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**Via e-mail and U.S. Mail**

Dear Ms. Wright and Mr. Starr:

Please accept and enter into the record on behalf of the Pacific Rivers Council ("PRC") and the Center for Biological Diversity ("CBD") the scoping comments contained in this letter pertaining to the California Department of Fish and Game ("CDFG") and U.S. Fish and Wildlife Service ("FWS") Notice of Preparation/Notice of Intent ("NOP"/"NOI") to prepare a joint environmental impact statement/environmental impact report ("EIS/EIR") for CDFG's Fish Hatchery and Stocking Program ("Program"), as published in the Federal Register Notice of 5 August 2008 [Fed. Reg 73:45470-45471] and in the 4 August 2008 Notice of Preparation of a Draft Environmental Impact Report for DFG

Hatcheries and the accompanying Environmental Checklist (“Checklist”) on the state’s website (<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=6444> and <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=6445>, respectively).

PRC is a non-profit conservation organization dedicated to the development and implementation of science-based public policies that protect and restore aquatic ecosystems and the native aquatic species that depend on them. PRC is incorporated and has its headquarters in the State of Oregon. PRC has over 750 members throughout the United States and Canada. PRC members participate in recreational activities, such as hiking, backpacking, cross-country skiing, nature photography, and river and lake boating throughout the Pacific Northwest, and, where possible, fish for, observe and/or otherwise benefit from wild salmon, steelhead, inland native trout such as California’s state fish, the golden trout, and other native aquatic species.

The Center for Biological Diversity is a non-profit corporation with offices in San Francisco, San Diego, Los Angeles, and Joshua Tree, California; Phoenix and Tucson, Arizona; Silver City, New Mexico; and Washington, D.C. The Center is actively involved in species and habitat protection issues throughout North America and the Pacific. The Center has over 40,000 members throughout the United States, including many members who reside in California and live, visit, or recreate in and near areas that serve as habitat for amphibian, fish and invertebrate species impacted by the Department of Fish and Game’s stocking of non-native trout.

PRC and CBD are also co-plaintiffs in the litigation [“Pacific Rivers Council v. Cal. Dep’t of Fish and Game, Case No. 06CS01451”] that resulted in the Sacramento Superior Court’s order that CDFG conduct the currently proposed EIR (now proposed to be conducted jointly with FWS’ EIS assessing impacts of its continuation of funding under the Sport Fish Restoration Act (“SFRA”) of actions associated with the operation of CDFG’s 13 trout hatcheries and the Mad River anadromous fish hatchery, including stocking from those 14 hatcheries). As such, we were greatly surprised to receive no direct notification of this scoping process, and still have not, even after asking directly because we had heard of it through media and other sources. We have examined CDFG’s and FWS’s notices, and find that they raise several serious concerns that must be addressed through the EIR/EIS process for it to comply with applicable law and the Court’s order. These concerns and suggested remedies are outlined in detail after the following section, which details some, but not all, of the requirements incumbent on FWS and CDFG for conducting the announced EIR/EIS, as directed by the relevant statutes and regulations.

### **The State’s and the Fish and Wildlife Service’s Duties under the California Environmental Quality Act (CEQA) and the Federal Endangered Species Act (ESA)**

The Environmental Impact Report must describe *all* significant effects on the environment. P.R.C § 21100 (b)(1); 14 C.C.R. § 15126.2. Therefore, the EIR must not be limited to only specific impacts, such as those on amphibians. Rather, the EIR must address the significant impacts upon all affected species, including fish, amphibians, and invertebrates.

The EIR must address alternatives to the proposed project. P.R.C. § 21100 (b)(4); 14 C.C.R. §15126.6. As the scoping information points out, the CDFG has been stocking fish for more than 100 years. Yet the program has never been subjected to a CEQA process to evaluate its effects. Now that CDFG is finally conducting an EIR, it must seriously consider alternatives to its past practices. It is not enough to simply assume the program should continue as it has done in the past, provided the environmental impacts are disclosed. Under CEQA the agency must take a serious step back from past practices and consider new alternatives for the future. *See* 14 C.C.R. § 15004(b)(2) (agencies shall not limit choice of alternatives before completion of CEQA or give impetus to a planned action in a manner that forecloses alternatives or mitigation measures).

The EIR must address mitigation measures to minimize the harmful environmental effects of the fish stocking program. P.R.C. § 21100 (b)(3); 14 C.C.R. § 15021. CDFG may approve a program only after determining the feasible mitigation measures that will substantially decrease the adverse environmental impacts of the fish stocking program. P.R.C. § 21002, § 21002.1(b), §21081. CDFG must also develop a reporting or monitoring program for mitigation measures. P.R.C. § 21081.6(a)(1); 14 C.C.R. § 15097.

Because the United States Fish and Wildlife Service (FWS) proposes to fund elements of CDFG's stocking program, FWS must ensure that the action will not jeopardize any species listed under the ESA. 16 U.S.C. § 1536(a)(2). FWS should make the biological opinion available to the public for review at the same time as the draft EIS to ensure that the public is fully informed as to the effects of the fish stocking program.

Likewise, the CDFG must provide written findings specifically as to the impact of the program on state listed endangered and threatened species. P.R.C. § 21104.2

### **Concerns Raised by Scoping Documents**

We perceive some indications CDFG/FWS might be seeking to narrow the scope of analysis in ways that would preclude it accomplishing its ecological purpose and/or complying with relevant law and the Court's order. These include:

- a. The public should have been better informed about the scoping process. Although the NOP was published on CDFG's website, the NOP itself does not effectively alert the public of the project because it is addressed solely to state agencies, and does not solicit or announce any public or scientific review and comment opportunity nor does it identify any means to provide such comments. Although CDFG provided us a mailed notice of the upcoming scoping meeting, and this notice was available on the website, CDFG could have more effectively solicited public input through more direct outreach, such as a press release, to make the process more of a public review. In particular, California's universities, natural history museums and various non-governmental organizations that work on river, wetlands, and fishery

management hold considerable relevant data and expertise, and have a large stake in the outcome, and should be directly notified.

- b. While PRC's successful litigation is briefly identified as the cause for the currently proposed EIR, the focus of the description of the planned review seems excessively weighted to assessing impacts of expanding hatchery infrastructure, production and stocking to comply with provisions of Assembly Bill 7 ("AB-7").
- c. Likewise, statements such as the following from the FWS NOI raise concerns about a potential inappropriately narrowed scope of analysis:

Hatchery operations and stocking activities associated with the CDFG's inland water hatchery program will be evaluated for their effects on the environment, including potential impacts to native species, such as native amphibians, which have recently experienced a decline within the State of California. [Fed. Reg. 73: p. 45470]

As noted previously, the planned review must address *all* significant environmental impacts of California's hatchery and stocking practices, which critically include, but are not limited to, impacts to native fishes, amphibians, reptiles, and invertebrates in waters across all the state's geographies and elevations, not restricted to impacts on a few amphibian species from stocking of high-elevation lakes. Given, for example, the massive setbacks to recovery plan implementation for the Little Kern golden trout and compromised integrity of native Kern River rainbow trout due to hatchery propagation and stocking practices, no institution should be in a better position than CDFG to appreciate the need for precautionary practices in appreciation of the likelihood of unintended consequences of such technological interventions.

- d. Finally, litigation-related information has raised similar concerns that CDFG might be tempted to proceed with an overly narrow, merely *pro forma* assessment seeking to rubber-stamp current practice. Perhaps most alarming is the fact that the State accomplished practically nothing towards EIR completion until the court-ordered deadline for completing it was fast-approaching, prompting last-minute scurrying to produce an appearance of progress, followed by (pending) motion for extension of the deadline. Despite CDFG's failure to meet the court-ordered deadline for an EIR on the ecological impacts of its fish stocking program, CDFG has rebuffed without explanation requests by PRC and CBD for measures that would serve to reduce interim harms from stocking activities while CDFG seeks to complete a protracted EIR process. The kinds of annual incremental harm that are well-recognized, endemic effects of fish stocking include, but are not limited to: increased risk of extinction of impacted populations of native species, increased cumulative risk of disease introduction into the wild, and increased cumulative risk of genetic introgression that alters wild population genomes.

### **Commendable Elements**

While we have serious concerns, we also commend CDFG for what appears to be a reasonably complete, accurate and appropriately cited listing (especially considering its “initial draft” nature – and subject to correction of some important omissions – see below) of the primary categories of potential significant impacts to “Biological Resources” (Checklist, pp. 13-18) which must be addressed by the EIS/EIR. In fact, we believe this provides a sound starting basis for the assessment, *if* there is thorough, credible and timely follow-through in carrying it out to address all of the noted potential impacts of the state’s hatchery and stocking program. Such broad and thorough follow-through, in tandem with analysis of a credible set of reasonable alternatives, will be critical, however. We emphasize that the soundness of this initial “problem statement” is no guarantee of a credible result if such credible follow-through is lacking, and offer some suggestions to help ensure a credible outcome. Further, we are compelled to reiterate that considerable time could be required to complete a suitably defined analysis with rigor; therefore interim mitigation measures to reduce the risk of irreversible impacts from continued annual stocking are necessary.

### **Recommendations**

1. The assessment must be broad, thorough, objective, and accurate, employing the best available science, not circumscribed to one or a few potential impacts, and not driven by a presumption that current practices are sustainable or immune from progressive harm to native species and wild populations.
2. The assessment must include a range of alternatives that is adequate, not just to accomplish the stocking provisions of AB-7, but to ensure that adverse impacts to the environment, including but not limited to native aquatic species, are precluded or minimized. Based on our view of the court’s ruling and CDFG’s authority and public policy obligations, a range of reasonable alternatives must include, at a minimum, the following:

An alternative including all the elements of the document (subsequently slightly amended, a copy is appended) “Fish Stocking Management in California – Vision Statement” that we have previously proposed as guidance to preclude or end significant adverse impacts to California’s native aquatic species.

3. Impose the following interim direction during EIS/EIR preparation: undertake immediate action to protect the species and habitat for which a high probability exists that they may be significantly impacted on an incremental basis by annual fish stocking actions. Specifically, the Department must commit to the following:
  - a. Immediately suspend stocking trout in waters where surveys have revealed the presence of sensitive native aquatic and amphibian species, except reservoirs (artificial impoundments). Those sensitive species are identified in Table A below.

- b. Immediately suspend stocking trout in waters where surveys for the presence of sensitive native aquatic and amphibian species have not yet been conducted, except reservoirs.

**Table A**

Scientific Name	Common	State Rank
<i>Bufo californicus</i>	arroyo toad	S2S3
<i>Rana aurora draytonii</i>	California red-legged frog	S2S3
<i>Rana cascadae</i>	cascades frog	S3
<i>Rana boylei</i>	foothill yellow-legged frog	S2S3
<i>Gila bicolor thalassina</i>	Goose Lake tui chub	S1
<i>Mylopharodon conocephalus</i>	hardhead	S3
<i>Rana pipiens</i>	Northern leopard frog	S2
<i>Catostomus microps</i>	Modoc sucker	S1
<i>Rana muscosa</i>	mountain yellow-legged frog	S2
<i>Rana aurora aurora</i>	northern red-legged frog	S2?
<i>Rana pretiosa</i>	Oregon spotted frog	S1
<i>Rhinichthys osculus</i> ssp. 2	Owens speckled dace	S1S2
<i>Gila bicolor snyderi</i>	Owens tui chub	S1
<i>Catostomus santaanae</i>	Santa Ana sucker	S1
<i>Oncorhynchus mykiss aguabonita</i>	California golden trout	S1
<i>Oncorhynchus mykiss irideus</i>	southern steelhead - southern California esu	S2
<i>Oncorhynchus mykiss irideus</i>	steelhead - south/central California coast esu	S2
<i>Oncorhynchus mykiss irideus</i>	steelhead-central California coast esu	S2
<i>Oncorhynchus mykiss irideus</i>	summer-run steelhead trout	S2
<i>Oncorhynchus mykiss</i> ssp. 2	McCloud River redband trout	S1S2
<i>Gila orcutti</i>	arroyo chub	S2
<i>Oncorhynchus tshawytscha</i> winter run	chinook salmon winter run	S1
<i>Oncorhynchus clarkii clarkii</i>	coastal cutthroat trout	S3
<i>Oncorhynchus tshawytscha</i> spring-run	spring-run chinook salmon	S1
<i>Bufo canorus</i>	Yosemite Toad	S2

Ample and overwhelming scientific evidence of the large and continuing risk of ongoing or further harm to native aquatic species/populations (see Little Kern golden trout and Kern River rainbow trout examples previously noted above and citations below) from continuation of current practice in the absence of evidence of its harmlessness makes this precautionary approach imperative.

4. To ensure the additive and cumulative biological effects and consequences of fish stocking are adequately assessed, the scope of the EIR must include hatcheries and rearing programs owned and operated by public or private cooperatives or counties that transport and release fish in California waters and are funded or permitted by CDFG.
5. In addition to interim measures, we strongly urge CDFG to convene and commission a panel of independent scientific experts, including academic experts

from California's university system, charged to 1) identify relevant data sources from all agencies and organizations, 2) identify the primary categories of ongoing and potential impacts of the state's hatchery and stocking program to native aquatic species, and 3) recommend measures to end or minimize ongoing impacts and preclude future ones. As plaintiffs in the litigation that prompted the EIS/EIR process and with substantial relevant staff scientific expertise, PRC and CBD would expect to have a significant role in nominating and approving the appointed experts.

6. For scientific adequacy, to ensure accurate scientific analysis (see e.g. 40 C.F.R. 1500.1(b), and to fulfill ESA "best available science" requirements, the EIS/EIR must fully address and account for the implications of the following relevant scientific literature in addition to that cited in the NOP (see full citations below): (Altukhov & Salmenkova 1990; Araki et al. 2007; Brannon 1967, 1972; Brannon et al. 1981; Brown et al. 1994; Harley et al. 2006; Hillman & Mullan 1989; Knudsen et al. 2006; Kostow & Zhou: 2006; Lawson 1993; Lindsey et al. 1959; MacLean & Evans 1981; Northcote 1981; Oosterhout et al. 2005; Oregon State University 2006; Peterman 1977; Peterman & Gatto 1978; Raleigh 1967; Ricker 1972; Steward & Bjornn 1990; Tallman & Healey 1994; Taylor et al. 1996; Walters & Cahoon 1985; Wood 1995)

Please do not hesitate to contact us regarding any questions, clarifications or further information we might be able to provide.

Sincerely,

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## **Fish Stocking Management In California – Vision Statement**

### Problem Statement

For decades, California Department of Fish and Game's trout stocking program has focused on producing large quantities of trout (catchable and sub-catchable) to maximize the number of fish caught by anglers annually. This approach has led to widespread stocking of trout in the majority of the state's water bodies, many of which harbor sensitive and imperiled native species, and some of which were historically fishless. Current and legacy impacts from trout stocking are well documented, have contributed to the decline and imperilment of native fish and amphibian species, and continue to impact already impaired aquatic ecosystems throughout California. In some cases, fish stocking has precluded the recovery of threatened, endangered, and sensitive species. In order to remedy these chronic and persistent impacts, fish stocking activities need to be placed within a watershed management context that emphasizes the protection and recovery of native aquatic species and their habitats.

### Solution: Watershed-Based Fisheries Management

In order to provide high-quality trout fishing opportunities in California, while simultaneously protecting native aquatic species, a new framework is needed for the state's inland fisheries program – one that is ecologically focused and emphasizes maintaining robust native fisheries in key watersheds that serve as aquatic species strongholds. This approach emphasizes restoring and maintaining natural ecosystem processes rather than the artificial stocking of hatchery-raised trout.

A watershed approach to fisheries management first requires an evaluation of existing resources at multiple scales: statewide, regional, watershed, and subwatershed. The spatial scale issue is particularly important with regard to those native fish and amphibian species that are widespread, or historically were widespread, but are vulnerable to local extirpations (i.e., continuing declines) or whose recovery into historically-occupied habitat is impeded by trout stocking. The cumulative impacts of stocking over time also needs to be factored into assessing species vulnerability, as do efforts to remove stocked fish (particularly the ecosystem impacts of repeated piscicide use). Based on these assessments, CDFG literally will be able to map the distribution of California's native aquatic species and identify aquatic strongholds. Fish management goals and strategies then can be developed to emphasize maintenance of biodiversity in stronghold watersheds and fishing opportunities in select other watersheds.

Another important step is to assess, for those waterbodies where recreational fishing will be an emphasis, whether levels of artificial stocking for "put-and-take" recreational fishing may exceed a waterbody's natural carrying capacity and inherent habitat limitations. In other words, are recreational angling expectations and consequent stocking goals realistic? If so, no changes are needed. If not, these goals should be revised and anglers educated as to how they will benefit from such changes.

## Implementing Watershed-Based Fisheries Management: A Stepwise Process

### 1. *Adopt Interim Management Guidelines*

Immediately suspend stocking trout in waters where there is a known high probability of adverse impact to sensitive native aquatic and amphibian species as identified based on the California Natural Diversity Database, published research data, status of species (e.g., federal or state endangered), and expert opinion – see attached list [still being developed]. Begin surveying and collecting data for those species where it is suspected that stocking is causing adverse impacts; this information will be critical for developing long-term management guidelines.

### 2. *Prepare an Environmental Impact Report*

The EIR process will build on already-published data and the information generated by the interim surveys to provide a more detailed picture of current native species distributions and waterbodies where trout stocking occurs, which in turn will allow for an initial assessment of environmental impacts from stocking. Since it is unlikely that all stocked waterbodies in the state can be surveyed prior to the completion of an EIR, this process should lead to the development of a survey protocol for all DFG regions to follow in order to produce the needed data, including identifying and prioritizing watersheds that serve as strongholds for the aforementioned species. At this point, DFG will be poised to develop a fish stocking program that rests within a comprehensive watershed management context.

### 3. *Institutionalize an Integrated Fisheries & Watershed Management Program*

#### A. *Permanently Protect Sensitive Species and Their Watersheds*

Trout stocking will be discontinued where sensitive aquatic and amphibian species occur and it is known or there is a high probability that stocked trout impacts these species. The list of sensitive species will be updated every 5 years or earlier if (1) a species is listed under CESA or federal ESA or (2) at the request of the Advisory Panel (see below). Trout stocking also should be discontinued in hydrologically-connected waters. For watersheds that support species on this list – in other words, watersheds that are native species strongholds – a priority will be placed on habitat restoration and ecologically neutral non-native fish removal efforts. Recreational fishing opportunities of native fish species in these watersheds will be determined on a case-by-case basis.

In watersheds that historically were stocked and support both native aquatic/amphibian species and self-sustaining introduced trout populations, no further fish stocking will occur unless survey and monitoring data show that introduced fish are not impacting native aquatic species (see below).

#### B. *Survey and Develop Management Plans for Remaining Watersheds*

As noted above, there are many native aquatic and amphibian species about which we simply do not know whether or to what extent trout stocking negatively impacts them – either surveys have been conducted but the data has not been analyzed or no surveys have been conducted.

Therefore, a necessary first step is to conduct robust surveys of where potentially impacted species occur and determine the level and extent of impact, if any. Because stocked trout are mobile and can move within a drainage basin, surveys need to encompass waterbodies that are hydrologically-connected to stocked areas and support, or potentially support, sensitive species. These surveys will take place over a 5-year period.

At the end of the 5-years, if the data clearly demonstrate that trout stocking does not negatively impact native aquatic and amphibian species within a given watershed, stocking may continue at the discretion of CDFG. However, if the data are not generated to demonstrate a lack of impact within this time period, stocking must cease. An independent oversight panel – appointed by CDFG and PRC & CBD – will make the final determination on sufficiency and quality of the data and the finding of impact or no impact.

In watersheds that do not support native aquatic species, are hydrologically-disconnected from watersheds that do support them, are regularly stocked, and can support self-sustaining trout populations, further stocking may continue at CDFG's discretion. For those waterbodies that cannot support self-sustaining trout, the ecologically and fiscally preferable alternative is to discontinue stocking and to focus management efforts on providing high-quality angling experiences where trout flourish on their own.

## **Appendix A**

### **Interim & Long-Term Trout Stocking Management Guidelines**

#### **1. Suspend stocking while surveys are being conducted -**

- A. Immediately suspend stocking trout in lakes, flowing waters, and artificial impoundments and waterways:
  - (1) where there is a known or reasonable probability of adverse impact to sensitive native aquatic and amphibian species as identified in the Sensitive Native Aquatic Species List, Table A [see Appendix b]; the list is based on the California Natural Diversity Database, published research data, status of species (e.g., federal or state endangered), and expert opinion; or
  - (2) where there is upstream or downstream hydrologic connectivity to lakes and flowing waters that support extant populations of sensitive species; or
  - (3) that are identified as important to the conservation and/or recovery of state or federal listed aquatic species; or
  - (4) that are designated critical habitat of state or federal listed aquatic species; or
  - (5) in watersheds recognized for their important ecological values (e.g., Key Watersheds as identified in the Northwest Forest Plan, Tier I Watersheds as identified in PACFISH, Aquatic Diversity Management Areas (Moyle 2006), Research Natural Areas, Wilderness Areas.

#### **2. Continue stocking while surveys are being conducted -**

- A. In waters where threatened and endangered aquatic species conservation and/or recovery plans mandate artificial supplementation of the species being stocked.
  - B. In hydrologically isolated waters where there is no or a low probability of adversely impacting sensitive native aquatic and amphibian species, except where such waters are recognized as or likely to be critical to recovery of Category A and B species.
- 3. Survey all waters where trout stocking occurs within 5 years -**
- A. Within 1 year, develop a survey protocol for use in all DFG regions to identify presence of native aquatic species where trout stocking occurs. Complete within 5 years.
  - B. For all watersheds in which one or more water bodies are stocked, the entire watershed will be surveyed. Watershed boundaries are defined using the California Interagency Watershed Mapping Committee's CalWater watershed mapping system.
  - C. Complete the surveys within 5 years.
- 4. Generate a Sensitive Species List**
- A. By the end of the 5-year interim management period, the data collected from the state-wide surveys will form the basis of a Sensitive Species List that will determine which watersheds or discrete waters will be stocked (see paragraph 5).
  - B. The List of Sensitive Species will be updated annually or earlier if
    - (1) a species is listed under CESA or federal ESA or
    - (2) at the request of the Science Advisory Panel (see below).
  - C. Independent Science Advisory Panel [Define; identify how appointed: appointed by Governor; staggered terms; 1 CDFG rep, 1 from profit/consulting world, 1 NGO, 2 academic researchers. Duties: keeper of the List; list of waters: (a) determines sufficiency of certainty, (b) arbiter for remaining uncertainty and when new information arises. Operating support from fish and hunting license fees.]
- 5. Permanently protect Sensitive Species and their watersheds**
- After the Sensitive Species List is generated at the end of the 5-year survey period, the following standards and guidelines apply:
- A. if the data clearly demonstrate that species on the List are not present within a given watershed or connected system of waterways then stocking may continue at the discretion of CDFG.
  - B. However, if the data are not generated to demonstrate a lack of impact in a specific watershed within this 5 year period, stocking must cease. The independent Science Advisory Panel will make the final determination on sufficiency and quality of the data and the finding of impact or no impact [see Paragraph 4 above].
  - C. If the State presents compelling evidence to a high level of scientific certainty that circumstances can mitigate stocking effects in a watershed (e.g., through the completion of a watershed biodiversity management plan), and the Panel agrees, then stocking may take place.

## Appendix B

**Table A**

Scientific Name	Common	State Rank
<i>Bufo californicus</i>	arroyo toad	S2S3
<i>Rana aurora draytonii</i>	California red-legged frog	S2S3
<i>Rana cascadae</i>	cascades frog	S3
<i>Rana boylei</i>	foothill yellow-legged frog	S2S3
<i>Gila bicolor thalassina</i>	Goose Lake tui chub	S1
<i>Mylopharodon conocephalus</i>	hardhead	S3
<i>Rana pipiens</i>	Northern leopard frog	S2
<i>Catostomus microps</i>	Modoc sucker	S1
<i>Rana muscosa</i>	mountain yellow-legged frog	S2
<i>Rana aurora aurora</i>	northern red-legged frog	S2?
<i>Rana pretiosa</i>	Oregon spotted frog	S1
<i>Rhinichthys osculus</i> ssp. 2	Owens speckled dace	S1S2
<i>Gila bicolor snyderi</i>	Owens tui chub	S1
<i>Catostomus santaanae</i>	Santa Ana sucker	S1
<i>Oncorhynchus mykiss aguabonita</i>	California golden trout	S1
<i>Oncorhynchus mykiss irideus</i>	southern steelhead - southern California esu	S2
<i>Oncorhynchus mykiss irideus</i>	steelhead - south/central California coast esu	S2
<i>Oncorhynchus mykiss irideus</i>	steelhead-central California coast esu	S2
<i>Oncorhynchus mykiss irideus</i>	summer-run steelhead trout	S2
<i>Oncorhynchus mykiss</i> ssp. 2	McCloud River redband trout	S1S2
<i>Gila orcutti</i>	arroyo chub	S2
<i>Oncorhynchus tshawytscha</i> winter run	chinook salmon winter run	S1
<i>Oncorhynchus clarkii clarkii</i>	coastal cutthroat trout	S3
<i>Oncorhynchus tshawytscha</i> spring-run	spring-run chinook salmon	S1
<i>Bufo canorus</i>	Yosemite Toad	S2