Appendix 1. **Summary Table of Proposed Actions for San Joaquin Fall-Run Chinook Salmon, 1992 Through 1997**

		Status	Agency
1.	Protection of Adult Salmon in Ocean and Inland Waters		
a.	Evaluate unique marking of hatchery stock; selective harvest	N	S,F,L
b.	Propose zero harvest regulation to the Fish and Game Commission	N	S,P
c.	Evaluate "surrogate" protection in the PFMC Framework Plan	N	S,F,L
d.	Focus existing law enforcement effort on spawning migrations	U	S,F
e.	Pursue additional law enforcement funding/staffing	N	S,F
f.	Activate Fisheries Watch Networks	N	P
g.	Encourage greater reporting of violations through CalTip	N	S,F,L
h.	Increase public relations and education efforts	U,P	S,F,L
2.	Upstream Migration Improvements		
a.	Increase instream flows	U,P	S,F,L,P
b.	Maintain target temperature objective of 42-56°F	U,P	F,L
c.	Install and evaluate fall barrier in upper Old River	U	S,F
d.	Condition Port of Stockton dredging to avoid low dissolved oxygen	N	S,F
e.	Reschedule existing instream flows basin-wide	U	S,F,L
f.	Monitor/expand water hyacinth control program	U	S,L
g.	Install/evaluate migration barriers above Merced River confluence	U	S
h.	Trap and spawn adults if other measures fail	P	S
i.	Evaluate tri-annual amendments to the Basin 5C Water Quality Control Plan	N	S,F,L,P
3.	Spawning, Egg Incubation, Emergence and Juvenile Salmon Protection		
a.	Maintain acceptable water temperature in nursery and rearing reaches	P	F,L
b.	Increase instream flows	P	S,F,L,P
c.	Produce acceptable number of yearling salmon when hatchery programs are used	P	S
d.	Accelerate planning and construction of physical habitat improvements	U	S,F,L
e.	Reduce predation mortality	U,P	S,L,P

f.	Evaluate/encourage conjunctive benefits of domestic water supply projects	N	S,F,L
g.	Accelerate evaluations, construct and operate fish protective devices on priority diversions	P,N	S,F,L,P
h.	Accelerate planning studies for offstream storage development	U	S,F,L
i.	Continue planning/design of hatchery supplementation facilities	P	S

4. Improve Smolt and Yearling Survival During Migration

a.	Increase instream flow in nursery tributaries	U,P	S,F,P,L
b.	Augment Vernalis Flows through basin-wide streamflow regulation in April/May	U	S,F
c.	Net positive San Joaquin River outflow in April/May	P,N	S,F
d.	Install, repair or upgrade fish screens on river diversions	P	S,F,L
e.	Evaluate use of alternative water supplies for riparians	N	F
f.	Maintain acceptable temperature conditions	P	S,F,L
g.	Evaluate/install/operate a complete barrier in Old River	U	S,F
h.	Use "salmon operating criteria" at SWP and CVP pumps, April and May	U	S,F
i.	Upgrade screens at SWP and CVP facilities	U	S,F
j.	Reduce predation losses at Clifton Court Forebay	U	S
k.	Reduce indirect mortality	P	S,F
l.	Evaluate other measures to protect juveniles and smolts	N	S,F,L

5. Genetic Maintenance

a.	Use cryogenic preservation of fall-run gametes	N	S,F,L
b.	Use selective harvest techniques (see 1.c.)	N	S,F
c.	Establish a captive breeding program	N	S,F,L
d.	Complete genetic differentiation studies	N	S,F,L

Status:
U = Construction/Operation underway
P = Planning underway
N = No activity

Agency:
S = State
F = Federal
P = Private
L = Local (County and local districts)

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