

**Matilija Creek main stem, Ventura County
CAP Workbook Threats Assessment Summary Tables
2008**

Assessment of Target Viability
Matilija Creek main stem, Ventura County

Assessment of Target Viability Matilija Creek main stem, Ventura County													
				Indicator Ratings									
								<i>Double-click opens entry form</i>					
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
1	Egg	Landscape Context	Flow during incubation period	Baseflow in relation to avg. annual daily flow	< 25% of avg. annual daily flow	26-50% of avg. annual daily flow		> 50% of avg. annual daily flow	minor groundwater extraction for residential use	Very Good		Sep-07	
1	Egg	Landscape Context	Non-native species	Non-native egg predators	present throughout watershed	present in >50% of watershed	present in < 50% of watershed	absent	crayfish and other spp.	Fair		Oct-05	
1	Egg	Landscape Context	Water temperature	Mean weekly avg. temperature in	< 5 C. and > 13 C.	11.1-13 C.	10.1-11 C.	6-10 C.					
1	Egg	Condition	Substrate quality	Avg. percent fines (<0.85mm) in potential spawning	> 17% fines	11-17% fines	5-10 % fines	< 5% fines	9%	Good		May-04	
1	Egg	Condition	Substrate quality	Embeddedness	> 75% embedded	50-75% embedded	25-49% embedded	< 25% embedded				Jan-96	
2	Fry	Landscape Context	Dispersal	Barriers between redds and rearing habitat	complete barrier	partial barriers common	partial barriers scarce	no barriers	few to no barriers	Very Good		May-04	
2	Fry	Landscape Context	Non-native species	Non-native fry predators	present throughout watershed	present > 50% watershed	present < 50% of watershed	absent	crayfish and bullfrog larvae	Fair		Oct-08	
2	Fry	Landscape Context	Sediment supply	Turbidity (no. days turbidity is > 25 NTUs)	> 30 days during fry development period	20-30 days	10-19 days	< 10 days				Sep-07	
2	Fry	Condition	Habitat complexity/refugia	Amount of functional high velocity refuge habitat with flows < 15 cm/sec (boulders,	none; watercourse in rearing habitat is channelized	some	common	abundant	moderate to high	Good		May-04	
3	Juvenile	Landscape Context	Dispersal	Barriers between rearing habitat and estuary	present			absent	Matilija Dam	Poor		Jan-08	
3	Juvenile	Landscape Context	Flow during rearing period	Pool habitat > 3 feet in depth	pools scarce or absent	low abundance of pools	high abundance of pools	high abundance of pools with multiple "refuge" pools (> 5 ft deep)	moderate to high abundance; highly variable by reach	Good		May-04	
3	Juvenile	Landscape Context	Non-native species	Non-native juvenile predators	present throughout watershed	present > 50% watershed	present < 50% watershed	absent	crayfish, bullfrogs, bass	Fair		Oct-08	
3	Juvenile	Landscape Context	Summer flow	Percent of unimpaired median summer baseflow (based on long-term mean monthly	< 70%	70-90%	> 90%	100% over all IP-km	minor groundwater pumping for residential use	Very Good		Jan-96	
3	Juvenile	Landscape Context	Water temperature	Median weekly average temperature	> 21 C.	18-21 C.	< 18 C.	< 17 C.				May-95	

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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
3	Juvenile	Condition	Estuarine inflows	Percentage of unimpaired freshwater inflow to estuary (necessary for maintaining	< 25%	25-49%	50-75%	> 75%				Sep-07	
3	Juvenile	Condition	Estuarine inflows	Persistence of hypoxic or anoxic saline layer (> 15 ppt) in potential rearing habitat areas between	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				Jan-99	
3	Juvenile	Condition	Habitat complexity/refugia	Instream refugia	absent			present (boulders, overhanging banks, etc.)	moderate amount of instream cover	Fair		May-04	
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				Jan-96	
4	Smolt	Landscape Context	Dispersal	Number of days when depths are < 0.4 ft anywhere in migration corridor during outmigration	> 10 days	6-10 days	1-5 days	0 days				Jan-96	
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%	minor groundwater pumping for residential use	Very Good		Sep-07	
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	Matilija Dam	Poor		Jan-08	
5	Adult	Landscape Context	Dispersal	Number of days stream mouth is open with adequate flow during entry period	< 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 December to 1	> 10%	6-10%	3-5%	< 3%				Jun-02	

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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.				May-96	
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 channelized	> 25%	16-25%	5-15%	< 5%				May-02	
6	Multiple Life Stages	Landscape Context	Fire regime/vegetation maturity	Percent of watershed affected by high intensity fire within	> 25%	10-24%	5-9%	< 5%					
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				May-02	
6	Multiple Life Stages	Landscape Context	Historic vs Current Spawning Habitat	Fraction of historic spawning tributaries currently	< 15% available	16-50% available	51-90% available	>90% available	Matilija Dam	Poor		Jan-08	
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				Jan-96	
6	Multiple Life Stages	Landscape Context	Hydrology	Hydrograph	severely modified			natural				Jan-96	
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 in	> 30%	20-29%	10-19%	< 10%				Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in agriculture within 100 meters of	> 20%	11-20%	5-10%	< 5%					
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in public ownership	< 25 % public ownership	25-50%	51-75%	> 75%				Jan-06	

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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
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in urban/residential	> 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	houses on septic systems	Good		Jan-08	
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%				Sep-07	
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	28%	Fair		May-04	
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	giant reed dominates lower reaches	Poor		Oct-07	

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

Summary of Threats

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

Matilija Creek main stem, Ventura County

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	
1	Dams and surface water diversions	Medium	Medium	Very High	Very High	Very High	Very High			Very High
2	Non-native species present (incl. hatchery fish)	High	High	High	-	-	-			High
3	Recreational facilities and activities (ORV use, campgrounds, etc.)	High	High	High	-	-	-			High
4	Invasive, non-native plants	-	Medium	Medium	-	High	High			High
5	Urban wastewater effluents (incl. industrial and commercial effluents)	-	-	-	-	-	Medium			Low
6	Groundwater extraction	Low	Low	Low	-	-	-			Low
7	Channel and/or estuary maintenance, dredging, and vegetation control (incl. flood control activities)	-	-	Low	-	-	-			Low
8	Conversion of watershed lands to row crop agriculture	-	-	Low	-	-	-			Low
9	Levees and channelization	-	-	Low	-	-	-			Low
10	Agricultural effluents	-	-	-	-	-	-			-
11	Artificial lagoon breaching	-	-	-	-	-	-			-
12	Culverts, crossings, and bridges	-	-	-	-	-	-			-
13	Gas, water, and/or other utility pipelines	-	-	-	-	-	-			-
14	Illegal collecting, poaching, and/or unauthorized angling	-	-	-	-	-	-			-
15	Livestock Farming & Ranching	-	-	-	-	-	-			-
16	Mining & Quarrying	-	-	-	-	-	-			-
Threat Status for Targets and Project		High	High	High	High	High	High	-	-	Very High

Detailed Viability Summary San Miguel/Dolores River

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	
17	Non-point pollution from roads	-	-	-	-	-	-			-
18	Oil & Gas Drilling	-	-	-	-	-	-			-
19	Public ownership in watershed									-
20	Roads in watershed and/or within 300 feet of watercourses	-	-	-	-	-	-			-
21	Urban development	-	-	-	-	-	-			-
22	Wildland fires (incl. debris flows following fires)	-	-	-	-	-	-			-
23										-
24										-
25										-
26										-
27										-
28										-
29										-
30										-
31										-
32										-
Threat Status for Targets and Project		High	High	High	High	High	High	-	-	Very High

Detailed Viability Summary San Miguel/Dolores River

Stress Matrix

Matilija Creek main stem, Ventura County

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

**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 water temperature	-	-	-	-	-	-	-	-
18	Altered sediment supply	-	-	-	-	-	-	-	-
19	Impaired access to stream from ocean (stream mouth closed)	-	-	-	-	-	-	-	-
20	Impaired food availability	-	-	-	-	-	-	-	-
21	Impaired water temperatures in migration corridor	-	-	-	-	-	-	-	-
22	Low adult population size	-	-	-	-	-	-	-	-
23	Impaired water temperature in spawning areas	-	-	-	-	-	-	-	-
24	Impaired floodplain connectivity	-	-	-	-	-	-	-	-
25	Altered fire regime/recent fire in watershed	-	-	-	-	-	-	-	-
26	Altered hydrograph	-	-	-	-	-	-	-	-
27	Altered land use from natural condition	-	-	-	-	-	-	-	-
28	Impaired estuarine habitat quality	-	-	-	-	-	-	-	-
29	Impaired estuarine inflows	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-
31		-	-	-	-	-	-	-	-
32		-	-	-	-	-	-	-	-

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

**Overall Viability Summary
Matilija Creek main stem, Ventura County**

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

Detailed Viability Summary San Miguel/Dolores River

Detailed Viability Summary Matilija Creek main stem, Ventura County

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