

STATE OF CALIFORNIA  
FISH AND GAME COMMISSION  
INITIAL STATEMENT OF REASONS FOR REGULATORY ACTION  
(Pre-publication of Notice Statement)

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. Dates and Locations of Scheduled Hearings:

- |     |                     |  |
|-----|---------------------|--|
| (a) | Notice Hearing:     | Date: August 6, 2009<br>Location: Woodland, CA           |
| (b) | Discussion Hearing: | Date: October 1, 2009<br>Location: Woodland, CA          |
| (c) | Discussion Hearing: | Date: November 5, 2009<br>Location: Woodland, CA         |
| (d) | Adoption Hearing:   | Date: December 11, 2009<br>Location: West Sacramento, CA |

III. Description of Regulatory Action:

- (a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

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 (Table 1), 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% of 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 (Table 1, Table 2, and Figure 1).

### **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 (Table 1), though several streams were predicted to achieve a “high” ( $\geq 90\%$ ) 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 (Figure 2).

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 (Figure 2). 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. For example in Table 2, 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 – Table 1). 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 – Table 1).

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 (Figure 2). 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 (Table 1, Figure 1) 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

**Table 1. Average (2005-07) percent of hatchery steelhead kept and released reported (Steelhead Fishing Report-Restoration Card) for the majority of California streams where harvest of steelhead is currently allowed, and predicted results for Option 1 (2 daily, 4 in possession), Option 2 (3 daily, 6 in possession) and Option 3 (3 daily, 9 in possession).**

River System	Average 2005-2007 SH Report Card Reported		Average 2005-2007 Predicted Option 1: 2/day, 4 in possession		Average 2005-2007 Predicted Option 2: 3/day, 6 in possession		Average 2005-2007 Predicted Option 3: 3/day, 9 in possession	
	Kept	Released	Kept	Released	Kept	Released	Kept	Released
Statewide Anadromous Waters	22%	78%	64%	36%	75%	25%	77%	23%
Smith River drainage (2 inclusive)*	49%	51%	90%	10%	95%	5%	96%	4%
Smith to Klamath (3)	14%	86%	34%	66%	39%	61%	45%	55%
Lower Klamath (4b)	28%	72%	67%	33%	79%	21%	84%	16%
Upper Klamath (4a)	13%	87%	58%	42%	69%	31%	71%	29%
Trinity (6a)	13%	87%	53%	47%	65%	35%	68%	32%
SF Trinity (5a)	13%	88%	65%	35%	80%	20%	80%	20%
Klamath to Mad (7)	64%	36%	97%	3%	99%	1%	99%	1%
Mad River (8)	52%	48%	74%	26%	84%	16%	86%	14%
Navarro River (19)	50%	50%	94%	6%	100%	0%	100%	0%
Gualala River (21)	59%	41%	83%	17%	93%	7%	93%	7%
Russian River (23)	56%	44%	82%	18%	89%	11%	90%	10%
Sacramento River drainage (26 inclusive)	19%	81%	74%	26%	84%	16%	85%	15%
Feather (26c1)	15%	85%	70%	30%	79%	21%	80%	20%
Yuba (26c2)	9%	91%	72%	28%	83%	17%	84%	16%
American (26c3)	21%	79%	78%	22%	88%	12%	89%	11%
Mokelumne (27e)	17%	83%	78%	22%	88%	12%	88%	12%
Calaveras (27f)	0%	100%	77%	23%	95%	5%	95%	5%

\* Numbers within ( ) coincide with Location Code [stream] on back of the Steelhead Fishing Report-Restoration Card

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% (Table 1) were released on average (in reported numbers, that was 83 of 91 hatchery steelhead – see Table 2). 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 (Table 1). For the Trinity River, potentially 68% of the catch would have been harvested (Table 1), 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 (Figure 2).

### **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.

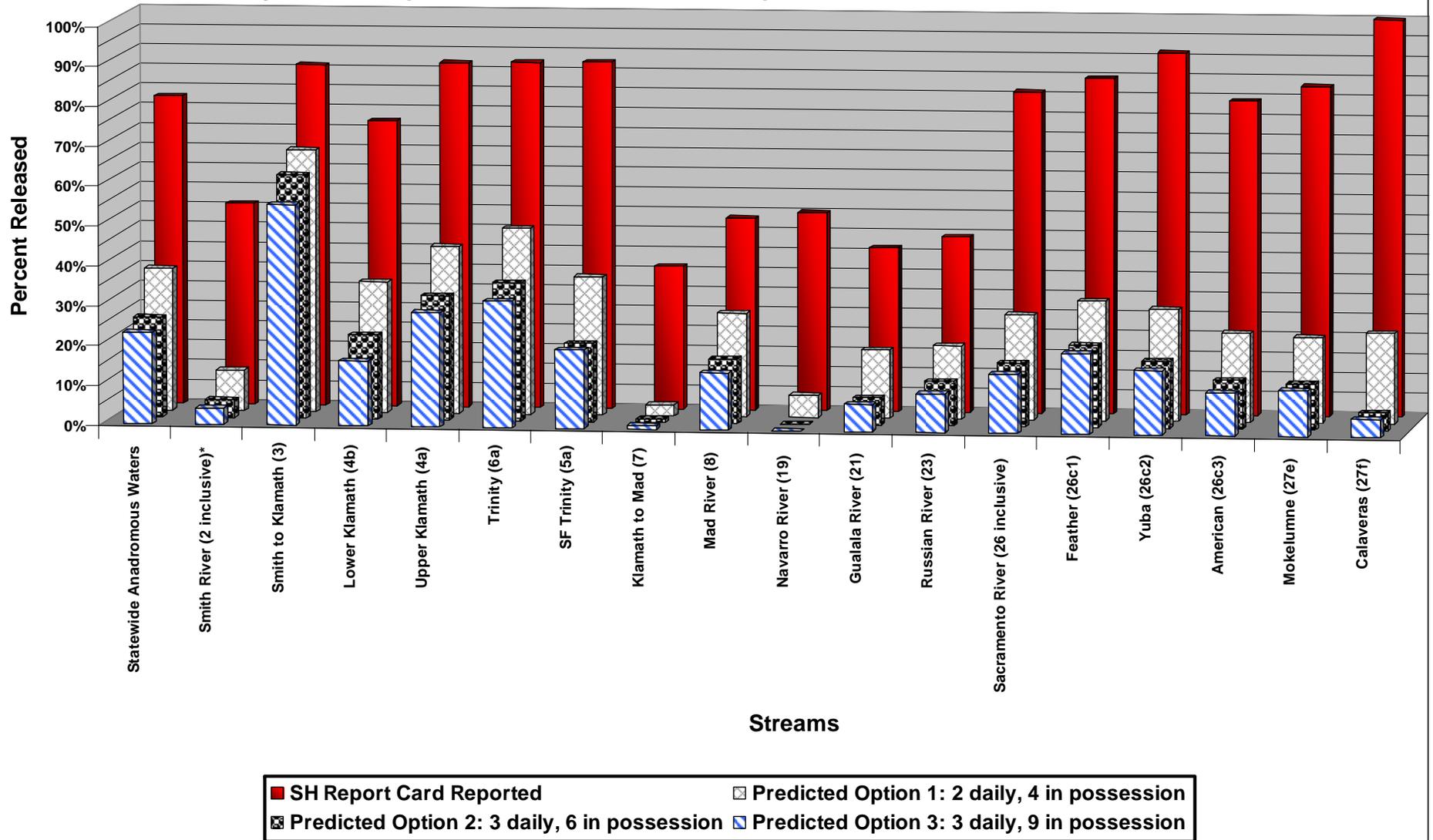
The Department does not believe harvesting wild steelhead, and releasing hatchery steelhead accomplishes protection and sustainability of wild steelhead resources. The Department proposal is a range of zero to 1 wild steelhead per year on the Smith River to increase protection of wild steelhead.

**Table 2. Average (2005-07) number of hatchery steelhead kept and released reported (Steelhead Fishing Report-Restoration Card) for the majority of California streams where harvest of steelhead is currently allowed, and predicted results for Option 1 (2 daily, 4 in possession), Option 2 (3 daily, 6 in possession) and Option 3 (3 daily, 9 in possession).**

<u>River System</u>	Average 2005-2007 SH Report Card Reported		Average 2005-2007 Predicted Option 1: 2/day, 4 in possession		Average 2005-2007 Predicted Option 2: 3/day, 6 in possession		Average 2005-2007 Predicted Option 3: 3/day, 9 in possession	
	<u>Kept</u>	<u>Released</u>	<u>Kept</u>	<u>Released</u>	<u>Kept</u>	<u>Released</u>	<u>Kept</u>	<u>Released</u>
Statewide Anadromous Waters	3,428	12,054	9,936	5,550	11,587	3,899	11,924	3,560
Smith River drainage (2 inclusive)*	525	542	959	110	1,021	48	1,025	44
Smith to Klamath (3)	12	72	28	55	32	51	37	46
Lower Klamath (4b)	183	476	442	217	519	140	551	108
Upper Klamath (4a)	91	607	404	294	480	218	497	200
Trinity (6a)	951	6,472	3,942	3,482	4,846	2,579	5,060	2,363
SF Trinity (5a)	6	44	33	18	41	10	41	10
Klamath to Mad (7)	23	13	35	1	36	0	36	0
Mad River (8)	306	288	439	154	497	96	508	85
Navarro River (19)	3	3	6	0	6	0	6	0
Gualala River (21)	6	4	8	2	9	1	9	1
Russian River (23)	657	523	963	218	1,048	132	1,065	115
Sacramento River drainage (26 inclusive)	506	2,161	1,962	705	2,241	427	2,272	396
Feather (26c1)	165	914	754	326	856	223	861	218
Yuba (26c2)	8	83	65	26	76	15	76	15
American (26c3)	298	1,139	1,115	323	1,261	176	1,282	155
Mokelumne (27e)	7	36	34	9	38	5	38	5
Calaveras (27f)	0	7	6	2	7	0	7	0

\* Numbers within ( ) coincide with Location Code [stream] on back of the Steelhead Fishing Report-Restoration Card

**Figure 1. Average (2005-07) percent of hatchery steelhead reported released for the majority of California streams where harvest of hatchery steelhead is currently allowed, and percent of hatchery steelhead predicted to be released for Options 1, 2 and 3**



### **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.

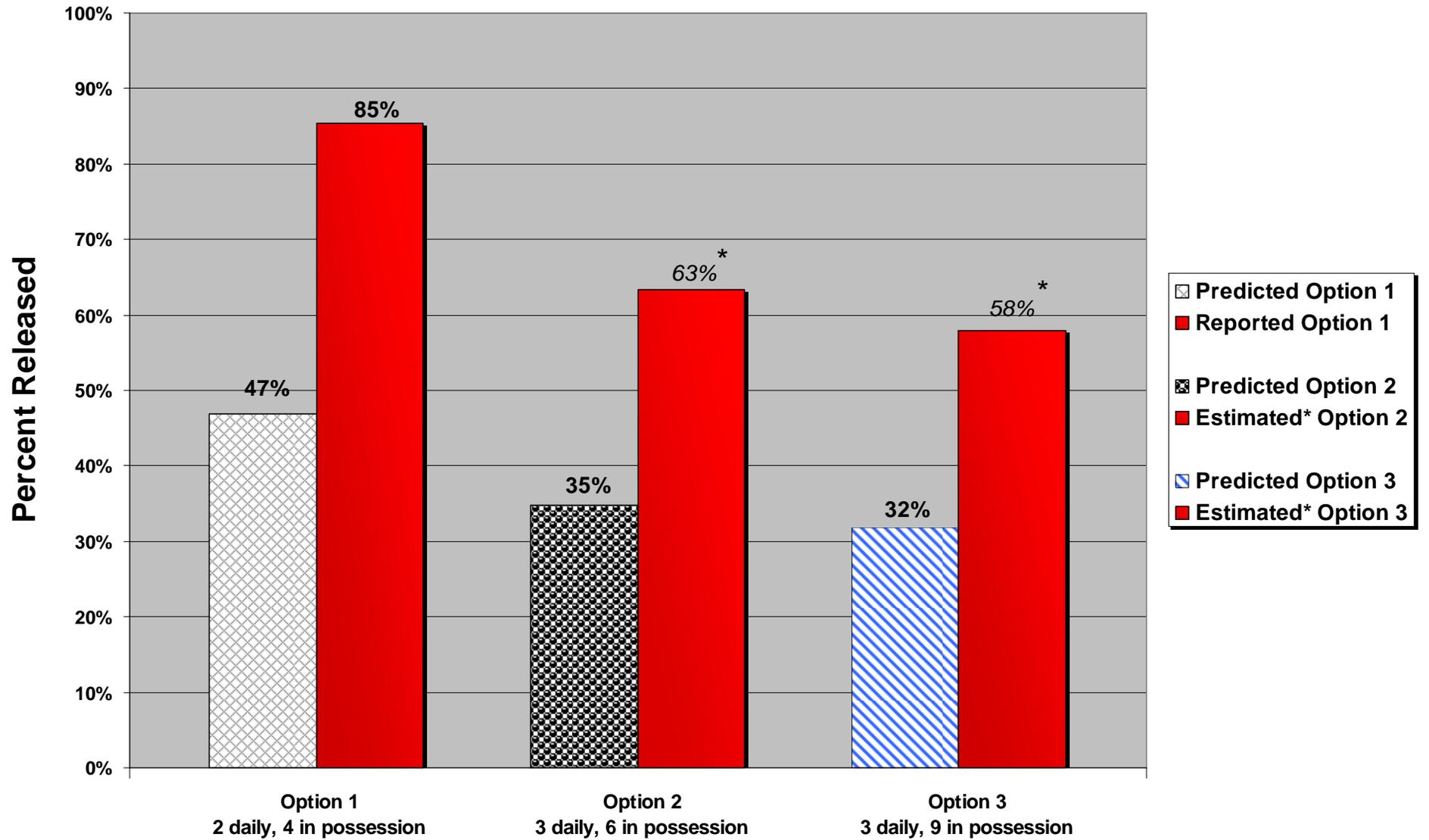
This proposed regulation change would reenact the barbless hook requirement in the Smith River and would again standardize barbless terminal gear for north coast district anadromous waters. Use of second rods in the Smith River would not be allowed, thus reducing population risk potential for threatened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

Figure 2. Average (2005-07) percent of Trinity River hatchery steelhead released Predicted for Option 1 compared to 2008 Reported for Option 1, and average (2005-07) Predicted for Options 2 and 3 compared to Estimated\*



\*Estimated = (Reported Option 1/Predicted Option 1) x Predicted Option

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.

### **Additional Considerations**

#### **Hatcheries Meeting Return/Production Goals**

The Department's hatchery steelhead regulation proposal is sensitive to not interfere with California's mandated steelhead hatchery mitigation and enhancement goals. The goal on hatchery supported streams is to harvest surplus hatchery steelhead not necessary to meet the hatchery's production goals.

Intuitively, anglers likely encounter much less than 100% of the steelhead run, particularly in hatchery supported streams. The analyses conducted from the SH Report Card data are based on what has been reported. In 2007 it was estimate that 46,000 hatchery steelhead returned to the Trinity River, and 13,963 hatchery steelhead were caught by anglers that returned

their 2007 SH Report Cards. Even under Option 3 in a best case scenario, 4,882 of those steelhead would have been released.

Only the Iron Gate Fish Hatchery on the upper Klamath River and the Mokelumne River Fish Hatchery currently, and regularly, fail to meet their production goals. All other California hatcheries that produce steelhead have surplus returns. Though it is not believed that current harvest rates of hatchery steelhead is the cause of low returns to these hatcheries, the Department is not proposing to change steelhead regulations for the upper Klamath River or the Mokelumne River.

### **Increased Fishing Effort and Pressure**

Though possible, it is not anticipated that increasing allowable harvest of hatchery steelhead will appreciably increase fishing pressure on a given stream or on the wild steelhead populations. As mentioned above, steelhead anglers in general prefer to continue fishing over harvesting their daily bag limit. Steelhead anglers are generally choosing to keep less than the daily bag and continue fishing “all day”. This was confirmed with increasing the daily bag limit and possession limit of hatchery steelhead on the Trinity River in 2008, where even given the opportunity to harvest 2 hatchery steelhead the anglers typically harvested less than 2 fish and release the remainder of steelhead caught that day. In streams where there is no allowable harvest of steelhead, anglers choose to fish and catch and release all day.

It is also possible that an increase in allowable harvest of hatchery steelhead would increase the number of anglers (fishing pressure) on a stream in hopes of “filling their freezer”. However, the lion-share of steelhead anglers are not “meat fishermen”. Again the data show that steelhead anglers typically choose to release steelhead and continue fishing. The Department believes that fishing pressure for steelhead on a given stream is driven by the strength of the run and successful fishing reports, rather than bag limit.

The Trinity River example is a good demonstration. There was significantly greater fishing pressure in 2007 with tremendous returns of hatchery steelhead, compared to 2008 when the returns, though good, were notably less; yet, daily bag limit was 1 hatchery steelhead and 1 in possession in 2007 and increased to 2 per day and 4 in possession in 2008.

### **Hooking Mortality**

The Department believes that hooking mortality to wild steelhead will not be increased by allowing additional opportunity to anglers to harvest hatchery steelhead. As mentioned above, steelhead anglers are generally choosing to keep less than the daily bag and continue fishing “all day” regardless of

the bag limit, thus the negligible hooking mortality that may occur will remain essentially constant.

More importantly, literature to-date regarding hooking mortality studies indicate that large salmonids in cool water temperatures experience nearly zero hooking mortality. A study conducted on California “summer run” steelhead found that estimated hooking mortality was below 5% for steelhead angled in water temperatures below 18°C (64.4°F). California steelhead are “large salmonids” and are primarily “winter run”, which means water temperatures are typically “cold” during steelhead fishing season.

### **Present Regulations**

Section 5.88, Title 14, CCR, contains the requirements, procedures and regulations that are specific to the Steelhead Report and Restoration Card.

Subsection 7.50(b), Title 14, CCR, contains the season dates, special regulations, and daily bag and possession limits for rivers and streams that have different regulations than the surrounding District regulations.

Section 701, Title 14, CCR, lists sport fishing forms, form revision dates, associated annual fees, and other related information.

### **Proposed Changes to Regulations**

For public notice purposes to facilitate Commission discussion, the Department is proposing the following changes and limit ranges to current regulations:

#### Amend Section 5.88 Steelhead Report and Restoration Card.

- Add instructions to record fishing hours when changing location or ending fishing for the day.

#### Amend subsections (b)(2) Albion River, (b)(3) Alder Creek, (b)(22) Big River, (b)(27) Brush Creek, (b)(47) Cottoneva Creek, (b)(65) Elk Creek, (b)(66) Elk River, (b)(69) Freshwater Creek, (b)(70) Garcia River, (b)(72) Greenwood Creek, (b)(70) Gualala River, (b)(102) Little River, (b)(154) Russian Gulch, (b)(193) Ten Mile River, and (b)(200) Usal River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities from November 1 to March 31 as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.

#### Amend subsections (b)(5) American River, (b)(18) Bear River, (b)(35) Calaveras River, (b)(68) Feather River, (b)(150) Redwood Creek, and (b)(212) Yuba River special regulations.

- Propose a range of daily bag limits and possession limits to increase

fishing opportunities for all open areas as follows:

- [1-3] hatchery trout or hatchery steelhead, and
- [1-9] hatchery trout or hatchery steelhead in possession.

Amend subsection (b)(91.1) Lower Klamath Basin special regulations.

- Propose a range of possession limits to increase fishing opportunities in subsection (C)1.b.(ii) as follows:
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Propose a range of daily bag limits to increase fishing opportunities in the Trinity River main stem and South Fork Trinity River in subsections (E)6.b., (E)6.d., (E)6.f., (E)6.g., (E)6.h., and (E)6.i. as follows:
  - [1-3] hatchery trout or hatchery steelhead.

Amend subsection (b)(107) Mad River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities in subsection (A) and (B) as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.

Amend subsection (b)(129) Napa River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities in subsection (B) as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Correct cross reference to Section 8.00(b) to reduce public confusion.

Amend subsection (b)(130) Navarro River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities from November 1 to March 31 as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Correct cross reference to Section 8.00(b) to reduce public confusion.

Amend subsection (b)(133) Noyo River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities in subsections (A) and (C) from November 1 to March 31 as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Add main stem to subsection (B) to clear up public confusion as the tributaries are closed.

Amend subsection (b)(155) Russian River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities as follows:

- [1-3] hatchery trout or hatchery steelhead, and
- [1-9] hatchery trout or hatchery steelhead in possession.
- Insert abbreviation for month in subsection (A) to align the regulatory language of these subsections with the other special regulations.

Amend subsection (b)(156) Sacramento River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities in subsections (H) through (K) as follows:
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Add total length to size limit in subsection (G) to reduce public confusion and improve enforcement.
- Remove abbreviation for Saturday in subsections (C) and (E) to align the regulatory language of these subsections with the other special regulations.

Amend subsection (b)(180) Smith River special regulations.

- Propose a range of daily bag limits and possession limits to increase fishing opportunities in subsections (A), (B)1., (C)1., and (D)1. as follows:
  - [0-1] wild trout or steelhead per year,
  - [1-3] hatchery trout or hatchery steelhead, and
  - [1-9] hatchery trout or hatchery steelhead in possession.
- Require barbless hooks in subsections (A), (B)1., (C)1. and (D)1.
- Change name of king salmon to Chinook salmon in subsections (A), (B)1., (C)1. and (D)1.
- Add a yearly limit of no more than 5 wild Chinook salmon in subsections (A), (B)1., (C)1. and (D)1.
- Add the county to the title and remove note about tributaries to reduce public confusion as this information is contained in sub section 7.50(a).
- Add information in title to clarify that year limits apply for the entire river.
- Add definition of wild Chinook salmon to Section 7.50.

Amend subsection 701(i) Sport Fishing Forms.

- Update year and form number revision date on the SH Report Card.
- Add column and instructions to record fishing hours when changing location or ending fishing for the day.

(b) Authority and Reference Sections from Fish and Game Code for Regulation:

Section 5.88

Authority: Section 7380, Fish and Game Code.

Reference: Sections 7380 and 7381, Fish and Game Code.

Section 7.50

Authority: Sections 200, 202, 205, 215, 220, 240, 315 and 316.5, Fish and Game Code.

Reference: Sections 200, 205, 206, 215 and 316.5, Fish and Game Code.

#### Section 701

Authority: Sections 200, 202, 205, 220, 713, 1050, 1053, 7149.8 and 7380, Fish and Game Code.

Reference: Sections 200, 202, 205, 206, 220, 713, 1050, 1053, 1055, 7149.8 and 7380, Fish and Game Code.

(c) Specific Technology or Equipment Required by Regulatory Change:

None.

(d) Identification of Reports or Documents Supporting Regulation Change:

None.

(e) Public Discussions of Proposed Regulations Prior to Notice Publication:

No public meetings are being held prior to the notice publication. The 45-day comment period provides adequate time for review of the proposed amendments.

#### IV. 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.

V. Mitigation Measures Required by Regulatory Action:

The proposed regulatory action will have no negative impact on the environment. Therefore, no mitigation is necessary.

VI. 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 initial 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.

## Informative Digest (Policy Statement Overview)

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% of 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” ( $\geq 90\%$ ) 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.

