Amend Section 5.88, subsection (b)(2), (b)(3), (b)(5), (b)(18), (b)(22), (b)(27), (b)(35), (b)(47), (b)(65), (b)(66), (b)(68), (b)(69), (b)(70), (b)(72), (b)(73), (b)(91.1), (b)(102), (b)(107), (b)(129), (b)(130), (b)(133), (b)(150), (b)(154), (b)(155), (b)(156), (b)(180), (b)(193), (b)(200), and (b)(212) of Section 7.50, and subsection (i) of Section 701
Title 14, California Code of Regulations
Re: Statewide Steelhead Regulation Alignment and Smith River Regulations

I. Date of Initial Statement of Reasons: September 3, 2009

II. Date of Pre-adoption Statement of Reasons: November 9, 2009

III. Date of Final Statement of Reasons: December 10, 2009

IV. Dates and Locations of Scheduled Hearings:

(a) Notice Hearing: Date: August 6, 2009
Location: Woodland, CA

(b) Discussion Hearing: Date: October 1, 2009
Location: Woodland, CA

(c) Discussion Hearing: Date: November 5, 2009
Location: Woodland, CA

(d) Adoption Hearing: Date: December 10, 2009
Location: Los Angeles, CA

V. Update:

The Fish and Game Commission adopted the proposed regulations as noticed at its December 10, 2009 meeting with the following decisions on the possible ranges for the proposed trout or steelhead bag and possession limits:

1) Feather River, subsection 7.50(b)(68), was adopted as “no change” to remain at 1 hatchery trout or hatchery steelhead per day due to low hatchery steelhead returns for the past three years.

2) A zero wild trout or steelhead annual bag limit was adopted for the Smith River, with a 2 hatchery trout or hatchery steelhead per day (bag limit) and
4 hatchery trout or hatchery steelhead in possession (possession limit) for subsection 7.50(b)(180).

3) All other subsections with ranges of bag and possession limits were adopted as 2 hatchery trout or hatchery steelhead per day (bag limit) and 4 hatchery trout or hatchery steelhead in possession (possession limit).

VI. Summary of Primary Considerations Raised in Support of or Opposition to the Proposed Actions and Reasons for Rejecting Those Considerations:

Public comments received on this proposal and the Department’s responses are listed in the attached Public Comments on Proposed Regulatory Changes and Department Responses document.

VII. Location and Index of Rulemaking File:

A rulemaking file with attached file index is maintained at:

California Fish and Game Commission
1416 Ninth Street
Sacramento, California 95814

VIII. Location of Department files:

Department of Fish and Game
1416 Ninth Street
Sacramento, California 95814

IX. Description of Reasonable Alternatives to Regulatory Action:

(a) Alternatives to Regulation Change:

No alternatives were identified.

(b) No Change Alternative:

The no change alternate will not reduce competition on the natural spawning grounds from hatchery fish and, in-fact is detrimental to the reproductive fitness of wild-born descendants. The no change alternative also will not provide increased fishing opportunities for anglers.

(c) Consideration of Alternatives:

In view of the information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed, or would be as effective and less burdensome to
affected private persons than the proposed regulation.

X. Impact of Regulatory Action:

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. The proposed changes are necessary for the continued preservation of the resource while increasing statewide fishing opportunities and therefore prevents adverse economic impacts.

(b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

None.

(c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

None.

(e) Nondiscretionary Costs/Savings to Local Agencies:

None.

(f) Programs Mandated on Local Agencies or School Districts:

None.

(g) Costs Imposed on Any Local Agency or School District that is Required
to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code:
None.

(h) Effect on Housing Costs:
None.
California’s steelhead supports a popular sport fishery throughout California’s coastal anadromous waters north of Santa Barbara and the Central Valley Basin. Since 1998, the majority of California steelhead has been Federally listed under the Endangered Species Act (ESA), and since 1999 only harvest of hatchery steelhead has been allowed in California, with the exception of the Smith River. The Steelhead Fishing Report-Restoration Card (SH Report Card) data show that hatchery steelhead stray into streams that do not have hatcheries and are caught by steelhead anglers in nearly every anadromous stream in California, with the exception of the Noyo River, where zero hatchery steelhead have been reported caught since 1999).

The Department believes harvesting surplus and stray hatchery steelhead will protect and increase wild steelhead resources. Contrary to management strategies from the last several decades, research and ensuing literature demonstrate that a key to protecting reproductive fitness of wild salmonids is to decrease/remove introgression by decreasing the number of hatchery salmonids spawning with wild salmonids. Although total prevention of introgression between surplus and stray hatchery steelhead and wild steelhead is unrealistic, proper angling regulations and angler education will be a vital factor in attaining resilient and sustainable wild steelhead populations.

With the exception of Iron Gate Hatchery on the Klamath River and the Mokelumne River Hatchery, California hatcheries meet their annual steelhead production goals and “surplus” hatchery steelhead remain in the river. This “surplus” has been “substantial”, which is good for the anglers; however, unharvested hatchery steelhead that compete with and spawn with wild steelhead likely harm success of wild steelhead stocks by reducing reproductive fitness of successive generations. Increasing allowable harvest of surplus hatchery steelhead will increase angler opportunity, harvest, and continued fishing, and will greatly benefit wild steelhead populations.

If the regulations proposed here are implemented, the Department believes the fundamental character of California’s steelhead fishing will be improved, while important fishery management and wild steelhead population management will be positively effected. In addition, the proposed regulations are intended to simplify statewide steelhead regulations, and simplify and provide for effective enforcement.

Proposal Overview
The Department is proposing steelhead angling regulations changes with the objective of meeting the following goals: 1) allow and encourage anglers to harvest “surplus” hatchery steelhead (adults in excess of number necessary to meet a hatchery’s production goals) that are allowed to spawn in the wild on streams with hatcheries, 2) allow and encourage anglers to harvest all hatchery steelhead that stray into streams without hatchery production, and 3) allow anglers to possess several daily bag limits of hatchery steelhead, which will encourage multi-day angling trips.
Present fishing regulations allow harvest of at least 1-2 hatchery steelhead daily. For public discussion, the Department’s proposal is a range of state-wide daily bag limit of hatchery steelhead from 1 to 3 fish and a range of hatchery steelhead in possession from 1-9 fish along a range of zero to one wild steelhead per year for the Smith River. The hatchery steelhead daily bag and possession limits are discussed as three options of 2 daily bag with 4 in possession, 3 daily bag with 6 in possession and 3 daily bag with 9 in possession in the following analysis.

The daily bag limit of up to 3 hatchery steelhead was developed from the SH Report Card data that shows the majority of steelhead anglers continue catch and release fishing rather than harvest their daily bag of one fish on most rivers. The daily bag limit of up to 3 hatchery steelhead will allow anglers to harvest hatchery steelhead and still continue fishing. Also a possession limit up to 9 hatchery steelhead (3X the daily bag limit) is proposed to encourage additional harvest of hatchery steelhead on multi-day (i.e., 3-day weekends) trips, boost trip and angling value and opportunity to the angler, provide additional economic benefit, and allow additional harvest of hatchery steelhead.

Additional changes for the Smith River from the public recommendations have been included in this proposal. Elimination of the use of barbed hooks from the Smith River and an annual limit of no more than five wild Chinook salmon is proposed.

The SH Report is also proposed to have a new field to collect hours fished to track angler effort data. This proposed change will assist analysis of report card data.

**Analysis of SH Report Card Data**

Anglers are currently allowed to harvest 1 hatchery steelhead per day in the many of California streams. However, if the angler harvests the 1 hatchery steelhead they must stop fishing. Surveys of steelhead anglers have indicated that generally if they must choose between fishing for the day or harvesting a steelhead, the “angler tendency” is to continue fishing rather than fill their limit. The SH Report Card data show that in the Mad and Russian (and in now in the Trinity) rivers, where harvest of 2 hatchery steelhead daily is allowed, anglers that can catch 2 or more hatchery steelhead generally keep zero or 1 hatchery steelhead and continue to catch and release. This results in the majority of hatchery steelhead caught by anglers annually are being released, which allows the hatchery steelhead to spawn naturally with wild steelhead.

With the exception of the Trinity River, steelhead possession limit currently equals daily bag limit. Non-local anglers in particular that do not return home at the end of their day, are essentially required to release all steelhead until the last day and last fish of their trip. For example, if an angler travels from out of state, or from Sacramento to fish the Smith River for a weekend, the angler is allowed to harvest one steelhead (possibly wild after numerous hatchery steelhead caught previously), but must cease fishing upon retention of that fish. With this, many anglers end up keeping none, as they released fish to keep fishing and were not fortunate enough to catch a steelhead near the end of their last day of fishing. Management-wise this is detrimental as it requires the angler to release all hatchery steelhead that will likely spawn with the wild steelhead; whereas the local angler...
can harvest one, return home to eat the catch and return the next day to harvest again. Still many hatchery steelhead may be released, but The Department expects potentially less with additional education.

Economically and value-wise, this is also a disadvantage to the non-local angler. The non-local angler is likely expending far more to benefit the local economy, yet is not able to harvest as many hatchery steelhead as the local angler. Increasing the possession limit increases the potential value to the non-local angler in particular, and possibly an economic boost to local communities. Also wild steelhead populations are benefited by having additional hatchery steelhead removed from potentially spawning in the wild.

This regulation change would also allow the angler to fish several streams on a multi-day trip, and benefit several local communities. Taking the example above, say for a three-day weekend, the angler could fish the Smith River and harvest up to a daily bag limit, fish the Mad River the following day and harvest up to a daily bag limit, and fish the upper Sacramento or Feather River on the way home. Currently, if the angler harvests 1 steelhead on the Smith River, the angler would be done fishing for the weekend until they return home. Even though the daily bag and possession on the Mad River is currently 2 hatchery steelhead, and the Trinity River currently allows 2 hatchery steelhead daily and 4 in possession, this non-local angler could not stop to fish these streams because the possession limit was filled on the Smith River. However, the angler from Eureka could take a limit on the Smith on day one and return home, take 2 hatchery steelhead from the Mad on day two and return home, and fish the Trinity on day three and harvest 2 more hatchery steelhead and return home.

Enforcement-wise, a standard daily bag and possession is intended to simplify things for the angler and for wardens.

Since 2003 anglers have been required by law to return their SH Report Card to the Department. Though ideally there would be 100% compliance with the law by steelhead anglers, returns have continually been increasing annually; thus, confidence in these data for individual streams continues to increase. Although there is not 100% return, these data annually are considered a representative cross-section of all SH Report Card purchasers, as a matrix of anglers ranging from “Did not fish for steelhead” to anglers completely filling their SH Report Card, from “caught none” to catching several hundred steelhead per SH Report Card are returned. Data from the SH Report Cards corroborate the conjecture that 10%-20% or the anglers catch 80%-90% of the fish. A prominent number of anglers catch one (1) or even two (2) steelhead per trip, but few catch more than 2 per trip.

**Proposed Options**

Data from the SH Report Card from 2005, 2006 and 2007 were sorted by date and angler, and analyzed to predict potential harvest of hatchery steelhead per angler per stream under each alternative. The results were based on “full potential”, where maximum daily
harvest and possession were allotted, and if an angler skipped a day it was presumed they had returned home and their possession limit was “reset”.

The analyses also assumed that the alternative considered was applicable even to streams where harvest of hatchery steelhead is not allowed. For discussion and presentation purposes, the results of these extensive analyses were averaged and summarized for the majority of California streams where harvest of hatchery steelhead is currently allowed.

**Option 1**

2 hatchery steelhead daily bag and 4 hatchery steelhead in possession

The analyses results of this option indicate that the Department’s goal of harvesting the predominance of surplus and stray hatchery steelhead would seldom be met, though several streams were predicted to achieve a “high” (≥ 90%) harvest level (i.e., Smith River, waters from Klamath River south to the Mad River, and the Navarro River). From Figure 1, it is evident that if indeed “angler tendency” corresponds with the predictive analyses, there would be a marked decrease in the percentage of hatchery steelhead released by anglers.

Fortuitously, in response to a phenomenal return of hatchery steelhead to the Trinity River in 2007 (est. 46,000), the Department changed the Trinity River steelhead regulations from 1 hatchery steelhead daily bag/1 in possession to 2 hatchery steelhead daily bag/4 in possession for 2008. The Department analyzed the 2008 SH Report Card data returned to-date for the Trinity River to evaluate “reality” (angler tendency) verses predicted potential.

The potential harvest of hatchery steelhead in the Trinity River under this alternative is 53% (Table 1), thus 47% were predicted to be released. As suspected, based on the supposition that anglers rather harvest less than the daily bag limit to continue fishing for the day, actual harvest of hatchery steelhead on the Trinity River was 15% in 2008, thus 85% of the hatchery steelhead caught by anglers were released. Less than 1% of 2008 Trinity River anglers (8 of 1,826) filled their possession limit of 4 hatchery steelhead.

**Option 2**

3 steelhead daily bag and 6 steelhead in possession

The analyses results of this option indicate that the Department’s goal of harvesting the majority of surplus and stray hatchery steelhead intuitively would be potentially met more often than the 2 daily/4 possession option, and potentially more effectively harvest surplus hatchery steelhead on hatchery supported streams. On the Mad River under current regulations of 2 daily/2 in possession, an average of 306 hatchery steelhead were reported as harvested (52% of the catch). The 2/4 alternative would have potentially equated to a harvest of 439 hatchery steelhead, and the 3 daily/6 in possession would have potentially equated to a harvest of 497 hatchery steelhead (84% of the catch).
Similarly, on the Russian River under current regulations of 2 daily/2 in possession, an average of 657 hatchery steelhead were reported as harvested (56%). The 2/4 alternative would have potentially equated to a harvest of 963 hatchery steelhead, and the 3 daily/6 in possession would have potentially equated to a harvest of 1,048 hatchery steelhead (89%).

A marked difference could be realized in the American River, where current regulations allow harvest of 1 hatchery steelhead daily with 1 in possession, an average of 298 hatchery steelhead were reported as harvested (21%). The 2/4 alternative would have potentially equated to a harvest of 1,115 hatchery steelhead, and the 3 daily/6 in possession would have potentially equated to a harvest of 1,261 hatchery steelhead (88%).

However, based on the knowledge that anglers rather harvest less than the daily bag limit to continue fishing for the day, actual harvest of hatchery steelhead will likely be lower than the potential. Though this alternative is good, the Department’s goal of harvesting a high proportion of surplus and stray hatchery steelhead would not be satisfactorily accomplished.

**Option 3**
3 steelhead daily bag and 9 steelhead in possession
Analyses results, though distant from the ultimate goal of harvesting 100% of the surplus and stray hatchery steelhead in California, is currently the best alternative for improving steelhead fishing opportunities, protecting wild steelhead resources, and being sensitive to public reaction to this management paradigm-shift.

Even at this level of allowable daily harvest, additional removal of hatchery steelhead is generally a small percentage increase in most streams. This is primarily a result of a limited number (10%-20%) of anglers fishing for steelhead on multiple days and catching 9 or more hatchery steelhead in three or more consecutive days; however, the Department believes providing opportunity for harvest of additional hatchery is prudent.

For example, the Yuba River is managed for “wild trout”, yet 13% of the annual catch for 2003 to 2007 was hatchery steelhead, presumably strays from the Feather River Hatchery. Under the current regulations 91% were released on average (in reported numbers, that was 83 of 91 hatchery steelhead). Under Option 3, 84% of the 109 hatchery steelhead could have been harvested and removed from potentially spawning with the wild steelhead.

For the Smith River drainage, potentially an average of 96% of the hatchery steelhead straying upstream from Rowdy Creek could have been harvested, and possibly 86% of the hatchery steelhead in the Mad River could have been harvested. For the Trinity River, potentially 68% of the catch would have been harvested, thus 32% released; however, considering current “angler tendency”, it is estimated that 58% of the hatchery steelhead would be released in the Trinity River to spawn in the wild under Option 3.
Proposed Additional Smith River changes

**Smith River Wild Steelhead**

Regarding reduced or no harvest of wild steelhead on the Smith River, SH Report Card data show that from 2003 to 2007 nearly as many wild steelhead were retained as hatchery steelhead (from Rowdy Creek Fish Hatchery) were released for the Smith River watershed. This is particularly prevalent in the mainstem and the Middle Fork Smith River.

From 2003 to 2007 SH Report Cards returned to the Department, a total of 2,914 wild steelhead were harvested, while 2,192 hatchery steelhead were released throughout the Smith River watershed. Though approximately 73% of the steelhead catch in the Smith River are wild and 75% of the wild steelhead are released, 51% of the hatchery steelhead caught in the Smith River are currently being released (Table 1). As mentioned above under Option 3 (3 daily/9 in possession), potentially 96% of the hatchery steelhead straying upstream from Rowdy Creek could have been harvested; however, even with Option 3 as much as 33% of the hatchery steelhead caught in the SF Smith River in 2005 would have been released to spawn in the wild.

The Department does not believe harvesting wild steelhead, and releasing hatchery steelhead accomplishes protection and sustainability of wild steelhead resources. The Department proposal is a range of zero to 1 wild steelhead per year on the Smith River to increase protection of wild steelhead.

**Allow only Barbless Hooks in Smith River**

Existing regulations for the Smith River allow barbed hooks during September through March in the Middle, North, and South Forks, and during September through April in the main stem.

In 1998, the Department, NOAA Fisheries, the Fish and Game Commission (Commission) banned barbed hooks for angling on all north coast anadromous waters. In 2004, the Commission changed Smith River regulations to the present language allowing barbed hooks. The change potentially increased salmon and steelhead hooking mortality and incidental take of threatened coho salmon. Additionally, the regulation change created inconsistent regulations for terminal gear in north coast anadromous waters.

In 2007, Fish and Game Code, Section 7149.45(a) was revised to expand the areas where anglers may use a second rod in California beginning in 2008. Anglers who have a second rod stamp may now fish with two rods in any inland water, except where only artificial lures or barbless hooks are allowed. A result is that anglers may now use two rods in the Smith River when and where barbed hooks are allowed. Anglers using two rods and terminal gear with baited barbed hooks potentially catch more fish and increase hooking mortality.

This proposed regulation change would reenact the barbless hook requirement in the Smith River and would again standardize barbless terminal gear for north coast district
anadromous waters. Use of second rods in the Smith River would not be allowed, thus reducing population risk potential for threatened anadromous salmonid species.

**Create Annual Limit for Wild Smith River Chinook Salmon**

Existing special regulations for the Smith River allow a bag and possession limit of 1 Chinook salmon, which may be a wild or hatchery fish. Hatchery fish are identifiable by fin markings. There is presently no limit on the numbers of wild or hatchery Chinook that may be kept per year. Additionally, the daily bag and possession limit regulations refer to Chinook salmon as “king” salmon, which is not the most widely used common name for the species; also those regulations do not state that the fish may be hatchery or wild.

Currently there is no comprehensive monitoring program in place on the Smith River to determine the relative strength of wild Chinook salmon populations. Adult Chinook salmon escapements to the Rowdy Creek hatchery, though not population estimates, have declined in recent years.

Typically wild salmonid populations mimic hatchery trends on those watersheds where hatcheries exist. One of the primary management goals for the Department should be to keep Smith River Chinook from being listed. In this case management actions such as more conservative fishing regulations are prudent. Coho salmon are presently the only anadromous salmonid species in the Smith River listed under State and Federal endangered species acts.

For the last three years 100% of the Chinook salmon produced at the Rowdy Creek Hatchery have been marked with an adipose fin clip and a Coded Wire Tag. Therefore the majority of hatchery origin adult Chinook salmon returning to the Smith River this year will bear identifying marks. The Department proposes an annual retention limit of 5 wild Smith River Chinook salmon in an effort to conserve wild stocks. This management action will allow limited harvest on wild stocks while still providing angling opportunity on hatchery stocks. Institution of the Salmon Harvest Card will allow for tracking and evaluation of the annual wild fish retention limit.

Additionally, “Chinook” salmon is the name most commonly used for the species throughout the fishing regulations, and along the west coast in general. Also, if there is to be a distinction between wild and hatchery fish for the annual retention limit, some confusion may arise on whether the daily bag and possession limit applies only to wild fish or both hatchery and wild fish.

This proposed regulation change would limit the number of wild Chinook salmon that may be retained from the Smith River to a maximum of 5 fish per year. Additionally, the wording on the existing daily bag and possession limit would be changed from “king” salmon to “Chinook” salmon, and also indicate that the fish may be of hatchery or wild origin.
The Fish and Game Commission adopted the proposed regulations as noticed at its December 10, 2009 meeting with the following decisions on the possible ranges for the proposed trout or steelhead bag and possession limits:

1) Feather River, subsection 7.50(b)(68), was adopted as “no change” alternative, to remain at 1 hatchery trout or hatchery steelhead per day due to low hatchery steelhead returns for the past three years.

2) A zero wild trout or wild steelhead annual bag limit was adopted for the Smith River, but with a 2 hatchery trout or hatchery steelhead per day (bag limit) and 4 hatchery trout or hatchery steelhead in possession (possession limit) for subsection 7.50(b)(180).

3) All other subsections with ranges of bag and possession limits were adopted as 2 hatchery trout or hatchery steelhead per day (bag limit) and 4 hatchery trout or hatchery steelhead in possession (possession limit).