

Project Summary				Benefits							Guiding Policy or Doc						
Watershed	Problem Type	Project Type	Description/Problem Statement	Focal Species	species recovery	flood control	water quality	water supply	habitat enhancement	Recreation	Outreach/education	Pilot/Demo	TMDL Watershed?	Priority area in NMFS coho recovery plan?	Priority area in NMFS steelhead recovery plan?	Priority in CAPP or Other Recovery Plan?	Priority in Local or Watershed Plan?
Aptos Creek	Sediment Reduction	Bank stabilization	Bank erosion and stream down-cutting affecting structures and businesses near Redwood Village, Aptos.	steelhead, coho	x		x		x				Yes	Phase II expansion			
Arana Gulch	Sediment Reduction	Planning	Evaluate erosion in lower tidal reach of lower Arana Gulch and evaluate potential solutions to reduce sediment loading and enhance instream and marsh habitat.	steelhead, SC tarplant	x		x		x		x		No				Arana Gulch Watershed Enhancement Plan (Balance Hydrologics, 2002)
Arana Gulch	Sediment Reduction	Gully repair	Gully stabilization project in Green Belt, will include planting buffer/filter area in combination with other erosion control practices between residential area and gully to minimize additional erosion from surface runoff and allow gully to continue healing. Also potential for stormwater outreach/projects in residential area adjacent to Greenbelt. Project would reduce sediment to Arana Gulch, which supports steelhead, and minimize sediment transport to the Santa Cruz Harbor.	steelhead	x		x		x		x		No				Arana Gulch Watershed Enhancement Plan (Balance Hydrologics, Inc. 2002)
Arana Gulch	Sediment Reduction	Bank stabilization	Failing retaining wall on W. Branch of Arana Gulch. Need to deflect flows away from bank and replace/repair existing retaining wall. Project would reduce sediment to Arana Gulch, which supports steelhead, and minimize sediment transport to the Santa Cruz Harbor.	steelhead	x		x		x		x		No				
Arana Gulch	Sediment Reduction	Road improvements	Repair 300-400' long reach of dilapidated road section in De Laveaga, near archery range. Project would reduce sediment to Arana Gulch, which supports steelhead, and minimize sediment transport to the Santa Cruz Harbor.	steelhead	x		x		x		x		No				
Arana Gulch		Culvert replacement	Leona Creek/Capitola Rd Culvert Replacement: Road crossing project on Capitola Road. The existing culvert is undersized and is in poor condition. Leona Creek feeds into Schwann Lake. The solution is to replace the existing culvert with a properly sized open bottom arch culvert or a bridge.	steelhead			x						No	No			
Liddell Creek	Fish Passage	Culvert replacement	West Liddell Creek/Bonny Doon Rd PM 0.69 Culvert Replacement: The location of the project is on Bonny Doon Rd at post mile 0.69 over West Liddell Creek. The existing concrete box culvert is undersized and Bonny Doon Rd is overtopped on approximately 10-year storm flow. The Green-Gray-Red filter determined that this crossing fails to meet passage criteria for adult steelhead and all age classes of juveniles. The perched outlet has an excessive drop and the culvert's smooth concrete floor creates a lack-of-depth flow and excessive velocities at higher migration flows. There is also inadequate depth in the outlet pool for leap attempts. There is approximately 1.79 miles of potential fish-bearing habitat upstream of the site. Because the existing box culvert is undersized, retrofitting with baffles is not recommended. The solution is for a full replacement with a properly sized open-bottom arch culvert or bridge.	CRLF		x	x						No	No			

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Many	Watershed Awareness	Education/Outreach	The Santa Cruz County Watershed Awareness Campaign seeks to improve community watershed and creek awareness by; 1) installing and maintaining creek and watershed signs on selected, well-traveled county roads at their intersections with targeted creeks and watershed boundaries, 2) by creating an adopt-a-sign program where residents or businesses can pay for signs to be installed in location in their neighborhoods or on their favorite creek, and 3) by working with local schools to name the many "unnamed" creeks in the County.	NA							x		Some	Some			
Many	Sediment Reduction	Culvert replacements	Implementation of County Cross Culvert Program which would entail several sediment reduction projects on various roads. Located throughout the County are road cross culverts that range in size from 12 inches to 30 inches in diameter. The cross culverts typically relieve runoff and road drainage to the lower embankment of the road and most often into fish bearing streams. In some instances the culvert outlet is beginning to undercut the bank adjacent to the creek resulting in chronic erosion and the potential for catastrophic failure if it continues to undercut the bank. Proposed construction includes replacement of failing and rusted out corrugated metal pipe (CMP) cross culvert with a high density polyethylene (HDPE) pipe including, concrete inlet and energy dissipater.				x						TBD	TBD			
Many	Water Quality		Roadside Vegetative Management: The proposed project will address vegetation management of roadsides within 25 feet of waterways. The goal of this project would be to hire a consultant to manage roadways that are along sensitive habitat and reduce use of pesticides on County property.				x		x				TBD	TBD			
Molino Creek	Fish Passage	Culvert replacement	Molino Creek/Swanton Rd PM 0.71 Culvert Replacement: The location of the project is on Swanton Rd at post mile 0.71 crossing over Molino Creek. The existing arch with flat concrete floor culvert is undersized and over tops Swanton Rd on approximately an 11 year storm flow. It is also in poor condition. In the Ross Taylor report, FishXing determined this crossing meets the 8 16-16 ft/sec passage criteria for all species of adult salmonids on 18% of estimated migration flows and fails to meet passage criteria for all age classes of juvenile salmonids. The perched outlet denies access for juveniles and impedes adults. The smooth concrete floor creates a lackof- depth at lower migration flows and excessive velocities at higher migration flows. There is approximately 2700 feet of available habitat upstream. The solution is to replace the existing culvert with a properly sized open bottom arch culvert or a bridge.	CRLF, steelhead			x		x				No	No			
Pajaro River	Sediment Reduction	Bank stabilization	Serious stream bank erosion with old log cribbing beginning to fail into creek.				x		x				Yes				
Pajaro River	Access Improvement	Upland restoration; public trail enhancement; public outreach/education	Pinto Lake Park Access and Restoration Project: This project would re-design access to a poplar fishing and wildlife viewing pier located at Pinto Lake Park. Currently there is no accessible access to the fishing/viewing pier so disabled persons are allowed to drive to this location. A new accessible path would help to reduce compaction and run off in at this popular area by limiting vehicular access. This project will restore the main viewing/fishing access area by introducing methods to reduce compaction around mature the Oak trees, new designs to curtail erosion and the need for vehicular access and the removal of non-natives species (primarily Hedera helix) to improve native stands of vegetation. Additionally information signs in English and Spanish would be designed to explain the causes and dangers of blue-green algae blooms.				x		x	x	x		Yes	No			

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San Lorenzo River	Sediment Reduction	Gully repair, bank stabilization	Gully/streambank erosion directly impacting Branciforte Creek on tributary channel.	steelhead, coho	x		x		x				Yes	Phase I expansion			
San Lorenzo River	Sediment Reduction	Road improvements	Debris flow into San Lorenzo River.	steelhead, coho			x		x				Yes	Phase II expansion			
San Lorenzo River	Sediment Reduction	Bank stabilization	Serious stream bank erosion affecting 2 or more properties.	steelhead, coho			x		x				Yes	Core Area			
San Lorenzo River	Fish Passage	Stream crossing improvement	Lompico Creek/Lompico Rd PM 2.0 Bridge Replacement: The location of the project is on Lompico Rd at post mile 2.0 crossing over Lompico Creek. The existing bridge with a concrete floor in the creek is undersized and over tops Lompico Rd on approximately a 27-year storm flow. It is also in poor condition with undermining of the abutment wing walls. The Green-Gray-Red filter determined this crossing fails to meet passage criteria for all species of adult salmonids and all age classes of juveniles. The culvert's perched outlet is too high for juveniles and there are both lack-of-depth and velocity issues within the culvert. There is approximately 1.7 miles of potential fish bearing habitat upstream of the site. The potential solution is to replace the bridge with a properly sized bridge with a natural bottom.	CRLF, steelhead, coho	x		x		x				Yes	Core Area			
San Lorenzo River	Sediment Reduction	Bank stabilization; stormwater management	Bean Creek Rd Slipout @ PM 0.28: Sediment reduction project at PM 0.28 Bean Creek Road. Portions of the slip out are located immediately adjacent to the westerly edge of Bean Creek Road resulting in the closure of the south bound travel lane at the site. The slope failure resulted from two separate storm events. The face of the failure slope is quite steep at about ¼: 1 and the embankment failure currently measures about 90 feet in overall length at the top edge by 44 feet high. Bean Creek is approximately 300 feet below the slipout and salmonids have been observed in the channel. The proposed solution is to provide a mechanically stabilized earth retaining wall to restore the embankment and correct the drainage.	steelhead, coho	x		x		x				Yes	Core Area			
San Lorenzo River	Sediment Reduction	Instream restoration, bank stabilization, road improvements	Quail Hollow Brook: Sediment reduction project on Quail Hollow Road. Intermittent/perennial channel realignment and bank stabilization to push storm flows away from vertical sand face and roadway prism of Quail Hollow Road. Installation of several weirs using on-site 6' diameter eucalyptus logs to prevent further downstream sedimentation. Treatment of access road into channel to allow for storm flows to pass from trail system and meadow into the creek channel without further erosion.	Western Pond Turtle	x		x		x				Yes	Core Area			

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San Lorenzo River	Sediment Reduction	Road improvements, culvert replacement	East Zayante Rd Slide at PM 4.1: This project site is located at PM 4.1 East Zayante Rd. The uphill embankment is highly unstable and continues to deposit material onto the road. The uphill embankment appears to be saturated with a constant trickle of water flowing from the hillside. There is a cross culvert adjacent to the slide area that collects the inboard drainage and drains the water to the downhill side of the road. Adjacent to the road is Zayante Creek which is less than 50 feet from the road. Unfortunately, in the current situation sediment is potentially being transported through the cross culvert into Zayante Creek.	steelhead, coho	x		x		x				Yes	Core Area			
San Lorenzo River	Sediment Reduction	Road improvements, culvert replacement	Conference Drive Drainage: This project site is located near the drainage from Conference Dr into the large slide area that forced the creation of Mt Hermon Rd. There is the potential for the drainage to carry sediment to Zayante Creek .	steelhead, coho			x		x				Yes	Core Area			
San Lorenzo River	Instream Habitat Enhancement; Recreation; Access Improvement	TBD but may include native revegetation; streambank stabilization; riparian restoration; installation of LWD; park improvement	Ben Lomond Park River Access and Habitat Restoration Project: This project would study the benefits and costs of removing the existing flashboard dam structure from the San Lorenzo River at Ben Lomond Park and adding habitat and pool enhancement features. In addition, this project would design a river access and habitat restoration project at Ben Lomond Park. River access would be achieved by removing all or part of approximately 230 feet of a 10 ½ ' high concrete wall along the river and replacing it with a sloped river bank with trail, riparian vegetation and engineered structures to stabilize the transitions from restored bank to the remaining concrete wall sections upstream and downstream. The design is expected to include the preservation of 2 large cottonwood trees in the park, removal of an abandoned septic leach field and riverside seating areas composed of either concrete or natural rock material.	steelhead, coho					x	x	x		Yes	Phase II expansion			
San Lorenzo River	Invasive Species Removal; Access Improvement; Fire Prevention	Invasive species removal; native revegetation/management	Felton Covered Bridge: The proposed project is located at/adjacent to the Felton Covered Bridge and would include the restoration of the riparian habitat between the Graham Hill Road Bridge over the San Lorenzo River and the Felton Covered Bridge, approximately 550 downstream. This woodland area is bordered by a lawn and playground that get a high level of use throughout the year. There are several factors stressing this habitat, i.e. invasive species, a few of the trees adjacent to the bridge have recently dropped branches or otherwise damaged the historic landmark, and a stand of young trees is growing into and over the bridge that potentially further threaten the structure, the park is a center of homeless activity, and an equestrian center located across the river often makes use of the informal trails, creating a high nutrient load on the trail through horse droppings. Proposed project activities would remove the dense non-native plants and replant with native understory species. The informal trail could be formalized and with training of volunteers. This alone would create an atmosphere less likely to support homeless encampments and the trash and other byproducts they bring. A possible component of this project could be the creation of a fire-safe area around the landmark bridge through selective tree removal and trimming, which could be mitigated by planting appropriate trees either in this reach or directly across the river.	steelhead, coho					x	x		x	Yes	Phase II expansion			

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San Lorenzo River	Fish Passage	Dam removal/modification	RCDSCC, IWRP TAC, and consultants are currently evaluating a dam removal project in the San Lorenzo Valley Watershed. A feasibility study is currently underway but additional D/P and implementation funding will be needed.	steelhead, coho	x				x		x		Yes	Phase II expansion			
San Lorenzo River	Instream Habitat Enhancement	Dam removal/modification	If the Rec District is willing to partially remove the Boulder Creek Rec Dam, the IWRP TAC was willing to consider allocation of IWRP D/P funds.	steelhead, coho					x				Yes	Phase II expansion			
San Lorenzo River	Fish Passage	Education/Outreach; planning	Completion of one (1) dam removal on Branciforte Creek was completed in 2013. 5 additional barriers have been identified (with willing landowners) and funding is needed for site evaluation and design work. The RCDSCC would like to work with the City of Santa Cruz on fish passage solutions to the Branciforte flood control channel. The RCDSCC would like to conduct additional outreach to landowners that have passage barriers in the watershed.	steelhead, coho	x	x	x		x		x		Yes	Phase I expansion			
San Vicente Creek	Invasive Species Removal	Riparian/upland restoration	Clematis and English Ivy invasive species removal and eradication to improve biodiversity in the riparian areas, to boost macroinvertebrate diversity and health, and to optimize fish habitat.	CRLF, steelhead, coho					x				Yes	Core Area			
San Vicente Creek	Instream habitat enhancement and Sediment Reduction	Instream restoration	Adding habitat improvement structures, i.e. adding large woody debris, keyed logs, and/or bank structures and armor to specific locations in this particular riparian area for pool development, enhanced fishery habitat, and for road protection.	CRLF, steelhead, coho	x				x				Yes	Core Area			
San Vicente Creek	Instream habitat enhancement and Sediment Reduction	Culvert replacement	This triple culvert is located just below the tunnel in the anadromous reach section of San Vicente Creek where Steelhead trout and Coho salmon come up the stream. The culvert has a significant shotgun effect on water, and is in dire need of replacement. The approximate cost for the culvert permitting/installation would be \$60,000.	CRLF (?) steelhead, coho			x		x				Yes	Core Area			
San Vicente Creek	Sediment Reduction	Culvert removal, streambank stabilization	This site is located on a dead end road that has a large fill prism, rusted culvert, and collapsing Humboldt crossing. The road is no longer needed past this point. It is located higher in the watershed than the water intake. The two crib logs above the culvert are being undermined by erosion which is causing a collapse of the culvert and direct input into the stream. The large fill prism will eventually sluff into the creek when the logs and culvert collapse. A proposed solution is to use an excavator to remove the fill prism, pull the crib logs, culvert, lay back the stream channel, add rock, and stabilize the stream bank.	CRLF, steelhead, coho			x		x				Yes	Core Area			

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San Vicente Creek	Instream Habitat Improvement, Wetland Enhancement, Sediment Reduction, and/or Floodplain Restoration	TBD but may include native revegetation; streambank stabilization; riparian restoration; installation of LWD; floodplain enhancement	The San Vicente Creek Salmonid Restoration Plan (funded thru FRGP) identifies a number of priority restoration actions for SVC. D/P funds are need to bring 2-3 of these recommendations to fruition, with the intent to obtain additional grant funds for implementation.	CRLF, steelhead, coho	x				x				Yes	Core Area			San Vicente Creek Salmonid Restoration Plan (RCD, 2014)
Scott Creek	Sediment Reduction	Road improvements	The proposed scope is to assess the road that runs adjacent to Mill Creek, which supports coho and steelhead, develop potential solutions for improvement in sections identified and implement road improvements. Project scope would implement recommendations in NMFS coho recovery plan (recovery actions 9.1.1.3-9.1.159.1.1.3).	CRLF, steelhead, coho	x		x		x		x		No	Core Area			
Scott Creek	Sediment Reduction	Bank stabilization	Repair of a vertical/exposed eroding bank is needed just downstream of the Swanton Road bridge at Little Creek. The primary concern with bank is that a large storm event(s) could result in an episodic failure and contribute sediment to Little Creek, which supports both steelhead and coho. Would like to explore bank stabilization solutions, including potential of removing an existing shed on the top of the bank.	CRLF, steelhead, coho			x		x		x		No	Core Area			
Scott Creek	Instream Habitat Enhancement, Fish Passage	TBD but will likely include bridge replacement; stream and estuarine restoration	Work on a collaborative effort to improve HWY 1 bridge over Scott Creek to restore estuarine habitat for several species, including coho, steelhead, tidewater goby, CRLF and snowy plover. When the Highway 1 bridge was built in 1930's, the channel was straightened which eliminated a meander bend, altered river mouth dynamics and damaged habitat for several species. This is a priority project under immediate restoration actions called out in the NMFS coho recovery Plan. A MOU has signed and the TAC & Cal trans are ready to restart a collaborative design process, IWRP has been asked to convene the IWRP TAC and to fund technical experts (physical and biological) to support a series of 3 technical workshops for the TAC. The expected output is either a preferred alternative for the new crossings or a set of specific collaboratively developed design criteria that will meet the needs of the various public trust agencies.	Tide water goby, steelhead, coho, snowy plover, CRLF	x		x		x		x	x	No	Core Area			
Scott Creek	Instream Habitat Enhancement	Stream crossing improvement	There is an existing ford crossing located on Scott Creek that is used for agricultural purposes. To minimize disturbance to the channel, Cal Poly would like to explore opportunities for the installation of a temporary crossing that is installed seasonally. Access over the crossing would be required from April-October of each calendar year so would need to be designed for potential flows in this timeframe.	CRLF, steelhead, coho			x		x		x		No	Core Area			

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Scott Creek	Instream Habitat Enhancement	Instream restoration	Scotts Creek Salmonid Habitat Improvement Project: Instream complexity in this reach of Scotts Creek remains low compared with upper reaches, limiting the availability of alcove refuge habitat and escape cover for salmonids. The goals of this project are to improve overwinter survival for juvenile salmonids by creating winter refuge habitat and increase salmonid production by improving habitat conditions for spawning adults and overwintering juvenile summer and winter rearing. The RCD has been working with the IWRP TAC and Cal Poly on a project to enhance instream and off-channel habitat on Scotts Creek. The project scope entails connecting two off-channel ponds, installing LWD structures and enhancing the confluence areas at an ag drainage and Archibald Creek. The design work will be finalized in Oct 2014 through but permitting and implementation funding is still required.	steelhead, coho, CRLF	x				x		x		No	Core Area			
Soquel Creek	Sediment Reduction	Bank stabilization	50+foot long log cribbing supporting Hester Creek Road (a private road) failing into Hester Creek.	steelhead, coho, YLF			x		x				Yes	Phase I expansion			
Soquel Creek	Upland Habitat Enhancement	Invasive species removal; native revegetation/management	Riparian area with tree of heaven spreading.	YLF; western pond turtles; CRLF					x				Yes	Core Area			
Soquel Creek	Instream Habitat Enhancement; Sediment Reduction	Instream restoration; native revegetation/management; streambank stabilization; riparian restoration; floodplain enhancement	Soquel Creek Habitat Enhancement Project: The RCD has been working with the IWRP TAC, design team and private landowner on a project to enhance instream, riparian and floodplain habitat along a 1,500 ft. reach of the East Branch of Soquel Creek while ensuring current levels of flood protection for two adjacent homes and a bridge. In the early 1980's, large granitic rock rip-rap was placed along much of the streambank, leading to little to no riparian vegetation, disconnection of the channel from flood terraces, and simplified hydraulics. Recent data from NOAA's SWFSC data supports the hypothesis that high levels of reflectivity from exposed rock and low levels of canopy shade are leading to water quality impacts due to elevated water temperatures. Lastly, a steep landslide along the project reach is actively eroding, along its toe, leading to significant fine sediment deposition downstream. Proposed project elements include: 1) enhance instream channel complexity by incorporating wood and rock structures to create a low flow channel and improve instream habitat; 2) stabilize the toe of the landslide with rock and plantings and create a secondary channel for flows, located across from the landslide; 3) enhance the riparian corridor by removing sections of the rock rip-rap, set back banks and plant with native veg. Design and permit funding is secured but implementation funding is still needed.	YLF, western pond turtles, steelhead	x	x	x		x				Yes	Core Area			
Soquel Creek	Access Improvement	Stream crossing improvement	Longridge Permanent Crossing: Need for improved stream crossing utilizing a bridge or low water crossing located at Intersection of Hihn's Mill Road and Longridge Road. Proposed crossing of Soquel Creek (Class I Stream) to facilitate forest management, demonstration and education at SDSF. Current management practices in this portion of the forest requires access through neighboring private properties. A new watercourse crossing will facilitate current research for sudden oak death, fuel reduction, and hardwood conversion and also improve access for recreation and emergency response.	steelhead, coho			x		x	x	x	x	Yes	Core Area			
Soquel Creek	Sediment Reduction	Culvert replacement	Culvert replacement project located on Hihn's Mill Road (PWA site #652). PWA assessment did not recommend any work at this site, but since the assessment the culvert bottom has rusted through and needs to be replaced.	steelhead, coho	x		x		x		x		Yes	Core Area			

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Soquel Creek	Sediment Reduction	Culvert replacement	Culvert replacement project located on Hihn's Mill Road (PWA site #653). This is a 60" culvert in need of replacement in a Class II tributary to Soquel Creek.	steelhead, coho	x		x		x		x		Yes	Core Area			
Soquel Creek	Sediment Reduction	Culvert replacement	Culvert replacement project located on Hihn's Mill Road (PWA Site # 659). A Class II watercourse with a 36" CMP needs upgrade.	steelhead, coho	x		x		x		x		Yes	Core Area			
Soquel Creek	Sediment Reduction	Culvert replacement	Culvert replacement project located on Hihn's Mill Road on neighboring property (PWA Site # 666). Undersized, crushed inlet, rusted culvert installed high in the fill with indicators of overtopping in the past needs replacement. The culvert is located along the SDSF right of way thorough Redwood Empire property.	steelhead, coho	x		x		x		x		Yes	Core Area			
Soquel Creek	Sediment Reduction	Culvert improvement	Culvert crossing upgrade project located on Hihn's Mill Road (PWA Site # 663). Needs armoring at culvert inlet.	steelhead, coho	x		x		x		x		Yes	Core Area			
Soquel Creek	Sediment Reduction	Stream crossing improvement	Highland Bridge: Bridge upgrade project located at Highland Bridge on Hihn's Mill Road. Upgrade bridge with concrete abutments for existing Highland Way bridge. This bridge over Soquel Creek is the only public entrance to SDSF and main emergency access point for the eastern side of the forest. Currently the bridge ends rest on the stream banks. Installation of concrete abutments will increase the stability of the bridge and creek banks in the event of a flood or earthquake.	steelhead, coho	x		x		x	x	x		Yes	Core Area			
Soquel Creek	Invasive Species Removal	Riparian/upland restoration	Utilize hand pulling, mowing or spraying of invasive species depending on the species and location for the removal of French broom, jubata grass, Himalaya berry, periwinkle, forget-me-not, Italian thistle and eupatorium within the watershed. Create opportunities to coordinate efforts across ownerships.	steelhead, coho					x		x		Yes	Core Area			
Soquel Creek	Monitoring/research	Weir improvements	Olive Springs Weir: upgrade project located on CHY Property. Upgrade the existing weir for more accurate measurement of stream flow. This weir is located on Soquel Creek, downstream of the Olive Springs Quarry and has been in operation since the 1990s.	steelhead, coho	x		x	x			x		Yes	Core Area			
Soquel Creek	Instream habitat enhancement	Instream restoration	Several opportunities exist to install LWD along Soquel Creek within SDSF. Sites have been identified where trees on undercut banks could be added to the stream channel such as the Site #1 project that was funded through a RCD grant in 2012. Three additional sites will were installed in 2013 with funding by CAL FIRE.	steelhead, coho	x		x	x			x		Yes	Core Area			educational opportunities related to the recovery plans

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Soquel Creek	Fish Passage	Culvert replacement	Bates Creek/Main St PM 0.60 Culvert Replacement: Road crossing project site located on Main Street PM 0.60, crossing over Bates Creek. The existing culvert is undersized and tops Main St on approximately a 28-year storm flow. The culvert is also in extremely poor condition with large rusted through section. The current crossing provides unimpeded adult passage; however it only provides partial juvenile passage because of the slightly perched outlet that drops onto broken slabs of concrete make an entry leap difficult for juveniles. There is approximately 1.3 miles of potential fish-bearing habitat upstream of the site. The solution is to replace the existing culvert with a properly sized open bottom arch culvert or a bridge.	steelhead, coho	x	x							Yes	Phase I expansion			
Soquel Creek	Fish Passage	Culvert replacement	West Branch Soquel Creek/Redwood Lodge Rd PM 1.88 Culvert Replacement:The location of the project is on Redwood Lodge Rd at post mile 1.88 over West Branch Soquel Creek. The existing circular metal culvert with a concrete invert and trash rack at the inlet is slightly undersized. The culvert's concrete invert is in extremely poor condition with the concrete lining worn to the rebar. This crossing fails to meet passage criteria for all species of adult salmonids and all age classes of juveniles. There is approximately 1100 feet of potential fish bearing habitat upstream of the site. Although the crossing is above the limit of anadromy, the culvert disrupts some vital watershed processes – mainly the downstream transport of LWD and substrate. The potential solution is to replace the existing culvert with a properly sized open bottom arch culvert or a bridge.	steelhead, coho	x				x				Yes	Phase I expansion			
Soquel Creek	Fish Passage	Culvert replacement	East Branch of Soquel Creek/Highland Way PM 0.42 Culvert Replacement: This project is located on Highland Way at post mile 0.42. The existing 6' diameter corrugated metal culvert has headwalls made from concrete crib members. The existing culvert may be an impediment to the migration of fish upstream of the culvert. Resident rainbow trout have been mapped in this reach of the east branch of Soquel Creek. The existing crib member headwalls may also contribute sediment because of the open cells of the crib structure. The solution is for a full replacement with a properly sized openbottom arch culvert with concrete headwalls.	steelhead, coho	x		x		x				Yes	Core Area			
Soquel Creek	Sediment Reduction	Slope stabilization	Highland Way Slide: Sediment reduction project located at post mile 2.95 on Highland Way. Site has large landslide that is approximately 150 feet wide along the length of the road. The uphill and downhill embankments are highly unstable with debris constantly migrating downhill. Below the downhill embankment is the East Branch of Soquel Creek and this portion of Soquel Creek has been mapped as a resident rainbow trout bearing stream and downstream the East Branch of Soquel Creek has been mapped as a steelhead bearing stream.	steelhead, coho	x		x		x				Yes	Core Area			

Project Summary				Benefits							Guiding Policy or Doc						
Watershed	Problem Type	Project Type	Description/Problem Statement	Focal Species	species recovery	flood control	water quality	water supply	habitat enhancement	Recreation	Outreach/education	Pilot/Demo	TMDL Watershed?	Priority area in NMFS coho recovery plan?	Priority area in NMFS steelhead recovery plan?	Priority in CAPP or Other Recovery Plan?	Priority in Local or Watershed Plan?
Watsonville Sloughs	Wetland Enhancement; Invasive Species Removal	Riparian restoration	WWW proposes the implementation of the Watsonville Sloughs Ecological Reserve Riparian Habitat Restoration Project, Phase III to complete a riparian habitat restoration project on the West Struve Slough Unit of the DFW owned, Watsonville Sloughs Ecological Reserve, initiated in 2008. There is an additional 2.2 acres of poison hemlock that is a high priority to remove and re-establish native riparian habitat. The estimated cost is \$90,000 over 3 years. Project benefits include support for a broad suite of wildlife species, including CRLF, currently known to occur on the site, and a variety of riparian and wetland associated bird species, including several CA bird species of special concern, such as tri-colored blackbird, burrowing owl, short-eared owl, golden eagle, northern harrier, and white-tailed kite.	CRLF, bird species of concern					x		x		Yes				
Watsonville Sloughs	Outreach & Education/ Upland Habitat Enhancement	TBD	The Watsonville Sloughs Backyard Habitat Program would provide technical support, develop and distribute print resources, and provide low cost native plants to urban and rural homeowners who live adjacent to the Watsonville Sloughs who are interested in enhancing native habitats, restoring native habitat, and establishing water conserving landscapes on their property. This work will improve the sloughs habitat to benefit a large suite of fish and wildlife species, improve water quality through the installation of practices to reduce sediment and nutrient delivery into the sloughs, and support water conservation goals within the Watsonville Sloughs watershed. The objective of year one of this project would be to support the installation and documentation of 10 pilot projects on private urban and rural properties adjacent to the slough system.	CRLF, bird species of concern			x	x	x		x		Yes				
Watsonville Sloughs	Assessment	Updates to watershed plan	WWW proposes to make updates to the Watsonville Sloughs Conservation and Enhancement Plan (WSCEP), completed in 2003, is the most current guiding document for conservation and enhancement work in the Watsonville Sloughs. Since the plan's completion a number of high priority projects have been completed. WWW proposes that a review and update is made to the WSCEP, which will: 1) Identify those projects included in the WSCEP that have been completed and assesses their impact; 2) Identify those projects still incomplete and the remaining barriers to completion; 3) Evaluate the priority and significance of those projects still incomplete and make recommendations on their continued value and relevance; 4) Identify any new high priority conservation and enhancement projects in the watershed; 5) Identify gaps in information for design and permitting of future high priority projects; 6) Utilize the new Watsonville Slough hydrologic model to inform the prioritization and design of future projects; 7) Provide guidance to stakeholders on the implementation of future conservation and enhancement work in the Slough System.	CRLF, bird species of concern			x	x	x		x		Yes				
Watsonville Sloughs	Access Improvement; Wetland Enhancement	Stormwater management; public trail enhancement; public outreach/education	The Upper Struve Slough Riparian Habitat Enhancement and Trail Connection will enhance native riparian habitat and re-contour the Struve Slough channel between Green Valley Road and Pennsylvania Avenue, stabilizing the existing channel and improving water quality associated with urban storm water. The project will also restore 0.7 acres of native wet meadow habitat within the existing trails the existing trails network along an off-channel seasonal wetland. In addition to habitat enhancement, this project would construct a high priority new pedestrian and bicycle trail within the Watsonville Area trails network. The project is anticipated to benefit a large suite of wildlife species, such as riparian associated bird species of special concern and the CRLF, while serving as a demonstration of habitat restoration work in a high-visibility location, within the Watsonville Slough trails system.	CRLF, bird species of concern			x		x		x		Yes				

Project Summary				Benefits							Guiding Policy or Doc						
Watershed	Problem Type	Project Type	Description/Problem Statement	Focal Species	species recovery	flood control	water quality	water supply	habitat enhancement	Recreation	Outreach/education	Pilot/Demo	TMDL Watershed?	Priority area in NMFS coho recovery plan?	Priority area in NMFS steelhead recovery plan?	Priority in CAPP or Other Recovery Plan?	Priority in Local or Watershed Plan?
Watsonville Sloughs	Access Improvement; Wetland Enhancement	Riparian restoration; public trail enhancement; public outreach/education	The Upper Watsonville Slough Riparian Habitat Enhancement and Trail Connection will enhance native riparian habitat along Watsonville Slough northeast of Main St in downtown Watsonville and construct a portion of the Upper Watsonville Slough Trail. Preliminary cost estimates for habitat restoration have been completed and a 30% design is currently being prepared. The project is anticipated to benefit a large suite of wildlife species, such as riparian associated bird species of special concern and the CRLF, while serving as a demonstration of habitat restoration work in a high-visibility location, within the Watsonville Slough trails system.	CRLF, bird species of concern			x		x		x		Yes				
Watsonville Sloughs	Assessment	Feasibility Analysis; may include culvert replacements, conservation easements, public trail enhancement, mapping, reduce flood risk	Middle Watsonville Slough Habitat Enhancement and Trail Connections Project Feasibility Analysis would assess the feasibility of various potential conservation projects within middle portion of the Watsonville Slough and assess the feasibility of integrating two trails proposed by the City of Watsonville's 2012 Urban Greening Plan. It would evaluate and define opportunities to: 1) Improve water quality; 2) Increase size of culverts to improve water circulation and decrease flooding along Lee Road; 3) Enhance habitat on properties with willing landowners through est of conservation easements or other agreement.; 4) Expand the Watsonville Trails network; 5) Utilize the new Watsonville Slough hydrologic model and GIS database to eval potential projects and their impact on local hydrology.	CRLF, bird species of concern			x		x		x		Yes				
Watsonville Sloughs	Access Improvement; Wetland Enhancement; Upland Habitat Enhancement	Riparian restoration; public trail enhancement; stormwater management; public outreach/education	Ramsey to Manabe Watsonville Slough Riparian Habitat Enhancement and Trail Connection Project would restore native riparian habitat along Struve Slough. This project would add 0.3 mile of trail where none currently exists and would link the City's popular Nature Center at Ramsey Park with the Seaview Ranch subdivision and the future Manabe industrial development. Additional water quality improvement features would be incorporated at the storm drain outlets off of adjacent roadways. There is a significant opportunity to restore upland habitat along Watsonville Slough. The project is anticipated to benefit a large suite of wildlife species, such as riparian associated bird species of special concern and potentially grassland dependent bird species of special concern, depending on the size of the determined habitat restoration work, while serving as a demonstration of habitat restoration work in a high-visibility location, within the Watsonville Slough trails system.	CRLF, bird species of concern			x		x		x		Yes				