

South-Central California Coast Steelhead DPS Recovery Action Tables Identification Key, Carmel River Basin BPG (Table 10-4).

Recovery Action Number Key: XXXX – SCCCS – 1.2		XXXX ID Table		Threat Source Legend	
XXXX	Watershed	Car	Carmel River	1	Agricultural Development
SCCC S	Species Identifier – South-Central California Steelhead			2	Agricultural Effluents
1	Threat Source			3	Culverts and Road Crossings (Passage Barriers)
2	Action Identity Number			4	Dams and Surface Water Diversions
Action Rank				5	Flood Control Maintenance
A	Action addresses the first listing factor regarding the destruction or curtailment of the species' habitat			6	Groundwater Extraction
B	Action addresses one of the other four listing factors			7	Levees and Channelization
				8	Mining and Quarrying
				9	Non-Native Species
				10	Recreational Facilities
				11	Roads
				12	Upslope/Upstream Activities
				13	Urban Development
				14	Urban Effluents
				15	Wildfires

See Chapter 8, Table 8-1 for Detailed Description of Recovery Actions, Chapter 6, Section 6.4, for a discussion of Recovery Action Ranks, and Chapter 3, Section 3.0, for a description of Listing Factors. See Appendix E for a discussion of recovery action cost estimates.

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Table 10-4. South-Central California Steelhead DPS Recovery Action Table for the Carmel River Watershed (Carmel River Basin BPG).

Action #	Recovery Action Description	Potential Collaborators	Threat Source	Listing Factors (1 - 5)	Action Rank (1A, 1B, 2A, 2B, 3A, 3B)	Task Duration	Fiscal Year Costs (\$K)						
							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100	
Carmel River													
Car-SCCC S-1.1	Develop, adopt, and implement agricultural land-use planning policies and standards	NRCS, BLM, NMFS, MC, MPWMD, CRWC, TU	Agricultural Development	1, 4, 5	2B	20	0	0	0	0	0	0	0
Car-SCCC S-1.2	Manage agricultural development and restore riparian zone	NRCS, BLM, NMFS, MC, MPWMD, CRWC, CCON, CDFW, CRA, CRSA, CRWC, CVPOA, TU	Agricultural Development	1, 4, 5	2B	5	0	0	0	0	0	0	0
Car-SCCC S-2.1	Develop and implement plan to minimize runoff from agricultural activities	NRCS, BLM, NMFS, MC, MPWMD, CRWC, CCON, CDFW, CRA, CRSA, CRWC, CVPOA, TU	Agricultural Effluents	1, 4, 5	2B	100	0	0	0	0	0	0	0
Car-SCCC S-3.1	Conduct watershed-wide fish passage barrier assessment	NMFS, CDFW, CCON, MPWMD, CAWC, CRLC, CRSA, CRWC, CRWCO, TU	Culverts and Road Crossings (Passage Barriers)	1, 4, 5	1B	5	96690	0	0	0	0	0	96690
Car-SCCC S-3.2	Develop and implement plan to remove or modify fish passage barriers within the watershed	NMFS, CDFW, CCON, MPWMD, CAWC, CRLC, CRSA, CRWC, CRWCO, TU	Culverts and Road Crossings (Passage Barriers)	1, 4, 5	1B	20	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Car-SCCC S-4.1	Develop and implement water management plan for dam operations (or review and modify (e.g., MPWMD Quarterly Water Budget and Low Flow	NMFS, CDFW, MPWMD, CAWC, CRA, CRWC, TU	Dams and Surface Water Diversions	1, 3, 4	1A	5	91850	0	0	0	0	0	91850

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							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100	
	Memorandum of Agreement)												
Car-SCCC S-4.2	Develop and implement water management plan for diversion operations (or review and modify (e.g., MPWMD Quarterly Water Budget and Low Flow Memorandum of Agreement)	NMFS, CDFW, MPWMD, CAWC, CRA, CRWC, TU	Dams and Surface Water Diversions	1, 3, 4	1A	5	91850	0	0	0	0	0	91850
Car-SCCC S-4.3	Provide fish passage around dams and diversions	NMFS, CDFW, MPWMD, CAWC, CRA, CRWC, TU	Dams and Surface* Water Diversions	1, 3, 4	1A	5	84000000	0	0	0	0	0	84000000
Car-SCCC S-5.1	Develop and implement flood control maintenance program	ACOE, FEMA, NMFS, CDFW, MC, COC, MCWRA, MCPW, MPWMD, CRLC, CRSA, CRWC, CRWCO, CVPOA, TU	Flood Control Maintenance	1, 3, 4	2A	100	0	0	0	0	0	0	0
Car-SCCC S-6.1	Conduct groundwater extraction analysis and assessment (or review and update)	MC, MCWRA, MPWMD, MCPW, NMFS, CDFW, CAWC, CRA, COC, PBCSD, CRLC, CRSA, CRWC, CRWCO, TU	Groundwater Extraction	1, 4	1A	5	91850	0	0	0	0	0	91850
Car-SCCC S-6.2	Develop and implement a groundwater	MC, MCWRA, MPWMD, MCPW, NMFS, CDFW,	Groundwater Extraction	1, 4	1A	10	254350	39775	0	0	0	0	294125

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							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100	
	monitoring and management program (or review and update)	CAWC, CRA, COC, PBCSD, CRLC, CRSA, CRWC, CRWCO, TU											
Car-SCCC S-7.1	Develop and implement a plan to restore natural channel features(or review and update)	NRCS, FEMA, NMFS, CDFW, CRA, COC, CRSA, CRWC, CRWCO, CVPOA, MCPW, MCWRA, MPWMD, MCSA, TU	Levees and Channelization	1, 4	1B	20	4217625	4217625	4217625	4217625	0	16870500	
Car-SCCC S-7.2	Develop and implement plan to vegetate levees and eliminate or minimize herbicide use near levees(or review and update)	NRSC, FEMA, NMFS, CDFW, CRA, CRSA, CRWC, CRWCO, CVPOA, MCPW, MCWRA,MPWMD, MCSA, TU	Levees and Channelization	1, 4	1B	100	0	0	0	0	0	0	
Car-SCCC S-7.3	Develop and implement stream bank and riparian corridor restoration plan (or review and update)	NRSC, FEMA, NMFS, CDFW, CRA, COC, CRSA, CRWC, CRWCO, CVPOA, MCPW, MCWRA, MPWMD, MCSA, TU	Levees and Channelization	1, 4	1B	5	10521940	0	0	0	0	10521940	
Car-SCCC S-9.1	Develop and implement a watershed-wide plan to assess the impacts of non-native species and develop control measures	USFWS, USFS, NMFS, CDFW, CDPR, CRA, CRSA, CRWC, CRWCO, TU	Non-Native Species	1, 3, 5	2B	100	0	0	0	0	0	0	
Car-SCCC S-9.2	Develop and implement a non-native species monitoring program	USFWS, USFS, NMFS, CDFW, CDPR, CRA, CRSA, CRWC, CRWCO, TU	Non-Native Species	1, 3, 5	2B	100	0	0	0	0	0	0	

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							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100
Car-SCCC S-9.3	Develop and implement a public educational program on non-native species impacts	USFWS, USFS, NMFS, CDFW, CDFPR, CRA, CRSA, CRWC, CRWCO, TU	Non-Native Species	1, 3, 5	2B	20	76140	76140	76140	76140	0	304560
Car-SCCC S-10.1	Review and modify development and management plans for recreational areas and national forests (e.g., the Carmel State Beach Management Plan)	CDPR, CDFW, USFS, NMFS, MC, CRA, COC, CRLC, CRSA, CRWC, CRWCO, MBNMS, MRPD, TU	Recreational Facilities	1, 2, 3, 4, 5	1B	20	0	0	0	0	0	0
Car-SCCC S-10.2	Develop and implement a public educational program on watershed processes	CDPR, CDFW, USFS, NMFS, MC, CRA, COC, CRLC, CRSA, CRWC, CRWCO, MBNMS, MRPD, TU	Recreational Facilities	1, 2, 3, 4, 5	1B	20	76140	76140	76140	76140	0	304560
Car-SCCC S-11.1	Manage roadways and adjacent riparian corridor and restore abandoned roadways	USDOT, CDOT, MC, MCPWD, NMFS, CDFPR, CDFW, AMBAG, CRA, COC, CRSA, CRWC, CRWCO, CWPOA, TU	Roads	1, 4	2B	20	0	0	0	0	0	0
Car-SCCC S-11.2	Retrofit storm drains to filter runoff from roadways	USDOT, CDOT, MC, MCPWD, NMFS, CDFPR, CDFW, AMBAG, CRA, COC, CRSA, CRWC, CRWCO, CWPOA, TU	Roads	1, 4	2B	20	32260	32260	32260	32260	0	129040
Car-SCCC S-11.3	Develop and implement plan to remove or reduce approach fill for railroad line and roads	USDOT, CDOT, MC, MCPWD, NMFS, CDFPR, CDFW, AMBAG, CRA, COC, CRSA, CRWC, CRWCO, CWPOA, TU	Roads	1, 4	2B	20	0	0	0	0	0	0

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							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100
Car-SCCC S-12.1	Develop and implement an estuary restoration and management plan	USDOT, CDOT, MC, MCPWD, NMFS, CDFW, AMBAG TWI, TU	Upslope/Upstream Activities	1, 2, 3, 4, 5	1A	5	1876000	0	0	0	0	1876000
Car-SCCC S-12.2	Review and modify applicable County and/or City Local Coastal Plans	CCCOM, MC, COC, NMFS, CDFW, MCPWD, CRA, CRSA, CRWC, CVPOA	Upslope/Upstream Activities	1, 2, 3, 4, 5	1B	5	62400	0	0	0	0	62400
Car-SCCC S-13.1	Develop, adopt, and implement urban land-use planning policies and standards	CCCOM, MC, NMFS, CDFW, AMBAG, MCPWD, COC, CRA, CRSA, CRWC, CVPOA, TU	Urban Development	1, 4, 5	1B	5	62400	0	0	0	0	62400
Car-SCCC S-13.2	Retrofit storm drains in developed areas	RWQCB, MC, NMFS, CDFW, AMBAG, MCPWD, COC, CRA, CRSA, CRWC, CVPOA, TU	Urban Development	1, 4, 5	1B	20	0	0	0	0	0	0
Car-SCCC S-14.1	Review California Regional Water Quality Control Board s Watershed Plans and modify applicable Stormwater Permits	RWQCD, SWRCB, MC, NMFS, CDFW, AMBAG, MCPWD, CRA, COC, CRLC, CRSA, CRWCO, CVPOA, PBCSD, MC, MCWRA, MPWMD, TU	Urban Effluents	1, 4	1B	20	0	0	0	0	0	0
Car-SCCC S-14.2	Review, assess and modify NPDES wastewater discharge permits (e.g., Carmel Area Wastewater Treatment Facility)	RWQCD, SWRCB, NMFS, CDFW, CAWD, CRA, COC, CRLC, CRSA, CRWCO, CVPOA, PBCSD, MC, MCWRA, MPWMD, TU	Urban Effluents	1, 4	1B	20	0	0	0	0	0	0

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							FY 1-5	FY 6-10	FY 11-15	FY 16-20	FY 21-25	FY 1-100
Car-SCCC S-15.1	Develop and implement an integrated wildland fire and hazardous fuels management plan	USFS, USFWS, CDF&FP, MC, NMFS, CDFW, MPWMD, MRPD, CRA, CRSA, CRWC, CRWCO, TU	Wildfires	1, 4, 5	1B	100	0	0	0	0	0	0