

**Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks)
Santa Barbara County
CAP Workbook Threats Assessment Summary Tables
2008**

Assessment of Target Viability
Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks, Santa Barbara County)

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Double-click opens entry form

Bold = Current Indicator Ratings *Italics = Desired*

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	variable	Good		Jun-02	
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					
1 Egg	Landscape Context	Water temperature	Mean weekly avg. temperature in redds	< 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 areas	> 17% fines	11-17% fines	5-10 % fines	< 5% fines	low abundance of suitable spawning substrate	Fair		Jun-02	
1 Egg	Condition	Substrate quality	Embeddedness	> 75% embedded	50-75% embedded	25-49% embedded	< 25% embedded	50-75% embeddedness	Fair		Jun-02	
2 Fry	Landscape Context	Dispersal	Barriers between redds and rearing habitat	complete barrier	partial barriers common	partial barriers scarce	no barriers	partial barriers widespread and common	Fair		Jun-02	
2 Fry	Landscape Context	Non-native species	Non-native fry predators	present throughout watershed	present > 50% of watershed	present < 50% of watershed	absent					
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					
2 Fry	Condition	Habitat complexity/refugia	Amount of functional high velocity refuge habitat with flows < 15 cm/sec (boulders, overhanging banks, etc.)	none; watercourse in rearing habitat is channelized	some	common	abundant	low amount of instream cover	Fair		Jun-02	
3 Juvenile	Landscape Context	Dispersal	Barriers between rearing habitat and estuary	present			absent	Hwy 101/railroad culvert	Poor		Jun-02	
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)	low abundance of pools, no refuge pools	Fair		Jun-02	
3 Juvenile	Landscape Context	Non-native species	Non-native juvenile predators	present throughout watershed	present > 50% watershed	present < 50% watershed	absent					

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3	Juvenile	Landscape Context	Summer flow	Percent of unimpaired median summer baseflow (based on long-term mean monthly discharge)	< 70%	70-90%	> 90%	100% over all IP-km	variable surface flows	Fair		Jun-02	
3	Juvenile	Landscape Context	Water temperature	Median weekly average temperature (MWAT) in potential rearing habitat	> 21 C.	18-21 C.	< 18 C.	< 17 C.					
3	Juvenile	Condition	Estuarine inflows	Percentage of unimpaired freshwater inflow to estuary (necessary for maintaining brackish water < 15 ppt salinity)	< 25%	25-49%	50-75%	> 75%	variable surface flows	Fair		Jun-02	
3	Juvenile	Condition	Estuarine inflows	Persistence of hypoxic or anoxic saline layer (> 15 ppt) in potential rearing habitat areas between May and onset of winter rains	3 months	1 month	1 week	< 3 days					
3	Juvenile	Condition	Food availability	Species richness	< 25 taxa	25-29 taxa	30-40 taxa	> 40 taxa					
3	Juvenile	Condition	Habitat complexity/refugia	Instream refugia	absent			present (boulders, overhanging banks, etc.)	low amount of instream cover	Fair		Jun-02	
3	Juvenile	Condition	Riparian corridor species composition and structure	Mean percent native, undisturbed composition and structure in 100-foot riparian buffer	< 25%	25-50%	51-75%	historic conditions					
4	Smolt	Landscape Context	Dispersal	Number of days when depths are < 0.4 ft anywhere in migration corridor during outmigration period (March through June)	> 10 days	6-10 days	1-5 days	0 days					
4	Smolt	Landscape Context	Flow for downstream passage March through June	Maximum potential rate of diversion by pumping during April and May (expressed as percent of estimate unimpaired median flow in April)	> 150%	100-150%	50-99%	< 50%		Fair		Jun-02	
4	Smolt	Landscape Context	Passage to ocean	Number of days stream mouth is open with adequate flow during outmigration period (March through June)	< 30 days	30-60 days	60-90 days	> 90 days					

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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	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	impassable	Poor		Jun-02	
5	Adult	Landscape Context	Dispersal	Number of days stream mouth is open with adequate flow during entry period (1 November to 1 June)	< 30 days	30-60 days	60-90 days	> 90 days					
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 June, in all water years	> 10%	6-10%	3-5%	< 3%				Jun-02	
5	Adult	Landscape Context	Water temperature	Median weekly average temperature in migration corridor	> 17 C.	15-16.9 C.	13-14.9 C.	10-12.9 C.					
5	Adult	Size	Population size	Mean annual adult spawner abundance		TRT criteria for low extinction risk (by watershed)							
6	Multiple Life Stages	Landscape Context	Barriers/diversions	Stream crossings/stream mile	> two/mile			< two/mile	avg 1.5 crossings/mile	Fair		Jan-08	
6	Multiple Life Stages	Landscape Context	Channel flow and morphology	Percent of total watercourse length channelized	> 25%	16-25%	5-15%	< 5%	probably > 25%	Poor		Jul-07	
6	Multiple Life Stages	Landscape Context	Fire regime/vegetation maturity	Percent of watershed affected by high intensity fire within previous 100 yrs	> 25%	10-24%	5-9%	< 5%	19%	Fair		Jan-08	
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	probably < 50%	Poor		Jun-02	

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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	Historic vs Current Spawning Habitat	Fraction of historic spawning tributaries currently accessible to spawners	< 15% available	16-50% available	51-90% available	>90% available	complete barriers	Poor		Jun-02	
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	variable surface flows	Fair		Jun-02	
6	Multiple Life Stages	Landscape Context	Hydrology	Hydrograph	severely modified			natural	moderately to highly modified	Fair		Jun-02	
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%	probably > 75% private along main stem	Poor		Jun-07	
6	Multiple Life Stages	Landscape Context	Land use	Miles of road per square mile of watershed within 100 meters of watercourse	> 1 mi	0.5-1.0 mi	0.1-0.49 mi	< 0.1 mi	avg 1.4 mi/sq mile	Poor		Jan-08	
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	6.0 - 7.6 mi/sq. mi.	Poor		Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in agricultural use	> 30%	20-29%	10-19%	< 10%	6.1% to 8.8%	Fair		Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in agriculture within 100 meters of watercourse	> 20%	11-20%	5-10%	< 5%	8.2%	Fair		Jan-08	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in public ownership	< 25 % public ownership	25-50%	51-75%	> 75%	avg 26% public ownership	Fair		Jun-02	
6	Multiple Life Stages	Landscape Context	Land use	Percent of watershed area in urban/residential use	> 25%	10-25%	5-9%	< 5%	avg 20%	Fair		Jun-02	
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	high total N and P	Fair		Jan-08	
6	Multiple Life Stages	Landscape Context	Water quality	Percent total impervious surfaces as % of watershed area	>40%	21-40%	5-20%	< 5%	10.6%	Fair		Jan-08	
6	Multiple Life Stages	Condition	Estuarine habitat quality	Current lagoon area as percentage of historic total area	< 25%	26-50%	51-75%	> 75%	31%	Fair		Jan-08	

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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	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						
6	Multiple Life Stages	Condition	Riparian corridor quality	Riparian canopy cover	< 25% cover	25-49% cover	50-75% cover	> 75% cover	avg 56%	Good		Jun-02	
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	probably 25-50%	Fair		Jun-07	

Overall Viability Summary
Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks), Santa Barbara County

Summary of Threats Click the page-down icon ▼ to the right to view more summary tables.										
Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks), Santa Barbara 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	Groundwater extraction	High	High	Very High	High	Very High	Very High			Very High
2	Culverts, crossings, and bridges	-	High	Very High	High	Very High	Very High			Very High
3	Channel and/or estuary maintenance, dredging, and vegetation control (incl. flood control activities)	High	High	High	High	Very High	Very High			Very High
4	Roads in watershed and/or within 300 feet of watercourses	High	High	High	High	Very High	Very High			Very High
5	Urban development	High	High	High	High	Very High	Very High			Very High
6	Levees and channelization	Medium	High	High	High	Very High	Very High			Very High
7	Conversion of watershed lands to row crop agriculture	High	Medium	Very High	-	High	Very High			Very High
8	Agricultural effluents	Medium	-	-	-	-	High			Medium
9	Non-point pollution from roads	-	-	Low	-	-	High			Medium
10	Wildland fires (incl. debris flows following fires)	-	-	-	-	-	High			Medium
11	Livestock Farming & Ranching	Low	Low	Medium	-	-	Medium			Medium
12	Invasive, non-native plant infestation						Low			Low
13	Recreational facilities and activities (ORV use, campgrounds, etc.)	-	-	Low	-	-	-			Low
14	Artificial lagoon breaching	-	-	-	-	-	-			-
15	Dams and surface water diversions	-	-	-	-	-	-			-
16	Gas, water, and/or other utility pipelines	-	-	-	-	-	-			-
Threat Status for Targets and Project		High	Very High	Very High	Very 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	Illegal collecting, poaching, and/or unauthorized angling	-	-	-	-	-	-			-
18	Mining & Quarrying	-	-	-	-	-	-			-
19	Non-native species present (incl. hatchery fish)	-	-	-	-	-	-			-
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		High	Very High	-	-	Very High				

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Stress Matrix									
Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks), Santa Barbara 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 floodplain connectivity	-	-	-	-	-	Very High	-	-
2	Impaired access to rearing and/or spawning habitat	-	-	-	-	-	Very High	-	-
3	Impaired access to spawning areas	-	-	-	-	Very High	-	-	-
4	Impaired estuarine habitat quality	-	-	-	-	-	High	-	-
5	Altered land use from natural condition	-	-	-	-	-	High	-	-
6	Impaired substrate quality (sedimentation and embeddedness)	High	-	-	-	-	-	-	-
7	Dispersal barriers between redds and rearing habitat	-	High	-	-	-	-	-	-
8	Altered hydrograph	-	-	-	-	-	High	-	-
9	Altered fire regime/recent fire in watershed	-	-	-	-	-	High	-	-
10	Impaired habitat complexity/refugia	-	High	-	-	-	-	-	-
11	Impaired access to estuary	-	-	High	-	-	-	-	-
12	Impaired flows during rearing period	-	-	High	-	-	-	-	-
13	Impaired summer base flows	-	-	High	-	-	-	-	-
14	Impaired water quality	-	-	-	-	-	High	-	-
15	Impaired estuarine inflows	-	-	High	-	-	-	-	-
16	Altered base flows during incubation	High	-	-	-	-	-	-	-

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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 instream habitat complexity/refugia	-	-	High	-	-	-	-	-
18	Impaired access to ocean	-	-	-	High	-	-	-	-
19	Altered riparian habitat quality	-	-	-	-	-	Medium	-	-
20	Altered riparian canopy cover	-	-	Medium	-	-	-	-	-
21	Degraded riparian habitat	-	-	-	-	-	-	-	-
22	Impaired water temperatures in migration corridor	-	-	-	-	-	-	-	-
23	Low adult population size	-	-	-	-	-	-	-	-
24	Non-native egg predators	-	-	-	-	-	-	-	-
25	Impaired food availability	-	-	-	-	-	-	-	-
26	Impaired water temperature	-	-	-	-	-	-	-	-
27	Altered sediment supply	-	-	-	-	-	-	-	-
28	Non-native predators	-	-	-	-	-	-	-	-
29	Impaired water temperature in spawning areas	-	-	-	-	-	-	-	-
30	Impaired access to stream from ocean (stream mouth closed)	-	-	-	-	-	-	-	-
31	Loss/fragmentation of estuarine habitat	-	-	-	-	-	-	-	-
32	Degraded estuarine habitat	-	-	-	-	-	-	-	-

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Conservation Targets		Landscape Context		Condition		Size		Viability Rank
		Grade	Weight	Grade	Weight	Grade	Weight	
1	Egg	Good	1	Fair	1	-	1	Good
2	Fry	Fair	1	Fair	1	-	1	Fair
3	Juvenile	Poor	1	Fair	1	-	1	Fair
4	Smolt	Fair	1	-	1	-	1	Fair
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

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Detailed Viability Summary

Goleta Slough (San Jose, Atascadero, and Maria Ygnacio creeks), Santa Barbara 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		Good	
	Condition		1				2			Fair	
	Size									-	
2	Fry	Fair									
	Landscape Context		1				1			Fair	
	Condition		1				1			Fair	
	Size									-	
3	Juvenile	Fair									
	Landscape Context	1	2			1	2			Poor	
	Condition		2				2			Fair	
	Size									-	
4	Smolt	Fair									
	Landscape Context		1				1			Fair	
	Condition									-	
	Size									-	
5	Adult	Poor									
	Landscape Context	1				1				Poor	
	Condition									-	
	Size									-	
6	Multiple Life Stages	Fair									
	Landscape Context	3	5			6	10			Poor	
	Condition		1	1			2	1		Fair	
	Size									-	
7											
	Landscape Context									-	
	Condition									-	
	Size									-	
8											
	Landscape Context									-	
	Condition									-	
	Size									-	