

**Piru Creek, Ventura and Los Angeles Counties
CAP Workbook Threats Assessment Summary Tables
2008**

Assessment of Target Viability
Piru Creek, Ventura and Los Angeles counties

Conservation Target		Category	Key Attribute	Indicator	Poor	Fair	Good	Very Good	Current Indicator Status	Current Rating	Desired Rating	Date of Current Rating	Date for Desired Rating
3	Juvenile	Landscape Context	Summer flow	Percent of unimpaired median summer baseflow (based on long-term)	< 70%	70-90%	> 90%	100% over all IP km	mostly perennial flows but 2 dams on Piru Creek	Poor		Dec-05	
3	Juvenile	Landscape Context	Water temperature	Median weekly average temperature	> 21 C.	18-21 C.	< 18 C.	< 17 C.				Dec-05	
3	Juvenile	Condition	Estuarine inflows	Percentage of unimpaired freshwater inflow to estuary (necessary for maintaining)	< 25%	25-49%	50-75%	> 75%				Sep-05	
3	Juvenile	Condition	Estuarine inflows	Persistence of hypoxic or anoxic saline layer (> 15 ppt) in potential rearing habitat	3 months	1 month	1 week	< 3 days				Sep-96	
3	Juvenile	Condition	Food availability	Species richness	< 25 taxa	25-29 taxa	30-40 taxa	> 40 taxa				Sep-07	
3	Juvenile	Condition	Habitat complexity/refugia	Instream refugia	absent			present (boulders, overhanging banks, etc.)	cover common	Good		Dec-05	
3	Juvenile	Condition	Riparian corridor species composition and structure	Mean percent native, undisturbed composition and structure in 100-	< 25%	25-50%	51-75%	historic conditions	29% avg canopy cover	Good		Dec-05	
4	Smolt	Landscape Context	Dispersal	Number of days when depths are < 0.4 ft anywhere in migration corridor during	> 10 days	6-10 days	1-5 days	0 days				Dec-05	
4	Smolt	Landscape Context	Flow for downstream passage March through June	Maximum potential rate of diversion by pumping during April and May (expressed as	> 150%	100-150%	50-99%	< 50%	diversion on main stem SC River; 2 dams on Piru Creek	Poor		Dec-05	
4	Smolt	Landscape Context	Passage to ocean	Number of days stream mouth is open with adequate flow during	< 30 days	30-60 days	60-90 days	> 90 days				Sep-96	
5	Adult	Landscape Context	Dispersal	Accessibility of suitable spawning areas (based on TRT criteria)	accessible sites are clumped in one location or < 25% of all tributaries are accessible	25-50% of all tributaries are accessible	50-75% of all tributaries are accessible	> 75% of all tributaries are accessible	Freeman Diversion on main stem SC River; 2 dams on Piru Creek	Poor		Dec-05	

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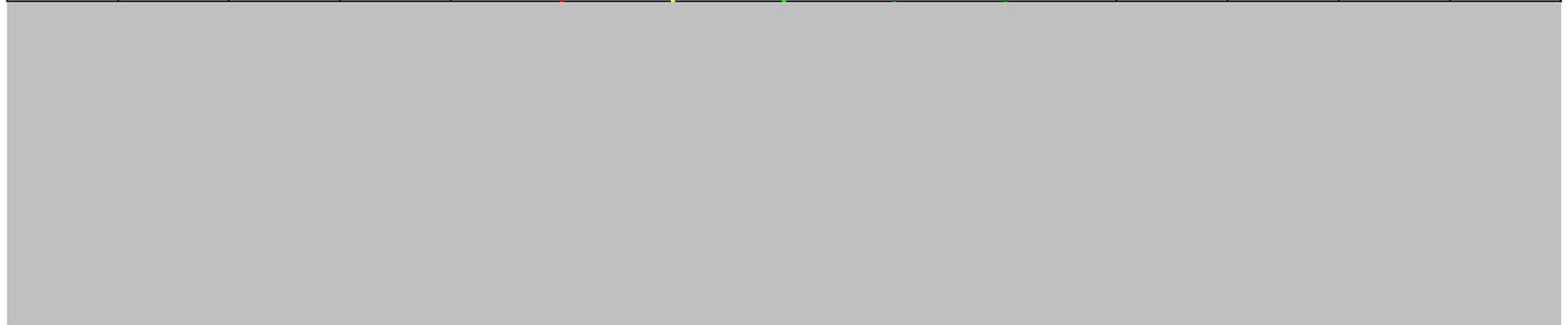
Conservation Target		Category	Key Attribute	Indicator	Poor	Fair	Good	Very Good	Current Indicator Status	Current Rating	Desired Rating	Date of Current Rating	Date for Desired Rating
5	Adult	Landscape Context	Dispersal	Number of days stream mouth is open with adequate flow during entry	< 30 days	30-60 days	60-90 days	> 90 days				Sep-96	
5	Adult	Landscape Context	Flow during spawning period (spawning and upstream/downstream passage)	Percent of net discharge (unimpaired flow minus total diversions) occurring between 1	> 10%	6-10%	3-5%	< 3%				Dec-05	
5	Adult	Landscape Context	Water temperature	Median weekly average temperature in	> 17 C.	15-16.9 C.	13-14.9 C.	10-12.9 C.				Dec-05	
5	Adult	Size	Population size	Mean annual adult spawner abundance		TRT criteria for low extinction risk (by watershed)						May-07	
6	Multiple Life Stages	Landscape Context	Barriers/diversions	Stream crossings/stream	> two/mile			< two/mile				Oct-07	
6	Multiple Life Stages	Landscape Context	Channel flow and morphology	Percent of total watercourse length	> 25%	16-25%	5-15%	< 5%	probably less than 10% overall	Good		Dec-05	
6	Multiple Life Stages	Landscape Context	Fire regime/vegetation maturity	Percent of watershed affected by high intensity fire	> 25%	10-24%	5-9%	< 5%	>> 25% in 2006	Poor		Dec-05	
6	Multiple Life Stages	Landscape Context	Floodplain connectivity	Floodplain connectivity	< 50% of response reaches in watershed have inundation of historic floodplains by bankfull flows (connectivity)	50-65% of response reaches in watershed demonstrate floodplain connectivity	66-80% of response reaches in watershed demonstrate floodplain connectivity	> 80% of response reaches in watershed demonstrate connectivity	lower reaches have some channelization; 2 dams and reservoirs	Good		Dec-05	
6	Multiple Life Stages	Landscape Context	Historic vs Current Spawning Habitat	Fraction of historic spawning tributaries currently accessible to spawners	< 15% available	16-50% available	51-90% available	>90% available	Freeman Diversion on main stem SC River; 2 dams on Piru Creek	Poor		Dec-05	
6	Multiple Life Stages	Landscape Context	Hydrology	Dry stream reaches	> 75% dry reaches	26-75% dry reaches	1-25% dry reaches	no dry reaches; perennial surface flows	about 50% dry reaches	Fair		Dec-05	
6	Multiple Life Stages	Landscape Context	Hydrology	Hydrograph	severely modified			natural	2 dams on Piru Creek	Poor		Sep-05	

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6	Multiple Life Stages	Landscape Context	Land use	Distribution of public ownership along main stem of watercourse	< 25% of land bordering main stem of drainage is publicly owned	25-50%	51-75%	> 75%				Jun-07	
6	Multiple Life Stages	Landscape Context	Land use	Miles of road per square mile of watershed within 100 meters of	> 1 mi	0.5-1.0 mi	0.1-0.49 mi	< 0.1 mi				Sep-07	
6	Multiple Life Stages	Landscape Context	Land use	Miles of roads per square mile of watershed	> 3.0 mi	2.6-3.0 mi	1.6-2.5 mi	< 1.6 mi				Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area	> 30%	20-29%	10-19%	< 10%				Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in agriculture within 100	> 20%	11-20%	5-10%	< 5%					
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in public	< 25 % public ownership	25-50%	51-75%	> 75%				Jan-06	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in	> 25%	10-25%	5-9%	< 5%				Sep-07	
6	Multiple Life Stages	Landscape Context	Water quality	General index of toxicity based on severity of adverse effects on fish	Acute lethal effects (fish kill)	Sublethal effects (reduced growth, altered behavior, etc.)	Toxins detected but no sublethal effects	No toxins or contaminants detected				Sep-07	
6	Multiple Life Stages	Landscape Context	Water quality	Percent total impervious surfaces as % of	>40%	21-40%	5-20%	< 5%				Sep-07	
6	Multiple Life Stages	Condition	Estuarine habitat quality	Current lagoon area as percentage of	< 25%	26-50%	51-75%	> 75%	10-15% remains	Poor		Sep-05	
6	Multiple Life Stages	Condition	Estuarine habitat quality	Depth, LWD, and other habitat elements (e.g. eelgrass)	depth < 1 meter; LWD and/or overhanging banks absent		depth > 1 meter; LWD and/or overhanging banks present					Sep-96	
6	Multiple Life Stages	Condition	Riparian corridor quality	Riparian canopy cover	< 25% cover	25-49% cover	50-75% cover	> 75% cover	29% cover; riparian corridor mostly intact, but bedrock walls provide shade	Good		May-05	

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6	Multiple Life Stages	Condition	Riparian corridor quality	Riparian corridor species composition	< 25% native composition	25-50% native composition	50-75% native composition	> 75% native composition				Sep-07	



**Detailed Viability Summary
San Miguel/Dolores River**

Summary of Threats

Click the page-down icon ▼ to the right to view more summary tables.

Piru Creek, Ventura and Los Angeles counties

Threats Across Targets		Egg	Fry	Juvenile	Smolt	Adult	Multiple Life Stages			Overall Threat Rank
		1	2	3	4	5	6	7	8	
Project-specific threats		1	2	3	4	5	6	7	8	
1	Dams and surface water diversions	High	Medium	Very High	Very High	Very High	Very High			Very High
2	Recreational facilities and activities (ORV use, campgrounds, etc.)	Very High	Very High	Very High	-	-	Very High			Very High
3	Non-native species present (incl. hatchery fish)	Very High	Very High	Very High	-	-	-			Very High
4	Channel and/or estuary maintenance, dredging, and vegetation control (incl. flood control activities)	-	Low	High	-	-	Very High			High
5	Wildland fires (incl. debris flows following fires)	Medium	Medium	-	-	-	Very High			High
6	Culverts, crossings, and bridges	-	Low	High	Medium	High	High			High
7	Urban development	Medium	-	-	-	Very High	-			High
8	Conversion of watershed lands to row crop agriculture	-	-	-	-	-	Very High			High
9	Levees and channelization	-	-	-	-	-	Very High			High
10	Roads in watershed and/or within 300 feet of watercourses	-	-	-	-	-	Medium			Low
11	Invasive, non-native plants	-	-	-	-	-	Low			Low
12	Agricultural effluents	-	-	-	-	-	-			-
13	Artificial lagoon breaching	-	-	-	-	-	-			-
14	Gas, water, and/or other utility pipelines	-	-	-	-	-	-			-
15	Groundwater extraction	-	-	-	-	-	-			-
16	Illegal collecting, poaching, and/or unauthorized angling	-	-	-	-	-	-			-
Threat Status for Targets and Project		Very High	Very High	Very High	High	Very High	Very High	-	-	Very High

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Threats Across Targets		Egg	Fry	Juvenile	Smolt	Adult	Multiple Life Stages			Overall Threat Rank
Project-specific threats		1	2	3	4	5	6	7	8	
17	Livestock Farming & Ranching	-	-	-	-	-	-			-
18	Mining & Quarrying	-	-	-	-	-	-			-
19	Non-point pollution from roads	-	-	-	-	-	-			-
20	Oil & Gas Drilling	-	-	-	-	-	-			-
21	Public ownership in watershed									-
22	Urban wastewater effluents (incl. industrial and commercial effluents)	-	-	-	-	-	-			-
23										-
24										-
25										-
26										-
27										-
28										-
29										-
30										-
31										-
32										-
Threat Status for Targets and Project		Very High	Very High	Very High	High	Very High	Very High	-	-	Very High

Detailed Viability Summary San Miguel/Dolores River

Stress Matrix

Piru Creek, Ventura and Los Angeles counties

Stresses (Altered Key Ecological Attributes) Across Targets		Egg	Fry	Juvenile	Smolt	Adult	Multiple Life Stages		
		1	2	3	4	5	6	7	8
1	Non-native predators	-	Very High	Very High	-	-	-	-	-
2	Impaired estuarine habitat quality	-	-	-	-	-	Very High	-	-
3	Altered hydrograph	-	-	-	-	-	Very High	-	-
4	Non-native egg predators	Very High	-	-	-	-	-	-	-
5	Altered fire regime/recent fire in watershed	-	-	-	-	-	Very High	-	-
6	Impaired access to rearing and/or spawning habitat	-	-	-	-	-	Very High	-	-
7	Impaired access to spawning areas	-	-	-	-	Very High	-	-	-
8	Impaired access to ocean	-	-	-	Very High	-	-	-	-
9	Impaired summer base flows	-	-	Very High	-	-	-	-	-
10	Impaired access to estuary	-	-	Very High	-	-	-	-	-
11	Altered base flows during incubation	High	-	-	-	-	-	-	-
12	Impaired flows during rearing period	-	-	High	-	-	-	-	-
13	Impaired riparian habitat quality	-	-	Medium	-	-	-	-	-
14	Altered riparian habitat quality	-	-	-	-	-	Medium	-	-
15	Impaired habitat complexity/refugia	-	Medium	-	-	-	-	-	-
16	Impaired substrate quality (sedimentation and embeddedness)	Medium	-	-	-	-	-	-	-

Detailed Viability Summary San Miguel/Dolores River

Stresses (Altered Key Ecological Attributes) Across Targets		Egg	Fry	Juvenile	Smolt	Adult	Multiple Life Stages		
		1	2	3	4	5	6	7	8
17	Impaired floodplain connectivity	-	-	-	-	-	Medium	-	-
18	Dispersal barriers between redds and rearing habitat	-	Medium	-	-	-	-	-	-
19	Impaired water temperature	-	-	-	-	-	-	-	-
20	Impaired water quality	-	-	-	-	-	-	-	-
21	Impaired water temperatures in migration corridor	-	-	-	-	-	-	-	-
22	Low adult population size	-	-	-	-	-	-	-	-
23	Impaired access to stream from ocean (stream mouth closed)	-	-	-	-	-	-	-	-
24	Altered sediment supply	-	-	-	-	-	-	-	-
25	Impaired instream habitat complexity/refugia	-	-	-	-	-	-	-	-
26	Impaired water temperature in spawning areas	-	-	-	-	-	-	-	-
27	Altered land use from natural condition	-	-	-	-	-	-	-	-
28	Impaired food availability	-	-	-	-	-	-	-	-
29	Impaired estuarine inflows	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-
31		-	-	-	-	-	-	-	-
32		-	-	-	-	-	-	-	-

**Detailed Viability Summary
San Miguel/Dolores River**

Overall Viability Summary

Piru Creek, Ventura and Los Angeles counties

Conservation Targets		Landscape Context		Condition		Size		Viability Rank
		Grade	Weight	Grade	Weight	Grade	Weight	
1	Egg	Poor	1	Good	1	-	1	Fair
2	Fry	Poor	1	Good	1	-	1	Fair
3	Juvenile	Poor	1	Good	1	-	1	Fair
4	Smolt	Poor	1	-	1	-	1	Poor
5	Adult	Poor	1	-	1	-	1	Poor
6	Multiple Life Stages	Poor	1	Poor	1	-	1	Poor
7		-	1	-	1	-	1	-
8		-	1	-	1	-	1	-
Project Biodiversity Health Rank								Fair

Detailed Viability Summary San Miguel/Dolores River

Detailed Viability Summary Piru Creek, Ventura and Los Angeles counties

Conservation Targets		Key Ecological Attributes				Indicators				Calculated Rank	User Override
		Poor	Fair	Good	Very Good	Poor	Fair	Good	Very Good		
1	Egg									Fair	
	Landscape Context	2				2				Poor	
	Condition			1			1	1		Good	
	Size									-	
2	Fry									Fair	
	Landscape Context	2				2				Poor	
	Condition			1				1		Good	
	Size									-	
3	Juvenile									Fair	
	Landscape Context	3	1			3	1			Poor	
	Condition			2				2		Good	
	Size									-	
4	Smolt									Poor	
	Landscape Context	1				1				Poor	
	Condition									-	
	Size									-	
5	Adult									Poor	
	Landscape Context	1				1				Poor	
	Condition									-	
	Size									-	
6	Multiple Life Stages									Poor	
	Landscape Context	2	1	2		3	1	2		Poor	
	Condition	1		1		1		1		Poor	
	Size									-	
7											-
	Landscape Context									-	
	Condition									-	
	Size									-	
8											-
	Landscape Context									-	
	Condition									-	
	Size									-	