impact? Inpact controls? Negative impact?Near season: End:Funding source: yr-to-yr indefinitePositive impact? Inpact controls?Start: Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Support: yr-to-yrStream nameLLIDWatershed nameHUC	<b>Technical Goal:</b>	Determine tre	nds in salmon	id densities	s: Relative	abundance on an a	nnual basis over a
Programmatic Goal:Determine health of populations.Stream nameLLIDWatershed nameHUCBearpen Creek1231149385774Gualala-Salmon.10109Bearpen Creek1231149385774Russian.10110DeHaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek122999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGLucenileQutmigrantsAdultsCorrespondent:DougAlbinn/aField techniques:JuvenileOutmigrantsAdultsdirect observation, electrofishingn/an/aData types:presence/absencen/an/aSite selection:qualitative1999Interval:yearlyGeoprecision:accurate to watershed Year ended: ongoingongoingDuration: opportunistic0–5 yrPositive impact?noStart: End:JulSupport: yr-to-yryr-to-yrImpact controls?noStart: End:JulSupport: yr-to-yryr-to-yrImpact controls?noEnd: OctOctFuture intent (yr):indefinitePositive impact?noStart: End:JulSupport: yr-to-yryr-to-yrImpact controls?noEnd: OctOctFuture intent (yr):indefiniteProgrammatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.HUC		long period of	f time.				
Stream name Bearpen CreekLLID 1231149385774Watershed name Gualala-Salmon.HUC 10109Bearpen Creek1231149385774Russian.10110DeHaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek1229999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGID# 122ID# 122Correspondent:Doug AlbinID# 122Field techniques:direct observation, electrofishingn/an/aData types:presence/absencen/an/aSite selection:qualitative selectionYear began: ongoing1999Interval: uration:yearly o-5 yrGeoprecision:accurate to watershedYear ended: vear smissed: opportunisticSummaries: otherother opportunisticPositive impact?noStart: End:Jul Years missed: rotating, opport: yr-to-yr impact controls?noStart:JulSupport: yr-to-yr indefiniteyr-to-yr indefinitePositive impact?noEnd: OctCotProgrammatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	Programmatic Goal	: Determine he	alth of popula	tions.			
Data types:presence/absencen/an/aData types:presence/absenceName and the second formation of the second format	Stream name	L			Watersh	ed name	HUC
Bearpen Creek1231149385774Russian.1010DeHaven Creek1237852396593Big-Navarro-Garcia.1010Redwood Creek122999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.1010South Fork Usal Creek1238286398419Big-Navarro-Garcia.1010CDFGJuvenileOutmigrantsAdultsField techniques:JuvenileOutmigrantsAdultsdirect observation,n/an/an/aelectrofishingn/an/aData types:presence/absencen/an/aUncertainty:qualitativeongoingDuration:0-5 yrSite selection:qualitative selectionYear ended:ongoingDuration:0-5 yrResponse to:Years missed:rotating,Summaries:otheropportunisticPositive impact?noStart:JulSupport:yr-to-yrImpact controls?noEnd:OctFuture intent (yr):indefiniteTechnical Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	Bearnen Creek 1		231149385774		Gualala-Salmon		10109
DeHaven Creek1237852396593Big-Navarro-Garcia.10108Redwood Creek1229999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGID# 122Correspondent: Doug AlbinJuvenileOutmigrantsAdultsn/an/aPield techniques:JuvenileUncertainty:QualitativeSite selection:qualitative selectionYear ended:ongoingDuration:0-5 yrResponse to:Years missed:rotating,Summaries:otheropportunisticPositive impact?Positive impact?NoStart:JulSupport:yr-to-yrImpact controls?Positive impact?Positive impact?Programmatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	Bearnen Creek		1231149385774		Russian		10110
Redwood Creek122999385273Russian.10110South Fork Usal Creek1238286398419Big-Navarro-Garcia.10108CDFGID# 122Correspondent:Doug AlbinField techniques:direct observation, electrofishingn/an/aData types:presence/absencen/an/aUncertainty:qualitativeualitativeualitativeSite selection:qualitative selectionYear began:1999Interval:Geoprecision:accurate to watershedYear ended:ongoingDuration:OpportunisticVear season:rotating, opportunisticSummaries:otherPositive impact?noSeason:Funding source:state bond fundsNegative impact?noStart:JulSupport:yr-to-yrImpact controls?noEnd:OctFuture intent (yr):indefiniteProgrammatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Watershed nameHUC	DeHaven Creek	1	1237852396593 B		Big-Nava	rro-Garcia.	10108
South Fork Usal Creek   1238286398419   Big-Navarro-Garcia.   10108     CDFG   Juvenile   Outmigrants   Adults     Correspondent:   Doug Albin   ID# 122     Field techniques:   Juvenile   Outmigrants   Adults     Data types:   presence/absence   n/a   n/a     Data types:   presence/absence   n/a   n/a     Site selection:   qualitative   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0–5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Funding source:   state bond funds     Negative impact?   no   End:   Oct   Funding source:   state bond funds     Negative impact?   no   End:   Oct   Funding source:   state bond funds     Negative impact?   no   End:   Oct   Furer intent (yr):   indefinite </th <td colspan="2">Redwood Creek 1</td> <td colspan="2">1229999385273</td> <td colspan="2">Russian. 10110</td> <td>10110</td>	Redwood Creek 1		1229999385273		Russian. 10110		10110
CDFG   Juvenile   Outmigrants   Adults     Field techniques:   direct observation, electrofishing   n/a   n/a     Data types:   presence/absence   n/a   n/a     Uncertainty:   qualitative   n/a   n/a     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0-5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Stream name <u>LLID</u> Watershed name <u>HUC</u>	South Fork Usal Creek 1		1238286398419 Big-Nav		Big-Nava	rro-Garcia.	10108
CDFG   Juvenile   Qutmigrants   Adults     Field techniques:   Juvenile   Outmigrants   Adults     Field techniques:   direct observation, electrofishing   n/a   n/a     Data types:   presence/absence   n/a   n/a     Uncertainty:   qualitative   selection   n/a   m/a     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0-5 yr     Response to:   Vears missed:   rotating, opportunistic   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence.   Support:   yr-to-yr     Stream name   LLID   Watershed name   HUC							
Correspondent:   Doug Albin     Field techniques:   Juvenile direct observation, electrofishing   Outmigrants n/a   Adults n/a     Data types:   presence/absence   n/a   n/a     Data types:   qualitative   n/a   n/a     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0–5 yr     Response to:   Vears missed:   rotating, opportunistic   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Programmatic Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC	CDFG						ID# 122
Field techniques:   Juvenile direct observation, electrofishing   Outmigrants n/a   Adults n/a     Data types:   presence/absence   n/a   n/a     Uncertainty:   qualitative   n/a   n/a     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0–5 yr     Response to:   Years missed:   rotating, opportunistic   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC	Correspondent: Dou	g Albin					
Field techniques:   direct observation, electrofishing   n/a   n/a     Data types:   presence/absence   n/a   n/a     Uncertainty:   qualitative   n/a   n/a     Site selection:   qualitative   selectron:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0–5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Stream name   LLID   Watershed name   HUC		<u>Juvenile</u>		<u>Outmigra</u>	<u>nts</u>	<u>Adults</u>	
Data types:   presence/absence   n/a     Uncertainty:   qualitative     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0-5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   End:   Oct   Future intent (yr):   indefinite     Programmatic Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC	Field techniques:	direct observatio electrofishing	n,	n/a		n/a	
Uncertainty:   qualitative     Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0-5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC	Data types:	presence/absence	9	n/a		n/a	
Site selection:qualitative selectionYear began:1999Interval:yearlyGeoprecision:accurate to watershedYear ended:ongoingDuration:0–5 yrResponse to:Years missed:rotating,Summaries:otherPositive impact?noSeason:Funding source:state bond fundsNegative impact?noStart:JulSupport:yr-to-yrImpact controls?noEnd:OctFuture intent (yr):indefiniteTechnical Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Matershed nameHUC	Uncertainty:	qualitative					
Site selection:   qualitative selection   Year began:   1999   Interval:   yearly     Geoprecision:   accurate to watershed   Year ended:   ongoing   Duration:   0–5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Programmatic Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC							
Geoprecision:   accurate to watershed Year ended:   ongoing   Duration:   0-5 yr     Response to:   Years missed:   rotating,   Summaries:   other     Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Watershed name   HUC	Site selection: qua	alitative selection	Year began:	1999		Interval:	yearly
Response to:   Years missed:   rotating, opportunistic   Summaries:   other     Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.   Stream name   LLID   Watershed name   HUC	Geoprecision: acc	curate to watershee	l Year ended:	ongoing	3	Duration:	0–5 yr
Positive impact?   no   Season:   Funding source:   state bond funds     Negative impact?   no   Start:   Jul   Support:   yr-to-yr     Impact controls?   no   End:   Oct   Future intent (yr):   indefinite     Technical Goal:   Programmatic Goal:   Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.     Stream name   LLID   Watershed name   HUC	<b>Response to:</b>		Years missed	rotating opportu	, inistic	Summaries:	other
Negative impact?noStart:JulSupport:yr-to-yrImpact controls?noEnd:OctFuture intent (yr):indefiniteTechnical Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Support:yr-to-yrStream nameLLIDWatershed nameHUC	Positive impact? r	10	Season:			Funding source:	state bond funds
Impact controls? noEnd:OctFuture intent (yr):indefiniteTechnical Goal:Programmatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	Negative impact? r	10	Start:	Jul		Support:	yr-to-yr
Technical Goal:Programmatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	Impact controls? r	10	End:	Oct		Future intent (yr):	indefinite
Programmatic Goal:Habitat restoration prescriptions and correlation of habitat conditions with species presence/absence.Stream nameLLIDWatershed nameHUC	<b>Technical Goal:</b>						
presence/absence.       Stream name     LLID     Watershed name     HUC	Programmatic Goal	: Habitat restor	ation prescript	tions and co	orrelation	of habitat condition	s with species
Stream nameLLIDWatershed nameHUC		presence/abse	ence.				
	Stream name	L	LID		Watersh	ed name	<u>HUC</u>

# Coho salmon, Central California Coast ESU

Not georeferenced	99999999999999	9				
CDFG				ID# 181		
Correspondent. Alan Gr	ass wenile	Outmigrants	Adults			
Field techniques: n/a	a	downstream trap	upstream	trap		
<b>Data types:</b> n/a	a	population abundan	ce population	n abundance, genetic		
Uncertainty:						
Site selection: dictate logistic	d by Year began: cs/circumstance	1962	Interval:	daily		
Geoprecision: very p	recise Year ended:	ongoing	Duration:	20+ yr		
Response to:	Years missed	I: unknown	Summaries:	yearly		
Positive impact? no	Season:		Funding source:	CDFG (assume)		
Negative impact? no	Start:	All Yr	Support:	ongoing (assume)		
Impact controls? no	End:	All Yr	Future intent (yr):	ongoing		
Technical Goal: Programmatic Goal:	Develop a minimum sustain annually. Target smolt rele	ned escapement to the ase is 75,000 between	e SF Noyo of 1500 a an March-April each	idult coho year.		
Stream name	LLID	Watersh	ed name	HUC		
South Fork Noyo River	123725839424	8 Big-Nava	arro-Garcia.	10108		
<b>CDFG</b> Correspondent: Don Cla	usen Hatcherv			ID# 173		
Field techniques: n/a	ivenile a	<u>Outmigrants</u> n/a	<u>Adults</u> upstream	trap		
<b>Data types:</b> n/a	a	n/a	population	n abundance, genetic		
Uncertainty:			unknown			
Site selection: dictate logistic	d by Year began: cs/circumstance	1981	Interval:	daily		
Geoprecision: very pr Response to:	recise Year ended: Years missed	ongoing complete with gaps, regular	Duration: Summaries:	20+ yr yearly		
<b>Positive impact?</b> no	Season:		Funding source:	CDFG/hatchery (assume)		
Negative impact? no	Start:		Support:	ongoing (assume)		
Impact controls? no	End:		Future intent (yr):	ongoing		
<b>Technical Goal:</b>						
Programmatic Goal:	Captive broodstock program (through '96). Captive broo 50,000 yearlings into Russ	n initiated in '01 afte dstock program has g ian River streams.	r unsuccessful Noyo goal of releasing 50,	planting 000 fingerlings and		
<u>Stream name</u>	LLID	Watersh	ed name	<u>HUC</u>		
Dry Creek	12	228562385862		Russian.		10110
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CDFG						ID# 113
Correspondent: Geo	rge Neillands					
Field techniques:	Juvenile direct observatio electrofishing	n,	<b>Outmigra</b> n/a	<u>nts</u>	<u>Adults</u> n/a	
Data types:	population index population abund demographic, ge	dance, netic	n/a		n/a	
Uncertainty:	statistical					
Site selection: qu Geoprecision: ac <u>Response to:</u>	alitative selection curate to stream	Year began: Year ended: Years missed:	2002 ongoing complet increme	In g Du te, Su ental	terval: iration: mmaries:	yearly 0–5 yr yearly
Positive impact? Negative impact? Impact controls?	yes yes yes	Season: Start: End:	Aug Oct	Fu Su Fu	nding source: pport: ture intent (yr):	NOAA Fish 2003 ongoing
Technical Goal:	Define sampl sampling desi salmonids thr	ing universe ar ign to provide l oughout N. Ca	nd provide broad base llif. ESUs.	sampling for d population	target species. P assessment of ES	rovide regional A-listed
Programmatic Goal	: To provide lo trends w/in E	ng-term viable SA-listed salm	populatio onid ESUs	n assessment 5.	data; to monitor j	oopulation
<u>Stream name</u> Caspar Creek Hare Creek Noyo River	L 12 12 12	<b>LID</b> 238158393618 238121394173 238089394276		Watershed I Big-Navarro- Big-Navarro- Big-Navarro-	<u>1ame</u> -Garcia. -Garcia. -Garcia.	<u>HUC</u> 10108 10108 10108
CDFG						ID# 115
Correspondent: Geo	rge Neillands					
Field techniques:	<u>Juvenile</u> n/a	1	<b>Outmigra</b> n/a	<u>nts</u>	<u>Adults</u> upstream t count, redo count, dire	rap, spawner l count, carcass ct observation
Data types:	n/a	1	n/a		population abundance genetic	index, population , demographic,
Uncertainty:					statistical	
Site selection: die log	ctated by gistics/circumstanc	Year began: e	2000	In	terval:	weekly
Geoprecision: ac <u>Response to:</u>	curate to stream	Year ended: Years missed:	ongoing complet regular	g Du te, Su	iration: mmaries:	0–5 yr yearly
Positive impact?	yes	Season:	-	Fu	nding source:	CDFG

Negative impact? yes	Start: Fnd:	Dec Apr	Support: Future intent (vr):	2004 0-5
Technical Goal: Estimate run (	composition a	nd temporal dis	tribution: collect genetic	tissue samples
Programmatic Goal: SRAMP has p anadromous s	provided popu pecies.	lation assessme	ent across the KMP and N	C ESUs for
Stream nameLPudding Creek12	<u>LID</u> 238083394591	<u>Wa</u> Big	<u>tershed name</u> -Navarro-Garcia.	<u>HUC</u> 10108
CDFG				ID# 235
Correspondent: Larry Preston				
JuvenileField techniques:direct observatioelectrofishing	n,	<u>Outmigrants</u> n/a	<u>Adults</u> other	
Data types: presence/absence	e	n/a	presence/a	absence
Uncertainty: none				
Site selection:qualitative selectionGeoprecision:accurate to watershedResponse to:no	Year began: 1 Year ended: Years missed Season:	2000 2003 : snapshot	Interval: Duration: Summaries: Funding source:	once 0–5 yr one-time various:CDFG SFRA/FRGP
Negative impact? no	Start:	May	Support:	2004
Impact controls? no	End:	Oct	Future intent (yr):	0–5
Technical Goal:	alifamia ECA	and darralan na		
Stream name	alliomia ESA	and develop re	torshod name	шс
Not georeferenced	<u>0999999999999999999999999999999999999</u>	<u>, vv a</u>	tersneu name	<u>noc</u>
CDFG Correspondent: Larry Preston		Outmigrants	A dulte	ID# 284
Field techniques: n/a		n/a	other	
<b>Data types:</b> n/a		n/a	presence/a	absence
Uncertainty:			Ĩ	
Site selection:qualitative selectionGeoprecision:accurate tosubwatershed	Year began: Year ended:	2000 2003	Interval: Duration:	daily 0–5 yr
Response to:	Years missed	: complete, regular	Summaries:	one-time
Positive impact? no	Season:		Funding source:	various:CDFG

Negative impact? n	0	Start:	May	Support:	2004
Impact controls? n	0	End:	Oct	Future intent (yr):	0–5
Technical Goal:					
Programmatic Goal:			<b>W</b> - 4 <b>b</b>		ше
Stream name	<u>LI</u> 12	LID 2240(285027	<u>Watersh</u>	<u>ed name</u>	<u>HUC</u>
Sproule Creek	12	32496385937	Gualala-S	Salmon.	10109
CDFG					ID# 127
Correspondent: Brad	Valentine	-			
	Juvenile	<u>C</u>	<u>Dutmigrants</u>	<u>Adults</u>	
Field techniques:	electrofishing	n	/a	n/a	
Data types:	population index	n	/a	n/a	SFRA/FRGP
Uncertainty:	statistical				
Site selection: qua	litative selection	Year began:	1992	Interval:	yearly
Geoprecision: acc	urate to stream	Year ended:	ongoing	Duration:	11–20 yr
<b>Response to:</b>		Years missed:	complete with	Summaries:	yearly
			gaps, regular		
Positive impact? n	0	Season:		Funding source:	CDFG
Negative impact? n	0	Start:	Oct	Support:	indefinite
					(underfunded)
Impact controls? n	0	End:	Oct	Future intent (yr):	indefinite
Technical Goal:	Long-term mo	nitoring of stee	elhead and coho sal	mon populations.	
Programmatic Goal:	Directed at log	gging impacts.			
<u>Stream name</u>	Ll	<u>LID</u>	Watersh	ed name	<u>HUC</u>
Unknown. Use LLI	D 12	237544393463 Big-Nava		arro-Garcia.	10108
Little North Fork No	byo River 12	36958394458	Big-Nava	arro-Garcia.	10108
<b>Environmental Sc</b>	ience Associat	es			ID# 118
Correspondent: Mike	Podlech				
	Juvenile	<u>C</u>	<u>Dutmigrants</u>	Adults	
Field techniques:	downstream trap	d	irect observation	upstream	trap
Data types:	population abund demographic	ance, p d	opulation abundance emographic, geneti	ce, population c	n index
Uncertainty:	qualitative			basic quar	ntitative
Site selection: dict logi	ated by stics/circumstance	Year began:	2003	Interval:	daily
Geoprecision: acc	urate	Year ended:		Duration:	0–5 yr
Response to:		Years missed:	snapshot	Summaries:	one-time
Positive impact? n	0	Season:		Funding source:	private grant
Negative impact? y	es	Start:	Mar	Support:	currently

Technical Goal:Outlet monitoring of pond.Programmatic Goal:Part of a NMFS enforcement action.Stream nameLLIDSan Vicente Creek1221929370093San Lorenzo-Soquel.60001	
Programmatic Goal:Part of a NMFS enforcement action.Stream nameLLIDSan Vicente Creek1221929370093San Lorenzo-Soquel.60001	
Stream nameLLIDWatershed nameHUCSan Vicente Creek1221929370093San Lorenzo-Soquel.60001	
San Vicente Creek 1221929370093 San Lorenzo-Soquel. 60001	
Golden Gate National Recreation Area (NPS) ID	# 24
Correspondent: Darren Fong	
Juvenile <u>Outmigrants</u> <u>Adults</u>	
<b>Field techniques:</b> electrofishing, seining n/a spawner count, r	edd count
Data types:presence/absence,n/apopulation index	,
population index, demographic, ge	netic
Uncertainty: statistical none unfu	nded
	lucu
Site selection: dictated by Vear began: 1994 Interval: see r	otes
logistics/circumstance	0105
- qualitative	
Geoprecision: accurate Year ended: ongoing Duration: 6–10	yr
Response to:Years missed:complete,Summaries:year	у
incremental	
Positive impact? yes Season: see notes Funding source: agen	ing
Impact controls? no End: Support. Ongo	ing
<b>Technical Goal:</b> Determine whether population fluctuations are a result of management acti	ons and
how.	
<b>Programmatic Goal:</b> To determine natural variation in population dynamics.	
Stream name LLID Watershed name HUC	
Redwood Creek1225776378596Tomales-Drake Bays.50005	

#### HG Harvey & Assoc. Correspondent: Scott Gre

Correspondent:	Scott Gressey				
	Juvenile	<u>(</u>	<u>Outmigrants</u>	Adults	
Field techniqu	ies: seining, other	s	seining, other	n/a	
Data types:	presence/absence	ce p	presence/absence	n/a	
Uncertainty:	none	r	none		
Site selection:	dictated by logistics/circumstan	Year began: ce	2002	Interval:	other
Geoprecision: <u>Response to:</u> Positive impact	accurate	Year ended: Years missed: Season:	2002 snapshot	Duration: Summaries: Funding source:	0–5 yr one-time agency base
Negative impact	t? no	Start:	Oct	Support:	single sampling

Impact controls? no	End:	Nov	Future intent (yr):	ended
Technical Goal:	Determine if sampling protoc the lagoon for salmonids.	col could be develo	ped which would effe	ectively sample in
Programmatic Goal:	Feasibility analysis to see if j program.	uveniles/smolts wo	uld be affected by pr	oposed breeding
<u>Stream name</u> San Lorenzo River	<u>LLID</u> 1220302369911	<u>Watersh</u> San Lore	<u>ed name</u> nzo-Soquel.	<u>HUC</u> 60001

#### **HG Harvey and Assoc.** Correspondent: Laird Henkel

~	inespondent. Land	пенкеі				
	Field techniques:	<u>Juvenile</u> direct observation electrofishing	n,	<u>Outmigrants</u> direct observation, electrofishing	<u>Adults</u> n/a	event
	Data types:	population abund demographic	lance,	presence/absence, population abundan	n/a ce	
	Uncertainty:	statistical		statistical		
	Site selection: rand Geoprecision: pred Response to:	dom site selection cise	Year began: Year ended: Years missed	<ul><li>1994</li><li>ongoing</li><li>complete with gaps, incremental</li></ul>	Interval: Duration: Summaries:	yearly 11–20 yr yearly
	<b>Positive impact?</b> no	0	Season:		Funding source:	municipal
	Negative impact? n	0	Start:	Aug	Support:	currently
	Impact controls? n	0	End:	Sept	Future intent (yr):	ongoing
	Technical Goal:	Estimate dens to newer rando	ity and abund omized sampl	ance for watershed; ing.	compare historic sar	mpling methods
	Programmatic Goal:	Develop basel	ine data for u	se in general waters	ned management.	
	<u>Stream name</u>	L	LID	Watersh	ed name	HUC
	Bean Creek	12	220605370516	5 San Lore	nzo-Soquel.	60001
	Bear Creek	12	21209371277	7 San Lore	nzo-Soquel.	60001
	Boulder Creek	12	21202371271	San Lore	enzo-Soquel.	60001
	Branciforte Creek	12	20130369869	9 San Lore	enzo-Soquel.	60001
	Carbonera Creek	12	220212369740	) San Lore	enzo-Soquel.	60001
	Fall Creek	12	220773370595	5 San Lore	enzo-Soquel.	60001
	Kings Creek	12	221333371555	5 San Lore	enzo-Soquel.	60001
	Newell Creek	12	20793370809	9 San Lore	enzo-Soquel.	60001
	San Lorenzo River	12	20302369911	San Lore	enzo-Soquel.	60001
	Zayante Creek	12	220673370481	San Lore	nzo-Soquel.	60001

#### Institute for Forest and Watershed Management/HSU Correspondent: Dana McCanne

onespondent. Dana	WieCame			
Field techniques:	Juvenile direct observation, electrofishing	<u>Outmigrants</u> n/a	<u>Adults</u> n/a	
Data types:	population abundance	n/a	n/a	
Uncertainty:	statistical			
C				
Site selection: othe	er Vear began:	1999	Interval:	vearly
Geoprecision: acc	urate Year ended:	2003	Duration:	0-5  vr
Response to:	Years misse	d: complete,	Summaries:	vearly
		regular		5 5
<b>Positive impact?</b> n	o Season:		Funding source:	various: NOAA/CDFG/co mmercial-extractio
Nagativa impact? n	o. Stanti	Aug	Sunnarte	II
Impact controls? n	o Start:	Aug	Support: Future intent (vr):	ongoing
Tachnical Coal:	Population estimates to det	ermine trends over	time	ongoing
Programmatia Caale	Determine trends in nonul	tion and ESA statu	unic.	
Frogrammatic Goal.		Wotow	o. Nod nomo	ше
<u>Stream name</u>	<u>LLID</u> 1227((820225	$\frac{\text{waters}}{\text{Dia Na}}$	sneu name	<u>nuc</u>
Albion Kiver	123/00839223	4 Big-Na	varro-Garcia.	10108
Alder Creek	123093839004	-5 Big-Na	varro-Garcia.	10108
Big River	123795339302	Dig-Ina	varro-Garcia.	10108
Big Kiver Dualtharm Creat	123/93339302	$\frac{1}{2}$ Kussian $\frac{1}{2}$ Dia Na	l. Verre Careio	10110
Cottonova Creak	12378299239	Dig-INa	varro Carcia	10108
Deule Creek	123828239730	DI DIG-INA	vario-Garcia.	10108
Carola Divor	12381/339300	14 DIG-INA	varro Garcia	10108
Creamwood Creat	123724036943	Dig-Ina	varro Caroia	10108
Guelele Divor	123/1/039120	Dig-iva	Vallo-Galcia.	10108
Gualaia Kivel	123332336700	$\frac{10}{10}$ $10$	I-Salilloll.	10109
Howard Crook	12380/139/10	0 Dig-Ina	varro Garcia	10108
Juan Creek	123730433077	Dig-Ina	varro Garcia	10108
Mallo Pass Creek	123603139702	2 Dig-Ind 2 Dig-Ind	varro-Garcia	10108
Mills Creek	123693539055	6 Big-Na	varro-Garcia	10108
Moat Creek	123674238881	3 Big-Na	varro-Garcia	10108
Navarro River	123760139191	9 Rio-Na	varro-Garcia	10108
Novo River	123808939427	6 Big-Na	varro-Garcia	10108
Point Arena Creek	123709238914	.7 Big-Na	varro-Garcia	10108
Russian River	123127838450	7 Russian	]	10110
Russian River	123127838450	7 Rodega	Bav	10111
Schooner Gulch	123654538866	6 Big-Na	varro-Garcia.	10108
		0		

Marin Municipal W	Vater District	ţ			ID# 17
Correspondent: Eric E	ttlinger (for Gre	g Andrews)			
<b>J</b> Field techniques: d e	<b>Iuvenile</b> lirect observation electrofishing	n, <u>O</u>	<b>outmigrants</b> ⁄a	<u>Adults</u> n/a	
Data types: p	oopulation index, lemographic, gei	, n/ netic	/a	n/a	
Uncertainty: b	oasic quantitative	e			
Site selection: qualit Geoprecision: accur <u>Response to:</u>	tative selection ate	Year began: Year ended: Years missed:	'70's ongoing complete with gaps, incremental	Interval: Duration: Summaries:	yearly 20+ yr yearly
Positive impact? no		Season:	mid. Oct early Feb.	Funding source:	municipal
Negative impact? yes	5	Start:	Oct	Support:	ongoing
Impact controls? no		End:	Feb	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Monitor popul	lation trends.			
Programmatic Goal:	Regulatory co increase in col	mpliance, order ho salmon abun	from state expects	s demonstration of a	opreciable
<u>Stream name</u>	L	LID	<u>Watersh</u>	ed name	<u>HUC</u>
Devils Gulch	12	27359380291	Tomales-	Drake Bays.	50005
Lagunitas Creek	12	28246380899	Tomales-	Drake Bays.	50005
San Geronimo Creek	12	27078380050	San Pable	o Bay.	50002
San Geronimo Creek	12	27078380050	Tomales-	Drake Bays.	50005

# Marin Municipal Water District

Correspondent:	Eric Ettlinger (for Gre	eg Andrews)			
	<u>Juvenile</u>	<u>0</u>	utmigrants	<u> </u>	Adults
Field techniqu	es: n/a	n	/a	S	pawner count, redd count, lirect observation
Data types:	n/a	n	/a	r a g	presence/absence, population bundance, demographic, genetic
Uncertainty:				C	jualitative
Site selection:	dictated by logistics/circumstanc	Year began:	'70's	Interval:	weekly
Geoprecision:	accurate	Year ended:	ongoing	<b>Duration:</b>	20+ yr
<u>Response to:</u>		Years missed:	complete with gaps, incremental	Summarie	s: other
Positive impact?	no	Season:	mid. Oct early Feb.	Funding s	ource: municipal
Negative impact	? yes	Start:	Oct	Support:	ongoing

Impact controls?	no	End:	Feb	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Monitor popu	lation trends.			
Programmatic Goal	: Regulatory co increase in co	ompliance: Orde ho salmon abur	er from state expect ndance.	ts demonstration of a	appreciable
Stream name	L	LID	Watersh	ed name	HUC
Devils Gulch	12	227359380291	Tomales	-Drake Bays.	50005
Lagunitas Creek	12	228246380899	Tomales	-Drake Bays.	50005
San Geronimo Cree	ek 12	227078380050	San Pabl	o Bay.	50002
San Geronimo Cree	ek 12	227078380050	Tomales	-Drake Bays.	50005
Mendocino Redw Correspondent: Dav	r <b>ood Co. LLC</b> id Ulrich				ID# 102
	Juvenile	<u>C</u>	<u>Dutmigrants</u>	Adults	
Field techniques:	electrofishing	n	/a	n/a	
Data types:	presence/absence	e n	/a	n/a	
Uncertainty:					
Site selection: dic log	ctated by gistics/circumstanc	Year began: e	2000	Interval:	other
Geoprecision: acc	curate to watershee	l Year ended:	2002	Duration:	0–5 yr
<b>Response to:</b>		Years missed:	rotating, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	commercial: extraction
Negative impact?	no	Start:	Jun	Support:	unknown
Impact controls?	no	End:	Oct	Future intent (yr):	indefinite
Technical Goal:	Determine dis	stribution throug	ghout company ow	nership; technical ev	valuation.
<b>Programmatic Goal</b>	: Compliance a	nd managemen	t evaluation.	<b>F</b> ,	
Stream name	L		Watersh	ed name	HUC
Not georeferenced	99	999999999999999	<u></u>	<u></u>	
Merrit Smith Cor Correspondent Mic	nsulting hael Fawcett				ID# 22
conceptination. The	Juvenile	C	Dutmigrants	Adults	
Field techniques:	seining	n	/a	n/a	
Data types:	presence/absence/ population index demographic, ge	e, n	/a	n/a	
Uncertainty:	basic quantitativ	e			
Site selection: qu	alitative selection	Year began:	1993	Interval:	other
Geoprecision: pre	ecise	Year ended:	ongoing	Duration:	6–10 yr
<b>Response to:</b>		Years missed:	no	Summaries:	other
Positive impact?	no	Season:	June - October	Funding source:	agency base

Negative impact? no Impact controls? no Technical Goal:	Start: End: Long-term study. Changes cor coho salmon populations on a individual impacts from long-t	Jun Support Oct Future in npiled with human-induced yearly basis - reproductive erm data.	indefinite <b>ntent (yr):</b> ongoing impacts on steelhead and success - can assess		
Programmatic Goal:	Determine whether city wastewater practices are appropriate.				
Stream name	LLID	Watershed name	<u>HUC</u>		
Unknown. Use LLID	1228597387212	Russian.	10110		
Gird Creek	1228406386740	Russian.	10110		
Green Valley Creek	1229083385050	Russian.	10110		
Maacama Creek	1227830386136	Russian.	10110		
Mark West Creek	1228917384942	Russian.	10110		
Matanzas Creek	1227111384374	Russian.	10110		
Miller Creek	1228844387050	Russian.	10110		
Santa Rosa Creek	1228333384513	Russian.	10110		
Santa Rosa Creek	1228333384513	San Pablo Bay.	50002		
Sausal Creek	1228081386501	Russian.	10110		

# Monterey Salmon and Trout Project Correspondent: Kingfisher Flat Hatchery

orrespondent: K	ingfisher Flat Ha	tchery			
	<u>Juvenile</u>	<u>0</u>	utmigrants	Adults	
Field techniques	s: n/a	n/	a	n/a	
Data types:	n/a	n/	a	n/a	
Uncertainty:	unknown	u	nknown	unknown	
Site selection:	dictated by logistics/circumst	Year began: ance	1982	Interval:	daily
Geoprecision:	accurate	Year ended:	ongoing	<b>Duration:</b>	20+ yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: MBSTP, state/fed (assume)
Negative impact?	no	Start:		Support:	ongoing (assume)
Impact controls?	no	End:		Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic Go	oal: Restoratio	n of local steelhead	and coho salm	on populations.	
Stream name		LLID	Wate	ershed name	<u>HUC</u>
Big Creek		1222290370668	San L	orenzo-Soquel.	60001
San Lorenzo Riv	er	1220302369911	San L	orenzo-Soquel.	60001

#### **NOAA Fish**

NOAA Fish				ID# 139
Correspondent:	Ellen Freund			
	<u>Juvenile</u>	<u>Outmigrants</u>	<u>Adults</u>	
Field techniq	ues: direct observation, seining	direct observation, seining	n/a	

Data types:	presence/absence demographic, ger	netic	presence/absence, demographic, genet	n/a ic	
Uncertainty:	unknown	1	unknown		
Site selection:	dictated by logistics/circumstance	Year began:	2003	Interval:	monthly
Geoprecision: <u>Response to:</u>	accurate	Year ended: Years missed	ongoing complete, regular	Duration: Summaries:	0–5 yr yearly
Positive impact? Negative impact? Impact controls?	yes yes no	Season: Start: End:	All Yr All Yr	Funding source: Support: Future intent (yr):	NOAA Fish ongoing 0–5
Technical Goal:	Monitor the ut on growth, res	ilization of sn idence times,	nall estuaries by col feeding, metabolic	to salmon and steelhe rate and physiologica	ad by focusing 1 status.
Programmatic G	oal: To determine maintenance a physiological interaction of	the importanc nd recovery o factors and ho these two spec	e of the small estuar of populations of col- ow those are affected cies.	ies along the central to salmon and steelhe by environmental va	coast for the ead. Monitor ariables and the
<u>Stream name</u> Redwood Creek Scott Creek	<u>L1</u> 12 12	L <u>ID</u> 25776378596 22254370542	Watersh Tomales San Lore	t <mark>ed name</mark> -Drake Bays. enzo-Soquel.	HUC 50005 60001
NOAA Fish Correspondent: E	Illen Freund				ID# 140
Field technique	<b>Juvenile</b> direct observation	n, seining	Outmigrants direct observation, s	eining n/a	
Data types:	presence/absence demographic, gei	netic	presence/absence, demographic, genet	n/a ic	
Uncertainty:	unknown	1	unknown		
Site selection:	dictated by logistics/circumstance	Year began:	2003	Interval:	monthly
Geoprecision: <u>Response to:</u>	accurate	Year ended: Years missed	ongoing complete, regular	Duration: Summaries:	0–5 yr yearly
Positive impact? Negative impact? Impact controls?	yes yes no	Season: Start: End:	All Yr All Yr	Funding source: Support: Future intent (yr):	NOAA Fish ongoing 0–5

Impact controls?noEnd:All YrFuture intent (yr):0-5Technical Goal:Monitor the utilization of small estuaries by coho salmon and steelhead by focusing on growth, residence times, feeding, metabolic rate and physiological status.Programmatic Goal:To determine the importance of the small estuaries along the central coast for the

**IDENTIFY and SET UP:** To determine the importance of the small estuaries along the central coast for the maintenance and recovery of populations of coho salmon and steelhead. Monitor physiological factors and how those are affected by environmental variables and the interaction of these two species.

<u>Stream name</u>	LLID	Watershed name	HUC
Willow Creek	1214608358935	Central Coastal.	60006

#### NOAA Fish

Correspondent: Sea	an A. Hayes				
Field techniques:	<u>Juvenile</u> seining		<u>Outmigrants</u> downstream trap,	seining <u>Adults</u> upstream count	trap, spawner
Data types:	presence/absence demographic, get	e, netic	presence/absence, population index, population abunda demographic, gen	presence/ index, po ance, demograp etic	absence, population pulation abundance, phic, genetic
Uncertainty:			statistical		
Site selection: di lo	ctated by gistics/circumstance	Year began:	2002	Interval:	other
Geoprecision: ac <u>Response to:</u>	ccurate to watershed	Year ended: Years missed	ongoing I: complete, regular	Duration: Summaries:	0–5 yr one-time
Positive impact?	yes	Season:		Funding source:	various: CDFG CCSRP/NOAA
Negative impact?	yes	Start:	All Yr	Support:	indefinite
Impact controls?	no	End:	All Yr	Future intent (yr):	0–5
- Technical Goal:					
Programmatic Coo	. Management	uestion addr	essing effects of a	tificial propagation or	wild stocks
Frogrammatic Goa					I WIIU SLOCKS.
Stream name		LID	Water	shed name	<u>HUC</u>
Big Creek	12	2229037066	8 San Lo	orenzo-Soquel.	60001
Scott Creek	12	22254370542	2 San Lo	orenzo-Soquel.	60001
NOAA Fish					ID# 57
Correspondent: Day	vid Hines				
	<u>Juvenile</u>		<u>Outmigrants</u>	<u>Adults</u>	
Field techniques:	downstream trap		n/a	n/a	
Data types:	presence/absence population index	2	n/a	n/a	
Uncertainty:	statistical				
Site selection: di lo	ctated by gistics/circumstance	Year began:	2003	Interval:	daily
Geoprecision: ac	ccurate to stream	Year ended:	ongoing	<b>Duration:</b>	0–5 yr
<u>Response to:</u>		Years missed	l: complete, regular	Summaries:	yearly
<b>Positive impact?</b>	yes	Season:		Funding source:	unfunded
Negative impact?	yes	Start:	Mar	Support:	unfunded (2007)
Impact controls?	no	End:	Jun	Future intent (yr):	0–5
Technical Goal:	Coho Interven	tion Group m	nav use data to dete	ermine survival rate	
Programmatic Coo	Begulatory co	mnliance and	management Hu	othesis: Austin Creel	is graded and
i rogrammatic G0a	mouth dries up	p. By creatin	g a better channel	and connecting it to m	outh we are

<u>Stream name</u> Austin Creek Austin Creek	LI 12 12	2 <b>ID</b> 30489384652 30489384652		<u>Watershe</u> Gualala-S Russian.	e <u>d name</u> almon.	HUC 10109 10110
NOAA Fish Correspondent: David	d Hines					ID# 59
Field techniques:	Juvenile direct observation electrofishing	n, n	<u>Dutmigra</u> n⁄a	<u>nts</u>	<u>Adults</u> n/a	
Data types:	presence/absence population index, demographic	, r	n/a		n/a	
Uncertainty:	statistical					
Site selection: dict logi	ated by istics/circumstance	Year began:	2002		Interval:	yearly
Geoprecision: accu <u>Response to:</u> yearly	urate to stream hoping to mair	Year ended: ntain flow.	ongoing	5	Duration: Years missed:	0–5 yr Summaries:
Response to:		Years missed:	complet regular	te,	Summaries:	yearly
Positive impact? y Negative impact? y Impact controls? n	es es o	Season: Start: End:	Aug Sept		Funding source: Support: Future intent (yr):	NOAA Fish yr-to-yr ongoing
Technical Goal:	Determine pre- baseline inform	sence/absence nation for spec	& use as cies recov	monitoring ery.	g tool for gravel min	ling. Collect
Programmatic Goal: <u>Stream name</u> Austin Creek Austin Creek Fort Ross Creek Willow Creek	Assess status o <u>L1</u> 12 12 12 12 12	of populations <u><b>ID</b></u> 30489384652 30489384652 32425385119 30960384392	in Austin	Cr. Waters <u>Watershe</u> Gualala-S Russian. Gualala-S Russian.	shed. Regulatory con e <u>d name</u> almon. almon.	mpliance. <u>HUC</u> 10109 10110 10109 10110
NOAA Fish Correspondent: Thon	nas Williams					ID# 165
Field techniques:	<u>Juvenile</u> direct observation	n n	<u>Dutmigra</u> 1/a	<u>nts</u>	<u>Adults</u> n/a	
Data types: Uncertainty:	population index none	r	n/a		n/a	
Site selection: unk Geoprecision: accu <u>Response to:</u>	nown urate to stream	Year began: Year ended: Years missed:	2000 2003 complet regular	te,	Interval: Duration: Summaries:	yearly 0–5 yr yearly
<b>Positive impact?</b> n	0	Season:			Funding source:	NOAA Fish

Negative impact? no	Start:	Jul	Support:	indefinite
Impact controls? no	End:	Sept	Future intent (yr):	indefinite
Technical Goal:				
Programmatic Goal:				
<u>Stream name</u>	<u>LLID</u>		Watershed name	<u>HUC</u>
Unknown. Use LLID	1236383394088		Big-Navarro-Garcia.	10108
Unknown. Use LLID	1236418393851		Big-Navarro-Garcia.	10108
Unknown. Use LLID	1236581393690		Big-Navarro-Garcia.	10108
Unknown. Use LLID	1236097393972		Big-Navarro-Garcia.	10108
Unknown. Use LLID	1236213393805		Big-Navarro-Garcia.	10108
Bear Gulch	1236728393841		Big-Navarro-Garcia.	10108
Brandon Gulch	1236815394045		Big-Navarro-Garcia.	10108
North Fork South Fork Noyo	1236845393910		Big-Navarro-Garcia.	10108
River				
Parlin Creek	1236582393695		Big-Navarro-Garcia.	10108
South Fork Noyo River	1237258394248		Big-Navarro-Garcia.	10108

# Pt. Reyes National Seashore Correspondent: Brannon Ketcham

Field techniques:	Juvenile downstream trap, electrofishing		Outmigrants downstream trap, electrofishing	<u>Adults</u> carcass co observatio	unt, direct n
Data types:	population index, demographic, gei	netic	population index, demographic, genetic	demograpl c	nic, genetic
Uncertainty:	basic quantitative	•	statistical	statistical	
Site selection: othe	er	Year began:	1998	Interval:	other
Geoprecision: accu Response to:	urate	Year ended: Years missed	complete, regular	Duration: Summaries:	0–5 yr yearly
<b>Positive impact?</b> y	es	Season:		Funding source:	various: agency base (50%)/ other(50%)
Negative impact? n	0	Start:	Mar	Support:	ongoing(agency base)
Impact controls? n	0	End:	Jul	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Contribute to	information at	t the ESU level.		
Programmatic Goal:	Document exi mean for other	sting conditio r watersheds.	ns for management d	lecisions, what return	n of coho might
Stream name	L	LID	Watersho	ed name	<u>HUC</u>
Unknown. Use LLI	D 12	27548379964	Tomales-	Drake Bays.	50005
Unknown. Use LLI	D 12	27453380374	Tomales-	Drake Bays.	50005

ID# 64

#### Coho salmon, Central California Coast ESU

### Pt. Reyes Nat'l Seashore

Correspondent: Brann	on Ketcham				
	<u>Juvenile</u>	<u>0</u>	utmigrants	Adults	
Field techniques:	downstream trap, observation, elect	direct n/ rofishing	a	n/a	
Data types:	presence/absence population index, population abund demographic, gen	, n/ ance, netic	′a	n/a	
Uncertainty:	statistical				
Site selection: quali Geoprecision: accu <u>Response to:</u>	tative selection rate to stream	Year began: Year ended: Years missed:	1999 ongoing complete, incremental	Interval: Duration: Summaries:	yearly 0–5 yr yearly
Positive impact? no		Season:		Funding source:	various: agency base (50%)/ other(50%)
Negative impact? no		Start:	Jun	Support:	ongoing(agency base)
Impact controls? no		End:	Sept	Future intent (yr):	ongoing
Technical Goal:	Contribute to i	nformation at t	he ESU level.		
Programmatic Goal:	Document exist mean for other	sting conditions watersheds.	s for management c	lecisions, what return	n of coho might
<u>Stream name</u> Pine Gulch Creek	<u>LI</u> 12	26871379219	<u>Watersh</u> Tomales-	ed name Drake Bays.	<u>HUC</u> 50005
Sonoma Co. Water Correspondent: Sean V	Agency White				ID# 107
Field techniques:	Juvenile direct observation	n <u>O</u> n/	<b>utmigrants</b> ′a	<u>Adults</u> n/a	
Data types:	population abund	ance n/	'a	n/a	
Uncertainty:	statistical				
Site selection: rando Geoprecision: accu <u>Response to:</u> Positive impact? no Negative impact? no	om site selection rate to stream	Year began: Year ended: Years missed: Season: Start:	2000 2000 snapshot	Interval: Duration: Summaries: Funding source: Support:	once 0–5 yr one-time commercial: utility
Impact controls? no		End:	Sept	Future intent (vr):	ended
Technical Goal:	Develop popul	ation indices for	or those tributaries	listed for coho.	

 Programmatic Goal:
 In response to desire to develop management strategies by NMFS; baseline data for management decisions.

 Stream name
 LLID
 Watershed name
 HUC

<u>Stream name</u>	LLID	Watershed name	HUC
Green Valley Creek	1229083385050	Russian.	10110

Mark West Creek	1228917384942	Russian.	10110
Sheephouse Creek	1230938384489	Russian.	10110

# Coho salmon, no specific ESU

CDFG					ID# 29
Correspondent: Gary	Flosi				
	<u>Juvenile</u>		<u>Outmigrants</u>	<u>Adults</u>	
Field techniques:	direct observation electrofishing	n, i	n/a	n/a	
Data types:	presence/absence	;	n/a	n/a	
Uncertainty:	qualitative				
Site selection: dict	ated by istics/circumstance	Year began:		Interval:	unknown
Geoprecision: non	e	Year ended:		Duration:	
Response to:		Years missed	unknown	Summaries:	unknown
Positive impact? n	0	Season:		Funding source:	unknown
Negative impact? n	0	Start:		Support:	unknown
Impact controls? n	0	End:		Future intent (yr):	unknown
Technical Goal:	Technical eva	luation.			
<u>Stream name</u> Not georeferenced	recommendati Ll 99	ons for restora LID 99999999999999999999999999999999999	ation. Waters	hed name	<u>HUC</u>
CDFG					ID# 83
Correspondent: Jenni	fer Nelson				
Field techniques:	<u>Juvenile</u> direct observation electrofishing, se	n, ining	<u>Outmigrants</u> n/a	<u>Adults</u> n/a	
Data types:	presence/absence	;	n/a	n/a	
Uncertainty:	none				
Site selection: qua	litative selection	Year began:	1995	Interval:	once
Geoprecision: non	e	Year ended:	ongoing	Duration:	6–10 yr
Response to:	-	Years missed	rotating, opportunistic	Summaries:	other
Positive impact? n	0	Season:		Funding source:	CDFG SFRA
Negative impact? n	0	Start:	Jun	Support:	3 yr
Impact controls? n	0	End:	Oct	Future intent (yr):	indefinite
Technical Goal:	Acquire prese	nce/absence d	ata.		
	1 1				

# Coho salmon, no specific ESU

Programmatic Goal:	Management question. Will be for now.	used in future for management	decisions; baseline data
<u>Stream name</u> Not georeferenced	<u>LLID</u> 999999999999999	Watershed name	<u>HUC</u>

# Steelhead, Klamath Mountain Province ESU

# CDFG Correspo

CDFG					ID# 216
orrespondent: I	Larry Preston				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field technique	es: n/a	n/	a	other	
Data types:	n/a	n/	a	presence/a	absence
Uncertainty:					
Site selection:	qualitative selection	Year began:	2000	Interval:	daily
Geoprecision:	accurate to subwatershed	Year ended:	2003	Duration:	0–5 yr
<b>Response to:</b>		Years missed:	complete, regular	Summaries:	one-time
Positive impact?	no	Season:		Funding source:	various:CDFG SFRA/FRGP
Negative impact	? no	Start:	May	Support:	2004
Impact controls?	no	End:	Oct	Future intent (yr):	0–5
<b>Technical Goal:</b>					
Programmatic G	Goal:				
<u>Stream name</u>	]	LLID	Watersh	<u>ed name</u>	HUC
Eighteenmile Cr	reek	1239208418458	Smith.		10101
Griffin Creek		1237628419202	Smith.		10101
Hardscrabble Ci	reek	1240250418387	Smith.		10101
Hutsinpillar Cre	ek	1241317418786	Smith.		10101
Idlewild Creek		1237703418976	Smith.		10101
Kelly Creek		1238554418635	Smith.		10101
Knopti Creek		1237366419316	Smith.		10101
Little Jones Cre	ek	1238320418677	Smith.		10101
Little Mill Cree	k	1241231418733	Smith.		10101
Mill Creek		1240825417920	Smith.		10101
Monkey Creek		1238189418830	Smith.		10101
Morrison Creek		1241566419048	Smith.		10101
Myrtle Creek		1240535418010	Smith.		10101
North Fork Smi	th River	1239681418479	Smith.		10101
Packsaddle Cree	ek	1237664419111	Smith.		10101
Patrick Creek		1238422418744	Smith.		10101
Rock Creek		1240805418093	Smith.		10101
Rowdy Creek		1241650419119	Smith.		10101
Siskiyou Fork		1238096418841	Smith.		10101

South Fork Smith Rive	er 12405654179	956 Smith	1.	10101
CDFG				ID# 236
Correspondent: Larry P	reston			
Ji Field techniques: di el	rect observation, ectrofishing	<u>Outmigrants</u> n/a	Adults other	
Data types: pr	resence/absence	n/a	presence/a	absence
Uncertainty: no	one			
Site selection: qualita Geoprecision: accura <u>Response to:</u> Positive impact? no	ative selection Year began te to watershed Year ender Years miss Season:	n: 2000 d: 2003 eed: snapshot	Interval: Duration: Summaries: Funding source:	once 0–5 yr one-time various:CDFG SFRA/FRGP
Negative impact? no	Start:	May	Support:	2004
Impact controls? no	End:	Oct	Future intent (yr):	0–5
<b>Technical Goal:</b>				
<b>Programmatic Goal:</b>	Respond to California ES	A and develop reco	overy parameters.	
<u>Stream name</u> Not georeferenced	<u>LLID</u> 999999999999	<u>Wate</u> 999	ershed name	<u>HUC</u>
CDFG				ID# 248
Correspondent: Gary Ra	amsden			
<u>Jı</u>	<u>uvenile</u>	<u>Outmigrants</u>	<u>Adults</u>	
Field techniques: n/	a	n/a	upstream	trap
Data types: n/	a	n/a	population	n index, genetic
Uncertainty:			statistical	
Site selection: dictate logisti	ed by Year began cs/circumstance	n: 1963	Interval:	daily
Geoprecision: accura <u>Response to:</u>	te Year ender Years miss	d: ongoing ed: complete, regular	Duration: Summaries:	20+ yr yearly
Positive impact? no	Season:		Funding source:	CDFG (assume)
Negative impact? no	Start:	Sept	Support:	ongoing (assume)
Impact controls? no	End:	Mar	Future intent (yr):	ongoing
Technical Goal:				
Programmatic Goal:	Hatchery operated as con River Project.	npensation for spaw	vning and rearing areas h	ost to the Trinity
Stream name	LLID	Wate	ershed name	<u>HUC</u>

CDFG					ID# 258
Correspondent:	Wade Sinnen				
Field techniqu	es: n/a	O n/	<b>utmigrants</b> a	<u>Adults</u> upstream tr	ap
Data types:	n/a	n/	a	population demograph	abundance, ic
Uncertainty:				statistical	
Site selection:	dictated by logistics/circumstance	Year began: e	1997	Interval:	other
Geoprecision:	accurate to subwatershed	Year ended:	ongoing	Duration:	6–10 yr
<b>Response to:</b>		Years missed:	complete with gaps, regular	Summaries:	other
Positive impact?	no	Season:		Funding source:	Bureau of Reclamation
Negative impact	? no	Start:	May	Support:	yr-to-yr
Impact controls	? no	End:	Dec	Future intent (yr):	indefinite
<b>Technical Goal:</b>					
Programmatic C	Goal: Multiple object	ctives.			
<u>Stream name</u>	L	LID	Watersho	ed name	<u>HUC</u>
Trinity River	12	237076411855	Trinity.	1	10211

#### CDFG Correspondent: Michael Wallace

Field techniques:	Juvenile downstream trap observation, sein	, direct ing	<u>Outmigrants</u> downstream trap, din observation, seining	rect n/a		
Data types:	presence/absence population index demographic	, ,	presence/absence, population index, demographic	n/a		
Uncertainty:	unknown		unknown			
Site selection: dic log	tated by istics/circumstance	Year began: e	1997	Interval:	weekly	
Geoprecision: acc	urate	Year ended:	1999	Duration:	6–10 yr	
Response to:		Years missed	I: snapshot	Summaries:	seasonally	
Positive impact? n	10	Season:		Funding source:	FRGP	
Negative impact? n	10	Start:	Mar	Support:	ongoing	
Impact controls? n	10	End:	Sept	Future intent (yr):	ongoing	
<b>Technical Goal:</b>						
<b>Programmatic Goal:</b> Determine critical mainstem river rearing areas for juvenile salmonids and emigration patterns on a basin-wide level.						
Stream name	L	LID	Watersh	ed name	HUC	
Unknown. Use LL	ID 12	240749415430	6 Lower K	lamath.	10209	

Klamath River Klamath River	124080741547 124080741547	1Upper Kla1Lower Kla	amath. amath.	10206 10209
<b>CDFG</b> Correspondent: Michael	l Wallace			ID# 242
<b>J</b> i <b>Field techniques:</b> el	<u>uvenile</u> ectrofishing, seining	Outmigrants electrofishing, seinin	g <u>Adults</u> n/a	
Data types: po de	opulation index, emographic	population index, demographic	n/a	
Uncertainty: un	nknown	unknown		
Site selection: dictate logisti	ed by Year began: cs/circumstance	1993	Interval:	weekly
Geoprecision: accura Response to:	te Year ended: Years misse	ongoing d: complete with gaps, regular	Duration: Summaries:	6–10 yr seasonally
Positive impact? no	Season:		Funding source:	CDFG SFRA
Negative impact? no	Start:	Mar	Support:	ongoing
Impact controls? no	End:	Sept	Future intent (yr):	ongoing
Technical Goal:	Determine critical mainster patterns on a basin-wide le	m rearing areas for juv vel.	venile salmonids and	l emigration
Programmatic Goal:	Determine annual proporti Klamath Basin. Monitor ti Klamath Basin.	ons of natural vs. hate iming and patterns of j	hery juveniles emigr uvenile salmonids le	rating from eaving the
Stream name	LLID	Watershe	ed name	<u>HUC</u>
Unknown. Use LLID	124074941543	6 Lower Kl	amath.	10209
Klamath River	124080741547	'1 Upper Kla	amath.	10206
Klamath River	124080741547	Lower Kl	amath.	10209
<b>CDFG S-RAMP</b> Correspondent: Bill Che	esney			ID# 260

Field techniques:	Juvenile downstream trap observation	, direct $d$	<u>Dutmigrants</u> ownstream trap, din bservation	rect n/a	
Data types:	presence/absence, population index, population abundance, demographic, genetic		resence/absence, opulation abundanc emographic, geneti	n/a ce, c	
Uncertainty:					
Site selection: unk Geoprecision: pre <u>Response to:</u>	xnown cise	Year began: Year ended: Years missed:	2000 2002 complete, incremental	Interval: Duration: Summaries:	daily 0–5 yr weekly
Positive impact? n Negative impact? n	10 10	Season: Start:	Feb	Funding source: Support:	unknown unknown

Impact controls? n	0	End:	Jul	Future intent (yr):	unknown
<b>Technical Goal:</b>					
Programmatic Goal:		LID	<b>TT</b> <i>t</i> <b>t</b>		шю
Stream name	<u>L</u>	<u>LID</u>	<u>Watersho</u>	ed name	<u>HUC</u>
Scott Kiver	1.	230355417791	Scott.		10208
CDFG S-RAMP					ID# 48
Correspondent: Patric	ck Garrison				
	Juvenile	0	outmigrants	Adults	
Field techniques:	electrofishing	n/	a a	n/a	
Data types:	presence/absence population index demographic	e, n/	′a	n/a	
Uncertainty:	unknown				
Site selection: rand	dom site selection	Vear began:	2000	Interval:	vearly
Geoprecision: acci	urate to stream	Year ended:	2003	Duration:	0-5  yr
Response to:		Years missed:	complete with	Summaries:	yearly
			gaps, regular		
Positive impact? n	0	Season:		Funding source:	CDFG
Negative impact? n	0	Start:	Aug	Support:	currently
Impact controls? n	0	End:	Sept	Future intent (yr):	0–5
Technical Goal:	Point estimate population de	es for juvenile st nsities with tem	teelhead throughout perature monitoring	t Trinity Basin. Pos g.	sibly correlate
Programmatic Goal:	Status and tre	nds of juvenile s	steelhead populatio	ns in the Trinity Bas	sin.
Stream name	<u>L</u>	LID	Watersho	ed name	<u>HUC</u>
Big Creek	12	231422405511	South For	rk Trinity.	10212
East Fork North For River	k Trinity 12	231287407836	Trinity.		10211
East Weaver Creek	12	229393407216	Trinity.		10211
Little Browns Creek	: 12	229287406953	Trinity.		10211
Little Grass Valley	Creek 12	228028406620	Trinity.		10211
Potato Creek	12	230422405031	South For	rk Trinity.	10212
Rattlesnake Creek	12	233118403698	South For	rk Trinity.	10212
Soldier Creek	12	230258406899	Trinity.		10211
CDFG S-RAMP					ID# 50
Correspondent: Patric	ck Garrison				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	Adults	
Field techniques:	n/a	n/	′a	redd coun	t, carcass coun

n/a

Uncertainty:

Data types:

n/a

ŀ	Adults
r	edd count, carcass count
r i	presence/absence, population ndex, demographic, genetic
Ç	Jualitative

Site selection: Geoprecision: <u>Response to:</u>	random accurate	site selection e to stream	Year began: Year ended: Years missed	2000 2003 : complet	te with	Interval: Duration Summari	: es:	other 0–5 yr monthly
Positive impact?	no		Season:			Funding	source:	CDFG
Negative impact	? no		Start:	Mar		Support:		2005
Impact controls?	e no		End:	May		Future in	tent (yr):	0-5
Technical Goal:		Enumerate nui Basin.	mber of redds	s on randon	nly selected	d tributari	es through	out the Trinity
Programmatic G	Goal:	Status and trer Comparisons t	nds of tributar to historic dat	y spawner a for mana	steelhead j gement im	population plications	ns in the Ti	rinity Basin.
<u>Stream name</u>		LI	LID		Watershe	ed name		<u>HUC</u>
Deadwood Cree	ek	12	28018407182	2	Trinity.			10211
Dutch Creek		12	30150406641	1	Trinity.			10211
Dutch Creek		12	30150406641	1	South For	k Trinity.		10212
East Fork Brow	ns Creek	x 12	29353405285	5	Trinity.			10211
East Fork Hayfe	ork Cree	k 12	30675404886	5	South For	k Trinity.		10212
Eltapom Creek		12	34931406618	3	South For	k Trinity.		10212
Pelletreau Creel	ĸ	12	34736406287	7	South For	k Trinity.		10212
Pelletreau Creel	k	12	34736406287	7	Mad-Red	wood.		10102
Plummer Creek		12	34178404771	1	South For	k Trinity.		10212
Potato Creek		12	3042240503	1	South For	k Trinity.		10212
Rattlesnake Cre	ek	12	27546405156	5	Cottonwo	od Headw	vaters.	20113
Rattlesnake Cre	ek	12	27546405156	5	Trinity.			10211
Smoky Creek		12	32363403044	1	South For	k Trinity.		10212
South Fork Indi	an Creel	к 12	28292405978	3	Trinity.			10211
Thompson Gulo	ch	12	31819405547	7	South For	k Trinity.		10212
CDFG S-RAM	P							ID# 53
Correspondent: H	Patrick (	Garrison						
Field technique	es: n/a	venile		Outmigra other	<u>nts</u>		<u>Adults</u> other	
Data types:	n/a			presence/a demograpł	bsence, nic		presence/a index, dem	bsence, population nographic, genetic
Uncertainty:				basic quan	titative		statistical	
Site selection:	dictated	l by	Year began:	1999		Interval:		other

Site selection:	dictated by logistics/circumstance	Year began:	1999	Interval:	other	
Geoprecision:	accurate to subwatershed	Year ended:	2003	Duration:	0–5 yr	
Response to:		Years missed:	complete with gaps, regular	Summaries:	weekly	
<b>Positive impact?</b>	no	Season:		Funding source:	CDFG	
Negative impact	yes?	Start:	Dec	Support:	currently	
Impact controls?	no	End:	Mar	Future intent (yr):	0–5	
<b>Technical Goal:</b> Quantification of angler effort and CPUE on upper Trinity River.						

<b>Programmatic Goal</b>	I: Management	of Trinity steelh	ead.		
<u>Stream name</u>	L	LID	Watershe	ed name	<u>HUC</u>
Mission Creek	1	196866344124	Santa Bar	bara Coastal.	60013
Trinity River	12	237076411855	Trinity.		10211
CDFG S-RAMP					ID# 250
Correspondent: Kim	nball Rushton				
-	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques:	n/a	ot	her	upstream	trap, other
Data types:	n/a	de	mographic, genetic	population	abundance, genetic
Uncertainty:		un	known	unknown	
Site selection: die log	ctated by gistics/circumstanc	Year began: e	1966	Interval:	unknown
Geoprecision: ve	ry precise	Year ended:	ongoing	Duration:	unfunded 20+ yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: Pac. Power & Light/hatchery/CD FG (assume)
Negative impact?	no	Start:	Feb	Support:	ongoing (assume)
Impact controls?	no	End:	Mar	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Determine rel	ationship betwee	en hatchery and nat	tural populations in	the basin.
Programmatic Goal	I: In response to constructed b areas blocked	NMFS ('97), ur y Pacific Power by the Iron Gate	ncertainty as to Iron and Light Co. to co e Project.	Gate Stock ESU st ompensate for spawr	atus. Hatchery ning and nursery
<u>Stream name</u>	L	LID	Watershe	ed name	<u>HUC</u>
Klamath River	12	240807415471	Lower Kl	amath.	10209
Klamath River	12	240807415471	Upper Kla	amath.	10206

### Mill Creek Fisheries Monitoring Program Correspondent: Zack Larson

Field technique	Juvenile es: downstream trap minnowtrap	,	Outmigrants downstream trap	<u>A</u> u c c	Adults pstream trap, spawner ount, redd count, carcass ount
Data types:	population abund demographic	lance,	population index, demographic	p a g	resence/absence, population bundance, demographic, genetic
Uncertainty:	statistical		statistical	S	tatistical
Site selection: Geoprecision:	qualitative selection accurate	Year began: Year ended:	1994 ongoing	Interval: Duration:	daily 6–10 yr

<b>Response to:</b>		Years missed	: complete, regular	Summaries:	yearly	
<b>Positive impact?</b> y	res	Season:		Funding source:	CDFG SFRA	
Negative impact? y	es	Start:	Feb	Support:	2005	
Impact controls? n	0	End:	Jul	Future intent (yr):	ongoing	
<b>Technical Goal:</b>						
<b>Programmatic Goal:</b>	Long-term	population trend	monitoring. Mill	Creek is considered a	typical tributary of	
	the Smith -	disturbed with s	ome old growth. I	reated as reference str	eam.	
Stream name		<u>LLID</u>	Waters	hed name	<u>HUC</u>	
East Fork Mill Cree	k ,	1240987417345	S Smith.		10101	
West Branch Mill C	reek	1240987417344	Smith.		10101	
NOAA Fish					ID# 164	
Correspondent: Chris	stopher Donoho	e				
Field techniques:	<u>Juvenile</u> electrofishing		<u>Outmigrants</u> n/a	<u>Adults</u> n/a		
Data types:	demographic,	genetic	n/a	n/a		
Uncertainty:	statistical					
Site selection: diction	tated by istics/circumsta	Year began: nce	2003	Interval:	once	
Geoprecision: ver	v precise	Year ended:	2003	Duration:	0–5 vr	
Response to:		Years missed	: snapshot	Summaries:	N/A	
Positive impact? n	0	Season:	1	Funding source:	NOAA Fish	
Negative impact? n	0	Start:	Jun	Support:	one-time	
Impact controls? n	0	End:	Jun	Future intent (yr):	ended	
<b>Technical Goal:</b> Estimate contribution of resident females to juvenile populations of O. Mykiss in anadromous reaches of the Klamath River, and examine genetic relationships among progeny of resident and anadromous forms. A secondary goal is to determine if the above co-vary with migratory distance or with proximity to resident populations above barriers.						
Programmatic Goal:						
<u>Stream name</u> Not georeferenced		LLID 99999999999999999999	) Waters	<u>hed name</u>	HUC	
USFS					ID# 230	
Correspondent: Jame	s Kilgore		<b>A A A</b>			
Field techniques:	Juvenile downstream tr observation, el	ap, direct ectrofishing	<u>Outmigrants</u> downstream trap	<u>Adults</u> redd coun	t, carcass count	
Data types:	presence/abser population ind population abu demographic,	nce, ex, indance, genetic	presence/absence, population index, population abundar demographic, gene	presence/ index, poj nce, demograp tic	absence, population pulation abundance, hic, genetic	

Uncertainty:	statistical	st	atistical	statistical	
Site selection: oth	ner	Year began: Year ended:	1993 ongoing	Interval: Duration:	other 6–10 yr
<b>Response to:</b>		Years missed:	complete, incremental	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	agency base
Negative impact? 1	no	Start:		Support:	ongoing
Impact controls?	no	End:		Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic Goal	l <b>:</b>				
Stream name	]	LLID	Watersh	ed name	<u>HUC</u>
Barkhouse Creek		1228482418204	Upper Kl	lamath.	10206
Beaver Creek		1228157418694	Upper Kl	lamath.	10206
Empire Creek		1227377418668	Upper Kl	lamath.	10206
Horse Linto Creek		1236196410002	Trinity.		10211
Humbug Creek		1226643418342	Upper Kl	lamath.	10206
Lumgrey Creek		1227378418673	Upper Kl	lamath.	10206
McKinney Creek		1228905418428	Upper Kl	lamath.	10206
Scott River		1230355417791	Scott.		10208
USFS					ID# 89
Correspondent: Bren	nda Olsen				
Correspondent: Bren	nda Olsen <u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	Adults	
Correspondent: Bren Field techniques:	nda Olsen <u>Juvenile</u> direct observati	ion <u>D</u>	<b>utmigrants</b> a	<u>Adults</u> spawner c	count, redd count
Correspondent: Bren Field techniques: Data types:	nda Olsen Juvenile direct observati presence/absen	ion n/ ce n/	<b>utmigrants</b> a a	<u>Adults</u> spawner c presence/a index	count, redd count absence, population
Correspondent: Bren Field techniques: Data types: Uncertainty:	nda Olsen Juvenile direct observati presence/absend	ion n/ ce n/	<b>utmigrants</b> a a	<u>Adults</u> spawner c presence/a index qualitative	count, redd count absence, population e
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dic log	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan	ion n/ ce n/ <b>Year began:</b> ice	<u>utmigrants</u> a a spotty	Adults spawner c presence/a index qualitative Interval:	count, redd count absence, population e other
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dic log Geoprecision: acc	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream	ion n/ ce n/ Year began: ice Year ended:	utmigrants a a spotty ongoing	Adults spawner c presence/a index qualitative Interval: Duration:	count, redd count absence, population e other unknown yr
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: accord Response to:	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream	on n/ ce n/ Year began: ce Year ended: Years missed:	utmigrants a a spotty ongoing intermittant	Adults spawner c presence/a index qualitative Interval: Duration: Summaries:	count, redd count absence, population e other unknown yr other
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: acc <u>Response to:</u> Positive impact?	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no	on n/ ce n/ Year began: ce Year ended: Years missed: Season:	utmigrants a a spotty ongoing intermittant	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source:	count, redd count absence, population e other unknown yr other private grant
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dic log Geoprecision: acc <u>Response to:</u> Positive impact? In Negative impact?	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no	on n/ ce n/ Year began: ice Year ended: Years missed: Season: Start:	utmigrants a a spotty ongoing intermittant Mar	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support:	count, redd count absence, population e other unknown yr other private grant yr-to-yr
Correspondent: Brei Field techniques: Data types: Uncertainty: Site selection: dic log Geoprecision: acc <u>Response to:</u> Positive impact? I Negative impact? I Impact controls? I	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no	on n/ ce n/ Year began: ce Year ended: Years missed: Season: Start: End:	utmigrants a a spotty ongoing intermittant Mar May	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ount, redd count absence, population e other unknown yr other private grant yr-to-yr ongoing
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dic log Geoprecision: acc <u>Response to:</u> Positive impact? I Negative impact? I Impact controls? I Technical Goal:	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no	on n/ ce n/ Year began: ce Year ended: Years missed: Season: Start: End:	utmigrants a a spotty ongoing intermittant Mar May	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ount, redd count absence, population e other unknown yr other private grant yr-to-yr ongoing
Correspondent: Brei Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: acc Response to: Positive impact? I Impact controls? I Technical Goal: Programmatic Goal	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no	on n/ ce n/ Year began: ce Year ended: Years missed: Season: Start: End:	utmigrants a a spotty ongoing intermittant Mar May	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	eount, redd count absence, population e other unknown yr other private grant yr-to-yr ongoing
Correspondent: Bren Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: acc Response to: Positive impact? I Negative impact? I Impact controls? I Technical Goal: Programmatic Goal Stream name	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no	on n/ ce n/ Year began: ice Year ended: Years missed: Season: Start: End: LLID	utmigrants a a spotty ongoing intermittant Mar May Watersh	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name	ount, redd count absence, population e other unknown yr other private grant yr-to-yr ongoing
Correspondent: Brei Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: acc Response to: Positive impact? I Negative impact? I Impact controls? I Technical Goal: Programmatic Goal <u>Stream name</u> North Fork Salmon	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no no no	on n/ ce n/ Year began: ice Year ended: Years missed: Season: Start: End: LLID 1233222412571	utmigrants a a spotty ongoing intermittant Mar May <u>Watersh</u> Salmon.	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name	ount, redd count absence, population e other unknown yr other private grant yr-to-yr ongoing <u><b>HUC</b></u> 10210
Correspondent: Brei Field techniques: Data types: Uncertainty: Site selection: dia log Geoprecision: acc Response to: Positive impact? I Negative impact? I Impact controls? I Technical Goal: Programmatic Goal Stream name North Fork Salmon Salmon River	nda Olsen <u>Juvenile</u> direct observati presence/absend ctated by gistics/circumstan curate to stream no no no no no no	Oionn/cen/Year began:iceYear ended:Years missed:Season:Start:End:12332224125711234923413776	utmigrants a a spotty ongoing intermittant Mar May <u>Watersh</u> Salmon. Salmon.	Adults spawner c presence/a index qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name	e other unknown yr other private grant yr-to-yr ongoing

#### USFS - Klamath/ 6 Rivers NF Correspondent: John Grunbaum

Correspondent: John	Orunoaum	_			
	Juvenile	<u>0</u>	utmigrants	Adults	
Field techniques:	n/a	n/	a	direct obs	ervation
Data types:	n/a	n/	′a	population demograp	n index, hic
Uncertainty:				qualitative	e
Site selection: qua	litative selection	Year began: Vear ended:	1994	Interval:	once 6-10 yr
Response to:		Years missed:	complete, incremental	Summaries:	yearly
Positive impact? n	0	Season:		Funding source:	agency base
Negative impact? n	0	Start:	Jul	Support:	ongoing
Impact controls? n	0	End:	Aug	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Monitor for tr	ends named abo	ove.		
<b>Programmatic Goal:</b>	Information o	n trends in popu	alation, demograph	nics and watershed he	ealth.
Stream name	L	LID	Watersh	ed name	HUC
Klamath River	12	232058418417	Upper K	lamath.	10206
Wooley Creek	12	234210413770	Salmon.		10210
-					
USFS - Klamath/	6 Rivers NF				ID# 244
USFS - Klamath/ Correspondent: John	<b>6 Rivers NF</b> Grunbaum Juvenile	0	outmigrants	Adults	ID# 244
USFS - Klamath/ Correspondent: John Field techniques:	6 Rivers NF Grunbaum Juvenile downstream trap	<u>O</u> dd	Putmigrants ownstream trap	<u>Adults</u> n/a	ID# 244
USFS - Klamath/ Correspondent: John Field techniques: Data types:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic	, po da	Putmigrants ownstream trap opulation index, emographic	<u>Adults</u> n/a n/a	ID# 244
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical	, po da st	Putmigrants ownstream trap opulation index, emographic atistical	<u>Adults</u> n/a n/a	ID# 244
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical	, po da da st	Putmigrants ownstream trap opulation index, emographic atistical	<u>Adults</u> n/a n/a	ID# 244
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical	O da , po da st Year began:	Putmigrants ownstream trap opulation index, emographic atistical 2002	<u>Adults</u> n/a n/a Interval:	ID# 244 daily
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream	O da , po da st Year began: Year ended:	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003	Adults n/a n/a Interval: Duration:	<b>ID# 244</b> daily 0–5 yr
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc Response to:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream	O do y do st Year began: Year ended: Years missed:	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot	<u>Adults</u> n/a n/a Interval: Duration: Summaries:	<b>ID# 244</b> daily 0–5 yr yearly
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? n	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream	Q dd dd dd st Year began: Year ended: Years missed: Season:	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot	Adults n/a n/a Interval: Duration: Summaries: Funding source:	<b>ID# 244</b> daily 0–5 yr yearly agency base
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? n Negative impact? n	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream	Q dd dd st Year began: Year ended: Years missed: Season: Start:	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot Apr	Adults n/a n/a Interval: Duration: Summaries: Funding source: Support:	ID# 244 daily 0–5 yr yearly agency base unknown
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? n Negative impact? n Impact controls? n	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream	Q dd st Year began: Year ended: Years missed: Season: Start: End:	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot Apr Jul	Adults n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ID# 244 daily 0–5 yr yearly agency base unknown unknown
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? n Negative impact? n Impact controls? n Technical Goal:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream 0 0 Assess anadro behavior and	Q dd y dd st Year began: Year ended: Years missed: Season: Start: End: omous fish populife history patte	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot Apr Jul ilations in Red Cap	Adults n/a n/a interval: Duration: Summaries: Funding source: Support: Future intent (yr): o creek, including mig	daily 0–5 yr yearly agency base unknown unknown gration timing,
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc <u>Response to:</u> Positive impact? n Negative impact? n Impact controls? n Technical Goal:	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream 0 0 0 Assess anadro behavior and b	Q dd dd st Year began: Year ended: Years missed: Season: Start: End: omous fish popu life history patte	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot Apr Jul ilations in Red Cap	Adults n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): o creek, including mig	ID# 244 daily 0–5 yr yearly agency base unknown unknown gration timing,
USFS - Klamath/ Correspondent: John Field techniques: Data types: Uncertainty: Site selection: oth Geoprecision: acc Response to: Positive impact? n Negative impact? n Impact controls? n Technical Goal: Programmatic Goal: Stream name Red Cap Creek	6 Rivers NF Grunbaum <u>Juvenile</u> downstream trap population index demographic statistical er urate to stream 0 0 0 Assess anadro behavior and 1	Q dd dd st Year began: Year ended: Years missed: Season: Start: End: pmous fish populife history patte LID 236043412589	Putmigrants ownstream trap opulation index, emographic atistical 2002 2003 snapshot Apr Jul dations in Red Cap erns. <u>Watersh</u> Lower K	Adults n/a n/a in/a in/a in/a in/a in/a in/a i	ID# 244 daily 0–5 yr yearly agency base unknown unknown gration timing, <u>HUC</u> 10209

<u>Juvenile</u>

#### **USFS Lower Trinity Ranger Station**

n/a

n/a

very precise

yes

Correspondent: Anita Andazola

Field techniques:

Data types:

Uncertainty:

Site selection:

Geoprecision:

**Positive impact?** 

**Response to:** 

**Outmigrants** Adults downstream trap spawner count, redd count, carcass count, direct observation population abundance presence/absence, population abundance basic quantitative qualitative qualitative selection Year began: 1991 irregularly **Interval:** Year ended: **Duration:** 11–20 yr ongoing Years missed: complete, yearly **Summaries:** regular Season: **Funding source:** various: CDFG/PCFFA/SR

**ID# 189** 

ID# 194

			N	NF			
Negative impact? no	Start:	Oct S	upport: u	ınknown			
Impact controls? no	End:	Dec F	uture intent (yr): i	ndefinite			
Technical Goal:	<b>Technical Goal:</b> Estimate yearly abundance of steelhead. Technical evaluation of the effectiveness of instream restoration efforts.						
Programmatic Goal:	Regulatory compliance per E work.	SA; management eval	uation on instream r	restoration			
<u>Stream name</u>	LLID	Watershed	name <u>H</u>	<u>UC</u>			
Cedar Creek	1236032410062	Trinity.	10	211			
Horse Linto Creek	1236196410002	Trinity.	10	211			

#### **USFS Lower Trinity Ranger Station** n+• Anito

Correspondent: Ani	ta Andazola				
	<u>Juvenile</u>		<u>Outmigrants</u>	Adults	
Field techniques:	downstream trap		downstream trap	n/a	
Data types:	presence/absence population abunc	e, lance	presence/absence, population abundan	n/a ce	
Uncertainty:	basic quantitative	e	basic quantitative		
Site selection: qu	alitative selection	Year began:	1991	Interval:	daily
Geoprecision: ve	ry precise	Year ended:	ongoing	Duration:	11–20 yr
Response to:		Years missed	: complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/PCFFA/SR NF
Negative impact?	no	Start:	Mar	Support:	yr-to-yr
Impact controls?	no	End:	Jul	Future intent (yr):	indefinite
<b>Technical Goal:</b>	Estimate year	ly abundance	of steelhead salmon	. Technical evaluation	n of the

effectiveness of instream restoration efforts.

Programmatic Goal: Reg worl	ulatory compliance per ES <.	SA; management ev	valuation on instream	n restoration
<u>Stream name</u> Horse Linto Creek	<u>LLID</u> 1236196410002	<u>Watershe</u> Trinity.	<u>d name</u>	<u>HUC</u> 10211
USFS Lower Trinity Ran Correspondent: Anita Andazo	nger Station			ID# 200
<b>Juveni</b> Field techniques: n/a	le <u>Or</u> n/a	<b>utmigrants</b> a	<u>Adults</u> spawner co carcass co	ount, redd count, unt
<b>Data types:</b> n/a	n/a	a	presence/a abundance	bsence, population
Uncertainty:	ba	sic quantitative	qualitative	;
Site selection: qualitative s Geoprecision: very precise <u>Response to:</u>	velection Year began: Year ended: Years missed:	1991 ongoing complete, regular	Interval: Duration: Summaries:	irregularly 11–20 yr yearly
<b>Positive impact?</b> yes	Season:	C	Funding source:	various: CDFG/PCFFA/SR NF
Negative impact? no Impact controls? no	Start: End:	Mar Jul	Support: Future intent (yr):	indefinite indefinite
Technical Goal: Estin	nate yearly abundance of eam restoration efforts.	steelhead. Technica	al evaluation of the	effectiveness of
Programmatic Goal: Rest	ore salmonid habitat and	populations to self-	sustaining level.	
<u>Stream name</u> Willow Creek	<u>LLID</u> 1236292409450	<u>Watershe</u> Trinity.	<u>d name</u>	<u>HUC</u> 10211
Yurok Tribal Fisheries Correspondent: Sarah Beesler	y			ID# 269
<b>Juveni</b> Field techniques: n/a	le <u>O</u> l n/a	utmigrants a	<u>Adults</u> spawner co carcass co observatio	ount, redd count, unt, direct n, electrofishing
Data types: n/a	n/a	a	presence/a	bsence
Uncertainty:			qualitative	•
Site selection: qualitative s Geoprecision: very precise <u>Response to:</u> Positive impact? no	velection Year began: Year ended: Years missed: Season:	2002 2003 snapshot	Interval: Duration: Summaries: Funding source:	weekly 0–5 yr one-time various: CDFG SFRA/Cal.Coast.S .Monit.
Negative impact? yes	Start:	Nov	Support:	2004

Impact controls? no	End:	Mar	Future intent (yr):	0–5	
Technical Goal:	Baseline data on presence of coho salmon and steelhead populations and on habitat conditions.				
Programmatic Goal:	Prioritize restoration in the	Salt Creek W	atershed.		
<u>Stream name</u> High Prairie Creek	<u>LLID</u> 124070541567	9 Lo	atershed name ower Klamath.	<u>HUC</u> 10209	

ID# 274

#### Yurok Tribal Fisheries Correspondent: Sarah Beesle

Correspondent: Sarah	1 Beesley				
Field techniques:	Juvenile downstream trap observation, elec minnowtrap, oth	, direct n/ etrofishing, er	<u>utmigrants</u> a	<u>Adults</u> upstream count, rec count, dir electrofis	trap, spawner ld count, carcass ect observation, hing
Data types:	presence/absence/ population index demographic	e, n/	a	presence/	absence
Uncertainty:	qualitative			qualitativ	e
Site selection: qua Geoprecision: very <u>Response to:</u> Positive impact? ne	litative selection y precise o	Year began: Year ended: Years missed: Season:	2002 2003 snapshot	Interval: Duration: Summaries: Funding source:	other 0–5 yr one-time various: CDFG SFRA/Cal.Coast.S .Monit.
Negative impact? y	es	Start:	Apr	Support:	2004
Impact controls? no	0	End:	Nov	Future intent (yr):	0–5
Technical Goal:	Baseline data conditions.	on presence of o	coho salmon and	steelhead populations	s and on habitat
<b>Programmatic Goal:</b>	Prioritize rest	oration in the Sa	lt Creek Watersł	ned.	
<u>Stream name</u> High Prairie Creek Salt Creek	<b>L</b> 12 12	<b>LID</b> 240705415679 240589415474	Waters Lower Lower	s <mark>hed name</mark> Klamath. Klamath.	HUC 10209 10209
Yurok Tribe Correspondent: Moni	ca Hiner				ID# 220

onespondent. Ivi			- ·		
	Juvenile		<u>Outmigrants</u>	<u>Adults</u>	
Field techniques	electrofishing		n/a	n/a	
Data types:	presence/absence	e	n/a	n/a	
Uncertainty:	basic quantitativ	/e			
Site selection:	lictated by ogistics/circumstand	Year began:	2002	Interval:	other
Geoprecision:	accurate to stream	Year ended:	2002	Duration:	0–5 yr

Response to:Positive impact?noNegative impact?noImpact controls?noTechnical Goal:	Years missed Season: Start: End: Assess fish presence/absence habitat quality for restoration	<ul> <li>snapshot</li> <li>May</li> <li>May</li> <li>te for proposed study</li> <li>on recommendations.</li> </ul>	Summaries: Funding source: Support: Future intent (yr): : Sarah Beesley's stu	none agency base single sampling event ended dy of salmonid
<b>Programmatic Goal:</b> <u>Stream name</u> High Prairie Creek Salt Creek	Assessment of fish presence <u>LLID</u> 1240705415679 1240589415474	e. <b>Watersh</b> Lower Kl Lower Kl	e <u>d name</u> amath. amath.	<u>HUC</u> 10209 10209
Yurok Tribe Correspondent: Monica	Hiner <u>ivenile</u>	<u>Outmigrants</u>	<u>Adults</u>	ID# 254
Field techniques: se	eining	seining	n/a	
Data types: pr	esence/absence,	presence/absence, population abundanc	n/a	
<b>Uncertainty:</b> ba	asic quantitative	basic quantitative		
Site selection: dictate logisti	ed by Year began: cs/circumstance	2002	Interval:	other
Geoprecision: accura <u>Response to:</u> Positive impact? no Negative impact? no Impact controls? no Technical Goal:	te Year ended: Years missed Season: Start: End: Beach seining in South Slou	2003 snapshot see notes see notes ugh: Determine habit	Duration: Summaries: Funding source: Support: Future intent (yr): at suitability and use	0–5 yr one-time CDFG 2003 ongoing by juvenile
	salmonids. Purse seining: I juvenile salmon; also comp CDFG beach seine efforts.	Determine relative ab are size of juvenile sa	undance and emigrat almon compared w/	tion patterns for
<b>Programmatic Goal:</b> <u>Stream name</u> Unknown. Use LLID Klamath River Klamath River	Management evaluation. <u>LLID</u> 1240749415436 1240807415471 1240807415471	Watersho Lower Kl Lower Kl Upper Kl	e <mark>d name</mark> amath. amath. amath.	HUC 10209 10209 10206

# Steelhead, Northern California ESU

California Coast Conservancy			ID# 6
Correspondent:	Michael Bowen		
	<u>Juvenile</u>	<b>Outmigrants</b>	<u>Adults</u>
Field techniqu	es: seining	seining	n/a

Steelhead,	Northern	<b>California ESU</b>

Data types: po de	opulation abundance, emographic, genetic	population abundance demographic, geneti	ce, n/a c	
Uncertainty: st	atistical	statistical		
Site selection:otherGeoprecision:accuraResponse to:Positive impact?NoNo	Year began: Year ended: Years missed Season:	2002 2003 I: snapshot April-October	Interval: Duration: Summaries: Funding source:	other 0–5 yr seasonally Cal Coastal Conservancy (Bond Act)
Negative impact? yes	Start:	Apr	Support:	'02-'05
Impact controls? no	End:	Oct	Future intent (yr):	0–5
Technical Goal:	Trying to quantify and qual Estuary and importance to j taken to improve habitat.	ify. Assess quality, c uvenile salmonids an	arrying capacity of C and determine whether	Jualala River r actions can be
Programmatic Goal:	Identify needed enhanceme	nt actions.		
Stream name	LLID	Watersh	ed name	<u>HUC</u>
Gualala River	1235323387688	8 Gualala-S	Salmon.	10109

#### Campbell/Hawthorne Timber Co.

Correspondent: David Wright <u>Juvenil</u>e **Outmigrants** Adults Field techniques: upstream trap n/a n/a n/a n/a presence/absence Data types: basic quantitative **Uncertainty:** 1993 Site selection: unknown Year began: **Interval:** yearly Geoprecision: accurate to stream Year ended: ongoing **Duration:** 6-10 yr **Response to:** Years missed: complete, Summaries: yearly incremental **Positive impact? Funding source:** commercial: Season: no extraction Negative impact? yes Start: Dec Support: ongoing **Impact controls?** no End: Apr Future intent (yr): ongoing **Technical Goal:** Determine trends in salmonid densities: Relative abundance on an annual basis over long period of time. **Programmatic Goal:** Determine health of populations. Stream name LLID Watershed name HUC Anderson Creek 1238982399465 South Fork Eel. 10106 Anderson Creek 1238982399465 Big-Navarro-Garcia. 10108 DeHaven Creek 1237852396593 Big-Navarro-Garcia. 10108 **Dutch Charlie Creek** 1236576396904 South Fork Eel. 10106 **Dutch Charlie Creek** 1236576396904 Big-Navarro-Garcia. 10108 Indian Creek Big-Navarro-Garcia. 1238042399768 10108 Indian Creek Mattole. 1238042399768 10107

Indian Creek	1238042399768	South Fork Eel.	10106
South Fork Usal Creek	1238286398419	Big-Navarro-Garcia.	10108
Wildcat Creek	1237594399127	South Fork Eel.	10106
Wildcat Creek	1237594399127	Big-Navarro-Garcia.	10108

#### **Campbell/Hawthorne Timber Co.** Correspondent: David Wright

#### ID# 273

Field to sharing on	Juvenile	<u>(</u>	<u>Dutmigrants</u>	<u>Adults</u>	
Field techniques:	electronsning	t	electronsning	spawner c	ount
Data types:	population index demographic, get	, I netic	population index	presence/a	absence
Uncertainty:	qualitative	C	qualitative	unknown	
Site selection: unk Geoprecision: accu <u>Response to:</u>	nown urate	Year began: Year ended: Years missed:	1993 ongoing complete, incremental	Interval: Duration: Summaries:	yearly 6–10 yr yearly
<b>Positive impact?</b> n	0	Season:		Funding source:	commercial: extraction
Negative impact? y	es	Start:	Sept	Support:	ongoing
Impact controls? n	0	End:	Nov	Future intent (yr):	ongoing
Technical Goal:	Determine tren	nds in salmoni	d densities: Relative	abundance on an ar	nnual basis over a
	long period of	time.			
<b>Programmatic Goal:</b>	Determine hea	alth of populat	ions.		
<u>Stream name</u>	L	LID	Watersh	ed name	HUC
Anderson Creek	12	238982399465	Big-Nava	rro-Garcia.	10108
Anderson Creek	12	238982399465	South For	rk Eel.	10106
DeHaven Creek	12	237852396593	Big-Nava	rro-Garcia.	10108
Dutch Charlie Creek	ĸ 12	236576396904	South For	rk Eel.	10106
Dutch Charlie Creek	к 12	236576396904	Big-Nava	rro-Garcia.	10108
Indian Creek	12	238042399768	South For	rk Eel.	10106
Indian Creek	12	238042399768	Big-Nava	rro-Garcia.	10108
Indian Creek	12	238042399768	Mattole.		10107
South Fork Usal Cre	eek 12	238286398419	Big-Nava	rro-Garcia.	10108
Wildcat Creek	12	237594399127	Big-Nava	rro-Garcia.	10108
Wildcat Creek	12	237594399127	South For	rk Eel.	10106
DFG					ID# 3

#### CDFG Correspo

Correspondent: Dou	ıg Albin		
Field techniques:	Juvenile direct observation, electrofishing	<u>Outmigrants</u> n/a	<u>Adults</u> n/a
Data types:	presence/absence	n/a	n/a
Uncertainty:	qualitative		

Site selection: qual	itative selection	Year began: Voor ondod:	1999 opgoing	Interval:	yearly
Response to:		Years missed:	rotating,	Summaries:	other
Positive impact? no Negative impact? no	)	Season: Start:	July to October Jul	Funding source: Support:	state bond funds yr-to-yr
<b>Technical Goal:</b>	Compare habi	End: tat features betw	veen systems.	Future intent (yr):	indefinite
Programmatic Goal:	Habitat restora presence/abser	ation prescription nce.	ons & correlation o	f habitat conditions v	vith species
<u>Stream name</u> Not georeferenced	<u>L1</u> 99	L <u>ID</u> 199999999999999	<u>Watersh</u>	<u>ed name</u>	<u>HUC</u>

#### CDFG

Correspondent: Wilbur Cartwrig	;ht			
Juvenile	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques: n/a	n/	a	upstream	trap
<b>Data types:</b> n/a	n/	a	population	n abundance, genetic
Uncertainty:	u	ıknown	unknown	
Site selection: dictated by logistics/circur	Year began: nstance	1971	Interval:	daily
Geoprecision: precise	Year ended:	ongoing	Duration:	20+ yr
Response to:	Years missed:	unknown	Summaries:	yearly
Positive impact? no	Season:		Funding source:	CDFG/hatchery (assume)
Negative impact? no	Start:	Nov	Support:	ongoing (assume)
Impact controls? no	End:	Apr	Future intent (yr):	ongoing
Technical Goal:				
Programmatic Goal: Coho s	almon production goal	was 250,000 y	earlings raised to 8-10 l	bs. and released

Coho salmon production goal was 250,000 yearlings raised to 8-10 lbs. and released March-May. Current production goal for steelhead: 250,000 yearlings raised to 4-8 lbs for release March-May. Obtain approx. 60,000 eggs from 30 unmarked (natural) female and 45 unmarked male steelhead.

ID# 275

ID# 211

<u>Stream name</u>	LLID	Watershed name	HUC
Mad River	1241266409562	Mad-Redwood.	10102

#### CDFG

Correspondent: Alan	n Grass		
	<u>Juvenile</u>	<u>Outmigrants</u>	Adults
Field techniques:	n/a	n/a	upstream trap
Data types:	n/a	n/a	population abundance, genetic
Uncertainty:		unknown	unknown

Site selection:	dictated by logistics/circumstar	Year began:	1933	Interval:	daily
Geoprecision:	accurate				
<u>Response to:</u> Positive impact?	no	Years missed: Season:	unknown	Summaries: Funding source:	yearly (assume) various: PG&E/CDFG (assume)
Negative impact	? no	Start:	Nov	Support:	ongoing (assume)
Impact controls?	no no	End:	Apr	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic G	Goal:				
<u>Stream name</u> Eel River		<u>LLID</u> 1243106406425	<u>Waters</u> Upper I	<u>hed name</u> Eel.	<u>HUC</u> 10103
CDFG	Scott Harris				ID# 43
Correspondent.	Iuvonilo	0	utmigrants	Adulte	
Field technique	es: electrofishing	<u>0</u> n/	a a a a a a a a a a a a a a a a a a a	<u>Adunts</u> n/a	
Data types:	presence/absen population abu demographic, g	ce, n/ ndance, genetic	a	n/a	
Uncertainty:	statistical				
Site selection:	dictated by logistics/circumstar	Year began:	1986	Interval:	once
Geoprecision:	accurate to stream	Year ended:	ongoing	Duration:	11–20 yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
<b>Positive impact?</b>	no	Season:		Funding source:	CDFG SFRA
Negative impact	? no	Start:	Sept	Support:	2008+
Impact controls?	yes yes	End:	Oct	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic G	Goal: Long-term p	opulation and hal	bitat monitoring.		
<u>Stream name</u>		LLID	Waters	hed name	HUC
Caspar Creek		1238158393618	Big-Na	varro-Garcia.	10108
Hollow Tree Cr	eek	1237265398578	South F	ork Eel.	10106
Little River		1237905392734	Big-Na	varro-Garcia.	10108
Middle Fork Ee	l River	1233520397139	Lower	Eel.	10105
Middle Fork Ee	l River	1233520397139	Middle	Fork Eel.	10104
Middle Fork Ee	l River	1233520397139	Upper I	Eel.	10103
Ryan Creek		1233768394765	Upper I	Eel.	10103
Willits Creek		1233682394164	Upper I	Eel.	10103
Willits Creek		1233682394164	Big-Na	varro-Garcia.	10108

CDFG
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CDFG				ID# 44
Correspondent: Scott Harris				
JuvenileField techniques:n/a	<u>O</u> de	Outmigrants ownstream trap	<u>Adults</u> n/a	
Data types: n/a	pi pi di	resence/absence, opulation abundance emographic	n/a e,	
Uncertainty:	st	atistical		
Site selection:qualitative selectionGeoprecision:accurate to streamResponse to:	Year began: Year ended: Years missed:	1986 ongoing complete, incremental	Interval: Duration: Summaries:	daily 11–20 yr yearly
Positive impact? yes	Season:		Funding source:	CDFG SFRA
Negative impact? no	Start:	Mar	Support:	2008+
Impact controls? yes	Ena:	Jun	Future intent (yr):	ongoing
Technical Goal:Relate populaanalysis to see	e fluctuations of	f populations betwee	en watersheds.	nting-factor
Programmatic Goal: Long term po	pulation and ha	bitat monitoring.		
Stream nameLCaspar Creek12Hare Creek12Little River12Little River12	LID 238158393618 238121394173 241106410276	<u>Watershe</u> Big-Nava Big-Nava Mad-Redy Big Nava	ed name rro-Garcia. rro-Garcia. wood. rro-Garcia	HUC 10108 10108 10102
South Fork Novo Diver	23/903392/34	Big-Inava Big Nava	rro Garcia	10108
South Fork Noyo Kiver 12	237238394248	Dig-Inava	no-Garcia.	10108
CDFG				ID# 47
Correspondent: Scott Harris		· · · ·		
<u>Juvenile</u> Field techniques: n/a	<u>U</u>	<u>vutmigrants</u>	<u>Adults</u> redd.coun	t carcass count
Dete terrere selection and	11/	a /-		
Data types: n/a	n/	'a	abundance genetic	e, demographic,
Uncertainty:			qualitative	e
Site selection: dictated by logistics/circumstanc	Year began: e	1986	Interval:	weekly
Geoprecision: accurate to stream	Year ended:	ongoing	Duration:	11–20 yr
<u>Response to:</u>	Years missed:	complete, incremental	Summaries:	yearly
Positive impact? yes	Season:		Funding source:	CDFG SFRA
Negative impact? no	Start:	Oct	Support:	2008+
Impact controls? yes	End:	Apr	Future intent (yr):	ongoing
Technical Goal: Straying study	y, population es	timates.		
Programmatic Goal: Long-term po	pulation and ha	bitat monitoring.		

<u>Stream name</u>	LLID	Watershed name	<b>HUC</b>
Bear Gulch	1236728393841	Big-Navarro-Garcia.	10108
Brandon Gulch	1236815394045	Big-Navarro-Garcia.	10108
Caspar Creek	1238158393618	Big-Navarro-Garcia.	10108
Little River	1237905392734	Big-Navarro-Garcia.	10108
North Fork South Fork Noyo	1236845393910	Big-Navarro-Garcia.	10108
River			
Noyo River	1238089394276	Big-Navarro-Garcia.	10108
Parlin Creek	1236582393695	Big-Navarro-Garcia.	10108
Peterson Gulch	1236446393073	Big-Navarro-Garcia.	10108

#### CDFG

ID# 174

0210				
Correspondent: NF Gualala River Ha	atchery			
<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field techniques: n/a	n	/a	n/a	
<b>Data types:</b> n/a	n	/a	n/a	
Uncertainty: unknown				
Site selection: unknown	Year began:	1981	Interval:	daily (assume)
Geoprecision: accurate	Year ended:	ongoing	Duration:	20+ yr
Response to:	Years missed:	complete with gaps, regular	Summaries:	yearly (assume)
Positive impact? no	Season:		Funding source:	CDFG/hatchery (assume)
Negative impact? no	Start:		Support:	unknown
Impact controls? no	End:		Future intent (yr):	unknown
Technical Goal:				
Programmatic Goal: Restoration	of Gualala River	steelhead.		
<u>Stream name</u>	<u>LLID</u>	Waters	hed name	<u>HUC</u>
Unknown. Use LLID	1235320388210	Gualala	-Salmon.	10109

#### CDFG Correspo

Correspondent: G	eorge Neillands				
	<u>Juvenile</u>		Outmigrants	Adults	
Field technique	s: direct observatio electrofishing	n, 1	n/a	n/a	
Data types:	population index population abund demographic, ge	, lance, netic	n/a	n/a	
Uncertainty:	statistical				
Site selection:	qualitative selection	Year began:	2002	Interval:	yearly
Geoprecision:	accurate to stream	Year ended:	2002	<b>Duration:</b>	0–5 yr
<b>Response to:</b>		Years missed:	snapshot	Summaries:	yearly
Positive impact?	yes	Season:		Funding source:	NOAA Fish

Negative impact? yes Impact controls? yes	Start: End:	Aug Su Oct Fu	upport:2003uture intent (yr):ongoing		
Technical Goal:	Define sampling universe sampling design to provid salmonids throughout N. C	ne sampling universe and provide sampling for target species. Provide regional pling design to provide broad based population assessment of ESA-listed nonids throughout N. Calif. ESUs.			
Programmatic Goal:	To provide long-term viable population assessment data; to monitor population trends w/in ESA-listed salmonid ESUs.				
<u>Stream name</u>	LLID	Watershed	<u>name HUC</u>		
Caspar Creek	12381583936	18 Big-Navarro	-Garcia. 10108		
Hare Creek	123812139417	73 Big-Navarro	-Garcia. 10108		
Noyo River	12380893942	76 Big-Navarro	-Garcia. 10108		
Olds Creek	123502539420	)4 Big-Navarro	-Garcia. 10108		
CDFG			<b>ID#</b> 1	14	
Correspondent: George	e Neillands				
<u>J</u> Field techniques: n	l <mark>uvenile</mark> /a	<u>Outmigrants</u> n/a	<u>Adults</u> upstream trap, spawn count, redd count, car count_direct observat	er rcass	

			other
Data types:	n/a	n/a	population index, population abundance, demographic, genetic
Uncertainty:			statistical

Site selection: other Geoprecision: accu	r rate to watershed	Year began: Year ended:	2000 ongoing	Interval: Duration:	other 0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	monthly
Positive impact? ye	es	Season:		Funding source:	various: CDFG/NOAA
Negative impact? ye	es	Start:	Jan	Support:	currently
Impact controls? ye	es	End:	Apr	Future intent (yr):	0–5
Technical Goal:1) Estimate adult steelhead abundance in Noyo Basin;2) Measure the inter-annual variability in ratio of redd counts to adult spawners (steelhead);3) Estimate run composition and temporal distribution;4) Collect genetic tissue samples					
<b>Programmatic Goal:</b> MOA w/ NMFS to provide population assessment for steelhead. SRAMP has provided population assessment across the KMP and NC ESUs for anadromous species.					
Stream name	LI	LID	Watershe	ed name I	HUC
Noyo River	12	38089394276	Big-Nava	rro-Garcia. 1	0108
Pudding Creek	12	38083394591	Big-Nava	rro-Garcia. 1	0108
CDFG					ID# 252
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Correspondent: Larry	y Preston		<b>.</b>		
Field techniques:	direct observation electrofishing	1, r	<u>Dutmigrants</u> a/a	Adults other	
Data types:	presence/absence	r	n/a	presence/a	absence
Uncertainty:	none				
Site selection: qua Geoprecision: acc <u>Response to:</u> Positive impact? n	litative selection urate to watershed o	Year began: Year ended: Years missed: Season:	2000 2003 snapshot	Interval: Duration: Summaries: Funding source:	once 0–5 yr one-time various:CDFG SFRA/FRGP
Negative impact? n	0	Start:	May	Support:	2004
Impact controls? n	0	End:	Oct	Future intent (yr):	0–5
<b>Technical Goal:</b>					
Programmatic Goal:	Respond to Ca	alifornia ESA a	and develop recover	y parameters.	
Stream name	LI	LID	Watersh	ed name	<u>HUC</u>
Not georeferenced	99	999999999999999			
<b>CDFG</b> Correspondent: Larry	y Preston Juvenile		Destandari		ID# 288
Field techniques:	n/a	r r	Jutmigrants d/a	Adults other	
Field techniques: Data types:	n/a n/a	r r	Jutmigrants n/a n/a	<u>Adults</u> other presence/a	absence
Field techniques: Data types: Uncertainty:	n/a n/a	r r	J <u>utmigrants</u> i/a i/a	<u>Aduits</u> other presence/a	absence
Field techniques: Data types: Uncertainty: Site selection: qua Geoprecision: acc sub	n/a n/a llitative selection urate to watershed	Year began: Year ended:	2000 2003	Aduits other presence/a Interval: Duration:	daily 0–5 yr
Field techniques: Data types: Uncertainty: Site selection: qua Geoprecision: acc sub <u>Response to:</u>	n/a n/a ilitative selection urate to watershed	Year began: Year ended: Years missed:	2000 2003 complete, regular	Aduits other presence/a Interval: Duration: Summaries:	daily 0–5 yr one-time
Field techniques:Data types:Uncertainty:Site selection:quaGeoprecision:accsubResponse to:Positive impact?n	n/a n/a ilitative selection urate to watershed	Year began: Year ended: Years missed: Season:	2000 2003 complete, regular	Aduits other presence/a Interval: Duration: Summaries: Funding source:	absence daily 0–5 yr one-time various:CDFG SFRA/FRGP
Field techniques:Data types:Uncertainty:Site selection:quaGeoprecision:accsubResponse to:Positive impact?nNegative impact?n	n/a n/a ilitative selection urate to watershed	Year began: Year ended: Years missed: Season: Start:	Jutmigrants I/a 2000 2003 complete, regular May	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support:	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Negative impact?       n         Impact controls?       n	n/a n/a allitative selection urate to watershed	Year began: Year ended: Years missed: Season: Start: End:	2000 2003 complete, regular May Oct	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Negative impact?       n         Impact controls?       n         Technical Goal:       acc	n/a n/a llitative selection urate to watershed o	Year began: Year ended: Years missed: Season: Start: End:	2000 2003 complete, regular May Oct	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5
Field techniques:         Data types:         Uncertainty:         Site selection:         qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Negative impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:	n/a n/a allitative selection urate to watershed	Year began: Year ended: Years missed: Season: Start: End:	2000 2003 complete, regular May Oct	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Negative impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:         Stream name       Stream name	n/a n/a litative selection urate to watershed 0 0 0	Year began: Year ended: Years missed: Season: Start: End: LID	Jutmigrants I/a 2000 2003 complete, regular May Oct <u>Watersh</u>	Aduits other presence/a Duration: Summaries: Funding source: Support: Future intent (yr): ed name	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5 <u>HUC</u>
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Negative impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:         Stream name       Unknown. Use LLI	n/a n/a n/a ulitative selection urate to watershed o o o o D	Year began: Year ended: Years missed: Season: Start: End: LID 40367410284	Jutmigrants I/a 2000 2003 complete, regular May Oct <u>Watersh</u> Mad-Red	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name wood.	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5 <u><b>HUC</b></u> 10102
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:         Stream name       Unknown. Use LLI         Unknown. Use LLI       Unknown. Use LLI	n/a n/a n/a ilitative selection urate to watershed o o o D 12 D 12	Year began: Year ended: Years missed: Season: Start: End: <u>LID</u> 40367410284 39543410395	Jutimigrants I/a 2000 2003 complete, regular May Oct <u>Watersh</u> Mad-Red Mad-Red	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name wood.	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5 <u><b>HUC</b></u> 10102 10102
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:         Stream name       Unknown. Use LLI         Unknown. Use LLI       Unknown. Use LLI	n/a n/a n/a llitative selection urate to watershed o o o o D 12 D 12 D 12 D 12	Year began: Year ended: Years missed: Season: Start: End: 40367410284 39543410395 39677410532	Jutimigrants Ja 2000 2003 complete, regular May Oct <u>Watersh</u> Mad-Red Mad-Red Mad-Red Mad-Red	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name wood. wood.	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5 <u>HUC</u> 10102 10102 10102
Field techniques:         Data types:         Uncertainty:         Site selection:       qua         Geoprecision:       acc         sub         Response to:         Positive impact?       n         Impact controls?       n         Technical Goal:       Programmatic Goal:         Programmatic Goal:       Stream name         Unknown. Use       LLI         Unknown. Use       LLI         Unknown. Use       LLI         Unknown. Use       LLI	n/a n/a n/a ulitative selection urate to watershed o o o o D 12 D 12 D 12 D 12 D 12 D 12 D	Year began: Year ended: Years missed: Season: Start: End: 40367410284 39543410395 39677410532	Jutimigrants J/a 2000 2003 complete, regular May Oct <u>Watersh</u> Mad-Red Mad-Red Mad-Red Mad-Red Mad-Red	Aduits other presence/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): ed name wood. wood. wood. wood.	daily 0–5 yr one-time various:CDFG SFRA/FRGP 2004 0–5 <u>HUC</u> 10102 10102 10102 10102

Unknown. Use LLID	1240116410305	Mad-Redwood.	10102
Bulwinkle Creek	1240899410106	Mad-Redwood.	10102
Freeman Creek	1240539410224	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Lower South Fork Little River	1240177410288	Mad-Redwood.	10102
Mattole River	1243528403022	Mattole.	10107
Mill Creek	1241479410616	Mad-Redwood.	10102
Railroad Creek	1240490410281	Mad-Redwood.	10102
South Fork Little River	1240612410123	Mad-Redwood.	10102
Sproule Creek	1232496385937	Gualala-Salmon.	10109
Upper South Fork Little River	1239946410269	Mad-Redwood.	10102

#### CDFG

ID# 267

Correspondent: Brad Valentine				
<u>Juvenile</u>	<u>0</u>	utmigrants	Adults	
Field techniques: electrofishing	n/	a	n/a	
<b>Data types:</b> population ind	ex n/	'a	n/a	
Uncertainty: statistical				
Site selection: qualitative selection	n Year began:	1992	Interval:	yearly
Geoprecision: accurate to stream	Year ended:	ongoing	Duration:	11–20 yr
<u>Response to:</u>	Years missed:	complete with gaps, regular	Summaries:	yearly
Positive impact? no	Season:		Funding source:	CDFG
Negative impact? no	Start:	Oct	Support:	indefinite (underfunded)
Impact controls? no	End:	Oct	Future intent (yr):	indefinite
Technical Goal: Long-term	monitoring of stee	lhead and coho sa	lmon populations.	
<b>Programmatic Goal:</b> Directed at	logging impacts.			
<u>Stream name</u>	LLID	Waters	hed name	<u>HUC</u>
Unknown. Use LLID	1237544393463	Big-Nav	varro-Garcia.	10108
Little North Fork Noyo River	1236958394458	Big-Nav	varro-Garcia.	10108

#### **CDFG S-RAMP**

	-					
Correspondent: S	ean Gallagher					
Field technique	<ul> <li><u>Juvenile</u></li> <li>downstream trap</li> <li>electrofishing</li> </ul>	,	Outmigrants downstream t	rap	<u>Adults</u> n/a	
Data types:	population abund demographic	dance,	population ab demographic	undance,	n/a	
Uncertainty:	statistical		statistical			
Site selection: Geoprecision:	qualitative selection precise	Year began: Year ended:	2000 2002	Interva Durati	al: on:	unknown 0–5 yr

Response to:		Years missed:	snapshot	Summaries:	unknown	
Positive impact? no		Season:		Funding source:	unknown	
Negative impact? no		Start:	Mar	Support:	unknown	
Impact controls? no		End:	Jul	Future intent (yr):	unknown	
<b>Technical Goal:</b>						
<b>Programmatic Goal:</b> Quantitatively estimate juvenile and YOY salmonid population: abundance, size at age, survival, migration timing, and distribution. Evaluate usefulness and efficiency of trapping and electro fishing as long-term monitoring tools.						
Stream name	L	LID	Watersh	ed name	<u>HUC</u>	
North Fork South Fork	Noyo 12	236845393910	Big-Nava	rro-Garcia.	10108	
River	-		-			
Noyo River	12	238089394276	Big-Nava	rro-Garcia.	10108	
Olds Creek	12	235025394204	Big-Nava	rro-Garcia.	10108	
South Fork Noyo Rive	r 12	237258394248	Big-Nava	rro-Garcia.	10108	

#### **CDFG S-RAMP**

ID# 256

ID# 98

Correspondent: Seth	Ricker		
Field techniques:	<u>Juvenile</u> downstream trap	Outmigrants downstream trap	<u>Adults</u> n/a
Data types:	population abundance, demographic, genetic	population abundance, demographic, genetic	n/a
Uncertainty:	unknown	unknown	
	· · ·		. 1 1

Site selection:	unknown	Year began:	see note	Interval:	daily
Geoprecision:	accurate to stream	Year ended:	see notes	Duration:	0–5 yr
Response to:		Years missed:	snapshot	Summaries:	one-time
<b>Positive impact?</b>	no	Season:		Funding source:	CDFG (assume)
Negative impact	? no	Start:	Mar	Support:	unknown
Impact controls?	no	End:	Jun	Future intent (yr):	unknown
<b>Technical Goal:</b>					
Programmatic G	Goal: Determine yi	eld of coho and	Chinook salmon sn	nolts and steelhead pa	arrs and smolts
	from basin.				

2) Determine timing of outmigration of salmonids. 3) Partition the basin yield of salmonids into that produced by tributaries vs. mainstem areas. 4) Investigate assumptions associated with mark-recapture juvenile salmonids out-migrant models.

<u>Stream name</u>	LLID	Watershed name	<u>HUC</u>
Not georeferenced	99999999999999		

#### **CDFG S-RAMP**

Correspondent: Mic	chael D. Sparkman		
	<u>Juvenile</u>	<b>Outmigrants</b>	Adults
Field techniques:	downstream trap	n/a	n/a
Data types:	presence/absence, population index, demographic	n/a	n/a

Uncertainty: qua	litative			
Site selection: other Geoprecision: very pre <u>Response to:</u>	Year began: cise Year ended: Years missed	2000 2003 : complete,	Interval: Duration: Summaries:	daily 0–5 yr yearly
Positive impact? no	Season:		Funding source:	various:
Negative impact? no Impact controls? no	Start: End:	Mar Aug	Support: Future intent (yr):	2010+ 6–10
Technical Goal:	Technical evaluation and hy	pothesis.		
Programmatic Goal:	Evaluation.			
<u>Stream name</u> Redwood Creek	<u>LLID</u> 1240905412924	4 Mad-Red	<u>ed name</u> lwood.	HUC 10102
CDFG S-RAMP				ID# 99
Correspondent: Michael I	D. Sparkman			
JuvField techniques:n/a	enile	<u>Outmigrants</u> downstream trap	<u>Adults</u> n/a	
Data types: n/a		presence/absence, population abundanc demographic	n/a ce,	
Uncertainty:		statistical		
Site selection: other Geoprecision: very pre <u>Response to:</u>	cise Year began: Year ended: Years missed	2000 2003 : complete, regular	Interval: Duration: Summaries:	daily 0–5 yr yearly
Positive impact? no	Season:	- <u>0</u>	Funding source:	various: CDFG/private
Negative impact? no Impact controls? no	Start: End:	Mar Aug	Support: Future intent (yr):	2010+ 6–10
Technical Goal:	Typothesis, estimates.			
Programmatic Goal: 1	Evaluation.	<b>XX</b> 7 - 4l		шис
Redwood Creek	1240905412924	4 Mad-Red	wood.	<u>10102</u>
CDFG S-RAMP Correspondent: Michael I	). Sparkman			ID# 100
Eicld to observe /	<u>enile</u>	<u>Outmigrants</u>	<u>Adults</u>	
riela tecnniques: n/a		downstream trap	n/a	
Data types: n/a		presence/absence, population abundanc demographic	n/a ce,	

Uncertainty:		st	atistical		
Site selection:	dictated by logistics/circumstance /qualitative	Year began:	2000	Interval:	daily
Geoprecision: <u>Response to:</u>	very precise	Year ended: Years missed:	2003 complete,	Duration: Summaries:	0–5 yr yearly
Positive impact?	no	Season:		Funding source:	various: CDEG/private
Negative impact Impact controls? Technical Goal:	no no Hypothesis, es	Start: End: stimates.	Mar Aug	Support: Future intent (yr):	2010+ 6–10
Programmatic G	oal: Evaluation.				
<u>Stream name</u> Redwood Creek	12 12	LID 240905412924	<u>Watersh</u> Mad-Red	e <u>d name</u> wood.	<u>HUC</u> 10102
<b>CDFG S-RAM</b> Correspondent: M	<b>Р</b> ⁄lichael D. Sparkman				ID# 171
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	<u>Adults</u>	
Field technique	es: n/a	de	ownstream trap	n/a	
Data types:	n/a	po de	opulation abundanc emographic	e, n/a	
Uncertainty:		st	atistical		
Site selection: Geoprecision: <u>Response to:</u> Positive impact?	unknown very precise no	Year began: Year ended: Years missed: Season:	2000 2002 snapshot	Interval: Duration: Summaries: Funding source:	daily 0–5 yr weekly various: CDEG/Private
Negative impact	? no	Start:	Mar	Support:	2010+
Impact controls?	no	End:	Jul	Future intent (yr):	6–10
<b>Technical Goal:</b>	Compare wild	and hatchery s	teelhead out-migrat	tion timing.	
Programmatic G	oal: Describe age of River and dete Primary long- steelhead in th	one plus and old ermine out-mign term goal is to d he Mad River.	der juvenile steelher rant pop. Sizes for v determine status and	ad downstream migr wild 1+ steelhead and d trends of out-migra	ation in the Mad d 2+ steelhead. ating 1+ and 2+
<u>Stream name</u> Mad River	<u>L1</u> 12	LID 241266409562	Watersh Mad-Red	e <u>d name</u> wood.	<u>HUC</u> 10102
<b>Eel River Salm</b> Correspondent: H	on Restoration P Harry Vaughn	roject			ID# 263
1	Juvenile	<u>0</u>	<u>utmigrants</u>	Adults	
Field technique	es: n/a	de	ownstream trap	n/a	

Unknown. Use LLID

Data types: r Uncertainty:	n/a	po qu	opulation index, gen alitative	netic n/a	
Site selection: quali Geoprecision: very <u>Response to:</u>	tative selection precise	Year began: Year ended: Years missed:	1999 ongoing complete, regular	Interval: Duration: Summaries:	daily 0–5 yr yearly
Positive impact? yes	5	Season:		Funding source:	CDFG SFRA
Negative impact? no		Start:	Mar	Support:	2004
Impact controls? no		End:	Jun	Future intent (yr):	6-10
Technical Goal:	Develop new 1	trap models; tre	nd analysis; impler	nent protocol.	
Programmatic Goal:	Monitor long-	term population	trends.	•	HUC .
Stream name	<u>LI</u> 12	LID	<u>Watersh</u>	ed name	<u>HUC</u>
Sprout Creek	12 alt 12	3826440069/	South For	'k Eel. dr Eel	10106
west rolk sploul Cle	ек 12	.3803/400410	South For	K Eel.	10100
<b>Institute for Forest</b> Correspondent: Dana	and Watersh McCanne	ed Manager	nent/HSU		ID# 67
Field techniques:	<u>Juvenile</u> lirect observation electrofishing	n, <u>O</u> do	utmigrants ownstream trap	<u>Adults</u> upstream	trap
Data types:	oopulation abund lemographic, ger	lance, po netic de	opulation index, emographic	population demograp	n abundance, hic, genetic
Uncertainty: s	statistical				
Site selection: dictat	ted by tics/circumstance	Year began:	2002	Interval:	yearly
Geoprecision: accur <u>Response to:</u> Positive impact? no	rate to stream	Year ended: Years missed: Season:	ongoing decreasing	Duration: Summaries: Funding source:	0–5 yr yearly various: NOAA/CDFG/co mmercial-extractio
Nogotivo impost? no		Stanti	Aug	Sunnorte	n ur to ur
Impact controls? no		Start: End:	Sent	Support: Future intent (vr):	ongoing
Technical Goal:	Population est	imates to deter	nine trends over tir	ne	ongoing
Programmatic Goal	Population sta	tus evaluation of	lue to ESA listing		
Stream name	L		Watersh	ed name	нис
Unknown Use LLID	) 12	41410407191	Mad-Red	wood	10102
Unknown. Use LLID	12	41433407186	Mad-Red	wood.	10102

Mad-Redwood.

Mad-Redwood.

Mad-Redwood.

Mad-Redwood.

Mad-Redwood.

10102

10102

10102

10102

10102

1241067408013

1241029407863

1239932407391

1240107407367

1240331407318

Unknown. Use LLID	1240641407322	Mad-Redwood.	10102
Unknown. Use LLID	1240648407427	Mad-Redwood.	10102
Unknown. Use LLID	1240974408015	Mad-Redwood.	10102
Unknown. Use LLID	1241042407668	Mad-Redwood.	10102
Unknown. Use LLID	1241067408012	Mad-Redwood.	10102
Unknown. Use LLID	1241398408058	Mad-Redwood.	10102
Unknown. Use LLID	1241176407779	Mad-Redwood.	10102
Unknown. Use LLID	1241191407532	Mad-Redwood.	10102
Unknown. Use LLID	1241246407233	Mad-Redwood.	10102
Unknown. Use LLID	1241246407489	Mad-Redwood.	10102
Unknown. Use LLID	1241289407456	Mad-Redwood.	10102
Unknown. Use LLID	1241301407488	Mad-Redwood.	10102
Unknown. Use LLID	1241359408039	Mad-Redwood.	10102
Unknown. Use LLID	1241381408050	Mad-Redwood.	10102
Unknown. Use LLID	1241052407257	Mad-Redwood.	10102
Unknown. Use LLID	1240957408018	Mad-Redwood.	10102
Cloney Gulch	1240482407577	Mad-Redwood.	10102
Eureka Slough	1241459408108	Mad-Redwood.	10102
Falls Gulch	1240384407635	Mad-Redwood.	10102
Freshwater Creek	1241165408023	Mad-Redwood.	10102
Graham Gulch	1240475407539	Mad-Redwood.	10102
Henderson Gulch	1241322407550	Mad-Redwood.	10102
Horse Gulch	1240492407761	Mad-Redwood.	10102
Little Freshwater Creek	1240624407569	Mad-Redwood.	10102
McCready Gulch	1240638407639	Mad-Redwood.	10102
Ryan Creek	1241135407887	Mad-Redwood.	10102
South Fork Freshwater Creek	1240467407317	Mad-Redwood.	10102

### Institute for Forest and Watershed Management/HSU

Correspondent: Dana	a McCanne				-
Field techniques:	Juvenile direct observation electrofishing	n, n	<b>)utmigrants</b> /a	<u>Adults</u> n/a	
Data types: Uncertainty:	population abund statistical	ance n	/a	n/a	
Site selection: oth Geoprecision: acc <u>Response to:</u>	er urate	Year began: Year ended: Years missed:	1999 ongoing complete, regular	Interval: Duration: Summaries:	yearly 0–5 yr yearly
<b>Positive impact?</b> n	10	Season:	-	Funding source:	various: NOAA/CDFG/co mmercial-extractio n
Negative impact? n Impact controls? n	10 10	Start: End:	Aug Oct	Support: Future intent (vr):	yr-to-yr ongoing
Technical Goal:	Population esti	imates to deter	mine trends ove	r time.	0 0

Programmatic Goal:	Determine trends in population and ESA status.				
Stream name	LLID	Watershed name	<u>HUC</u>		
Albion River	1237668392254	Big-Navarro-Garcia.	10108		
Alder Creek	1236958390045	Big-Navarro-Garcia.	10108		
Big River	1237953393027	Big-Navarro-Garcia.	10108		
Big River	1237953393027	Russian.	10110		
Buckhorn Creek	1237829392593	Big-Navarro-Garcia.	10108		
Cottaneva Creek	1238282397361	Big-Navarro-Garcia.	10108		
Doyle Creek	1238175393604	Big-Navarro-Garcia.	10108		
Garcia River	1237246389456	Big-Navarro-Garcia.	10108		
Greenwood Creek	1237170391263	Big-Navarro-Garcia.	10108		
Gualala River	1235323387688	Gualala-Salmon.	10109		
Hardy Creek	1238071397108	Big-Navarro-Garcia.	10108		
Hollow Tree Creek	1237265398578	South Fork Eel.	10106		
Howard Creek	1237904396779	Big-Navarro-Garcia.	10108		
Juan Creek	1238031397029	Big-Navarro-Garcia.	10108		
Mallo Pass Creek	1236885390342	Big-Navarro-Garcia.	10108		
Mills Creek	1236935390556	Big-Navarro-Garcia.	10108		
Moat Creek	1236742388813	Big-Navarro-Garcia.	10108		
Navarro River	1237601391919	Big-Navarro-Garcia.	10108		
Noyo River	1238089394276	Big-Navarro-Garcia.	10108		
Point Arena Creek	1237092389142	Big-Navarro-Garcia.	10108		
Schooner Gulch	1236545388666	Big-Navarro-Garcia.	10108		

#### Mattole Salmon Group Correspondent: Maureen Roche

### ID# 214

Field techniques: Data types:	Juvenile direct observatio presence/absence population index population abunc	n e, j lance,	Outmigrants direct observation presence/absence, population index, population abundance	<u>Adults</u> n/a n/a	
Uncertainty:	statistical	netic	statistical	с	
Site selection: diction	tated by istics/circumstance	Year began: e	1996	Interval:	yearly
Geoprecision: acc <u>Response to:</u> Positive impact? n	eurate to stream	Year ended: Years missec Season:	and 1999 I: snapshot	Duration: Summaries: Funding source:	6–10 yr yearly various: CDFG/BLM
Negative impact? y Impact controls? n Technical Goal:	res to Test ecologica temperature a	Start: End: al hypotheses nd sediment of	Aug Aug on limiting factors ar dynamics).	Support: Future intent (yr): nd effects of disturba	indefinite indefinite nce (especially

Programmatic Goal:

<u>Stream name</u> Mattole River		LLID 1243528403022	2. Watersh Mattole.	ed name	<u>HUC</u> 10107
Mattole Salmor	Group				ID# 222
Correspondent: M	laureen Roche				
Field technique	s: n/a		<u>Outmigrants</u> n/a	<u>Adults</u> spawner c carcass co	ount, redd count,
Data types:	n/a		n/a	presence/a index	absence, population
Uncertainty:				qualitative	2
Site selection:	dictated by logistics/circumsta	Year began: nce	1981	Interval:	weekly
Geoprecision:	accurate to watersh	ned Year ended:	ongoing	Duration:	20+ yr
Response to:		Years missed	: complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM
Negative impact?	yes	Start:	Dec	Support:	indefinite
Impact controls?	no	End:	Jan	Future intent (yr):	indefinite
Technical Goal:	Test ecolog temperature	gical hypotheses e and sediment d	on limiting factors a ynamics).	nd effects of disturba	ance (especially
Programmatic Ge	oal: Species star	tus knowledge.			
<u>Stream name</u>		<u>LLID</u>	Watersh	ed name	<u>HUC</u>
Mattole River		1243528403022	2 Mattole.		10107
Mattole Salmor	Group				ID# 224
Correspondent: M	laureen Koche		Outmiquanta	A duilta	
Field technique	s: direct observa	tion	direct observation	<u>Adunts</u> n/a	
Data types:	presence/abser population ind population abu demographic,	nce, lex, undance, genetic	presence/absence, population index, population abundand demographic, genet	n/a ce, ic	
Uncertainty:	statistical		statistical		
Site selection:	dictated by logistics/circumsta	Year began: nce	1996	Interval:	other
Geoprecision:	accurate to stream	Year ended:	ongoing	Duration:	6–10 yr
<b>Response to:</b>		Years missed	: complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM
Negative impact? Impact controls?	yes no	Start: End:	see notes	Support: Future intent (yr):	indefinite indefinite

Technical Goal:	Test ecologica temperature an	est ecological hypotheses on limiting factors and effects of disturbance (especially mperature and sediment dynamics).			
<b>Programmatic Goal</b>	:				
Stream name	L	LID	Watershe	ed name	<u>HUC</u>
Mattole River	12	43528403022	Mattole.		10107
Mattala Salman (	Thomas				ID# 222
Correspondent: Mau	JI VUP Ireen Roche				ID# 232
Correspondent. Mat	Iuvenile	0	lutmigrants	Adults	
Field techniques:	n/a	<u>0</u>	a varingi ants	upstream f	ran
Data typos	n/o	n.		nresence/s	hearce population
Data types.	11/a	11/	a	abundance	e
Uncertainty:				qualitative	;
Site selection: dic log	ctated by gistics/circumstance	Year began:	1982	Interval:	daily
Geoprecision: acc	curate to stream	Year ended:	ongoing	Duration:	20+ yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM
Negative impact?	yes	Start:	Nov	Support:	indefinite
Impact controls?	no	End:	Jan	Future intent (yr):	indefinite
Technical Goal:	Test ecologica temperature an	al hypotheses or and sediment dyr	n limiting factors an namics).	nd effects of disturba	nce (especially
<b>Programmatic Goal</b>	: Unique adapta	tion to 80 deg.	F water, needs prot	ection & education	for poachers.
Stream name	L	LID	Watersho	ed name	HUC
Mattole River	12	43528403022	Mattole.		10107
Mattole Salmon (	Group				ID# 234
Correspondent: Mat	Ireen Koche	0	• • • • • • • • • • • • • • • • • • • •	A J_14.	
Field techniques.	<u>Juvenne</u> downstream tran		ownstream trap	<u>Aduits</u> n/a	
Dete te				11/ a	
Data types:	population abunc	iance po	opulation abundanc	e n/a	
Uncertainty:	statistical	st	atistical		

Site selection:	dictated by logistics/circumstance	Year began:	1985	Interval:	other
Geoprecision: <u>Response to:</u>	accurate to stream	Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	11–20 yr yearly
Positive impact?	no	Season:		Funding source:	various: CDFG/BLM

Impact controls? no	End:	Jun	Future intent (yr):	indefinite
Technical Goal: Test temp	ecological hypotheses or erature and sediment dyr	n limiting factors namics).	and effects of disturba	ance (especially
Programmatic Goal:				
<u>Stream name</u> Mattole River	LLID 1243528403022	<u>Water</u> Mattole	<u>shed name</u> e.	<u>HUC</u> 10107
NOAA Fish				ID# 166
Correspondent: Thomas Willi	ams	utmiaranta	A dulte	
Field techniques: direct of	bservation n/	a /a	n/a	
Negative impact? Data type n/a indefinite	s: yes po	opulation index	Start: n/a	Apr Support:
Uncertainty: none				
Site selection: unknown	Year began:	2000	Interval:	yearly
Geoprecision: accurate	Year ended:	2003	Duration:	0–5 yr
<u>Response to:</u>	Years missed:	complete, regular	Summaries:	yearly
Positive impact? no	Season:		Funding source:	NOAA Fish
Negative impact? no	Start:	Jul	Support:	indefinite
Impact controls? no	End:	Sept	Future intent (yr):	indefinite
Technical Goal:				
Programmatic Goal:				
<u>Stream name</u>	LLID	Waters	<u>shed name</u>	HUC
Unknown. Use LLID	1236097393972	Big-Na	warro-Garcia.	10108
Unknown. Use LLID	1236213393805	Big-Na	warro-Garcia.	10108
Unknown. Use LLID	1236383394088	Big-Na	warro-Garcia.	10108
Unknown. Use LLID	1236418393851	Big-Na	warro-Garcia.	10108
Unknown. Use LLID	1236581393690	Big-Na	warro-Garcia.	10108
Bear Gulch	1236728393841	Big-Na	warro-Garcia.	10108
Brandon Gulch	1236815394045	Big-Na	warro-Garcia.	10108
North Fork South Fork Noyc River	1236845393910	Big-Na	warro-Garcia.	10108
Parlin Creek	1236582393695	Big-Na	warro-Garcia.	10108
South Fork Noyo River	1237258394248	Big-Na	warro-Garcia.	10108

# PalCo. (Yager Cr. Steelhead)

Correspondent: Yage	er Creek Hatchery		
	<u>Juvenile</u>	<u>Outmigrants</u>	<u>Adults</u>
Field techniques:	n/a	n/a	n/a
Data types:	n/a	n/a	n/a

Uncertainty: unknown		unknown	
Site selection:unknownGeoprecision:very preciseResponse to:no	Year began: 1976 Year ended: ongoin Years missed: unknow Season:	Interval: g Duration: vn Summaries: Funding source:	daily 20+ yr unknown PalCo/hatchery
Negative impact? no Impact controls? no Technical Goal:	Start: End:	Support: Future intent (yr):	ongoing (assume) ongoing
Programmatic Goal: Restoration o	f Van Duzen River steell	nead.	
Stream nameLCooper Mill Creek1Cooper Mill Creek1	. <u>LID</u> 240565405594 240565405594	<u>Watershed name</u> Lower Eel. Mad-Redwood.	HUC 10105 10102

### Steelhead, Central California Coast ESU

### Campbell/Hawthorne Timber Co.

JuvenileOutmigrantsAdultsField techniques:n/an/aupstream tr	rap
Data types: n/a n/a presence/at	bsence
Uncertainty: basic quant	titative
Site selection:unknownYear began:1993Interval:Geoprecision:accurate to streamYear ended:ongoingDuration:Response to:Years missed:complete,Summaries:	yearly 6–10 yr yearly
Positive impact? no Season: Funding source:	commercial: extraction
Negative impact? yes Start: Dec Support:	ongoing
Impact controls? no End: Apr Future intent (yr):	ongoing
Technical Goal:Determine trends in salmonid densities: Relative abundance on an and long period of time.	nual basis over a
Programmatic Goal: Determine health of populations.	
Stream name LLID Watershed name J Bedward Creak 1220000285272 Buggin	<u>HUC</u>

#### **Campbell/Hawthorne Timber Co.** Correspondent: David Wright

onespondent. Davi	a wright		
	<u>Juvenile</u>	<u>Outmigrants</u>	<u>Adults</u>
Field techniques:	electrofishing	electrofishing	spawner count
Data types:	population index, demographic, genetic	population index	presence/absence

#### ID# 289

Uncertainty:	qualitative	qu	alitative	unknown	
Site selection: un	known	Year began:	1993	Interval:	yearly
Geoprecision: acc	curate	Year ended:	ongoing	Duration:	6–10 yr
<u>Response to:</u>		Years missed:	complete, incremental	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	commercial: extraction
Negative impact?	yes	Start:	Sept	Support:	ongoing
Impact controls?	no	End:	Nov	Future intent (yr):	ongoing
Technical Goal:	Determine tree long period of	nds in salmonid `time.	densities: Relative	abundance on an an	nual basis over a
<b>Programmatic Goal</b>	: Determine hea	alth of populatio	ons.		
Stream name	L		Watersh	ed name	HUC
Redwood Creek	12	29999385273	Russian.		10110
Campbell/Hawth Correspondent: Day	orne Timber C id Wright	0.			ID# 296
	Juvenile	0	utmigrants	Adults	
Field techniques:	n/a	n/s	a	upstream ti	rap
Data types:	n/a	n/a	a	presence/al	bsence
Uncertainty:				basic quant	titative
Site selection: un	known	Year began:	1993	Interval:	yearly
Geoprecision: acc	curate to stream	Year ended:	ongoing	Duration:	6–10 yr
Response to:		Years missed:	complete, incremental	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	commercial: extraction
Negative impact?	yes	Start:	Dec	Support:	ongoing
Impact controls? 1	no	End:	Apr	Future intent (yr):	ongoing
Technical Goal:	Determine tree long period of	nds in salmonid `time.	densities: Relative	abundance on an an	nual basis over a
<b>Programmatic Goal</b>	: Determine hea	alth of populatio	ons.		
Stream name	L		Watersh	ed name	HUC
Bearpen Creek	12	231149385774	Gualala-S	Salmon	10109
Bearpen Creek	12	31149385774	Russian.		10110
1		-			
Campbell/Hawth	orne Timber C	0.			ID# 297

Campbell/Hawthe Correspondent: Dav	<b>orne Timber Co.</b> id Wright		ID# 297
Field techniques:	Juvenile electrofishing	Outmigrants electrofishing	<u>Adults</u> spawner count
Data types:	population index, demographic, genetic	population index	presence/absence

Uncertainty:	qualitative	q	ualitative	unknown	
Site selection: u Geoprecision: a <u>Response to:</u>	inknown iccurate	Year began: Year ended: Years missed:	1993 ongoing complete, incremental	Interval: Duration: Summaries:	yearly 6–10 yr yearly
Positive impact?	no	Season:		Funding source:	commercial: extraction
Negative impact? Impact controls? Technical Goal:	yes no Determine trer	Start: End: nds in salmonic	Sept Nov I densities: Relative	Support: Future intent (yr): abundance on an an	ongoing ongoing nual basis over a
Programmatic Co	long period of	time.	ons		
Stream name Bearpen Creek Bearpen Creek	L1 12 12	L <b>ID</b> 231149385774 231149385774	<u>Watersho</u> Russian. Gualala-S	e <mark>d name</mark> almon.	HUC 10110 10109
CDFG					ID# 123
Correspondent: Do	oug Albin Juvenile	C	Jutmiarants	Adults	
Field techniques	direct observation electrofishing	n, n	/a	n/a	
Data types:	presence/absence	n n	/a	n/a	
Uncertainty:	qualitative				
Site selection: q Geoprecision: a <u>Response to:</u>	ualitative selection accurate to watershed	Year began: Year ended: Years missed:	1999 ongoing rotating, opportunistic	Interval: Duration: Summaries:	yearly 0–5 yr other
Positive impact? Negative impact? Impact controls?	no no no	Season: Start: End:	Jul Oct	Funding source: Support: Future intent (yr):	state bond funds yr-to-yr indefinite
Technical Goal: Programmatic Go	Compare habi al: Habitat restora presence/abser	tat features betw ation prescription nce.	ween systems. ons and correlation	of habitat conditions	s with species
<u>Stream name</u> Not georeference	d <u>Ll</u> d 99	L <b>ID</b> 1999999999999999	Watersho	ed name	<u>HUC</u>
<b>CDFG</b> Correspondent: Just	an Garcia				ID# 185
Field techniques	<u>Juvenile</u> : n/a	<u>C</u> n	<u>Jutmigrants</u> /a	<u>Adults</u> upstream t	rap
Data types:	n/a	n	/a	population	abundance

Uncertainty:			unknown	
Site selection: unknown Geoprecision: very precise <u>Response to:</u> Positive impact? no	Year began: Year ended: Years missed: Season:	1982 ongoing unknown	Interval: Duration: Summaries: Funding source:	daily 20+ yr yearly various: Army corps/CDFG (assume)
Negative impact? no	Start:	Nov	Support:	ongoing (assume)
Impact controls? no	End:	Apr	Future intent (yr):	ongoing
Technical Goal:				
Programmatic Goal: Facili Valle	ty built as compensation by Dam/Lake Mendocing	n for spawning and n o Project.	nursery areas block	ed by the Coyote
Stream name	LLID	Watershe	d name	HUC
Dry Creek	1228562385862	Russian.		10110
East Fork Russian River	1231985391901	Russian.		10110
<b>CDFG</b> Correspondent: Keyan Urauha	rt			ID# 295
Field techniques: n/a	<u>O</u> n/	<b>utmigrants</b> 'a	<u>Adults</u> upstream	trap, other
<b>Data types:</b> n/a	n/	a	presence/a index, pop demograp	absence, population pulation abundance, hic
Oncer tainty.				
Site selection:qualitative seGeoprecision:accurate to wResponse to:	lection Year began: atershed Year ended: Years missed:	1997 ongoing complete with gaps, incremental	Interval: Duration: Summaries:	other 6–10 yr yearly
Positive impact? no	Season:		Funding source:	CDFG SFRA
Negative impact? no	Start:	Dec	Support:	indefinite
Impact controls? no	End:	Feb	Future intent (yr):	ongoing
Technical Goal: Monit	tor fishing and predict ca	atch-and-release imp	pacts on population	S.
Programmatic Goal: Regul plans	atory compliance. Provi required under ESA; da	ide fishing effort dat ta for viable salmon	ta for fish managen id population mode	nent; evaluate els.
<u>Stream name</u> Unknown. Use LLID	<u>LLID</u> 1224178373875	Watershe San Franc South.	<u>d name</u> isco Coastal	HUC 50006
Unknown. Use LLID	1224391374295	San Franc South.	isco Coastal	50006
Aptos Creek	1219055369691	San Loren	zo-Soquel.	60001
Arana Gulch	1220017369677	San Loren	zo-Soquel.	60001
Borregas Creek	1219271369774	San Loren	zo-Soquel.	60001

Leon, Arroyo	1224483374759	San Francisco Coastal South.	50006
Lobitos Creek	1224082373762	San Francisco Coastal South.	50006
Pescadero Creek	1224062372640	San Francisco Coastal South.	50006
Purisima Creek	1224254374043	San Francisco Coastal South.	50006
Rodeo Creek Gulch	1219802369611	San Lorenzo-Soquel.	60001
San Lorenzo River	1220302369911	San Lorenzo-Soquel.	60001
Soquel Creek	1219515369720	San Lorenzo-Soquel.	60001

#### CDFG

Correspondent: H	Brett Wilson					
Field technique	<u>Juvenile</u> es: n/a	1	<u>Outmigrants</u> downstream trap,	other	Adults upstream the count, othe	rap, spawner er
Data types:	n/a	]	population abunda	ance,	population	abundance, genetic
Uncertainty:		1	unknown		unknown	
Site selection:	dictated by logistics/circumstanc	Year began: e	1979	Interval:		unknown
Geoprecision: <u>Response to:</u>	very precise	Year ended: Years missed	ongoing complete, regular	Duration Summar	ı: ies:	20+ yr unknown
Positive impact?	no	Season:		Funding	source:	various: Cal Fed/EPA
Negative impact Impact controls?	? no ? no	Start: End:	Aug Apr	Support: Future in	: ntent (yr):	2006 0-5
<b>Technical Goal:</b>	Genetic analy	sis is to identia	fy individuals and	l determine s	pawning pr	otocol.
Programmatic G	Goal: Compensation Sonoma Proje	n for spawning ect.	and nursery area	s blocked by	Warm Spri	ings Dam, Lake
Stream name	L	LID	Water	shed name	]	HUC
Dry Creek	12	228562385862	Russia	ın.		10110
Environmental Correspondent: M	I Science Associat Mike Podlech	tes				ID# 117
Field technique	<u>Juvenile</u> es: electrofishing	1	<u>Outmigrants</u> n/a		<u>Adults</u> n/a	
Data types:	population abund	dance	n/a		n/a	
Uncertainty:	statistical					
Site selection:	dictated by logistics/circumstanc	Year began: e	1984	Interval:		yearly

			Year ended:	ongoing	Duration:	11–20 yr	
Response to:			Years missed:	complete, regular	Summaries:	yearly	
Positive impact?	no		Season:		Funding source:	commercial	1
Negative impact?	yes		Start:	Aug	Support:	ongoing	
<b>Impact controls?</b>	no		End:	Aug	Future intent (yr):	ongoing	
Technical Goal:		Monitor fluct	uations in abunda	ance and whether r	elated to known dist	urbances.	
Programmatic G	oal:	Regulatory co	ompliance to dete	ect any negative im	pacts from geotherm	al plants.	
<u>Stream name</u>		<u>L</u>	LID	Watershe	ed name	HUC	
Alder Creek		12	228668388345	Russian.		10110	
Geoprecision:	Squaw	Creek ad	ccurate to stream	12287633	88244	Russian. 1	0110

#### **Environmental Science Associates**

#### Correspondent: Mike Podlech **Juvenile Outmigrants** Adults direct observation **Field techniques:** downstream trap upstream trap population abundance, Data types: population abundance, population index demographic demographic, genetic basic quantitative **Uncertainty:** qualitative Site selection: dictated by Year began: 2003 Interval: daily logistics/circumstance Geoprecision: accurate Year ended: 2003 **Duration:** 0-5 yr Years missed: snapshot Summaries: one-time **Response to: Positive impact?** Season: **Funding source:** private grant no Mar Negative impact? Start: Support: currently yes 0-5**Impact controls?** End: Jun Future intent (yr): no **Technical Goal:** Outlet monitoring of pond. Part of a NMFS enforcement action. **Programmatic Goal:** Stream name LLID Watershed name HUC 1221929370093 San Vicente Creek San Lorenzo-Soquel. 60001

#### **Golden Gate National Recreation Area (NPS)**

#### Correspondent: Darren Fong Juvenile Adults **Outmigrants** electrofishing, seining **Field techniques:** n/a spawner count, redd count presence/absence, population index, Data types: n/a population index, demographic demographic, genetic **Uncertainty:** statistical none Site selection: dictated by Year began: 1994 Interval: see notes logistics/circumstance - qualitative

# ID# 23

	Year ended:	ongoing	Duration:	6–10 yr
Response to:	Years missed:	complete, incremental	Summaries:	yearly
Positive impact? yes	Season:	see notes	Funding source:	agency base
Negative impact? no	Start:		Support:	ongoing
Impact controls? no	End:	<b>a</b>	Future intent (yr):	ongoing
Technical Goal:Determine where how.	ether population	n fluctuations are a	result of manageme	nt actions and
Programmatic Goal: To determine	natural variation	n in population dyn	amics.	
Stream name L	LID	Watersh	ed name	HUC
Redwood Creek 12	225776378596	Tomales-	Drake Bays.	50005
Golden Gate National Recreation	on Area (NPS	5)		ID# 25
Correspondent: Darren Fong				
Juvenile	0	utmigrants	Adults	
Field techniques: n/a	<u>n/</u>	a	redd count	
<b>Data types:</b> n/a	n/	a	population	index
Uncertainty:			none	
Site selection: dictated by	Year began:	1999	Interval:	other
logistics/circumstanc	e			
Geoprecision: accurate to stream	Year ended:	2001	Duration:	0–5 yr
<u>Response to:</u>	Years missed:	no	Summaries:	none
Positive impact? no	Season:	March - April	Funding source:	agency base
<b>Impact controls</b> <sup>2</sup> no	Start: End:	Mar	Support: Future intent (vr):	ongoing
Technical Coal: Establish natu	ral variation in i	napers	Future intent (yr).	oligoling
Programmatic Goal: To determine	natural variation	pupers.	amics	
Streem name		Watarsh	ad name	нис
West Union Creek 17	<u>110</u> )))657374252	Covote		<u>50003</u>
	222037377232	Coyote.		50005
HG Harvev & Assoc.				ID# 277
Correspondent: Scott Gressev				
Juvenile	0	<u>utmigrants</u>	Adults	
Field techniques: seining, other	se	ining, other	n/a	

Uncertainty:	none	n	one		
Site selection:	dictated by logistics/circumstanc	Year began: e	2002	Interval:	other
Geoprecision:	accurate	Year ended:	2002	Duration:	0–5 yr
<b>Response to:</b>		Years missed:	decreasing	Summaries:	one-time
Positive impact	? no	Season:		Funding source:	agency base

presence/absence

n/a

presence/absence

Data types:

Negative impact? n	0	Start:	Oct		Support:	single sampling
Impact controls? n	0	End:	Nov		Future intent (vr):	ended
Technical Goal:	Determine if s the lagoon for	sampling prot salmonids.	cocol could	be develo	ped which would eff	fectively sample
Programmatic Goal:	Feasibility and program.	alysis to see i	fjuveniles	/smolts wo	ould be affected by p	roposed breeding
<u>Stream name</u> San Lorenzo River	<u>L</u> 12	<u>LID</u> 22030236991	1	<u>Watersh</u> San Lore	<u>ed name</u> nzo-Soquel.	HUC 60001
HG Harvey and A	ASSOC.					ID# 268
Correspondent: Laire	l Henkel					
Field techniques:	Juvenile direct observatio electrofishing	n,	Outmigra direct obs electrofish	<u>ants</u> ervation, hing	<u>Adults</u> n/a	
Data types:	population abund demographic	lance,	presence/a population	absence, n abundanc	n/a	
Uncertainty:	statistical		statistical			
Site selection: ran Geoprecision: pre <u>Response to:</u>	dom site selection cise	Year began: Year ended: Years missee	1994 ongoin d: comple gaps, increm	ete with ental	Interval: Duration: Summaries:	yearly 11–20 yr yearly
Positive impact? n	0	Season:			Funding source:	municipal
Negative impact? n	0	Start:	Aug		Support:	currently
Impact controls? n	0	End:	Sept		Future intent (yr):	ongoing
Technical Goal:	Estimate dens newer randor	ity and abund nized samplin	lance for w 1g.	vatershed;	compare historic san	npling methods to
Programmatic Goal:	Develop base	line data for u	ise in gene	ral watersł	ned management.	
Stream name	$\underline{\mathbf{L}}$	LID		Watersh	ed name	<u>HUC</u>
Bean Creek	12	22060537051	6	San Lore	nzo-Soquel.	60001
Bear Creek	12	22120937127	7	San Lore	nzo-Soquel.	60001
Boulder Creek	12	22120237127	1	San Lore	nzo-Soquel.	60001
Branciforte Creek	12	22013036986	9	San Lore	nzo-Soquel.	60001
Carbonera Creek	12	22021236974	0	San Lore	nzo-Soquel.	60001
Fall Creek	12	22077337059	5	San Lore	nzo-Soquel.	60001
Kings Creek	12	22133337155	5	San Lore	nzo-Soquel.	60001
Newell Creek	12	22079337080	9	San Lore	nzo-Soquel.	60001
San Lorenzo River	12	22030236991	1	San Lore	nzo-Soquel.	60001
Zayante Creek	12	22067337048	1	San Lore	nzo-Soquel.	60001

#### Institute for Forest and Watershed Management/HSU

Correspondent: Dana McCanne <u>Juven</u>ile **Outmigrants** Adults direct observation, Field techniques: n/a n/a electrofishing population abundance Data types: n/a n/a statistical **Uncertainty:** Site selection: other Year began: 1999 Interval: vearly Geoprecision: accurate Year ended: ongoing **Duration:** 0-5 yr **Response to:** Years missed: complete, **Summaries:** yearly regular **Positive impact?** Season: **Funding source:** various: no NOAA/CDFG/co mmercial-extractio n **Negative impact?** Start: Support: yr-to-yr no Aug Oct **Impact controls?** End: Future intent (yr): ongoing no **Technical Goal:** Estimate population abundance and trends over time. Establishing trends in populations for ESA status. **Programmatic Goal:** Stream name LLID Watershed name HUC Russian River 1231278384507 Russian. 10110 Russian River 1231278384507 Bodega Bay. 10111

#### **Marin Municipal Water District**

Correspondent: Eric Ettlinger (for Greg Andrews) Juvenile <u>Adu</u>lts **Outmigrants Field techniques:** n/a spawner count, redd count, n/a direct observation n/a presence/absence, population Data types: n/a abundance, demographic, genetic **Uncertainty:** qualitative '70's dictated by **Interval:** Site selection: Year began: weekly logistics/circumstance 20+vrGeoprecision: accurate Year ended: ongoing **Duration: Response to:** Years missed: complete with Summaries: other gaps, incremental **Positive impact?** mid. Oct.- early **Funding source:** municipal no Season: Feb. **Negative impact?** Start: Oct ongoing yes Support: **Impact controls?** no End: Feb Future intent (yr): ongoing **Technical Goal:** Monitor population trends. Regulatory compliance: Order from state expects demonstration of appreciable **Programmatic Goal:** 

ID# 226

ID# 226

<u>Stream name</u>	<u>LLID</u>	Watershed name	<u>HUC</u>
Devils Gulch	1227359380291	Tomales-Drake Bays.	50005
Lagunitas Creek	1228246380899	Tomales-Drake Bays.	50005
San Geronimo Creek	1227078380050	San Pablo Bay.	50002
San Geronimo Creek	1227078380050	Tomales-Drake Bays.	50005

# Marin Municipal Water District Correspondent: Eric Ettlinger (for Greg Andrews)

onespondent. Life	Lumger (101 Ore	<sup>2</sup> S <sup>1</sup> mare w3)			
Field techniques:	Juvenile direct observatio electrofishing	on, n	<u>Dutmigrants</u> /a	<u>Adults</u> n/a	
Data types:	population index demographic, ge	x, n enetic	/a	n/a	
Uncertainty:	basic quantitativ	e			
Site selection: qua Geoprecision: accu <u>Response to:</u>	litative selection urate	Year began: Year ended: Years missed:	'70's ongoing complete with gaps, incremental	Interval: Duration: Summaries:	yearly 20+ yr yearly
Positive impact? n	0	Season:		Funding source:	municipal
Negative impact? y Impact controls? n	es o	Start: End:	Oct Feb	Support: Future intent (yr):	ongoing ongoing
<b>Technical Goal:</b>	Monitor popu	lation trends.			
<b>Programmatic Goal:</b>					
Stream name	Т	LID	Watersh	ed name	нис
Devils Gulch Lagunitas Creek	11 12 12	227359380291 228246380899	Tomales- Tomales-	Drake Bays. Drake Bays.	50005 50005
San Geronimo Creel	k 12	227078380050	Tomales-	Drake Bays.	50005
San Geronimo Cree	k 12	227078380050	San Pable	o Bay.	50002

#### **Merrit Smith Consulting**

Merrit Smith (	Consulting			ID# 2	
Field technique	<b>Juvenile</b> es: seining		<u>Outmigrants</u> n/a	<u>Adults</u> n/a	
Data types:	presence/absence population index demographic, ge	e, , netic	n/a	n/a	
Uncertainty:	basic quantitativ	e			
Site selection: Geoprecision:	qualitative selection precise	Year began: Year ended:	1993 ongoing	Interval: Duration:	other 6–10 yr

<u>Response to:</u>	Years missed:	complete, incremental	Summaries:	seasonally
Positive impact? no	Season:	June - October	Funding source:	agency base
Negative impact? no	Start:	Jun	Support:	indefinite
Impact controls? no	End:	Oct	Future intent (yr):	ongoing
Technical Goal:	Long-term study. Changes co coho salmon populations on a individual impacts from long	ompiled with human a yearly basis - repro -term data.	i-induced impacts of oductive success - c	n steelhead and an assess
<b>Programmatic Goal:</b>	Determine whether city wast	ewater practices are	appropriate.	
Stream name	LLID	Watershe	ed name	HUC
Unknown. Use LLID	1228597387212	Russian.		10110
Gird Creek	1228406386740	Russian.		10110
Green Valley Creek	1229083385050	Russian.		10110
Maacama Creek	1227830386136	Russian.		10110
Mark West Creek	1228917384942	Russian.		10110
Matanzas Creek	1227111384374	Russian.		10110
Miller Creek	1228844387050	Russian.		10110
Santa Rosa Creek	1228333384513	Russian.		10110
Santa Rosa Creek	1228333384513	San Pablo	Bay.	50002
Sausal Creek	1228081386501	Russian.		10110
Correspondent: Kingfis	her Flat Hatchery	<u>Dutmigrants</u>	Adults	ID# 270
Field techniques: n/	ra n	/a	n/a	
<b>Data types:</b> n/	n n	/a	n/a	
Uncertainty: u	nknown u	nknown	unknown	
Site selection: dictate logisti	ed by Year began: cs/circumstance	1982	Interval:	daily
Geoprecision: accura	te Year ended:	ongoing	<b>Duration:</b>	20+ yr
<u>Response to:</u>	Years missed:	complete, regular	Summaries:	yearly
Positive impact? no	Season:		Funding source:	various: MBSTP, state/Fed (assume)
Negative impact? no	Start:		Support:	ongoing (assume)
Impact controls? no	End:		Future intent (yr):	ongoing
<b>Technical Goal:</b>				
<b>Programmatic Goal:</b>	Restoration of local steelhead	d and coho salmon p	opulations.	
Stream name	LLID	Watershe	ed name	HUC
D' C 1				
Big Creek	1222290370668	San Lorer	nzo-Soquel.	60001

#### **NOAA Fish**

Correspondent: Ellen Fi	reund				
Ju	uvenile	<u>(</u>	<u>Outmigrants</u>	<u>Adults</u>	
Field techniques: di	irect observation	n, seining	direct observation, se	eining n/a	
Data types: pr de	resence/absence emographic, gen	, l netic d	presence/absence, demographic, genetic	n/a	
Uncertainty: un	nknown	ι	unknown		
Site selection: dictate logisti	ed by cs/circumstance	Year began:	2003	Interval:	monthly
Geoprecision: accura	ite	Year ended:	ongoing	Duration:	0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact? yes		Season:		Funding source:	NOAA Fish
Negative impact? yes		Start:	All Yr	Support:	ongoing
Impact controls? no		End:	All Yr	Future intent (yr):	0–5
Technical Goal:	Study will more focusing on gr	nitor the utiliz owth, residen	ation of small estuar ce times, feeding, me	ies by coho salmon a etabolic rate and phys	nd steelhead by siological status.
Programmatic Goal:	Determine the maintenance a physiological t interaction of t	importance of nd recovery of factors and ho hese two spec	f the small estuaries a f populations of coho w those are affected cies.	along the central coa salmon and steelhea by environmental va	st for the ad. Monitor riables and the
<u>Stream name</u>	LI	ID	Watershe	ed name	HUC
Redwood Creek	12	25776378596	Tomales-	Drake Bays.	50005
Scott Creek	12	22254370542	San Lorer	nzo-Soquel.	50001

#### **NOAA Fish**

#### Correspondent: Sean A. Hayes <u>Juvenile</u> Adults **Outmigrants** Field techniques: downstream trap, seining upstream trap, spawner seining count Data types: presence/absence, presence/absence, presence/absence, population demographic, genetic population index, index, population abundance, population abundance, demographic, genetic demographic, genetic **Uncertainty:** statistical Site selection: dictated by 2002 Interval: other Year began: logistics/circumstance Geoprecision: accurate to watershed Year ended: ongoing **Duration:** 0–5 yr Years missed: one-time **Response to:** complete, **Summaries:** regular **Positive impact?** various: CDFG yes Season: **Funding source:** CCSRP/NOAA Negative impact? yes Start: All Yr Support: indefinite Impact controls? End: All Yr Future intent (yr): 0-5no

ID# 262

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Technical Goal: Programmatic Goal:	Management of	uestion addre	essing effects of a	rtificial propagation or	wild stocks.
<u>Stream name</u> Big Creek	<u>Ll</u> 12	LID 22290370668	<u>Water</u> San Lo	rshed name prenzo-Soquel	<u>HUC</u> 60001
Scott Creek	12	22254370542	2 San Lo	prenzo-Soquel.	60001
Pt. Reyes Nat'l Sea	ashore non Ketcham				ID# 270
Correspondent. Drun	Juvenile		Outmigrants	Adults	
Field techniques:	downstream trap, observation, elect	, direct trofishing	n/a	n/a	
Data types:	presence/absence/ population index, population abund demographic, gen	e, lance, netic	n/a	n/a	
Uncertainty:	statistical				
Site selection: aua	litative selection	Vear hegan•	1999	Interval	vearly
Geoprecision: acc	urate to stream	Year ended:	ongoing	Duration:	0-5  vr
Response to:		Years missed	: complete, incremental	Summaries:	yearly
Positive impact? n	0	Season:		Funding source:	various: agency base (50%)/other(50%)
Negative impact? n	0	Start:	Jun	Support:	ongoing(agency base)
Impact controls? n	0	End:	Sept	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Contribute inf	ormation at th	ne ESU level.		
Programmatic Goal:	Document exi might mean fo	sting condition or other water	ons for managemer sheds.	nt decisions - what retu	Irn of steelhead
<u>Stream name</u> Pine Gulch Creek	<u>L1</u> 12	LID 26871379219	<b>Water</b> Tomale	<mark>shed name</mark> es-Drake Bays.	<u>HUC</u> 50005
Pt. Reyes Nat'l Sea Correspondent: Bran	<b>ashore</b> non Ketcham				ID# 272
Field techniques:	Juvenile downstream trap, electrofishing	,	Outmigrants downstream trap, electrofishing	<u>Adults</u> carcass co observati	ount, direct on
Data types:	population index, demographic, gen	netic	population index, demographic, gen	demogra <sub>j</sub> etic	ohic, genetic
Uncertainty:	basic quantitative	9	statistical	statistical	
Site selection: othe Geoprecision: acc	er urate	Year began: Year ended:	1998 ongoing	Interval: Duration:	other 0–5 yr

<b>Response to:</b>		Years missed:	complete, regular	Summaries:	yearly	
Positive impact?	yes	Season:		Funding source:	various: agency base (50%)/other(50%)	
Negative impact?	no	Start:	Mar	Support:	ongoing(agency base)	
Impact controls?	no	End:	Jul	Future intent (yr):	ongoing	
<b>Technical Goal:</b>		Contribute information at the ESU level.				
<b>Programmatic Goal:</b> Document existing conditions for management decisions - what return of steelh might mean for other watersheds.					n of steelhead	

<u>Stream name</u>	LLID	Watershed name	HUC
Unknown. Use LLID	1227453380374	Tomales-Drake Bays.	50005
Unknown. Use LLID	1227548379964	Tomales-Drake Bays.	50005

#### SFPUC Sunol Valley Water Treatment Plant

Correspondent: Br	ian Sak				
Field techniques	Juvenile direct observation electrofishing	n, c	Dutmigrants lirect observation, electrofishing	<u>Adults</u> spawner c direct obs electrofisl	count, redd count, ervation, hing
Data types:	presence/absence		presence/absence	presence/	absence
Uncertainty:	basic quantitative	e ł	basic quantitative	unknown	
Site selection: d	lictated by ogistics/circumstance	Year began:	1998	Interval:	yearly
Geoprecision: a	ccurate	Year ended:	ongoing	Duration:	0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
Positive impact?	no	Season:		Funding source:	commercial: utility (assume)
Negative impact?	yes	Start:	Mar	Support:	2014
Impact controls?	no	End:	Sept	Future intent (yr):	11–20
<b>Technical Goal:</b>					
Programmatic Go	al: Create viable	habitat for stee	elhead runs and for	other native species.	
Stream name	L	LID	Watersh	ed name	HUC
Alameda Creek	12	21411375942	San Fran	cisco Bay.	50004
Calaveras Creek	12	18200374775	San Fran	cisco Bay.	50004

#### **SFPUC Sunol Valley Water Treatment Plant**

#### Correspondent: Brian Sak Field techniques: Juvenile n/a Outmigrants downstream trap, direct observation Adults upstream trap upstream trap Data types: n/a demographic population abundance

ID# 134

Uncertainty:		unknown		unknown	
Site selection: Geoprecision: <u>Response to:</u>	qualitative selection very precise	Year began: Years missed:	2001 Year ended: complete, incremental	Interval: ongoing Summaries:	daily <b>Duration:</b> 0–5 yr yearly
Positive impact?	no no	Season:		Funding source:	commercial: utility (assume)
Negative impact	? no	Start:	Jan	Support:	ongoing (assume)
Impact controls	? no	End:	Jun	Future intent (yr):	indefinite
<b>Technical Goal:</b>	<b>1 Goal:</b> 1) Study populations of landlocked rainbow trout in response to genetic analysis				

revealing relationship of trout in San A. and Calaveras Creeks to each other and to

Programmatic Goal:	Assess current state of potential steelhead habitat and determine work needed to
	restore viable habitat and steelhead runs.

<u>Stream name</u>	LLID	Watershed name	HUC
Hondo, Arroyo	1218209375031	San Francisco Bay.	50004
San Antonio Creek	1218197375871	San Francisco Bay.	50004
San Antonio Creek	1218719375756	San Francisco Bay.	50004

#### Sonoma Co. Water Agency

Correspondent: Sea	an White				
Field techniques:	Juvenile direct observatior	n 1	<u>Dutmigrants</u> n⁄a	<u>Adults</u> n/a	
Data types:	presence/absence population abund demographic	ance,	n/a	n/a	
Uncertainty:	statistical				
Site selection: di lo	ictated by gistics/circumstance	Year began:	2002	Interval:	once
Geoprecision: ac	ccurate to watershed	Year ended:	2002	Duration:	0–5 yr
<b>Response to:</b>		Years missed:	snapshot	Summaries:	yearly
<b>Positive impact?</b>	no	Season:		Funding source:	commercial: utility
Negative impact?	no	Start:	Aug	Support:	ongoing
Impact controls?	no	End:	Oct	Future intent (yr):	ongoing
Technical Goal:	Develop estim watershed).	ates of abunda	ance (for comparison	with other tributarie	es and parts of
Programmatic Goa	I: Collect inform River upper ha	ation on steell abitat.	head population abui	ndances and distribut	ion in Russian
Stream name	LI	LID	<u>Wat</u> ersho	ed name	HUC
Russian River	12	31278384507	Russian.	]	10110

Russian River	12	31278384507	Bodega	Bay.	10111
Sonoma Co. Wate Correspondent: Sean	<b>r Agency</b> White				ID# 106
Field techniques:	Juvenile direct observation electrofishing	n, n	<b>Dutmigrants</b> /a	<u>Adults</u> n/a	
Data types:	presence/absence population abund demographic	e, n lance,	/a	n/a	
Uncertainty:	basic quantitative	;			
Site selection: range Geoprecision: acco <u>Response to:</u>	dom site selection urate to stream	Year began: Year ended: Years missed:	1999 2002 complete, incremental	Interval: Duration: Summaries:	other 0–5 yr other
Positive impact? n Negative impact? n Impact controls? n	0 0 0	Season: Start: End:	Aug Oct	Funding source: Support: Future intent (yr):	commercial: utility ongoing 6–10
Technical Goal: Programmatic Goal:	Develop popu Develop basel River tributar	lation indices f ine data on stee ies.	or those tributaries elhead population	s listed for steelhead. abundances and distr	ibution in Russian
<u>Stream name</u> Green Valley Creek Mark West Creek Santa Rosa Creek Santa Rosa Creek Sheephouse Creek	L1 12 12 12 12 12	LID (29083385050 (28917384942 (28333384513 (28333384513 (28333384513 (20938384489	<u>Watersl</u> Russian. Russian. Russian. San Pab Russian.	hed name lo Bay.	HUC 10110 10110 10110 50002 10110
Soquel Demonstra	tion State For	est			ID# 133
Field techniques: Data types: Uncertainty:	<u>Juvenile</u> electrofishing, se population abund statistical	ining n lance n	Dutmigrants /a /a	<u>Adults</u> n/a n/a	
Site selection: dict	ated by	Year began:	1993	Interval:	weekly
Geoprecision: acc Response to:	urate	Year ended: Years missed:	ongoing complete with gaps, regular	Duration: Summaries:	6–10 yr yearly
<b>Positive impact?</b> n	0	Season:		Funding source:	commercial: extraction (via CDF FRIF)
Negative impact? n	0	Start:	Sept	Support:	indefinite

Impact controls? no Technical Goal:	End:	Oct Future	intent (yr): ongoing
Programmatic Goal:	Watershed assessment w/ ic population trends. Monitor	lea of establishing a baseline ing is tied to habitat enhance	. Goal to document long-term ment efforts.
Stream name	LLID	Watershed name	<u>e HUC</u>
Amaya Creek	1219246370750	) San Lorenzo-Soq	uel. 60001
Soquel Creek	1219515369720	) San Lorenzo-Soq	uel. 60001

#### Steelhead, South-Central California Coast ESU

Cambria Commu	unity Services I	District			ID# 4
Correspondent. Doi	Juvenile	0	Jutmigrants	Adults	
Field techniques:	electrofishing	n	/a	n/a	
Data types:	presence/absence population abund demographic	e, n. dance,	/a	n/a	
Uncertainty:	statistical				
Site selection: di	ctated by gistics/circumstanc	Year began: e	1994	Interval:	yearly
Geoprecision: ac <u>Response to:</u>	curate	Year ended: Years missed:	ongoing complete, incremental	Duration: Summaries:	6–10 yr yearly
Positive impact?	no	Season:	mid-September - mid-October	Funding source:	municipal
Negative impact?	ves	Start:	Sept	Support:	vr-to-vr
Impact controls?	yes	End:	Oct	Future intent (yr):	ongoing
Technical Goal:	Population es factors such	timates; monito as habitat qualit	ring trends in juven y. Look at relations	ile populations and a hips among environ	assessing limiting mental factors.
Programmatic Goa	I: Evaluation of diversion.	management st	rategy; not legally 1	required. Evaluating	of water
<u>Stream name</u>	L	LID	Watersho	ed name	HUC
San Simeon Creek	1	211265355949	Central C	oastal.	60006
Santa Rosa Creek	1	211105355685	Central C	oastal.	60006
Steiner Creek	1	210727356091	Central C	oastal.	60006
CDFG					ID# 176
Correspondent: Wh	ale Rock Hatchery	-			
<b>E</b> . 117 1 1	<u>Juvenile</u>	<u>C</u>	<u>Jutmigrants</u>	<u>Adults</u>	
Field techniques:	n/a	n	/a	n/a	

Data types:

presence/absence,

population abundance, demographic

Data types:	n/a	n	/a	n/a	
Uncertainty:	unknown			unknown	
Site selection: qua Geoprecision: ver <u>Response to:</u>	alitative selection y precise	Year ended: Years missed:	Year began: ongoing complete, regular	1992 Duration: Summaries:	<b>Interval:</b> daily 20+ yr yearly
Positive impact? 1	10	Season:	0	Funding source:	CDFG/hatchery (assume)
Negative impact? 1 Impact controls? 1 Technical Goal:	10 10	Start: End:		Support: Future intent (yr):	unknown unknown
Programmatic Goal	: Increased ang	ling success in	Whale Rock Reserv	/oir	
<u>Stream name</u> Old Creek Old Creek	L 12 12	LID 208858354345 208858354345	<u>Watersh</u> Salinas. Central C	e <u>d name</u> oastal.	HUC 60005 60006
CDFG					ID# 55
Correspondent: Mik	e Hill				12
Field techniques:	<u>Juvenile</u> other	<u>O</u> n/	<b>)utmigrants</b> ⁄a	<u>Adults</u> other	
Data types:	presence/absence	e n/	/a	presence/a	lbsence
Uncertainty:	-			-	
Site selection: qua Geoprecision: acc <u>Response to:</u> Positive impact? 1 Negative impact? 3	alitative selection curate to stream no yes	Year began: Year ended: Years missed: Season: Start: End:	2003 2003 snapshot Jul	Interval: Duration: Summaries: Funding source: Support: Future intent (un)	once 0-5 yr one-time agency base 2005+ indefinite
Impact controls? I	10	End:	Jui	Future intent (yr):	indefinite
Programmatic Goal	• Management	to keen nike m	innow out of system	n	
Stream name Chorro Creek Chorro Creek	12 12	LID 208378353414 208378353414	<u>Watersh</u> Central C Salinas.	e <mark>d name</mark> 'oastal.	HUC 60006 60005
CDFG Correspondent: Jenn	ifer Nelson				ID# 84
Field techniques:	Juvenile downstream trap electrofishing, se	, <u>O</u> se	<u>outmigrants</u> eining	<u>Adults</u> n/a	

presence/absence, population index

n/a

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Uncertainty:	none	un	known		
Site selection: die	ctated by gistics/circumstance	Year began:	varies	Interval:	irregularly
Geoprecision: ac	curate to stream	Year ended:	ongoing	Duration:	unknown yr
Positive impact?	yes	Season:	A 11 37	Funding source:	CDFG SFRA
Negative impact?	yes	Start:	All Yr	Support: Future intent (yr):	indefinite
The second of th	Demoletien est	Enu.	All II -4 <sup>1</sup>	Future intent (yr).	machina
Technical Goal:	Population est	imates (but ques	stions on the valid	ity of the protocol).	
Programmatic Goal	I: Answer questi	ons about fish n	nigrations. Some	regulatory complian	ce: Gather
	information or	n violation impa	cts.		
<u>Stream name</u>	LI	LID	Watersh	ed name	HUC
Carmel River	12	19274365362	Central C	Coastal.	60006
Carmel River	12	19274365362	Carmel.		60012
Deer Creek	12	10579358920	Salinas.		60005
Morro Creek	12	08633353763	Central C	Coastal.	60006
Pescadero Creek	12	12861366939	Pajaro.		60002
Pescadero Creek	12	12861366939	Alisal-El	khorn Sloughs.	60011
San Simeon Creek	12	11265355949	Central C	Coastal.	60006
Santa Rosa Creek	12	11105355685	Central C	Coastal.	60006
Toro Creek	12	04242353226	Salinas.		60005
Toro Creek	12	08730354127	Central C	Coastal.	60006
Willow Creek	12	07739355506	Salinas.		60005
CDFG					ID# 124
Correspondent: Jenr	nifer Nelson				
<b>r</b>	Juvenile	O	utmigrants	Adults	
Field techniques:	downstream trap, electrofishing, sei	se ining	ining	n/a	
Dete terrer			/ 1		

Data types: presence/absence, presence/absence, n/a population abundance, population index demographic Uncertainty: unknown none Year began: Site selection: dictated by varies **Interval:** irregularly logistics/circumstance Year ended: Geoprecision: accurate to stream ongoing **Duration:** unknown yr **Response to:** Years missed: rotating, Summaries: unknown opportunistic CDFG SFRA **Positive impact?** Funding source: yes Season: Negative impact? Start: All Yr Support: yes All Yr indefinite **Impact controls?** End: Future intent (yr): no **Technical Goal:** Occasional population estimates (but questions about the validity of the protocol).

**Programmatic Goal:** Answer questions about fish migrations. Some regulatory compliance: Gather

<u>Stream name</u>	<u>LLID</u>	Watershed name	HUC
Carmel River	1219274365362	Central Coastal.	60006
Carmel River	1219274365362	Carmel.	60012
Deer Creek	1210579358920	Salinas.	60005
Morro Creek	1208633353763	Central Coastal.	60006
Pescadero Creek	1212861366939	Pajaro.	60002
Pescadero Creek	1212861366939	Alisal-Elkhorn Sloughs.	60011
San Simeon Creek	1211265355949	Central Coastal.	60006
Santa Rosa Creek	1211105355685	Central Coastal.	60006
Toro Creek	1208730354127	Central Coastal.	60006
Toro Creek	1204242353226	Salinas.	60005
Willow Creek	1207739355506	Salinas.	60005

#### CDFG

CDIG							
Correspondent:	Jenn	ifer Nelson					
Field techniqu	ies:	<u>Juvenile</u> downstream trap electrofishing, se	o, eining	Outmigra seining	<u>ints</u>	<u>Adults</u> n/a	
Data types:		presence/absenc population abun demographic	e, dance,	presence/a informatio	bsence, on on violat	n/a tion impacts popu	llation index
Uncertainty:		none					
Site selection:	dic log	tated by istics/circumstanc	Year began:	varies		Interval:	irregularly
Geoprecision:	acc	urate to stream	Year ended:	ongoing	g	<b>Duration:</b>	unknown yr
<u>Response to:</u>			Years missed	I: rotating opportu	g, inistic	Summaries:	unknown
Positive impact	? у	/es	Season:			Funding source:	unnkown
Negative impac	t? y	/es	Start:	All Yr		Support:	unknown
Impact controls	s? r	10	End:	All Yr		Future intent (yr):	indefinite
<b>Technical Goal</b>	:	Occasional p	opulation estir	nates (but o	questions a	bout the validity of	the protocol).
Programmatic	Goal:	Answer ques information c	tions about fis on violation in	h migration pacts	ns. Some r	egulatory complian	nce: Gather
Stream name		L	<u>LID</u>		Watershe	ed name	<u>HUC</u>
Carmel River		1	21927436536	2	Carmel.		60012
Carmel River		1	21927436536	2	Central C	oastal.	60006
Deer Creek		1	21057935892	0	Salinas.		60005
Morro Creek		1	20863335376	3	Central C	oastal.	60006
Pescadero Cree	ek	1	21286136693	9	Alisal-Elk	khorn Sloughs.	60011
Pescadero Cree	ek	1	21286136693	9	Pajaro.		60002
San Simeon Ci	eek	1	21126535594	9	Central C	oastal.	60006
Santa Rosa Cro	ek	1	21110535568	5	Central C	oastal.	60006
Toro Creek		1	20424235322	6	Salinas.		60005
Toro Creek		1	20873035412	7	Central C	oastal.	60006

Willow Creek	1207	739355506	Salinas.		60005
CDFG					ID# 103
Correspondent: Kevan U	Jrquhart				
Ju	<u>venile</u>	<u>Or</u>	<u>itmigrants</u>	<u>Adults</u>	
Field techniques: n/a	a	n/a	l	upstream t	rap, other
Data types: n/a	a	n/a	L	presence/a index, pop demograp	bsence, population ulation abundance, hic
Uncertainty:					
Site selection: qualita	tive selection <b>V</b>	ear hegan:	1997	Interval:	other
Geoprecision: accura	te to watershed V	ear ended:	ongoing	Duration:	6-10  vr
Response to:	Y	ears missed:	complete with gaps,	Summaries:	yearly
			incremental		
Positive impact? no	Se	eason:		Funding source:	CDFG SFRA
Negative impact? no	St	art:	Dec	Support:	indefinite
Impact controls? no	E	nd:	Feb	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Monitor fishing-	use and predic	ct catch-and-releas	e fishing impacts on	populations.
Programmatic Goal:	Regulatory comp evaluate plans re	oliance. To pr quired under	ovide fishing effor ESA and for viable	rt data for fish mana e salmonid populatio	gement and on models.
<u>Stream name</u>	LLI	D	Watershe	ed name	HUC
Unknown. Use LLID	1213	442358258	Central C	oastal.	60006
Unknown. Use LLID	1213	439358263	Central C	oastal.	60006
Unknown. Use LLID	1213	427358300	Central C	oastal.	60006
Unknown. Use LLID	1213	394358377	Central C	oastal.	60006
Big Sur River	1218	590362810	Central C	oastal.	60006
Carmel River	1219	274365362	Carmel.		60012
Carmel River	1219	274365362	Central C	oastal.	60006
Little Sur River	1218	923363350	Central C	oastal.	60006
Salmon Creek	1213	623358087	Central C	oastal.	60006
Watsonville Slough	1218	080368535	San Lorer	zo-Soquel.	60001
Watsonville Slough	1218	080368535	Pajaro.		60002
City of SLO					ID# 11
Correspondent: Michael	Clarke				
<u>Ju</u>	venile	<u> </u>	<u>itmigrants</u>	<u>Adults</u>	

Field techniques:	Juvenile direct observation, electrofishing	Outmigrants direct observation, electrofishing	<u>Adults</u> n/a
Data types:	presence/absence, population abundance, demographic	presence/absence, population abundance, demographic	n/a
Uncertainty:	basic quantitative	basic quantitative	

Site selection:	dictated logistic	d by s/circumstance	Year began:	2003	Interval:	daily
Geoprecision: <u>Response to:</u>	accurat	e to stream	Year ended: Years missed	2005 or long complete, regular	ger Duration: Summaries:	0–5 yr yearly
Positive impact?	yes		Season:	SeptOct.	Funding source:	various: NMFS/Land Conservancy via CDFG
Negative impact Impact controls?	yes? yes? no		Start: End:	Sept Oct	Support: Future intent (yı	2006 •): ongoing
Technical Goal:		Discover prope from ocean.	ortion of stee	lhead populatio	n in watershed residing	g in 5 mile stretch
Programmatic G	oal:	NMFS to deter watershed.	rmine whethe	er project will p	ut steelhead in jeopard	y of extinction in
<u>Stream name</u>		<u>LI</u>	LID	Wa	tershed name	<u>HUC</u>
Unknown. Use	LLID	12	0712635187	4 Cen	tral Coastal.	60006
Unknown. Use	LLID	12	0627735291	1 Cen	tral Coastal.	60006
Davenport Cree	k	12	0688735222	1 Cen	tral Coastal.	60006
Froom Creek		12	0681635241	6 Cen	tral Coastal.	60006
Prefumo Creek		12	0680035244	2 Cen	tral Coastal.	60006
San Luis Obispo	) Creek	12	0729335182	2 Cen	tral Coastal.	60006
Stenner Creek		12	0668435276	4 Cen	tral Coastal.	60006
City of SLO						ID# 13
Correspondent: N	Aichael	Clarke				
contesponaent. 1	Ju	venile		Outmigrants	Adults	1
Field technique	es: do	wnstream trap		downstream tra	n/a	
Data types:	pre de	esence/absence, mographic	•	presence/absen demographic	ce, n/a	
Uncertainty:	ba	sic quantitative		basic quantitati	ve	
Site selection:	dictated logistic	d by s/circumstance	Year began:	1999	Interval:	daily
Geoprecision:	accurat	e to stream	Year ended:	2002	<b>Duration:</b>	0–5 yr
<b>Response to:</b>			Years missed	I: no	Summaries:	seasonally
Positive impact?	yes		Season:	March-Dece r	mbe Funding source:	municipal
Negative impact	yes?		Start:	Mar	Support:	2003
Impact controls?	no		End:	Dec	Future intent (y	:): 0-5
<b>Technical Goal:</b>		Determine pea	k times of ou	tmigration.		

Regulatory compliance: to determine magnitude of impact project. **Programmatic Goal:** <u>Stream name</u> <u>HUC</u> 60006 LLID

ID# 111

### Steelhead, South-Central California Coast ESU

# City of SLO Correspondent:

City of SLO					$ID\pi$ III
Correspondent: Mic	hael Clarke				
Field techniques:	Juvenile direct observation electrofishing	n, <u>d</u>	<u>Dutmigrants</u> irect observation, lectrofishing	<u>Adults</u> n/a	
Data types:	presence/absence population abund demographic	e, p lance, p d	resence/absence, opulation abundanc emographic	n/a e,	
Uncertainty:	statistical	S	tatistical		
Site selection: ran Geoprecision: acc <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal:	ndom site selection curate no yes no Same as for Same	Year began: Year ended: Years missed: Season: Start: End: an Luis Obispo	1999 2002 snapshot Jun Sept trap data.	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	monthly 0–5 yr seasonally municipal 2003 0–5
Programmatic Goal	: Same as San I	Luis Obispo tra	p data.		
<u>Stream name</u>	L	LID	Watershe	ed name	HUC
San Luis Obispo C	reek 12	207293351822	Central C	oastal.	60006
NMFS for Los Pa Correspondent: Chr Field techniques:	idres NF (USFS istina Dueber <u>Juvenile</u> direct observation	5) n n	<u>Dutmigrants</u> /a	<u>Adults</u> n/a	ID# 155
Data types:	population abunc	lance n	/a	n/a	
Uncertainty:	unknown				
Site selection: die log	ctated by gistics/circumstance	Year began:	1999	Interval:	yearly
Geoprecision: ac					
<u>Response to:</u> Positive impact?	curate to stream	Year ended: Years missed: Season:	2000 snapshot	Duration: Summaries: Funding source:	0–5 yr yearly unknown
<u>Response to:</u> Positive impact? Negative impact?	curate to stream no yes	Year ended: Years missed: Season: Start:	2000 snapshot Jun	Duration: Summaries: Funding source: Support:	0–5 yr yearly unknown unknown
<u>Response to:</u> Positive impact? Negative impact? Impact controls?	curate to stream no yes yes	Year ended: Years missed: Season: Start: End:	2000 snapshot Jun Nov	Duration: Summaries: Funding source: Support: Future intent (yr):	0–5 yr yearly unknown unknown unknown
<u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal:	curate to stream no yes yes Monitor habit instance, com	Year ended: Years missed: Season: Start: End: at use by trout is pared to non-in	2000 snapshot Jun Nov in areas impacted by ppacted stream react	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes.	0–5 yr yearly unknown unknown unknown or fire; for
<u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal: Programmatic Goal	curate to stream no yes yes Monitor habit instance, com	Year ended: Years missed: Season: Start: End: at use by trout is pared to non-in	2000 snapshot Jun Nov in areas impacted by ppacted stream react	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes.	0–5 yr yearly unknown unknown unknown or fire; for
Response to: Positive impact? Negative impact? Impact controls? Technical Goal: Programmatic Goal <u>Stream name</u>	curate to stream no yes Monitor habit instance, com : Management.	Year ended: Years missed: Season: Start: End: at use by trout i pared to non-in	2000 snapshot Jun Nov in areas impacted by pacted stream react Watersho	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name	0–5 yr yearly unknown unknown or fire; for <u><b>HUC</b></u>
Response to:         Positive impact?         Negative impact?         Impact controls?         Technical Goal:         Programmatic Goal         Stream name         Carmel River	curate to stream no yes Monitor habit instance, com t: Management.	Year ended: Years missed: Season: Start: End: at use by trout i pared to non-in	2000 snapshot Jun Nov in areas impacted by pacted stream react <u>Watersho</u> Carmel.	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name	0–5 yr yearly unknown unknown or fire; for <u><b>HUC</b></u> 60012
Response to:         Positive impact?         Negative impact?         Impact controls?         Technical Goal:         Programmatic Goal         Stream name         Carmel River         Carmel River	curate to stream no yes Monitor habit instance, com t: Management. 12 12	Year ended: Years missed: Season: Start: End: at use by trout i pared to non-in LID 219274365362 219274365362	2000 snapshot Jun Nov in areas impacted by npacted stream reacl <u>Watersho</u> Carmel. Central C	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name oastal.	0–5 yr yearly unknown unknown or fire; for <u>HUC</u> 60012 60006
Response to:         Positive impact?         Negative impact?         Impact controls?         Technical Goal:         Programmatic Goal         Stream name         Carmel River         Carmel River         Mill Creek	curate to stream no yes Monitor habit instance, com l: Management. 12 12	Year ended: Years missed: Season: Start: End: at use by trout i pared to non-in 219274365362 219274365362 219274365362	2000 snapshot Jun Nov in areas impacted by npacted stream reacl <u>Watersho</u> Carmel. Central C	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name oastal.	0–5 yr yearly unknown unknown or fire; for <u>HUC</u> 60012 60006
Response to:         Positive impact?         Negative impact?         Impact controls?         Technical Goal:         Programmatic Goal         Stream name         Carmel River         Carmel River         Mill Creek         Piney Creek	curate to stream no yes Monitor habit instance, com l: Management. 12 12 12	Year ended: Years missed: Season: Start: End: at use by trout is pared to non-in 219274365362 219274365362 219274365362 214911359824	2000 snapshot Jun Nov in areas impacted by npacted stream reacl <u>Watersho</u> Carmel. Central C Carmel	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name oastal. oastal.	0–5 yr yearly unknown unknown or fire; for <u>HUC</u> 60012 60006 60012
Response to:         Positive impact?         Impact controls?         Impact controls?         Technical Goal:         Programmatic Goal         Stream name         Carmel River         Carmel River         Mill Creek         Piney Creek         Piney Creek	curate to stream no yes Monitor habit instance, com l: Management. 12 12 12	Year ended: Years missed: Season: Start: End: at use by trout i pared to non-in 219274365362 219274365362 219274365362 219274365362 214911359824 214489362731	2000 snapshot Jun Nov in areas impacted by npacted stream reacl <u>Watersho</u> Carmel. Central C Central C Carmel. Salinas	Duration: Summaries: Funding source: Support: Future intent (yr): y recreation, roads, o hes. ed name oastal. oastal.	0–5 yr yearly unknown unknown or fire; for <u>HUC</u> 60012 60006 60006 60012 60005

1214758359353	Central Coastal.	60006
1214961362225	Salinas.	60005
1215011362194	Salinas.	60005
1215011362194	Carmel.	60012
1214608358935	Central Coastal.	60006
	1214758359353 1214961362225 1215011362194 1215011362194 1214608358935	1214758359353Central Coastal.1214961362225Salinas.1215011362194Salinas.1215011362194Carmel.1214608358935Central Coastal.

#### **NOAA Fish**

Chorro Creek

Chorro Creek

Correspondent: David Boughton Juvenile **Outmigrants** Adults **Field techniques:** direct observation n/a direct observation **Data types:** presence/absence n/a presence/absence statistical statistical **Uncertainty:** 2002 Site selection: qualitative selection Year began: Interval: once accurate to stream Year ended: 2003 0-5 vr **Geoprecision: Duration:** one-time **Response to:** Years missed: snapshot Summaries: **Positive impact?** no Season: **Funding source:** NOAA Fish Negative impact? no Start: May Support: completed **Impact controls?** End: Oct Future intent (yr): ended no **Technical Goal:** Estimate current presence/absence of steelhead in each historical steelhead basin of southern California. **Programmatic Goal:** Reduce uncertainty about the status of both a Federally threatened and an endangered ESU of steelhead. Stream name LLID Watershed name HUC Central Coastal. Unknown. Use LLID 1207456351781 60006 Unknown. Use LLID Central Coastal. 1217384362058 60006 Unknown. Use LLID 1207944351982 Central Coastal. 60006 Unknown. Use LLID 1208002351833 Central Coastal. 60006 Unknown. Use LLID 1219378365063 Central Coastal. 60006 Unknown. Use LLID Central Coastal. 1209030354477 60006 Unknown. Use LLID 1208985360802 Salinas. 60005 Alder Creek 1214155358575 Central Coastal. 60006 Atascadero Creek 1206606355054 Salinas. 60005 **Big Creek** 1215995360697 Central Coastal. 60006 **Big Creek** 1215995360697 Salinas. 60005 **Big Sandy Creek** Salinas. 1207261357921 60005 **Big Sur River** 1218590362810 Central Coastal. 60006 **Bixby Creek** Central Coastal. 1219021363714 60006 Carmel River 1219274365362 Carmel. 60012 Carmel River Central Coastal. 1219274365362 60006 Central Coastal. Cayucos Creek 1209069354491 60006 Chalone Creek 1212083363474 Salinas. 60005 Chinos, Arroyo De Los 1213157357250 Central Coastal. 60006

1208378353414

1208378353414

Central Coastal.

Salinas.

60006

60005

Chualar Creek	1215262365706	Salinas.	60005
Coon Creek	1208941352591	Central Coastal.	60006
Corralitos Creek	1217416369351	San Lorenzo-Soquel.	60001
Corralitos Creek	1217416369351	Pajaro.	60002
De La Laguna, Arroyo	1213070357098	Central Coastal.	60006
Diablo Canyon	1208565352121	Central Coastal.	60006
Doud Creek	1219140364220	Central Coastal.	60006
El Toro Creek	1216869366292	Salinas.	60005
Elkhorn Slough	1217884368066	Alisal-Elkhorn Sloughs.	60011
Estrella River	1206914357417	Estrella.	60004
Estrella River	1206914357417	Salinas.	60005
Gabilan Creek	1216398366866	Alisal-Elkhorn Sloughs.	60011
Garrapata Creek	1219151364177	Central Coastal.	60006
Grande Creek, Arroyo	1206299351011	Central Coastal.	60006
Grande Creek, Arroyo	1206299351011	Cuyama.	60007
Graves Creek	1207035355318	Salinas.	60005
Huerhuero Creek	1206858356759	Salinas.	60005
Islay Creek	1208874352753	Central Coastal.	60006
Kirk Creek	1214952359872	Central Coastal.	60006
Lime Creek	1216320361200	Central Coastal.	60006
Limekiln Creek	1215185360084	Central Coastal.	60006
Little Pico Creek	1211635356333	Central Coastal.	60006
Little Sur River	1218923363350	Central Coastal.	60006
Llagas Creek	1215064369638	Pajaro.	60002
Llagas Creek	1215064369638	Covote.	50003
Malpaso Creek	1219373364814	Central Coastal.	60006
Mill Creek	1214911359824	Central Coastal.	60006
Morro Creek	1208633353763	Central Coastal.	60006
Nacimiento River	1207561358322	Salinas.	60005
Oak Knoll Creek	1212187356511	Central Coastal.	60006
Old Creek	1208858354345	Central Coastal.	60006
Old Creek	1208858354345	Salinas.	60005
Oso, Arroyo Del	1212901356909	Central Coastal.	60006
Pajaro River	1218074368519	Pajaro.	60002
Pajaro River	1218074368519	San Lorenzo-Soquel.	60001
Pancho Rico Creek	1209118360151	Salinas.	60005
Pancho Rico Creek	1209118360151	Upper Los Gatos-Avenal.	30011
Partington Creek	1216964361751	Central Coastal.	60006
Paso Robles Creek	1207047355326	Salinas.	60005
Pecho Creek	1207917351789	Central Coastal.	60006
Pico Creek	1211486356154	Central Coastal.	60006
Pismo Creek	1206398351336	Central Coastal.	60006
Plaskett Creek	1214714359199	Central Coastal.	60006
Prewitt Creek	1214758359353	Central Coastal.	60006
Rocky Creek	1219017363798	Central Coastal.	60006
Rocky Creek	1219017363798	Carmel.	60012
Salinas River	1218034367494	Cuyama.	60007
		-	
Salinas River	1218034367494	Carmel.	60012
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Salinas River	1218034367494	Salinas.	60005
Salmon Creek	1213623358087	Central Coastal.	60006
San Benito River	1215614368963	Upper Los Gatos-Avenal.	30011
San Benito River	1215614368963	Pajaro.	60002
San Carpoforo Creek	1213237357646	Central Coastal.	60006
San Jose Creek	1219243365259	Central Coastal.	60006
San Lorenzo Creek	1211235361908	Salinas.	60005
San Luis Obispo Creek	1207293351822	Central Coastal.	60006
San Marcos Creek	1206926357232	Salinas.	60005
San Simeon Creek	1211265355949	Central Coastal.	60006
Santa Margarita Creek	1206051354447	Central Coastal.	60006
Santa Margarita Creek	1206051354447	Salinas.	60005
Santa Rosa Creek	1211105355685	Central Coastal.	60006
Seal Rock Creek	1219630365886	Carmel.	60012
Soberanes Creek	1219243364564	Central Coastal.	60006
Soda Spring Creek	1213756358170	Central Coastal.	60006
Stonewall Creek	1213081364046	Salinas.	60005
Toro Creek	1208730354127	Central Coastal.	60006
Uvas Creek	1215883370011	Coyote.	50003
Uvas Creek	1215883370011	Pajaro.	60002
Vicente Creek	1215845360442	Central Coastal.	60006
Villa Creek	1209694354601	Central Coastal.	60006
Villa Creek	1214082358495	Central Coastal.	60006
Wild Cattle Creek	1214849359671	Central Coastal.	60006
Willow Creek	1214608358935	Central Coastal.	60006

#### NOAA Fish

Correspondent: Christin	a Dueber			
<u>Jı</u>	ivenile	<b>Outmigrants</b>	Adults	
Field techniques: di	rect observation	direct observation	direct obs	servation
Data types: pr	resence/absence	presence/absence	presence/	absence
Uncertainty: ur	nknown			
Site selection: qualita	tive selection Year beg	gan: 2001	Interval:	irregularly
Geoprecision: accura subwa	te to Year end tershed	led: 2003	Duration:	0–5 yr
<b>Response to:</b>	Years m	issed: no	Summaries:	other
Positive impact? yes	Season:	ongoing	Funding source:	Nat'l Fire Plan
Negative impact? yes	Start:	All Yr	Support:	unknown
Impact controls? no	End:	All Yr	Future intent (yr):	unknown
<b>Technical Goal:</b>	Monitoring related to e	ffects of Forest Service	e actions.	
Programmatic Goal:	Regulatory compliance			
Stream name	LLID	Water	shed name	<u>HUC</u>
Unknown. Use LLID	120695835	4404 Salinas	5.	60005

Unknown. Use LLID	1206801354142	Salinas.	60005
Unknown. Use LLID	1200344351795	Estrella.	60004
Unknown. Use LLID	1203871353460	Salinas.	60005
Unknown. Use LLID	1203373353126	Salinas.	60005
Unknown. Use LLID	1201376352714	Estrella.	60004
Unknown. Use LLID	1204124353919	Salinas.	60005
Unknown. Use LLID	1204124353919	Estrella.	60004
Unknown. Use LLID	1204081352893	Salinas.	60005
Unknown. Use LLID	1204039353006	Salinas.	60005
Unknown. Use LLID	1200288351710	Estrella.	60004
Unknown. Use LLID	1207079354154	Salinas.	60005
Unknown. Use LLID	1203888352948	Salinas.	60005
Unknown. Use LLID	1204625354164	Salinas.	60005
Unknown. Use LLID	1202719352545	Salinas.	60005
Unknown. Use LLID	1203043353373	Salinas.	60005
Unknown. Use LLID	1202997352758	Salinas.	60005
Unknown. Use LLID	1202887352611	Salinas.	60005
Unknown. Use LLID	1202887352611	Estrella.	60004
Unknown. Use LLID	1202875352564	Salinas.	60005
Unknown. Use LLID	1202837352624	Salinas.	60005
Unknown. Use LLID	1202752352755	Salinas.	60005
Unknown. Use LLID	1201173353048	Estrella.	60004
Unknown. Use LLID	1202752352755	Estrella.	60004
Unknown. Use LLID	1201326353206	Estrella.	60004
Unknown. Use LLID	1202523353191	Salinas.	60005
Unknown. Use LLID	1202523353191	Estrella.	60004
Unknown. Use LLID	1203455354156	Estrella.	60004
Unknown. Use LLID	1205371353493	Salinas.	60005
Unknown. Use LLID	1202425352371	Salinas.	60005
Unknown. Use LLID	1201758352877	Estrella.	60004
Unknown. Use LLID	1206958354404	Central Coastal.	60006
Unknown. Use LLID	1203255352852	Salinas.	60005
Unknown. Use LLID	1203513353119	Estrella.	60004
Unknown. Use LLID	1207079354154	Central Coastal.	60006
Unknown. Use LLID	1203533352875	Salinas.	60005
Unknown. Use LLID	1203561353433	Salinas.	60005
Unknown. Use LLID	1203541354373	Estrella.	60004
Unknown. Use LLID	1207079354167	Salinas.	60005
Unknown. Use LLID	1203820352924	Salinas.	60005
Unknown. Use LLID	1203513353119	Salinas.	60005
Unknown. Use LLID	1203408354450	Estrella.	60004
Unknown. Use LLID	1203493354124	Estrella.	60004
Unknown. Use LLID	1203846354440	Estrella.	60004
Unknown. Use LLID	1203871353460	Estrella.	60004
Unknown. Use LLID	1203510354392	Estrella.	60004
Unknown. Use LLID	1203449352881	Salinas.	60005
Atascadero Creek	1206606355054	Salinas.	60005

Beartrap Creek	1201399353345	Estrella.	60004
Burrito Creek	1205318353371	Salinas.	60005
Camatta Creek	1202975354654	Estrella.	60004
Fernandez Creek	1203328354578	Estrella.	60004
Hale Creek	1206972354239	Salinas.	60005
Little Sur River	1218923363350	Central Coastal.	60006
Mariana Creek	1202753353573	Estrella.	60004
McGinnis Creek	1202803353810	Estrella.	60004
Middle Branch Huerhuero Creek	1205220355149	Estrella.	60004
Middle Branch Huerhuero Creek	1205220355149	Salinas.	60005
Navajo Creek	1201995354996	Estrella.	60004
Pozo Creek	1203894352953	Salinas.	60005
Pozo Creek	1203894352953	Estrella.	60004
Rinconada Creek	1205327353615	Salinas.	60005
Rogers Creek	1200894352755	Estrella.	60004
Salinas River	1218034367494	Cuyama.	60007
Salinas River	1218034367494	Salinas.	60005
Salinas River	1218034367494	Carmel.	60012
Salsipuedes Creek	1204653353225	Salinas.	60005
San Juan Creek	1203696356587	Estrella.	60004
San Luis Obispo Creek	1207293351822	Central Coastal.	60006
Santa Margarita Creek	1206051354447	Central Coastal.	60006
Santa Margarita Creek	1206051354447	Salinas.	60005
Shell Creek	1203257354863	Estrella.	60004
Tassajera Creek	1206402353790	Salinas.	60005
Trout Creek	1206067354414	Salinas.	60005
Trujillo Creek	1203482353124	Salinas.	60005
Yaro Creek	1203977353430	Salinas.	60005
Yaro Creek	1203977353430	Estrella.	60004

#### NOAA Fish

Correspondent: E	llen Freund				
	Juvenile		<u>Dutmigrants</u>	<u>Adults</u>	
Field technique	s: direct observation	n, seining d	lirect observation, so	eining n/a	
Data types:	presence/absence demographic, get	e, p netic d	resence/absence, lemographic, geneti	n/a c	
Uncertainty:	unknown	u	inknown		
Site selection:	dictated by logistics/circumstance	Year began: e	2003	Interval:	monthly
Geoprecision:	accurate	Year ended:	ongoing	Duration:	0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	yearly
<b>Positive impact?</b>	yes	Season:		Funding source:	NOAA Fish
Negative impact?	yes	Start:	All Yr	Support:	ongoing
Impact controls?	no	End:	All Yr	Future intent (yr):	0–5

Technical Goal:	Study will monitor the utilization of small estuaries by coho salmon and steelhead by focusing on growth, residence times, feeding, metabolic rate and physiological status				
Programmatic Goal:	Determine the importance of the small estuaries along the central coast for the maintenance and recovery of populations of coho salmon and steelhead. Monitor physiological factors and how those are affected by environmental variables and the interaction of these two species.				
<u>Stream name</u>	LLID	Watershed name	HUC		
Willow Creek	1214608358935	Central Coastal.	60006		

ID# 15

#### Steelhead, Southern California ESU

#### **Cachuma Operation and Maintenance Board**

#### Correspondent: Scott Engblom Juvenile Adults **Outmigrants** upstream trap, redd count, downstream trap, direct **Field techniques:** downstream trap direct observation observation presence/absence, population Data types: presence/absence, presence/absence, population abundance, population abundance, abundance, demographic, genetic genetic genetic **Uncertainty:** unknown unknown unknown 1994 Site selection: unknown Year began: Interval: unknown **Duration:** 6-10 yr Geoprecision: accurate to stream Year ended: ongoing Years missed: complete, Summaries: yearly **Response to:** regular throughout the **Positive impact?** Funding source: municipal no Season: year All Yr Negative impact? no Start: Support: ongoing All Yr **Impact controls?** End: Future intent (yr): ongoing no **Technical Goal:** Increase overall steelhead population through implementation of the lower Santa Ynez River fish management plan. Biological Opinion, US Bureau of Reclamation, Operation and Maintenance of the **Programmatic Goal:** Cachuma Project on the Santa Ynez River in Santa Barbara County. <u>H</u>UC Stream name LLID Watershed name Unknown. Use LLID 1199819345781 Santa Ynez. 60010 Santa Ynez. El Jaro Creek 1204070345841 60010 Quiota Creek 1201089345814 Santa Ynez. 60010 Salsipuedes Creek Santa Ynez. 60010 1204115346315 Santa Ynez River 1205840346873 Ventura. 70101 Santa Ynez River 1205840346873 Santa Ynez. 60010 ID# 65

#### **Casitas Water District** Las Lautash

Correspondent:	Leo Lentsch		
	<u>Juvenile</u>	<b>Outmigrants</b>	<u>Adults</u>
Field techniq	ues: downstream trap	downstream trap	direct observation

Data types:	population abu demographic	ndance, po de	opulation abundanc emographic	e, population demograp	n abundance, hic, genetic
Uncertainty:	statistical	st	atistical	statistical	
Site selection:	dictated by logistics/circumstar	Year began:	2002	Interval:	irregularly
Geoprecision: <u>Response to:</u>	accurate to stream	Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	0–5 yr yearly
<b>Positive impact?</b>	yes	Season:		Funding source:	municipal
Negative impact	? no	Start:	Jan	Support:	ongoing
Impact controls	? no	End:	Jun	Future intent (yr):	ongoing
<b>Technical Goal:</b>					
Programmatic G	Goal: To provide :	fish passage at the	e Robles Diversion	Dam.	
Stream name		<u>LLID</u>	Watersh	ed name	<u>HUC</u>
Coyote Creek		1193093343546	Ventura.		70101
Matilija Creek		1192992344853	Santa Yn	ez.	60010
Matilija Creek		1192992344853	Ventura.		70101
Santa Ana Cree	k	1193412343780	Ventura.		70101
Casitas Water	District				ID# 66
Casitas Water Correspondent: I	District Leo Lentsch		utmianonto	Adulto	ID# 66
Casitas Water Correspondent: I	District Leo Lentsch <u>Juvenile</u>	Q	Putmigrants /a	<u>Adults</u> direct obs	ID# 66
Casitas Water Correspondent: I Field technique	District Leo Lentsch Juvenile es: n/a	<u>O</u> n	Dutmigrants /a	Adults direct obs	<b>ID# 66</b> ervation
Casitas Water Correspondent: I Field technique Data types:	District Leo Lentsch Juvenile es: n/a n/a	<u>C</u> n n	Dutmigrants /a /a	<u>Adults</u> direct obs population	ID# 66 ervation n index
Casitas Water Correspondent: I Field technique Data types: Uncertainty:	District Leo Lentsch Juvenile es: n/a n/a	O n n	Putmigrants /a /a	<u>Adults</u> direct obs population qualitative	<b>ID# 66</b> ervation n index e
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection:	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar	<u>Օ</u> ռ ռ <b>Year began:</b> ոce	Putmigrants /a /a 2003	<u>Adults</u> direct obs population qualitative Interval:	ID# 66 ervation n index e weekly
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision:	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh	O n Year began: nce ed Year ended:	<u>Putmigrants</u> /a /a 2003 2003	<u>Adults</u> direct obs population qualitation Interval: Duration:	ID# 66 ervation n index e weekly 0–5 yr
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u>	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh	Q n Year began: nce ed Year ended: Years missed:	Putmigrants /a /a 2003 2003 snapshot	Adults direct obs population qualitative Interval: Duration: Summaries:	ID# 66 ervation n index e weekly 0–5 yr seasonally
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact?	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh	Q n, Year began: nce ed Year ended: Years missed: Season:	Putmigrants /a /a 2003 2003 snapshot	Adults direct obs population qualitative Interval: Duration: Summaries: Funding source:	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact?	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes	Q n. Year began: nce ed Year ended: Years missed: Season: Start:	Putmigrants /a /a 2003 2003 snapshot Mar	Adults direct obs population qualitative Interval: Duration: Summaries: Funding source: Support:	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact?	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes no	Q n. Year began: nce ed Year ended: Years missed: Season: Start: End:	Putmigrants /a /a 2003 2003 snapshot Mar Jun	Adults direct obs population qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing ongoing
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal:	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes no Reconnaissa requirement	Q n N Year began: nce ed Year ended: Years missed: Season: Start: End: ance snorkel surve	Putmigrants /a /a 2003 2003 snapshot Mar Jun eys & habitat assess	Adults direct obs population qualitation Interval: Duration: Summaries: Funding source: Support: Future intent (yr): sment regarding mig	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing ongoing gration
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal:	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes yes no Reconnaissa requirement Goal: Ensure fish	Q n, Year began: nce ed Year ended: Years missed: Season: Start: End: ance snorkel surve s. passage and suita	Putmigrants /a /a 2003 2003 snapshot Mar Jun eys & habitat assess ble habitat on Vent	Adults direct obs population qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr): sment regarding mig ura River.	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing ongoing gration
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal: Programmatic G	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes no Reconnaissa requirement Goal: Ensure fish	Q n. Year began: nce ed Year ended: Years missed: Season: Start: End: ance snorkel surve s. passage and suita LLID	Putmigrants /a /a 2003 2003 snapshot Mar Jun eys & habitat assess ble habitat on Vent Watersho	Adults direct obs population qualitative Interval: Duration: Summaries: Funding source: Support: Future intent (yr): sment regarding mig ura River. ed name	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing ongoing gration
Casitas Water Correspondent: I Field technique Data types: Uncertainty: Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal: Programmatic G <u>Stream name</u> Ventura River	District Leo Lentsch Juvenile es: n/a n/a dictated by logistics/circumstar accurate to watersh yes yes yes no Reconnaissa requirement Goal: Ensure fish	Q n/ n/ N/ Year began: nce ed Year ended: Years missed: Season: Start: End: ance snorkel surve s. passage and suita LLID 1193067342740	Putmigrants /a /a 2003 2003 snapshot Mar Jun eys & habitat assess ble habitat on Vent <u>Watersho</u> Ventura.	Adults direct obs population qualitation Interval: Duration: Summaries: Funding source: Support: Future intent (yr): sment regarding mig ura River. ed name	ID# 66 ervation n index e weekly 0–5 yr seasonally municipal ongoing ongoing gration

CDFG			ID#	ŧ 5
Correspondent: Ro	ger Bloom			
	<u>Juvenile</u>	<b>Outmigrants</b>	Adults	
Field techniques	direct observation	direct observation	n/a	

Data types:	presence/absenc demographic	ce, p d	resence/absence, emographic	n/a	
Uncertainty:		n	one		
Site selection: Geoprecision: <u>Response to:</u> Positive impact? Negative impact? Impact controls? Technical Goal:	qualitative selection accurate to stream no ? no ? no	Year began: Year ended: Years missed: Season: Start: End:	2000 2001 snapshot year-round All Yr All Yr	Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	other 0–5 yr one-time FRGP 2001 ongoing
Programmatic G	oal: Assess existi	ing residential po	pulation of wild tr	out in watershed.	
<u>Stream name</u> Sespe Creek Sespe Creek Sisquoc River	<b>I</b> 1 1 1	L <b>LID</b> 1189562343773 1189562343773 1203067349043	<u>Watersh</u> Santa Yn Santa Cla Santa Ma	<u>ed name</u> lez. ara. aria.	HUC 60010 70102 60008
<b>CDFG</b> Correspondent: 7	Гim Hovey				ID# 61
Field technique	Juvenile es: electrofishing	<u>C</u> n	<b>Outmigrants</b> /a	<u>Adults</u> direct obs electrofisl	ervation, hing, seining
Data types:	presence/absenc demographic, g	ce, n. enetic	/a	presence/abundanc genetic	absence, population e, demographic,
Uncertainty:	qualitative			basic quar	ntitative
Site selection:	dictated by logistics/circumstane	Year began: ce	1999	Interval:	weekly
Geoprecision: <u>Response to:</u>	accurate to stream	Year ended: Years missed:	ongoing complete, regular	Duration: Summaries:	0–5 yr yearly
Positive impact?	no	Season:		Funding source:	various: Cal Coastal Conservancy (Bond Act)/CDFG
Negative impact	? yes	Start:	Jun	Support:	indefinite
Impact controls?	no	End:	Sept	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Determine be	est quality techni	iques - protocol eff	iciency and quality e	evaluation.
Programmatic G	<b>boal:</b> Because apped due to rainfa	earance of trout i ll. Are they succ	is so infrequent, pu essful in years of e	rpose is to monitor t nough rainfall? Lon	heir fluctuations g-term success.
<u>Stream name</u>	Ī	LLID	Watersh	ed name	<u>HUC</u>
San Juan Creek	1	176833334621	San Jacir	nto.	70202
San Juan Creek	. 1	176833334621	Aliso-Sa	n Onofre.	70301
San Mateo Cree	к 1	1175924333851	Aliso-Sa	n Onofre.	70301

San Onofre Creek	1175777333803	Aliso-San Onofre.	70301
San Onofre Creek	1175777333803	Santa Margarita.	70302
Trabuco, Arroyo	1176650334897	Aliso-San Onofre.	70301

#### CDFG

ID# 62

**ID# 7** 

Correspondent: Tin	m Hovey				
	<u>Juvenile</u>	<u>C</u>	<u> Dutmigrants</u>	Adults	
Field techniques	: direct observation	n n	/a	n/a	
Data types:	presence/absence	e n	/a	n/a	
Uncertainty:	qualitative				
Site selection: d	lictated by ogistics/circumstance	Year began: e	2003	Interval:	once
Geoprecision: a	ccurate	Year ended:	ongoing	Duration:	0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	one-time
Positive impact?	no	Season:		Funding source:	various: Cal Coastal Conservancy (Bond Act)/CDFG+
Negative impact?	ves	Start:	Aug	Support:	2005
Impact controls?	no	End:	Aug	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Assess habitat	. Develop plar	n for removal of n	on-native species.	
Programmatic Go	al: Restore and op upstream to re	ptimize the stee move non-nati	elhead run on San ve species from p	Mateo Creek. Work word.	w/ landowners
Stream name	L	LID	Waters	hed name	HUC
San Mateo Canyo	on 11	74650334739	Aliso-S	an Onofre.	70301

#### For the Sake of Salmon (S. Cal)

Correspondent: Jeff Brinkman Juvenile **Outmigrants** <u>Adults</u> Field techniques: direct observation direct observation direct observation Data types: presence/absence, presence/absence, presence/absence, population population index, population index, index demographic demographic Uncertainty: none none none Site selection: qualitative selection Year began: 2003 Interval: other 2003 Geoprecision: accurate Year ended: **Duration:** 0–5 yr **Response to:** Years missed: snapshot **Summaries:** one-time **Positive impact?** no Season: Carp.-Funding source: FRGP Spring:March and Sept., Montecito-sum mer

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Impact controls? n	0	End:	Sept	Future intent (yr):	0–5
<b>Technical Goal:</b>	Assess steelhe	ad habitat con	ditions and populati	on distribution, abur	ndance (baseline).
Programmatic Goal:	Watershed pla	nning for rest	oration.		
<u>Stream name</u>	<u>Ll</u>	LID	Watersh	<u>ed name</u>	<u>HUC</u>
Carpinteria Creek	11	95195343904	Santa Bar	rbara Coastal.	60013
Gobernador Creek	11	94851344012	Santa Bai	rbara Coastal.	60013
Monteento Creek	11	90334344107	Santa Dai	Ibala Coastal.	00015
Land Trust of San	ita Barbara Co	).			ID# 8
Correspondent. Caro			Outmigrants	Adults	
Field techniques:	direct observation	1	direct observation	direct obs	ervation
Data types:	presence/absence		presence/absence	presence/a	absence
Uncertainty:	none	1	none	none	
Site selection: dict	ated by	Year began:	2001	Interval:	irregularly
Negative impact? lo	ogistics/circumstar	nce	no	Start:	Year began:
Mar 200	01	Support:	Interval:	2003	irregularly
Geoprecision: acc	urate	Year ended:	2001	Duration:	0–5 yr
Response to:		Years missed:	snapshot	Summaries:	one-time
<b>Positive impact?</b> n	0	Season:	January-Feburar	Funding source:	commercial:
Negative impact? V	es	Start.	y Ian	Support:	indefinite
Impact controls? n	0	End:	Jun	Future intent (vr):	indefinite
Technical Goal:	Determine pre	sence/absence	e prior to removing the	he abandoned pipeli	ne.
Programmatic Goal:	Regulatory co streams for co	mpliance: required with culv	uired mitigation. Str vert issues, etc. Can l	ream is representative be a model for more	re of ~20 other steelhead
C.	restoration.	ID	<b>XX</b> / <b>I</b>		IIIIC
<u>Stream name</u>	D 12	L <b>ID</b> 01405344734	<u>Watersh</u>	<u>ed name</u> rbara Coastal	<u>HUC</u> 60013
Ulikilowii. Use LLI	D 12	01403344734	Santa Dai	Ibara Coastai.	00015
Land Trust of San Correspondent: Caro	<b>ita Barbara Co</b> lyn Chandler	).			ID# 9
Field techniques.	<u>Juvenile</u> n/a	-	<u>Outmigrants</u> n/a	<u>Adults</u>	
Data types:	n/a	1	n/a	n/a	
Data types. Uncontointru	11/ a	1	n/ a	11/ a	
Uncertainty:					
Site selection: dict	ated by istics/circumstance	Year began:	pending	Interval:	unknown
Geoprecision: acc	urate to stream	Year ended:		Duration:	0–5 yr
<u>Response to:</u>		Years missed	complete, regular	Summaries:	unknown
<b>Positive impact?</b> y	es	Season:		Funding source:	Cal Coastal

Negative impact? Impact controls? Technical Goal:	yes no Determin monitor	Start: End: ne abundance, density response to watershee	y and life history of d restoration.	Support: Future intent (yr): f steelhead in Arroy	indefinite ongoing o Hondo and		
Programmatic Goal	: Restore baseline	Arroyo Hondo waters data. Long-term mon	shed and monitor re attoring.	esponse to restoration	on. Obtain		
<u>Stream name</u> Unknown. Use LL	ID	<u>LLID</u> 1201405344734	<u>Watersh</u> Santa Ba	<mark>ed name</mark> rbara Coastal.	<u>HUC</u> 60013		
Land Trust of Santa Barbara CountyID# 10CorrespondentsStep Clauselyi for County							
Field techniques:	<u>Juvenile</u> n/a	or Carolyn Chandler <u>O</u> n/	<b>utmigrants</b> a	<u>Adults</u> n/a	Conservancy (Bond Act)		
Data types:	n/a	n/	a	n/a			
Uncertainty:							
Site selection: dic log	ctated by gistics/circum	Year began: stance		Interval:	irregular		
Geoprecision: ven <u>Response to:</u> Positive impact? 1	ry precise no	Year ended: Years missed: Season:	snapshot winter and spring; june (see notes)	Duration: Summaries: Funding source:	yearly (assume) unknown		
Negative impact? 1 Impact controls? 1 Technical Goal: Programmatic Goal	no no	Start: End:		Support: Future intent (yr):	unknown unknown		
Stream name Unknown. Use LL	ID	<u>LLID</u> 1201405344734	<u>Watersh</u> Santa Ba	<mark>ed name</mark> rbara Coastal.	<u>HUC</u> 60013		

#### NMFS for Los Padres NF (USFS) Correspondent: Christina Dueber

orrespondent: 0	Christina Dueber				
	<u>Juvenile</u>		<b>Outmigrants</b>	Adults	
Field techniqu	es: direct observation	on	n/a	n/a	
Data types:	population abun	dance	n/a	n/a	
Uncertainty:	unknown				
Site selection:	dictated by logistics/circumstand	Year began:	1999	Interval:	yearly
Geoprecision:	accurate to stream	Year ended:	2000	Duration:	0–5 yr

Response to:	,	Years missed:	snapshot	Summaries:	yearly
Positive impact? no	:	Season:		Funding source:	unknown
Negative impact? yes	:	Start:	Jun	Support:	unknown
Impact controls? yes	]	End:	Nov	Future intent (yr):	unknown
<b>Technical Goal:</b>	Monitor habitat	t use by trout in	n areas impacted	by recreation, roads,	or fire; for
	instance, compa	ared to non-imp	pacted stream re	aches.	
Programmatic Goal:	Management.				
<u>Stream name</u>	$\underline{LL}$	ID	Waters	shed name	HUC
Manzana Creek	119	99940348275	Santa N	Iaria.	60008
NOAA Fish					ID# 163
Correspondent: David B	Boughton				
Ju	ivenile	<u>O</u> 1	<u>utmigrants</u>	Adults	
Field techniques: di	rect observation	n/a	a	direct obs	ervation
Data types: pr	esence/absence	n/a	a	presence/	absence
<b>Uncertainty:</b> sta	atistical			statistical	
Site selection: qualita	tive selection	Year began:	2002	Interval:	once
Geoprecision: accura	te to stream	Year ended:	2002	Duration:	0-5  vr
Response to:		Years missed:	snapshot	Summaries:	one-time
Positive impact? no	:	Season:	P	Funding source:	NOAA Fish
Negative impact? no		Start:	Mav	Support:	completed
Impact controls? no	]	End:	Oct	Future intent (yr):	ended
Technical Goal:	Estimate currer	nt presence or a	bsence of steelh	ead in each historical	steelhead basin of
	southern Califo	ornia.			
<b>Programmatic Goal:</b>	Reduce uncerta	inty about the	status of both a I	Federally threatened a	nd an endangered
8	ESU of steelhea	ad.		5	U
Stream name	LL	ID	Waters	shed name	HUC
Unknown. Use LLID	119	99716344450	Santa E	Barbara Coastal.	60013
Unknown. Use LLID	120	02517344678	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	02710344685	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	02888344702	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	01405344734	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	03702344573	Santa E	arbara Coastal.	60013
Unknown. Use LLID	118	35963340412	Santa N	Ionica Bay.	70104
Unknown. Use LLID	120	01180344700	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	01862344698	Santa E	arbara Coastal.	60013
Unknown. Use LLID	119	99876344498	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	00014344579	Santa E	arbara Coastal.	60013
Unknown. Use LLID	120	00442344625	Santa Y	'nez.	60010
Unknown. Use LLID	120	00442344625	Santa E	Barbara Coastal.	60013
Unknown. Use LLID	120	00519344618	Santa E	Barbara Coastal.	60013
Unknown. Use LLID	120	03532344587	Santa E	Barbara Coastal.	60013
Unknown. Use LLID	120	04261344501	Santa E	Barbara Coastal.	60013
Unknown. Use LLID	117	78273335637	Aliso-S	an Onofre.	70301

Unknown. Use LLID	1199133344288	Santa Ynez.	60010
Unknown. Use LLID	1178395335738	Newport Bay.	70204
Unknown. Use LLID	1199133344288	Santa Barbara Coastal.	60013
Unknown. Use LLID	1199282344350	Santa Barbara Coastal.	60013
Unknown. Use LLID	1198456344211	Santa Barbara Coastal.	60013
Unknown. Use LLID	1198286344180	Santa Barbara Coastal.	60013
Unknown. Use LLID	1198450344211	Santa Barbara Coastal.	60013
Unknown. Use LLID	1186356340363	Santa Monica Bay.	70104
Unknown. Use LLID	1187414340325	Santa Monica Bay.	70104
Unknown. Use LLID	1198426344202	Santa Barbara Coastal.	60013
Unknown. Use LLID	1198361344172	Santa Barbara Coastal.	60013
Unknown. Use LLID	1178273335637	Newport Bay.	70204
Unknown. Use LLID	1186077340367	Santa Monica Bay.	70104
Agua, Ca?ada del	1203136344649	Santa Barbara Coastal.	60013
Angeles River, Los	1181930337572	Los Angeles.	70105
Angeles River, Los	1181930337572	Santa Monica Bay.	70104
Barranca Honda	1203819344563	Santa Barbara Coastal.	60013
Big Sycamore Canyon	1190141340704	Santa Monica Bay.	70104
Bulito, Arroyo El	1203323344624	Santa Barbara Coastal.	60013
Burro, Arroyo	1197420344023	Santa Barbara Coastal.	60013
Calleguas Creek	1190917341093	Calleguas.	70103
Capitan, Caqada Del	1200215344577	Santa Barbara Coastal.	60013
Capitan, Caqada Del	1200215344577	Santa Ynez.	60010
Carpinteria Creek	1195195343904	Santa Barbara Coastal.	60013
Cojo, Ca?ada Del	1204155344530	Santa Barbara Coastal.	60013
Corral Canyon	1187330340329	Santa Monica Bay.	70104
Dos Pueblos Canyon	1199636344407	Santa Barbara Coastal.	60013
Dos Pueblos Canyon	1199636344407	Santa Ynez.	60010
Emerald Canyon	1178053335548	Aliso-San Onofre.	70301
Escondido Creek	1172814330160	San Luis Rey-Escondido.	70303
Escondido Creek	1172814330160	San Diego.	70304
Franklin Creek	1195308343988	Santa Barbara Coastal.	60013
Gaviota, Caqada de la	1202260344703	Santa Ynez.	60010
Gaviota, Caqada de la	1202260344703	Santa Barbara Coastal.	60013
Honda Creek, Canada	1206364346085	Santa Ynez.	60010
Honda Creek, Canada	1206364346085	Santa Barbara Coastal.	60013
Hot Springs Creek	1196494344430	Santa Barbara Coastal.	60013
Jalama Creek	1205015345116	Santa Barbara Coastal.	60013
Jolla Canyon, La	1190354340842	Santa Monica Bay.	70104
Jolla Canyon, La	1190354340842	Calleguas.	70103
Laguna Canyon	1177844335419	Aliso-San Onofre.	70301
Malibu Creek	1186787340322	Santa Monica Bay.	70104
Mission Creek	1196866344124	Santa Barbara Coastal.	60013
Molino, Ca¦ada Del	1201678344697	Santa Barbara Coastal.	60013
Montecito Creek	1196334344167	Santa Barbara Coastal.	60013
Moro Canyon	1178205335609	Aliso-San Onofre.	70301
Oak Creek	1196256344192	Santa Barbara Coastal.	60013

Otay River	1171148325995	San Diego.	70304
Paredon, Arroyo	1195551344146	Santa Barbara Coastal.	60013
Paredon, Arroyo	1195551344146	Santa Ynez.	60010
Poway Creek	1172605329344	San Diego.	70304
Rattlesnake Canyon	1166799326464	Cottonwood-Tijuana.	70305
Refugio, Caqada Del	1200686344625	Santa Barbara Coastal.	60013
Refugio, Caqada Del	1200686344625	Santa Ynez.	60010
Rincon Creek	1194759343733	Santa Barbara Coastal.	60013
Romero Creek	1196198344186	Santa Barbara Coastal.	60013
Rose Canyon	1172209328015	San Diego.	70304
San Antonio Creek	1206205347980	Santa Ynez.	60010
San Antonio Creek	1206205347980	San Antonio.	60009
San Diego Creek	1178835336465	Newport Bay.	70204
San Diego River	1172127327609	San Diego.	70304
San Dieguito River	1172700329752	San Diego.	70304
San Gabriel River	1181137337445	San Gabriel.	70106
San Luis Rey River	1173904332042	San Luis Rey-Escondido.	70303
San Mateo Creek	1175924333851	Aliso-San Onofre.	70301
San Onofre Creek	1175777333803	Santa Margarita.	70302
San Onofre Creek	1175777333803	Aliso-San Onofre.	70301
San Ysidro Creek	1196244344191	Santa Barbara Coastal.	60013
Santa Ana River	1179560336321	Santa Ana.	70203
Santa Anita, Calada De	1203057344667	Santa Barbara Coastal.	60013
Santa Clara River	1192559342348	Santa Clara.	70102
Santa Maria River	1206494349710	Central Coastal.	60006
Santa Maria River	1206494349710	Santa Maria.	60008
Santa Monica Creek	1195365343961	Santa Barbara Coastal.	60013
Santa Ynez River	1205840346873	Santa Ynez.	60010
Santa Ynez River	1205840346873	Ventura.	70101
Sauces Creek, Los	1194216343483	Ventura.	70101
Sauces Creek, Los	1194216343483	Santa Barbara Coastal.	60013
Sequit, Arroyo	1189329340445	Santa Monica Bay.	70104
Shuman Canyon	1206087348452	San Antonio.	60009
Sweetwater River	1171131326429	Salton Sea.	100200
Sweetwater River	1171131326429	San Diego.	70304
Sycamore Canyon	1170153328379	San Diego.	70304
Sycamore Creek	1196658344165	Santa Barbara Coastal.	60013
Tajiguas Creek	1201004344638	Santa Barbara Coastal.	60013
Tajiguas Creek	1201004344638	Santa Ynez.	60010
Tecolote Canyon	1199164344308	Santa Barbara Coastal.	60013
Tecolote Canyon	1199164344308	Santa Ynez.	60010
Topanga Canyon	1185821340397	Los Angeles.	70105
Topanga Canyon	1185821340397	Santa Monica Bay.	70104
Toro Canyon Creek	1195657344151	Santa Barbara Coastal.	60013
Tuna Canyon	1185884340464	Santa Monica Bay.	70104
Ventura River	1193067342740	Ventura.	70101
Wood Canyon	1204426344511	Santa Barbara Coastal.	60013

Zuma Canyon	11	188206340139	S	anta Monica Bay.	70104
NOAA Fish Correspondent: Chris	stina Dueber				ID# 294
Field techniques	<u>Juvenile</u>	<u>(</u>	Outmigrant	ts <u>A</u>	<u>dults</u>
rieid techniques:	direct observation	n c	inect observ	vation d	
Data types:	presence/absence	e t	presence/abs	sence pi	resence/absence
Uncertainty:	unknown				
Site selection: qua Geoprecision: acc sub	litative selection urate to watershed	Year began: Year ended:	2001 2003	Interval: Duration:	irregularly 0–5 yr
<b>Response to:</b>		Years missed:	no	Summaries	: other
Positive impact? y	ves	Season:	ongoing	Funding so	urce: Nat'l Fire Plan
Negative impact? y	res	Start:	All Yr	Support:	unknown
Impact controls? n	10	End:	All Yr	Future inte	ent (yr): unknown
<b>Technical Goal:</b>	Monitoring re	lated to effects	s of Forest S	ervice actions.	
<b>Programmatic Goal:</b>	Regulatory co	mpliance.			
Stream name	L	LID	V	Vatershed name	HUC
Unknown. Use LLI	ID 11	177529341811	S	San Gabriel.	70106
Unknown. Use LLI	ID 11	174362334750	A	Aliso-San Onofre.	70301
Unknown. Use LLI	ID 11	174628342661	Ν	Aojave.	90208
Unknown. Use LLI	ID 11	179703342422	S	San Gabriel.	70106
Unknown. Use LLI	ID 11	199436348409	C	Cuyama.	60007
Unknown. Use LLI	ID 11	175784338947	S	Santa Ana.	70203
Unknown. Use LLI	ID 11	185112345975	S	Santa Clara.	70102
Unknown. Use LLI	ID 11	175973338368	S	Santa Ana.	70203
Unknown. Use LLI	ID 11	174253334712	A	Aliso-San Onofre.	70301
Unknown. Use LLI	ID 11	176399337477	S	Santa Ana.	70203
Unknown. Use LLI	ID 11	174628342661	S	Santa Ana.	70203
Unknown. Use LLI	ID 11	184587344924	S	Santa Clara.	70102
Unknown. Use LLI	ID 12	200197348348	S	Santa Maria.	60008
Unknown. Use LLI	ID 12	201385349193	S	Santa Maria.	60008
Unknown. Use LLI	ID 12	201942350297	C	Cuyama.	60007
Unknown. Use LLI	ID 11	177009343434	S	San Gabriel.	70106
Unknown. Use LLI	ID 11	179703342422	A	Antelope-Fremont Va	alleys. 90206
Unknown. Use LLI	ID 11	176279337083	S	Santa Ana.	70203
Unknown. Use LLI	ID 11	199436348409	S	Santa Maria.	60008
Unknown. Use LLI	ID 11	198396348147	S	Santa Maria.	60008
Unknown. Use LLI	ID 11	198054348374	S	Santa Maria.	60008
Unknown. Use LLI	ID 11	196124345089	S	Santa Ynez.	60010
Unknown. Use LLI	ID 11	194113347464	C	Cuyama.	60007
Unknown. Use LLI	ID 11	193100348366	C	Cuyama.	60007
Unknown. Use LLI	ID 11	190101346932	S	Santa Clara.	70102
Unknown. Use LLI	ID 11	169441334209	S	Santa Margarita.	70302

Unknown. Use LLID	1200197348348	Cuyama.	60007
Unknown. Use LLID	1164840328744	Cottonwood-Tijuana.	70305
Unknown. Use LLID	1177683342295	San Gabriel.	70106
Unknown, Use LLID	1199846348879	Santa Maria.	60008
Unknown, Use LLID	1173802334803	Aliso-San Onofre	70301
Unknown Use LLID	1173895334796	Aliso-San Onofre	70301
Unknown Use LLID	1168884334153	Santa Margarita	70302
Unknown Use LLID	1173800334803	Aliso-San Onofre	70301
Agua Caliente Canvon	1195788345085	Santa Ynez	60010
Alamo Creek	1203143350088	Cuvama	60007
Alamo Creek	1203143350088	Salinas	60005
Amargosa Creek	1190779347345	Middle Kern-Upper	30003
Timurgosu creek	117077757575	Tehachapi-Grapevine.	50005
Amargosa Creek	1190779347345	Santa Clara.	70102
Bautista Creek	1169078337650	San Jacinto.	70202
Bear Creek	1170142341606	Santa Ana	70203
Bear Creek	1178833342406	Antelope-Fremont Valleys	90206
Bear Creek	1178833342406	San Gabriel	70106
Bell Canyon	1175533335341	Aliso-San Onofre	70301
Big Tujunga Creek	1183621342664	Los Angeles	70105
Boulder Creek	1167381329743	San Diego	70304
Bouquet Canyon	1185326344236	Santa Clara	70102
Branch Creek	1201806351448	Cuyama	60007
Buck Creek	1188239346650	Santa Clara	70102
Cajon Wash	11735623/1/18	Mojave	00208
Cajon Wash	1173562341418	Santa Ana	70203
Carney Canyon	1168/06331515	Santa Ana. San Diego	70203
Castaio Creek	1186202344102	Santa Clara	70304
Castale Cleek	1177280242246	Santa Clara. San Cabriel	70102
Cadar Craak	1167400320875	San Diago	70100
Cedar Creek	1167400329875	Saliton See	100200
Cedal Cleek	1172875240605	Santon Sea.	70202
City Creek	1174412224787	Santa Ana.	70203
Cold Spring Canyon	11/4412334/8/	Aliso-San Onorre.	70301
Cottonwood Creek	116/6453256/2	Cottonwood-Hijuana.	/0305
Cuddy Creek	1189084348211	Middle Kern-Upper	30003
		Tenachapi-Grapevine.	< <b>-</b>
Cuyama River	1203067349042	Cuyama.	60007
Dry Creek	1188705347014	Santa Clara.	70102
East Fork City Creek	1171819341773	Mojave.	90208
East Fork City Creek	1171819341773	Santa Ana.	70203
Elizabeth Lake Canyon	1186121345248	Santa Clara.	70102
Fish Fork	1177315343057	San Gabriel.	70106
Fish Fork	1177315343057	Santa Ana.	70203
Fredalba Creek	1171350341560	Santa Ana.	70203
Fredalba Creek	1171350341560	Mojave.	90208
Hemet Valley	1166864336660	San Jacinto.	70202
Hemet Valley	1166864336660	Salton Sea.	100200
Herkey Creek	1166864336659	Salton Sea.	100200

Herkey Creek	1166864336659	San Jacinto.	70202
Hot Spring Canyon	1175150335879	Aliso-San Onofre.	70301
Indian Creek	1196321345342	Santa Ynez.	60010
King Creek	1167184328982	San Diego.	70304
Kitchen Creek	1164884327323	Cottonwood-Tijuana.	70305
Little Tujunga Creek	1183742342664	Los Angeles.	70105
Lockwood Creek	1189980346990	Cuyama.	60007
Lockwood Creek	1189980346990	Santa Clara.	70102
Long Canyon	1169070334463	Santa Margarita.	70302
Matilija Creek	1192992344853	Santa Ynez.	60010
Matilija Creek	1192992344853	Ventura.	70101
Middle Fork Lytle Creek	1174987342402	Santa Ana.	70203
Mill Creek	1171191340910	Salton Sea.	100200
Mill Creek	1181425343092	Santa Clara.	70102
Mill Creek	1181425343092	Los Angeles.	70105
Mill Creek	1171191340910	Santa Ana.	70203
Mission Creek	1196866344124	Santa Barbara Coastal.	60013
Mono Creek	1196322345199	Santa Ynez.	60010
Mono Creek	1196322345199	Cuyama.	60007
Morena Creek	1165274326932	Cottonwood-Tijuana.	70305
Mutau Creek	1190198346817	Santa Clara.	70102
North Fork La Brea Creek	1201306348805	Santa Maria.	60008
North Fork Lytle Creek	1174987342403	Santa Ana.	70203
North Fork San Gabriel River	1178681342415	San Gabriel.	70106
North Fork San Jacinto River	1168100337311	San Jacinto.	70202
Pacoima Wash	1184173342274	Santa Clara.	70102
Pacoima Wash	1184173342274	Los Angeles.	70105
Pine Valley Creek	1166718326921	San Diego.	70304
Pine Valley Creek	1166718326921	Cottonwood-Tijuana.	70305
Piru Creek	1187827343997	Santa Clara.	70102
Posta Creek, La	1164985327154	Cottonwood-Tijuana.	70305
Quatal Canyon	1194683348118	Cuyama.	60007
Salt Creek	1186693346378	Santa Clara.	70102
San Antonio Creek	1193065343796	Ventura.	70101
San Antonio Creek Channel	1177297340136	Santa Ana.	70203
San Diego River	1172127327609	San Diego.	70304
San Dimas Wash	1179188340995	San Gabriel.	70106
San Francisquito Canyon	1185744344268	Santa Clara.	70102
San Gabriel River	1181137337445	San Gabriel.	70106
San Juan Creek	1176833334621	Aliso-San Onofre.	70301
San Juan Creek	1176833334621	San Jacinto.	70202
San Luis Rey River	1173904332042	San Luis Rey-Escondido.	70303
San Mateo Canyon	1174650334739	Aliso-San Onofre.	70301
San Mateo Creek	1175924333851	Aliso-San Onofre.	70301
Santa Ana River	1179560336321	Santa Ana.	70203
Santa Barbara Canyon	1195183348838	Cuyama.	60007
Santa Ynez River	1205840346873	Ventura.	70101

Santa Ynez River	1205840346873	Santa Ynez.	60010
Santa Ysabel Creek	1170241330833	San Diego.	70304
Sespe Creek	1189562343773	Santa Ynez.	60010
Sespe Creek	1189534343801	Santa Clara.	70102
Sespe Creek	1189562343773	Santa Clara.	70102
Seymour Creek	1190406347334	Middle Kern-Upper	30003
		Tehachapi-Grapevine.	
Seymour Creek	1190406347334	Santa Clara.	70102
Silverado Creek	1176788337655	Santa Ana.	70203
South Fork Iron Fork	1177611343030	San Gabriel.	70106
South Fork La Brea Creek	1201306348804	Santa Maria.	60008
South Fork La Brea Creek	1201306348804	Cuyama.	60007
South Fork San Jacinto River	1168100337312	San Jacinto.	70202
Stony Creek	1203495352014	Cuyama.	60007
Strawberry Creek	1167701337081	San Jacinto.	70202
Sulphur Spring Canyon	1196664348277	Cuyama.	60007
Sweetwater River	1171131326429	Salton Sea.	100200
Sweetwater River	1171131326429	San Diego.	70304
Taylor Creek	1167490327936	San Diego.	70304
Taylor Creek	1167490327936	Cottonwood-Tijuana.	70305
Temescal Creek	1168519331203	San Diego.	70304
Tenaja Canyon	1174115335312	Aliso-San Onofre.	70301
Trabuco, Arroyo	1176650334897	Aliso-San Onofre.	70301
Ventura River	1193067342740	Ventura.	70101
Waterman Canyon	1172663341670	Mojave.	90208
Waterman Canyon	1172663341670	Santa Ana.	70203
West Fork Fox Creek	1181943343239	Los Angeles.	70105
West Fork San Gabriel River	1178425342326	Los Angeles.	70105
West Fork San Gabriel River	1178425342326	San Gabriel.	70106
West Fork San Luis River	1167597332977	San Luis Rey-Escondido.	70303

# NOAA Fish Correspondent:

Correspondent:	Stan Glowacki				
	<u>Juvenile</u>	<u>0</u>	<u>utmigrants</u>	Adults	
Field techniqu	es: direct observa	tion n/	/a	direct obse	ervation
Data types:	presence/abse	nce n/	/a	presence/a	lbsence
Uncertainty:	unknown				
Site selection:	dictated by	Year began:	2002	Interval:	other
	logistics/circumsta	ince			
Geoprecision:	accurate to stream	Year ended:	2003	Duration:	0–5 yr
Response to:		Years missed:	complete, regular	Summaries:	none
Positive impact	? no	Season:	spring and summer	Funding source:	NOAA Fish
Negative impac	t? yes	Start:	Mar	Support:	ongoing
Impact controls	? no	End:	Aug	Future intent (yr):	ongoing

<b>Technical Goal:</b>	Detect presence/absence.						
<b>Programmatic Goal:</b>	Site visits for Section 7 or in response	Site visits for Section 7 or in response to enforcement needs.					
Stream name	LLID	Watershed name	<b>HUC</b>				
Carpinteria Creek	1195195343904	Santa Barbara Coastal.	60013				
Cold Springs Creek	1196532344595	Santa Barbara Coastal.	60013				
Gaviota, Caqada de la	1202260344703	Santa Barbara Coastal.	60013				
Gaviota, Caqada de la	1202260344703	Santa Ynez.	60010				
Montecito Creek	1196334344167	Santa Barbara Coastal.	60013				
Rattlesnake Creek	1170488329507	San Diego.	70304				
Romero Creek	1196198344186	Santa Barbara Coastal.	60013				
San Jose Creek	1198291344215	Santa Ynez.	60010				
San Jose Creek	1198291344215	Santa Barbara Coastal.	60013				
San Ysidro Creek	1196244344191	Santa Barbara Coastal.	60013				

# NOAA Fish Correspondent: Stan Glowacki

ID# 31

conceptineent.	Stall	GIUWACKI					
		Juvenile	-	<u>Outmigra</u>	<u>nts</u>	Adults	
Field technique	es:	direct observation		direct obse	rvation	direct obse	ervation
Data types:		presence/absence, population index	, ]	presence/a population	bsence, abundance	presence/a index	bsence, population
Uncertainty:		basic quantitative	1	basic quan	titative		
Site selection:	dicta logis	ated by stics/circumstance	Year began:	2002	Interv	al:	monthly
Geoprecision:	accu	rate	Year ended:	ongoing	g Durat	ion:	0–5 yr
Response to:			Years missed:	: complet regular	se, Summ	aries:	none
Positive impact?	nc	)	Season:		Fundi	ng source:	NOAA Fish
Negative impact	nc? nc	)	Start:	Mar	Suppo	rt:	ongoing
Impact controls	nc?	)	End:	Sept	Futur	e intent (yr):	indefinite
Technical Goal:		Approximate d surveys. Statis	lensities of fis	sh in syster ing will be	n. Produce popu gin in 2004.	lation estimat	tes via snorkel
Programmatic G	Goal:	Obtain informa used as a basel culvert repair a	ation about sn ine to help wi at foot of syste	nall coasta ith restorat em.	l streams in Santa ion efforts throug	a Barbara Co. ghout the cour	This stream is nty. Informs
Stream name		LI	JD		Watershed nam	<u>ie</u>	<u>HUC</u>
Unknown. Use	LLII	D 12	01405344734	ŀ	Santa Barbara C	oastal.	60013

# **NOAA Fish** Correspondent:

NOAA FISH			ID#
Correspondent: Stan	Glowacki		
	<u>Juvenile</u>	<b>Outmigrants</b>	Adults
Field techniques:	direct observation	direct observation	direct observation
Data types:	presence/absence, population index	presence/absence, population abundance	presence/absence

Uncertainty:	basic quantita	tive ba	asic quantitative	basic quar	ntitative
Site selection: d	lictated by ogistics/circumsta	Year began:	2002	Interval:	monthly
Geoprecision: a	accurate	Year ended:	2003	Duration:	0–5 yr
<u>Response to:</u>		Years missed:	complete, regular	Summaries:	none
<b>Positive impact?</b>	no	Season:		Funding source:	NOAA Fish
Negative impact?	no	Start:	Mar	Support:	ongoing
Impact controls?	no	End:	Sept	Future intent (yr):	indefinite
Technical Goal:	Estimate aj via snorkel system.	pproximate densition surveys. Statistica	es of fish in the sy al monitoring start	stem. Produce popul s in 2004. Fix culver	ation estimate t at foot of the
Programmatic Go	oal: Gain as mu County. E	ich information as Baseline to help w/	possible regarding restoration efforts	small coastal stream throughout county.	s in Santa Barbara
<u>Stream name</u>		LLID	Waters	ned name	HUC
Unknown. Use L	LID	1201405344734	Santa Ba	arbara Coastal.	60013

#### **RCD of the Santa Monica Mountains**

Correspondent: Rosi Dagit

<u>Juvenile</u> **Outmigrants** Adults Field techniques: downstream trap, direct downstream trap, direct spawner count observation observation Data types: presence/absence presence/absence presence/absence **Uncertainty:** qualitative qualitative basic quantitative Site selection: other - known Year began: 2001 Interval: monthly presence very precise Year ended: 2004 **Duration:** 0-5 yr Geoprecision: Years missed: complete, Summaries: other **Response to:** regular **Positive impact?** various: no Season: **Funding source:** CDFG/PSMFC All Yr 2004 (2006) Negative impact? no Start: Support: All Yr **Impact controls?** no End: Future intent (yr): ongoing **Technical Goal:** Document population trends over time under different natural conditions, related to precipitation, storm events and migration opportunities. Document population trends, density of steelhead per reach, habitat preferences, and **Programmatic Goal:** identify potential restoration opportunities <u>Stream nam</u>e LLID Watershed name HUC Topanga Canyon 1185821340397 Santa Monica Bay. 70104 Topanga Canyon 70105 1185821340397 Los Angeles.

San D	Diego	Trout
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San Diego Trout					ID# 32
Correspondent: Allan	Greenwood/Mik	e Pottorf	~		
Field techniques:	Juvenile electrofishing	<u>(</u>	<u>Jutmigrants</u>	<u>Adults</u>	
Field techniques:		(		II/a	
Data types:	presence/absence population abund demographic, gen	e, f lance, c netic	lemographic, geneti	ce, n/a ic	
Uncertainty:	basic quantitative	e t	basic quantitative		
Site selection: qual Geoprecision: accu <u>Response to:</u>	litative selection arate to stream	Year began: Year ended: Years missed:	late'60s ongoing rotating, opportunistic	Interval: Duration: Summaries:	once 20+ yr none
Positive impact? no	0	Season:		Funding source:	Cal Coastal Conservancy (Bond Act)
Negative impact? ye	es	Start:	Mar	Support:	ongoing
Impact controls? no	0	End:	Jun	Future intent (yr):	ongoing
<b>Technical Goal:</b>	Assess habitat	and trout pop	ulations.		
<b>Programmatic Goal:</b>	Restore stream	ns for potential	steelhead runs.		
Stream name	L	LID	Watersh	ed name	HUC
Not georeferenced	99	9999 <mark>999999999</mark> 9999999			
United Water Dist Correspondent: Murra	r <b>ict</b> ay McEackron <u>Juvenile</u>	(	<u>Dutmigrants</u>	Adults	ID# 77
United Water Dist Correspondent: Murra Field techniques:	<b>rict</b> ay McEackron <u>Juvenile</u> direct observation	n r	Dutmigrants 1/a	<u>Adults</u> n/a	ID# 77
United Water Dist Correspondent: Murra Field techniques: Data types:	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index demographic	n r 2, r	Dutmigrants n/a n/a	<u>Adults</u> n/a n/a	ID# 77
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty:	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none	n r 2, r	Dutmigrants n/a n/a	<u>Adults</u> n/a n/a	ID# 77
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dict. logi	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance	n r c, r Y <b>ear began:</b>	Dutmigrants n/a n/a 2002	Adults n/a n/a	ID# 77 irregularly
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dicta logi Geoprecision: accu <u>Response to:</u> Positive impact? yet	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance arate to stream	A r 2, r 4, r 5, r 4, r 5, r 5	Dutmigrants u/a u/a 2002 intermittant	<u>Adults</u> n/a n/a Interval: Duration: Summaries: Funding source:	<b>ID# 77</b> irregularly 0–5 yr yearly municipal
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dicta logi Geoprecision: accu <u>Response to:</u> Positive impact? ye	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance irate to stream	Year began: Year ended: Years missed: Season: Start:	Dutmigrants I/a I/a 2002 intermittant May	Adults n/a n/a Interval: Duration: Summaries: Funding source: Support:	<b>ID# 77</b> irregularly 0–5 yr yearly municipal ongoing
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dicta logi Geoprecision: accu <u>Response to:</u> Positive impact? ye Impact controls? new	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance arate to stream	Year began: c, r Year ended: Years missed: Season: Start: End:	Dutmigrants I/a 2002 intermittant May Sept	Adults n/a n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ID# 77 irregularly 0–5 yr yearly municipal ongoing ongoing
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dict logi Geoprecision: accu <u>Response to:</u> Positive impact? ye Impact controls? ne Technical Goal:	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance irate to stream es es o Determine run	Year began: Year ended: Years missed: Season: Start: End: a-timing of stee	Dutmigrants I/a I/a 2002 intermittant May Sept Elhead and environr	<u>Adults</u> n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): nental factors influer	ID# 77 irregularly 0–5 yr yearly municipal ongoing ucing run-timing.
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dicta logi Geoprecision: accu <u>Response to:</u> Positive impact? yet Negative impact? yet Impact controls? net Technical Goal: Programmatic Goal:	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance trate to stream es es o Determine run Regulatory co most water.	Year began: Year ended: Year ended: Years missed: Season: Start: End: a-timing of stee mpliance. Fin	Dutmigrants I/a I/a 2002 intermittant May Sept Elhead and environr d out when steelhea	Adults n/a n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): nental factors influer ad are running in order	ID# 77 irregularly 0–5 yr yearly municipal ongoing ongoing ncing run-timing. er to provide the
United Water Dist Correspondent: Murra Field techniques: Data types: Uncertainty: Site selection: dict: logi Geoprecision: accu <u>Response to:</u> Positive impact? yet Negative impact? yet Impact controls? not Technical Goal: Programmatic Goal:	rict ay McEackron <u>Juvenile</u> direct observation presence/absence population index, demographic none ated by stics/circumstance trate to stream es es Determine run Regulatory co most water.	Year began: Year ended: Year ended: Years missed: Start: End: a-timing of stee mpliance. Fin LID	Dutmigrants I/a I/a 2002 intermittant May Sept Elhead and environr d out when steelhea <u>Watersh</u>	Adults n/a n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr): nental factors influer ad are running in order	ID# 77 irregularly 0–5 yr yearly municipal ongoing ongoing icing run-timing. er to provide the HUC

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United Water Dis Correspondent: Mur	s <b>trict</b> rav McEackron				ID# 78
I	Juvenile	(	<u>Dutmigrants</u>	Adults	
Field techniques:	n/a	d	lownstream trap	n/a	
Data types:	n/a	p d	oopulation index, lemographic	n/a	
Uncertainty:		n	none		
Site selection: dic log	etated by gistics/circumstance	Year began: e	1990	Interval:	daily
Geoprecision: ver	ry precise	Year ended:	ongoing	Duration:	11–20 yr
Response to:		Years missed:	intermittant	Summaries:	yearly
Positive impact? 1	no	Season:	Man	Funding source:	municipal
Negative impact?	yes	Start:	Mar	Support:	ongoing
The second secon	Determine me	Enu:	Juli 11 1 1	Future Intent (yr):	ongoing
Programmatic Goal	: Regulatory co most water.	ompliance. Find	d out when steelhea	ad are running in orde	er to provide the
Stream name	L	LID	Watersh	ned name	HUC
Santa Clara River	11	192559342348	Santa Cl	ara.	70102
United Water Dis Correspondent: Mur	strict ray McEackron	C	Dutmigrants	Adults	ID# 80
Field techniques:	n/a	<u> </u>	ya antsantsantsanta	unstream f	ran
Data types:	n/a	n	/a	nresence/a	hsence
Data types. Uncontointru	11/ d	1	1/ a	presence/a	losence
Uncertainty:				none	
Site selection: dic log	etated by gistics/circumstance	Year began: e	1991	Interval:	daily
Geoprecision: ver	ry precise	Year ended:		Duration:	11–20 yr
<b>Response to:</b>		Years missed:	intermittant	Summaries:	yearly
Positive impact?	yes	Season:	-	Funding source:	municipal
Negative impact?	yes	Start:	Jan Mari	Support:	ongoing
Impact controls?		End:	May	Future intent (yr):	ongoing
Technical Goal:	Determine rui	n-timing of stee	elhead and environi	nental factors influen	cing run-timing.
Programmatic Goal	: Regulatory co most water.	ompliance. Find	d out when steelhea	ad are running in orde	er to provide the
Stream name	L	LID	Watersh	ned name	HUC
Santa Clara River	11	192559342348	Santa Cl	ara.	70102

#### United Water District for Canyon Irrigation

Correspondent: M	furray McEackron	8			
-	Juvenile	<u>0</u>	<u>utmigrants</u>	Adults	
Field techniques	s: n/a	do	ownstream trap	upstream	trap
Data types:	n/a	pr	resence/absence	presence/a	absence
Uncertainty:		nc	one	none	
Site selection:	dictated by logistics/circumstanc	Year began: e	'30's/01	Interval:	daily
Geoprecision: a <u>Response to:</u> Positive impact? Negative impact? Impact controls?	no yes no	Year ended: Years missed: Season: Start: End:	'69/ongoing intermittant All Yr All Yr	Duration: Summaries: Funding source: Support: Future intent (yr):	20+ yr none commercial: utility ongoing ongoing
<b>Technical Goal:</b>	Determine run	n-timing of steel	head and environm	ental factors influer	cing run-timing.
Programmatic Go	mal: Regulatory co most water.	ompliance. Find	out when steelhead	d are running in orde	er to provide the
<u>Stream name</u> Santa Paula Cree	<b>L</b> 2 <b>k</b> 1	<u>LID</u> 190499343488	<u>Watersh</u> Santa Cla	e <mark>d name</mark> ra.	<u>HUC</u> 70102
University of Carcorrespondent: E	<b>alifornia, Santa</b> I lise Kelley	Barbara			ID# 158
University of Car Correspondent: E	alifornia, Santa I lise Kelley Juvenile	Barbara <u>O</u>	utmigrants	Adults	ID# 158
University of Carespondent: E	alifornia, Santa lise Kelley Juvenile s: n/a	Barbara <u>O</u> n/	utmigrants 'a	<u>Adults</u> n/a	ID# 158
University of Carcorrespondent: El Field techniques Data types:	alifornia, Santa I lise Kelley Juvenile s: n/a n/a	Barbara <u>O</u> n/ n/	<mark>utmigrants</mark> a a	<u>Adults</u> n/a n/a	ID# 158
University of Carcorrespondent: El Field techniques Data types: Uncertainty:	alifornia, Santa I lise Kelley Juvenile s: n/a n/a	Barbara <u>O</u> n/ n/	<u>utmigrants</u> 'a 'a	<u>Adults</u> n/a n/a	ID# 158
University of Carcorrespondent: Ex Field techniques Data types: Uncertainty: Site selection:	alifornia, Santa lise Kelley <u>Juvenile</u> s: n/a n/a dictated by logistics/circumstanc	Barbara <u>O</u> n/ n/ Year began: e	utmigrants la la	Adults n/a n/a Interval:	ID# 158 undetermined
University of Carcorrespondent: El Field techniques Data types: Uncertainty: Site selection: Geoprecision:	alifornia, Santa I lise Kelley Juvenile s: n/a n/a dictated by logistics/circumstanc accurate to subwatershed	Barbara On/ n/ Year began: e Year ended:	<u>utmigrants</u> 'a 'a	Adults n/a n/a Interval: Duration:	<b>ID# 158</b> undetermined 0–5 yr
University of Carcorrespondent: El Field techniques Data types: Uncertainty: Site selection: Geoprecision: Response to: Positive impact? Megative impact? Impact controls? Technical Goal: Programmatic Geo	alifornia, Santa I lise Kelley Juvenile s: n/a n/a dictated by logistics/circumstanc accurate to subwatershed no no no no	Barbara <u>O</u> n/ N/ Year began: e Year ended: Years missed: Season: Start: End:	<u>utmigrants</u> ′a ′a not yet begun	Adults n/a n/a Interval: Duration: Summaries: Funding source: Support: Future intent (yr):	ID# 158 undetermined 0–5 yr none unknown unknown unknown

Steelhead, No specific ESU

## Steelhead, no specific ESU

CDFG				ID# 30
Correspondent: Gary	Flosi			
Field techniques:	<u>Juvenile</u> direct observation, electrofishing	<u>Outmigrants</u> n/a	<u>Adults</u> n/a	
Data types:	presence/absence	n/a	n/a	
Uncertainty:	qualitative			
Site selection: dicta	ated by Year bo stics/circumstance	egan:	Interval:	unknown
Geoprecision: none	e Year ei	ided:	Duration:	
Response to:	Years r	nissed: unknown	Summaries:	unknown
Positive impact? no	) Season:		Funding source:	unknown
Negative impact? no	Start:		Support:	unknown
Impact controls? no	) End:		Future intent (yr):	unknown
<b>Technical Goal:</b>	Technical evaluation.			
Programmatic Goal:	As a component of ha completed to determine make recommendation	bitat surveys, direct obser he fish species and distribution ns for restoration.	vation and/or electrof ation. Habitat surveys	ishing is are used to
<u>Stream name</u> Not georeferenced	<u>LLID</u> 99999999	<u>Watersl</u> 99999	ned name	<u>HUC</u>

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# Sources of Information

# **Correspondents (Contributors of metadata)**

Name	Corresponding organization
Doug Albin	California Department of Fish and Game (CDFG)
Don Alley	Cambria Community Services District
Anita Andazola	United States Forest Service (USFS) Lower Trinity Ranger Station
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Bruce MacFarlane	NOAA Fisheries
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Kimball Rushton	CDFG S-RAMP
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Wade Sinen	CDFG
Michael Sparkman	CDFG S-RAMP
Charles Steinback	Ecotrust
Thomas Sutfin	Soquel Demonstration State Forest
David Ulrich	Mendocino Redwood Company
Kevan Urquhart	CDFG
Brad Valentine	CDFG

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Name	Corresponding organization
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Jim Waldvogel	University of California, Davis
Michael Wallace	CDFG
Sean White	Sonoma County Water Agency
Thomas Williams	NOAA Fisheries
Brett Wilson	CDFG
David Wright	Campbell/Hawthorn Timber Company

#### Correspondents, cont'd

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Cartwright, Wilbur. Annual Report. Mad River Salmon and Steelhead Hatchery, 2000-2001. NCNR, Lands and Facilities. Administrative Report No. 2001.

Garcia, Juan. Annual Report. Coyote Valley Fish Facility, 2001-2002. Central Coast Region, Wildlife and Inland Fisheries Administrative Report.

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