

## KINGS RIVER FISHERY MANAGEMENT PROGRAM

### LOWER KINGS RIVER

#### 2018 SUPPLEMENTAL RAINBOW TROUT STOCKING PLAN

DECEMBER 2017

#### INTRODUCTION

The Lower Kings River in the reach from Pine Flat Dam to Fresno Weir supports an active tailwater recreational fishery for rainbow trout. Aquatic habitat improvements and trout stocking in the lower river are managed as part of the Kings River Fishery Management Program (KRFMP), a collaborative effort between the Kings River Water Association (KRWA), Kings River Conservation District (KRCD), and California Department of Fish and Wildlife (CDFW). The goals of KRFMP are to:

- Protect and improve the quality and availability of suitable instream habitat for resident rainbow trout and the diverse community of fish and invertebrates that inhabit the lower river; and
- Enhance the quality of the trout fishery for the variety of anglers that fish the lower Kings River downstream of Pine Flat Dam.

The objectives of this supplemental trout stocking plan element in support of the KRFMP are:

- Provide supplemental stocking of rainbow trout in the tailwater fishery below Pine Flat Dam;
- Focus program sponsored supplemental trout planting from October through April recognizing the Lower Kings River is primarily a winter fishery with greater angler success when river flows and water temperatures are reduced;
- Provide a population of hatchery-produced rainbow trout capable of sustaining the current level of angler pressure within both the put-and-take and catch-and-release management zones of the lower river (the proposed stocking plan does not include responses to social changes in angler pressure that may occur in response to increased trout abundance);
- Meet the California Fish and Game Commission policy on planted trout that at least 50% by number or weight will be taken by anglers;
- Increase the number of rainbow trout (greater than 12 inches) inhabiting the catch-and-release management zone over the next five years;
- Stock diploid rainbow trout into the lower river that have the potential to successfully reproduce when conditions are suitable and contribute to the in-river population of rainbow trout; and
- Stock a diversity of life history stages to take advantage of various habitat conditions within the river and to express various survival trajectories.
- To not infringe on any management or policy conditions imposed by CDFW
- Review as necessary to determine if modifications are warranted with the Executive Committee approving year to year variables

Trout inhabiting the lower Kings River are subject to a number of sources of mortality including, but not limited to, recreational angler harvest, illegal harvest (poaching), predation by fish and birds, downstream displacement and exposure to adverse water temperature conditions, entrainment into water diversions, and other sources of mortality. Stocking using trout produced in a fish hatchery serves to compensate for these sources of mortality and to support a viable recreational fishery. The reach of the river extending from Pine Flat Dam downstream to Alta Weir is regulated as a put-and-take fishery (five trout limit per day) while the reach from Alta Weir to Highway 180 is regulated as a catch-and-release fishery (no harvest). The fishery is located close to urban areas in the vicinity of Fresno but also attracts anglers from other areas of the state. Population growth in the area, in combination with redirected fishing pressure in response to closure of the lower San Joaquin River to angling as part of the Chinook Salmon restoration program, and modification of California Department of Fish and Wildlife (CDFW) hatchery planting practices in response to concerns regarding hatchery stocking impacts on native and protected fish populations and amphibians, have contributed to increased fishing pressure on the lower Kings River which is expected to continue into the future.

The supplemental trout stocking plan outlined below reflects input from the KRFMP Technical Steering Committee (TSC) and Public Advisory Group (PAG) which is comprised of recreational anglers and other interested parties. The KRFMP supplemental stocking plan has been developed to augment, but not replace, rainbow trout stocking in the lower river by CDFW. Further, the KRFMP supplemental stocking plan is limited to addressing only rainbow trout stocking from the CDFW San Joaquin River Fish Hatchery or other qualified commercial trout producers released into the lower Kings River between Pine Flat Dam and Fresno Weir. The plan does not include stocking of other species or stocking trout into Pine Flat Reservoir or Avocado Lake. The supplemental stocking plan includes annual target allocations for various lifestages of rainbow trout produced in the CDFW San Joaquin River Fish Hatchery. Production of trout in the hatchery, however, is subject to a number of factors such as mechanical failures that interrupt water supplies, exposure to seasonally elevated water temperatures, disease, drought conditions impacting the river, and others and therefore are presented as annual target allocations and not a guarantee of production and releases.

This supplemental stocking plan is one element of an overall integrated KRFMP program of activities on the lower river that has been active for almost two decades. The supplemental stocking plan has been based on a number of factors including, but not limited to, (1) impacts to the river habitat and trout population resulting from the recent extended drought, (2) instream flows and water quality conditions in the lower river suitable to support all lifestages of trout, (3) high recreational angling pressure and harvest on the lower river, (4) current and expected future growth in angling pressure, (5) balancing habitat improvements with recreational angling opportunities, (6) the availability of various lifestages of trout produced in the CDFW San Joaquin trout hatchery and potentially from commercial producers that can be planted in the lower river, (7) historical hatchery trout planting to support the recreational fishery, and (8) opportunities to plant trout from the hatchery that potentially can spawn in the river when conditions are suitable. The supplemental stocking plan is proposed to be implemented as part of the KRFMP and CDFW stocking program with monitoring and evaluation of the success of the stocking effort in contributing to the fishery and the population inhabiting the river. Future trout stocking

practices may be modified to reflect changes in angler pressure and demographics (e.g., shift in catch-and-release vs. put-and-take fisheries), climate change, habitat modifications, hatchery practices, biotic and abiotic conditions affecting habitat suitability for rainbow trout, future fishing regulations and enforcement, and other factors.

Historically, rainbow trout, brook trout, and brown trout have been planted by CDFW in the lower river. The supplemental stocking plan proposes that only rainbow trout be stocked over the next five years of the program. Trout have been stocked by CDFW at various lifestages including fingerlings, sub-catchable, catchable, super-catchable, and trophy sized brood stock (generally greater than 2 pounds). The CDFW fish size definitions used to characterize the lifestage of rainbow trout planting from the hatchery are summarized below:

**Table 1: Standard fish size definitions utilized by CDFW**

Production Category	Range in fish/pound	Typical Length (inches)	Minimum fish/pound	Maximum fish/pound	Abbreviation
Green eggs	Eggs prior to eyed stage	NA			G
Eyed eggs	Eggs at eyed stage	NA			E
Fingerling	16.1 or more	<3	16.1		F
Sub-catchable	6.1 to 16.0	4-6	6.1	16	SC
Catchable	Equal to or less than 6.0	10-12	1.0	6	C
Super- catchable	Greater than 1.0	12-16	0.99	0.34	S
Trophy	Greater than 2.99 pounds each	>16	0.33		TR

Table 2 provides a general summary of trout planting in the lower Kings River between the 1956 and 2016. The sizes of trout planted, and the number of trout planted, has varied over time. As part of the KRFMP, streamside incubators have been used to incubate eggs purchased from a private producer that are then released into the lower river as fry. Both diploid and triploid eggs have been incubated.

Stocking of fingerling sized trout, typically in the spring, has been variable among years; ranging from none in many years to approximately 240,000 in 1973 (Table 2). Stocking sub-catchable rainbow trout has also been variable over the years ranging from none in many years to approximately 109,000 in 1971. Sub-catchable trout have been stocked more regularly since 1995, typically ranging from approximately 25,000 to 50,000 per year although in some recent years few or no sub-catchable trout have been stocked. Catchable trout have been stocked every year between 1956 and 2016. Prior to 1990 stocking typically occurred at a level of approximately 50,000 to 100,000 fish per year at sizes ranging from about 3 to 5 fish to the pound. Since 1990, stocking of catchable trout has declined to a range typically from about 25,000 to 35,000 fish per year although the size of stocked trout has increased to approximately 1.2 to 2 fish per pound. Stocking of super-catchable trout was not reported to have occurred between 1956 and 1986. Super-catchable trout stocking began 1987 and 1991 with

small numbers with a more consistent stocking level starting in 2001 and continuing through 2016. Stocking trophy sized trout began in 2005 and continued at varying levels up to approximately 2,400 fish (2006) through 2013. Trophy sized trout were not stocked in 2011 or 2014-2016.

In accordance with the California Fish and Game Commission policy, trout are not stocked when water temperatures are greater than 75 F (24 C).

Recreational angling was perceived to be better in the 1970s and 1980s when stocking of catchable trout typically ranged from 50,000 to 100,000 fish per year than under current conditions (stocking catchable trout between 2000 and 2016 has generally ranged from 25,000 to 35,000 fish per year) and therefore the earlier stocking practices provide insights into changes to stocking outlined in the plan below.

In addition to the changes in trout planting that have occurred since the 1950s, changes have also occurred to lower Kings River recreational angling regulations (KRCD 1999). In 1953 the angling season was between the Saturday nearest May 1 and October 31 with a 10 trout limit. In 1964 a Special Fly Fishing season was opened between January 1 and February (artificial flies with single barbless hook; catch-and-release only) between Alta Weir and Pine Flat Dam. In 1965 the special fly fishing season was changed to December 15 to February 14. The trout season was extended two weeks in 1969 to the Saturday nearest May 1 to November 15 with the special fly fishing season extended from November 16 to the Saturday nearest May 1 (a 1 fish limit was allowed for the special fly fishing season) and year-round fishing allowed with a 3 trout limit during the offseason below Alta Weir. The special fly fishing season was reduced to catch-and-release only in 1972 and the bag limit was raised to 5 trout downstream of Alta Weir during the offseason. In 1977 the special fly fishing restrictions allowed year-round fishing (2 fish limit with artificial flies only) in the reach from Alta Weir downstream to Highway 180. Fishing in other reaches was allowed year-round with a 5 fish limit during the offseason. In 1981 fishing was allowed year-round throughout the river, special fly fishing restrictions were removed, and the bag limit was 10 trout per day during the season and 5 trout per day during the offseason. The bag limit was reduced to 5 trout per day year-round in 1990. In 1996 the regulations were changed to allow only catch-and-release using artificial lures and barbless hooks in the reach from Alta Weir downstream to Highway 180. The river has also been subject to periodic chemical treatments to control non-game fish populations. The lower river was chemically treated in 1961, 1968, and 1973.

**Table 2. Summary of rainbow trout planting by CDFW in the lower Kings River, 1956-2016.**

Year	Planned Stocking Allotment	Total Catchable & Larger Stocked	Number Planted					Number Catchable & Super-catchable per-pound
			Fingerling	Sub-catchable	Catchable Rainbow Trout	Super-catchable	Trophy	
1956	50,000 fish	50,939 fish			50,939			5.8
1957	50,000 fish	68,865 fish			68,865			4.6
1958	50,000 fish	59,433 fish			59,433			4.2
1959	60,000 fish	66,015 fish			66,015			4.7
1960	60,000 fish	61,145 fish			61,145			5.0
1961 <sup>1</sup>	60,000 fish	62,870 fish			62,870			4.9
1962	70,000 fish	77,330 fish			77,330			4.5
1963	70,000 fish	81,247 fish			81,247			4.6
1964	70,000 fish	62,549 fish			62,549			5.1
1965	72,000 fish	71,383 fish			71,383			5.1
1966	72,000 fish	74,249 fish			74,249			4.0
1967	62,000 fish	73,439 fish			73,439			4.4
1968 <sup>1</sup>	62,000 fish	83,224 fish	38,334	23,370	83,224			2.6
1969	70,000 fish	104,276 fish	156,735		104,276			3.9
1970	70,000 fish	37,440 fish			37,440			3.8
1971	70,000 fish	65,789 fish		108,614	65,789			4.5
1972	72,000 fish	86,255 fish			86,255			4.1
1973 <sup>1</sup>	70,000 fish	76,783 fish	237,720		76,783			3.8
1974	90,000 fish	81,812 fish			81,812			3.7
1975	90,000 fish	94,370 fish			94,370			3.7
1976	90,000 fish	87,973 fish			87,973			4.0
1977	100,000 fish	94,783 fish	30,000	47,950	94,783			4.1
1978	100,000 fish	61,260 fish		18,095	61,260			3.7
1979	100,000 fish	103,500 fish	37,030		103,500			3.3
1980	100,000 fish	100,265 fish	148,500		100,265			3.6
1981	71,000 fish	72,890 fish	72,380		72,890			3.2

1982	71,000 fish	68,960 fish			68,960			3.6
1983	71,000 fish	68,480 fish	33,542		68,480			2.7
1984	71,000 fish	24,200 fish			24,200			2.9
1985	72,000 fish	60,923 fish	17,000		60,923			3.6
1986	70,000 fish	70,318 fish			70,318			3.3
1987	70,000 fish	48,186 fish			48,083	103		2.7
1988	70,000 fish	63,320 fish			63,320			2.8
1989	70,000 fish	54,435 fish			54,435			2.7
1990 <sup>2</sup>	25,000 lbs.	21,200 lbs. <sup>4</sup>			34,205			1.6
1991	25,000 lbs.	22,100 lbs. <sup>4</sup>			37,395	320		1.7
1992	20,000 lbs.	22,480 lbs. <sup>4</sup>			29310			2.0
1993	20,000 lbs.	25,700 lbs. <sup>4</sup>	29,392		41470			1.7
1994	20,000 lbs.	22,800 lbs.	85,051		37,433			1.6
1995	20,000 lbs.	27,900 lbs. <sup>4</sup>	73,235	30,004	37,034			1.3
1996	18,000 lbs.	21,200 lbs.	30,038	29,938	38018			1.8
1997	18,000 lbs.	21,200 lbs.		25,728	28,500			1.3
1998	18,000 lbs.	19,400 lbs.	29,880		29,460			
1999	18,000 lbs.	27,365 lbs.	29,880		59,140 <sup>3</sup>			
2000	18,000 lbs.	21,000 lbs	24,724		32,060			
2001	18,000 lbs.	36,085 lbs.	21,290		38,500	9,414 <sup>5</sup>		1.3
2002	18,000 lbs.	32,810 lbs.		30,120	31,255	8,473 <sup>5</sup>		1.2
2003	18,000 lbs.	28,900 lbs.		27,053	34,810	5,388 <sup>5</sup>		1.5
2004	18,000 lbs.	18,000 lbs.		27,650	31,500			1.8
2005	18,000 lbs.	21,420 lbs.	15,022	25,000	32,940	40	899	1.8
2006	18,000 lbs.	30,560 lbs.	138,244	25,830	31,939	784	2,357	1.7
2007	29,394 lbs.	28,838 lbs.		25,000	31,264	1,891	1,127	1.5
2008	29,778 lbs.	28,130 lbs.	14,592	2,410	25,328	2,610	1,980	1.4
2009	29,500 lbs.	30,050 lbs.		34,579	30,680	2,658	1,492	1.4
2010	29,100 lbs.	25,520 lbs.	10	26,720	34,666	3,775	210	1.6
2011	27,000 lbs.	26,300 lbs.	2,774	27,848	31,088	3,863		1.3
2012	29,000 lbs.	29,900 lbs.	22,654		33,615	3,655	439	1.4
2013	27,000 lbs.	28,000 lbs.		50,219	23,706	3,959	930	1.2
2014	26,000 lbs.	23,100 lbs.		30,960	24,967	5,124		1.3

2015	16,100 lbs.	10,200 lbs.		27,092	11,080	2,509		1.3
2016	16,100 lbs.	22,420 lbs.	60		36,396	5,822		1.9

**Notes:**

<sup>1</sup> Chemical treatment of Lower Kings River to remove native species in support of game fish

<sup>2</sup> CDFW moves from number of fish to pounds of fish stocked

<sup>3</sup> Total pounds of both rainbow trout and brook trout combined

<sup>4</sup> Sub-catchable were held over by CDFW in hatchery, due to size at time of release, they were categorized as catchable

<sup>5</sup> KRFMP created an ExCom approved supplemental stocking program and provided supplemental fish in 2001, 2002 and 2003

Planned rainbow trout planting in the lower Kings River below Pine Flat Dam by CDFW in 2017 includes 2,500 pounds (25,000 fish) of sub-catchable trout (10 fish/pound), 11,000 pounds (22,000 fish) of catchable trout (2 fish/pound), and 5,100 pounds (1,275 fish) trophy sized trout (4 pounds/fish). In addition, 300,000 diploid trout eggs are planned to be reared and released from the streamside incubators. CDFW plans to also plant rainbow trout and Chinook salmon in Pine Flat Reservoir and trout in Avocado Lake in 2017. Planting locations in the reach between Pine Flat Dam and Avocado Lake are shown in Figure 1. The planting location in the lower river at Reedley Beach is shown in Figure 2.

## **STOCKING ALLOCATIONS**

Based on the level of stocking that has occurred between the late 1950s and 1980s (Table 1) an estimate was made of the potential numbers of each lifestage of rainbow trout that could be stocked per year to support the recreational fishery and contribute to the trout population (Table 2). Stocking allocations in 2017 and those planned over the 2018-2023 period (Table 2) exceed the level of stocking that occurred in 1999 (Table 1). Estimates of the percentage contribution from trout stocked at various sizes were generated from available literature and surveys.

The numbers of trout proposed to be planted were also compared to stocking strategies outlined in trout stocking plans for other locations (Butler and Borgenson 1965, Nova Scotia Department of Agriculture and Fisheries 2005, Fiss and Young 2003). The number of trophy trout stocked is expected to vary among years based on availability from the hatchery (trophy trout are typically brood stock retired from hatchery production).

Observations of juvenile trout in the lower Kings River in August 2016 (Isner 2016) provide anecdotal evidence that eggs incubated in the streamside incubators contribute to the abundance of trout in the river. Quantitative survival estimates from the egg incubator to catchable size are not available, and therefore no quantitative estimate of the relative contribution of eggs to the fishery can be made. For purposes of this assessment it has been assumed that the percentage contribution of eggs to the catchable population of rainbow trout is 1% (based on the assumption that egg contribution will be less than half of that from fingerlings).

Results of a survey of fingerling trout stocking in six California streams showed an average return rate to catchable size of 2.4% (Calhoun 1966). From 1993 to 1996 KRCD conducted a study of returns to the fishery from fingerling and sub-catchable rainbow trout in the lower Kings River using recaptures in electrofishing and snorkel surveys as their metric for survival (KRCD 1995, 1997). Recapture rates reported by KRCD (1997) were less than 0.5% for both fingerling and sub-catchable sized fish after less than 60 days. Results of the snorkel surveys in 1995 showed an average rate of recapture of 0.66% for fingerlings and 0.57% for sub-catchable trout. Fingerling trout released into the put-and-take zone had a lower recapture rate in the electrofishing surveys (0.012%) compared to those fingerlings released into the catch-and-release zone (0.169%). The fingerling trout appeared to prefer habitat in the Avocado side channel and Dennis Cut based on snorkel and electrofishing results. Results of these surveys



showed a general pattern of higher estimated survival rates for larger sized juveniles. Based on the low recovery of fingerling trout the proposed plan recommends planting larger fish.

Kerr and Lasenby (2000) synthesized a large body of literature on rainbow trout stocking in lakes and streams and reported the contribution of sub-catchable trout planted in Rush Creek California (McAfee 1966) was 8.3% of the number stocked. For purposes of this stocking plan it was assumed that sub-catchable trout would contribute 8% to the fishery.

Results of a mark-recapture study conducted in the lower Kings River in 1958 (Butler and Borgenson 1965) showed a range of harvest estimates from 42 to 89% for four release groups of catchable sized trout with an overall average angler harvest of 59.8%. For purposes of these estimates it has been assumed that average angler harvest of trophy sized trout would be comparable to that for catchable trout (59.8%). Between the 1950s and 1980s, when angling was thought to be better than during the period between 1990 and 2016, catchable trout were typically 3-5 per pound. Based on the historic planting data the plan proposed to increase planting the numbers of catchable trout in the 3 fish per pound size class.

**Table 3. Summary of targeted rainbow trout stocking in the lower Kings River per fiscal year (July 1 – June 30). All trout are assumed to be diploid.**

	<b>Incubator Fry</b>	<b>Hatchery Fingerling</b>	<b>Sub-catchable</b>	<b>Catchable</b>	<b>Trophy</b>
Number/year Stocked by CDFW	0	Variable depending on hatchery production	25,000	20,000	1,500 (as available)
KRFMP Augmentation	300,000	0	0	20,000 - 40,000	1,000 <sup>1</sup>
Total Annual Stocking	300,000	Variable depending on hatchery production	25,000 <sup>2</sup>	60,000	2,500
Trout length (inches)	NA	NA	4-6	10-13 (3/pound)	>16 (>2.5 pounds) ages 2-3 years
Stocking location					
% put-and-take zone	60	100	70	80	75 <sup>3</sup>
% catch-and-release zone	40	0	30	20	25
Stocking season <sup>4</sup>	Spring, Fall/Winter	Variable	Fall/Winter	Variable <sup>5</sup>	Fall/winter
Estimated angler harvest %	1	NA	8	59.8	59.8
Estimated angler harvest number	3,000	NA	1,920	35,880	1,495

<sup>1</sup>Variable and will only occur based on supplemental stocking needs i.e. needs may shift to catchable allotment / broodstock requirements

<sup>2</sup>The numbers of sub-catchable trout planted is expected to vary among years in response to factors such as high flows, seasonally elevated water temperatures, and demands for catchable trout to support the recreational fishery (sub-catchable trout may be held in the hatchery and grown to catchable size prior to release depending in management objectives and other factors within each year).

<sup>3</sup>CDFW routinely plants trophy trout in the put-and-take zone. Trophy trout produced through KRFMP funding augmentation may be planted in the catch-and-release zone as well as the put-and-take zone of the lower river.

<sup>4</sup>In accordance with the California Fish and Game Commission policy, trout are not stocked when water temperatures are greater than 75 F (24 C). Trout may not be planted from the hatchery during periods of flood control releases or high flows that limit access to planting locations or risk staff safety.

<sup>5</sup> The seasonal period of trout planting may vary among years in response to a variety of factors such as seasonal high flows (e.g., catchable trout may be planted at a reduced rate if river flows are greater than 2,000 cfs). CDFW base stocking practices may occur year-round.

## **PERFORMANCE MONITORING/EVALUATION**

Monitoring the performance of the supplemental stocking program would be based on a reward tag mark-recapture experimental design. Catchable and trophy sized trout would be marked externally using a Floy tag printed with a \$15.00 reward and instructions for submitting tags to CDFW for payment. Signs would also be posted at fishing access locations and on the KRFMP and PAG websites with instructions for submitting tags for payment. Approximately 4,000 catchable trout and 250 trophy trout will be tagged and released into the river as part of routine fish planting during the period from late October through April. The tagging program will be conducted for 2 years and then be re-evaluated. The annual KRFMP technical summary report will be used to document the annual stocking as well as results of the tag mark-recapture study.

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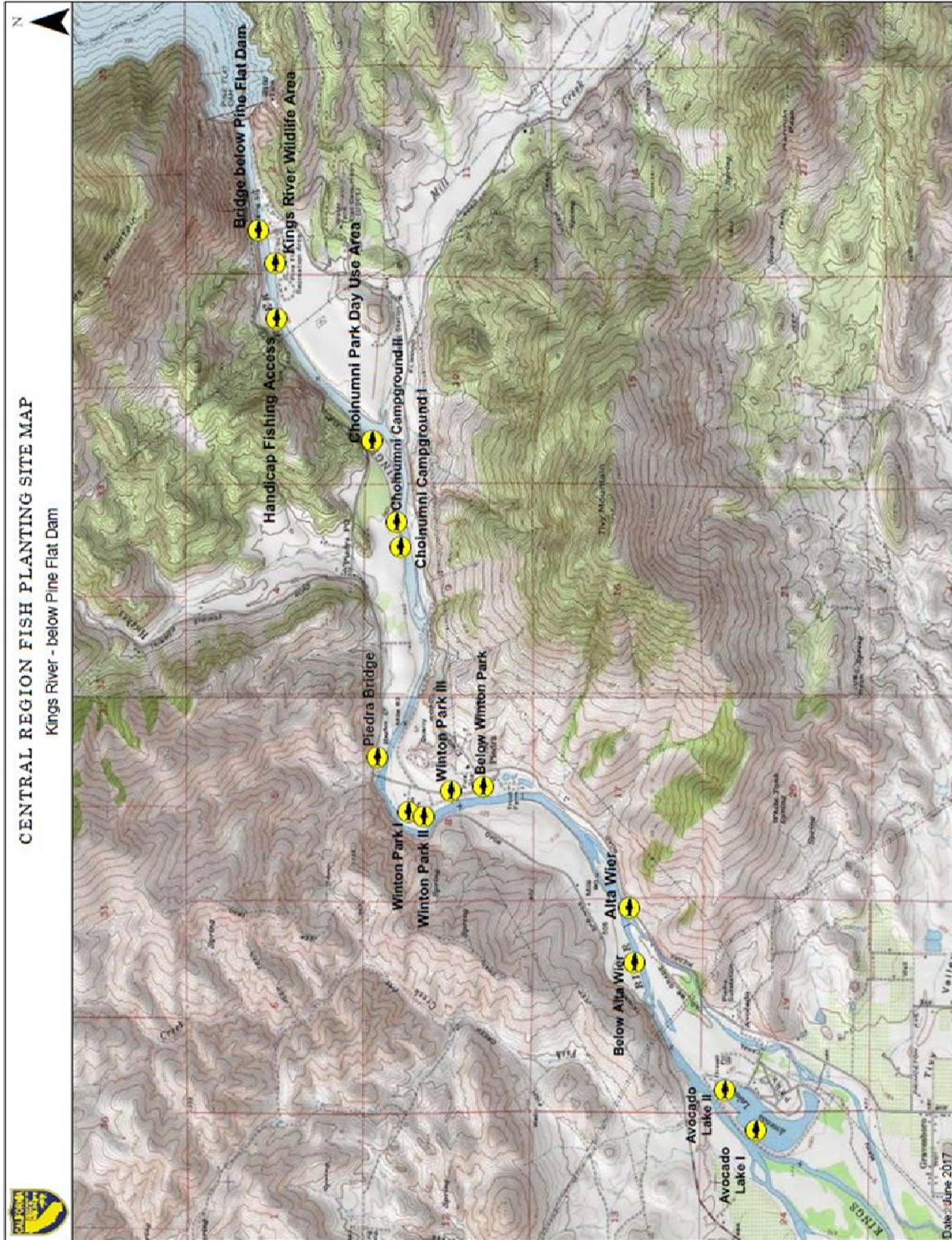
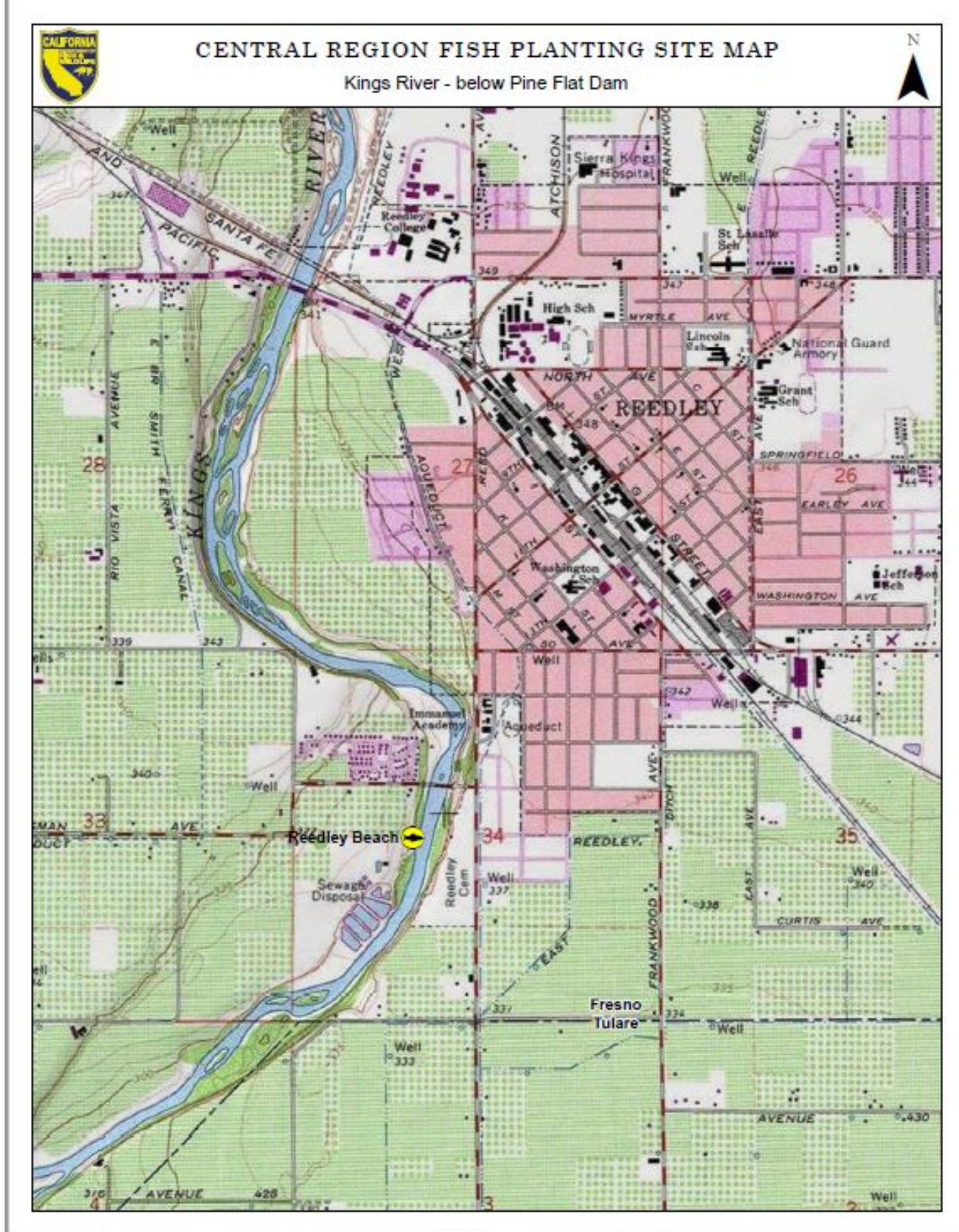


Figure 1. CDFW trout planting locations in the lower Kings River between Pine Flat Dam and Avocado Lake.



Figure 2. CDFW trout planting site at Reedley Beach.



# Appendix A

## Public Comment



Name	Date	Letter #	Comment	FMP Response
Public Advisory Group (PAG)	8/14/17	1	The Public Advisory Group (PAG) states that Item 1(j) of the Framework Agreement commits the Kings River Fisheries Management Program (KRFMP) to supplemental stocking more trout than had been provided in 1999. The PAG also states that the 1999 trout estimate was 59,140 - equivalent to near 40,000lbs., therefore the draft stocking plan only meets the perceived obligation by half.	Item 1(j) of the Framework Agreement does not state or suggest any obligation on behalf of the program to meet or exceed any number of rainbow trout as provided in 1999 or any other year. In 1999, the proposed allotment was 18,000 pounds, 27,365 pounds of catchables were actually stocked. The equivalent pounds noted by the PAG is incorrect. Please refer to Table 2 for stocking information.
PAG	8/14/17	2	The PAG restates their position that the intent of the Framework Agreement is to plant more rainbow trout than were planted in 1999. The PAG recognizes that the number of supplemental trout as described in the Framework Agreement is not defined; as such they have assigned a value of +25%. The PAG equates this value to 75,000 additional catchable sized trout. In addition the PAG request that the KRFMP confirm that the California Department of Fish and Wildlife (CDFW) define “catchable” sized as 1.2 to 2 trout per lb.	The Kings River Fisheries Management Program Framework Agreement was not created to serve a singular purpose. “Among other commitments, the parties committed to: (i) support and pursue in an expeditious manner a cooperative program to improve and manage fisheries and aquatic habitat conditions; (ii) cooperatively seek and develop a broad scope of habitat improvement alternatives, emphasizing opportunities for voluntary conjunctive or sequential water uses for continued enjoyment of the full range of on-stream and off-stream beneficial uses; (iii) to minimize and, where possible, avoid adverse effects of any changes on the holders of water storage and/or use rights, and on the public who beneficially use the waters of the Kings River; and (iv) to co-sponsor projects and programs which further the purpose of the Statement of Intent” (KRFMP Framework Agreement, 1999). Therefore the program is charged with taking all of these elements into account prior to giving value or preference to a singular task. As mentioned in HI1, no specific quantity of supplemental trout was committed on behalf of the program within the language of the Framework Agreement. It would be irresponsible to commit resources based on a subjective figure and we must therefore reject the 25% recommendation. The program will continue to review and reassess the progress, costs, logistics and success of this endeavor over time. At current the CDFW published definition of “catchable” size is – between 6.0 and 1.0 fish per pound. Most frequently 2.0 fish per pound (about 12” in length).
PAG	8/14/17	3	The PAG points out that there is little in the way of research on the survival rate of sub-catchable sized trout and requests additional information. The PAG proposes that the annual winter allotment of 24,000 sub-catchables be replaced with 4,800 catchable sized trout instead.	There is little in the way of research on the survival rates of stocked sub-catchable trout in the lower Kings River. We are currently investigating how to improve this type of data collection. The allotment of 25,000 sub-catchable rainbow trout which are stocked in the Kings River each December serve as part of the program’s commitment to “planting “put and grow” sub-catchable fish ... “ as outlined in the Framework Agreement Section 1(j)(ii). Henceforth this allotment will dually serve as insurance in years where either hatchery or climatic conditions prohibit regular stocking practices or create otherwise uninhabitable conditions for rainbow trout during multiple months of the year. In such instances, said 25,000 sub-catchables may be held and grown out to a catchable size prior to stocking.
PAG	8/14/17	4	The PAG requests that the \$30,000 designated for KRFMP Incubator building operations (2017-2018 Annual Implementation Plan budget) be redirected to fund	The sum of \$25,000 (not \$30K) has been budgeted and approved by the Executive Committee for the operations and maintenance of the incubator building. Breakdown of that is as follows:

			additional catchable sized rainbow trout. The PAG estimates the cost to be \$4 per pound, yielding an additional 15,000 trout. The PAG moved on this request with a 9/2 vote.	<ul style="list-style-type: none"> <li>• \$15,000 is comprised of reimbursable funds via the Ted Martin family Grant. The grant money is conditional to the terms agreed upon by the Martin family, The Kings River Conservancy (facilitator) and the KRFMP. The funds are exclusively for the purchase of rainbow trout eggs for the incubator building or the direct maintenance of those eggs. As such these funds are non-transferable. Additionally as of the receipt of these comments 08/15/17, the CDFW San Joaquin Hatchery has not confirmed a price for production with the KRFMP.</li> <li>• \$9,000 is to install a standby generator to ensure production upon loss of electrical power. This has been a routine issue, with a high rate of mortality as a result of lost water flow into the rearing raceways.</li> <li>• \$1,000 is for routine maintenance and materials that may be needed</li> </ul> <p>In regard to the KRFMP incubator building, the KRFMP has seen multiple benefits from the operation of said facility that meet many of the objectives outlined in the Framework Agreement. Along with that, the facility has full support of the Kings River Conservancy (501c3), it serves as a resource for public outreach and education and fulfills or commitment to “plant “put and grow” sub-catchable fish and eggs which can mature into a sustaining population of adult fish whenever appropriate” as listed in Section 1 (j)(ii) of the Framework Agreement. The program continues to work on improving the methods used to monitor the success of this endeavor.</p>
PAG	8/14/17	5	In page 3 of their comments the PAG provided a table of suggested stocking changes as described in comments 3 & 4.	The numbers proposed in the table provided by the PAG have been noted, however the total number of rainbow trout proposed in the draft plan will not change for reasons further explained within the content of these comments. This stands with the exception of a 5% shift in allocation of supplemental trophy trout from Reach 1 to Reach 2 as described below in FMP Response 8.
PAG	8/14/17	6	The PAG has requested that the KRFMP consider the study results from the following documents: <i>Movement of Resident Rainbow Trout</i> (KRCD, 2012); <i>Dispersal and Longevity of Stocked Triploid Hatchery Rainbow Trout in the Silver Fork American River</i> (CDFW, ?); the <i>1996 USFWS Coordination Act Report, Pine Flat Fish Turbine Bypass Section 1135 and Restoration Project</i> . The PAG suggests that the stocking locations are not adequately spaced, causing a concentration of trout to be limited to a few public access points.	<p>A representative of the KRFMP will review the suggested documents.</p> <p>In response to the spacing of CDFW stocking locations, there are actually 12 stocking locations within the 5.5mile put and take section of the tailwater fishery and 5-6 stocking locations in the 4 mile stretch between Alta Weir and Fresno Weir. The map provided in the draft plan did not sufficiently demarcate each individual site and a more comprehensive map will be used in the final plan.</p>
PAG	8/14/17	7	“PAG proposes a significant increase in the number of planting locations”. The PAG has provided the KRFMP with 29 GPS locations where they would like for stocking to occur.	Five (5) stocking sites recommended by the PAG are located on private property – Frustration Lake (South Bank), Turkey Pens 2 – 3, Upper Riffle and Pool and will not be considered unless private landowners voluntarily allow public access.

				<p>It is the policy of the CDFW to allocate time and resources to publically accessible areas where they will provide the greatest good to the public. Stocking locations are chosen based on public accessibility, the amount of recreational opportunity available, stocking truck accessibility, safety, driver time and the amount of stress placed on the fish per stocking location. Alternate stocking locations will be discussed at the discretion of CDFW.</p>
PAG	8/14/17	8	<p>The PAG request that the KRFMP plant 75% of the supplemental trophy trout in Reach 2 and that 25% be planted in Reach 1. The draft stocking plan currently allocates 20% to Reach 2 and 80% to Reach 1.</p>	<p>The final stocking plan will reflect the following change in supplemental trophy trout allocation as a result of the PAG request: 75% to Reach 1 and 25% to Reach 2 (a change of 5%).</p> <p>Reach 1 includes two county parks and multiple public access locations experiencing an overall greater amount of fishing pressure. Reach 1 is a put and take fishery and is expected to experience greater depletion rates than the catch and release section in Reach 2. Reach 2 includes one county park and far fewer public access fishing locations than Reach 1. Because Reach 2 is a catch and release management zone it is expected that existing trout may be captured multiple times, minimizing the depletion within the reach.</p>
PAG	8/14/17	9	<p>The PAG requests additional public fishing access. The PAG does not believe that access has ever been increased by the KRFMP. Additionally the PAG requests fishing access on the following privately owned properties – Alta Irrigation District at the head of the 76 Channel and the access area approximately 350yds. downstream, the orange grove behind the old Sherriff’s substation on Trimmer Springs Road and the Thorburn channel properties to include parking and change in regulations to allow fishing at the channel entrance. The PAG also request use of the closed ACOE recreation area.</p>	<p>Further access can and will be investigated.</p> <p>In response to the comment that the KRFMP has not provided access, the Kings River Conservation District (KRCD) has provided and continues to maintain the All Access Fishing Area (handicapped access) off of Pine Flat Rd. . Additionally, in 2005 the KRFMP built an 8 car parking lot at Green Belt County Park adjacent to Piedra Road and cleared a walking trail from the parking lot to the river. The riparian property was little known and often difficult to access via dirt road. Fishing regulations signs were placed in river access areas and the County owned park became much more accessible to the public for fishing, walking and nature viewing.</p> <p>It is not the policy of the KRFMP to impose or press on the rights of private property owners within our management area and thus we will not pursue access on private lands. . Please refer to B-4 and C-6 of the Framework Agreement under General Aquatic Resource Goals.</p> <p>In the special case of the Thorburn Channel, the property owners entrusted the use of their properties to the KRCD with the understanding that the property would serve as a conservation area demarcated for the spawning/rearing of rainbow trout without the stresses of developed recreational use. Since construction of the channel in 2000, the property has flourished and become a hub of biodiversity providing resources to more than 29 species of wildlife. Foot traffic is allowed on the property and fishing on the river side. The Grantors of Easement who own the North Eastern section of property</p>

				requested a locking gate at the time of easement and maintain that the gates remain locked unless in use by KRCD or official public service (PG&E, Emergency Services, etc.). Altering the existing easements is not justly warranted and would not be prudent.
PAG	8/14/17	10	The PAG requests that the recreational fishery as described in the stocking plan include the section of river from Fresno Weir to 180.	The section of river from the Fresno Weir to Highway 180 is excluded from the supplemental plan. Due to hydrologic diversions and management activities above the Fresno Weir, consistent trout habitat cannot be guaranteed below the weir for any length of time. For that reason the stretch of river is considered an opportunistic trout fishery. It is not in the best interest to plant in a location that is prone to frequent resource irregularity.
PAG	8/14/17	11	The PAG requests that the Supplemental Stocking Plan include Pine Flat Reservoir as well as the additional reaches below Reach 2.	This Supplemental Stocking Plan is only intended to supplement the tail water fishery below Pine Flat Dam with additional rainbow trout. In the past the program has provided additional game fish for the reservoir and may revisit the idea at a later date. This plan is not part of CDFWs regular stocking plan which includes a greater section of the river, including the Reedley Beach stocking location as described in the document.
PAG	8/14/17	12	The PAG requests that CDFW keep more meticulous records of trout planted at each site	When planting trout, a CDFW hatchery driver takes a number of items into account such as the fishing demand experienced at each site, the number of sites the truck will visit, overall efficiency, and the length of distribution time that the trout are able to handle before becoming stressed. As it is not possible to count each fish individually when stocking large numbers, drivers are asked to estimate the amount of trout stocked per site based on the amount of free area in the tank. Distribution is less a function of equal allocation per site and more a function of each system receiving the allotted poundage distributed according to perceived use as accessed by experienced hatchery personnel.