

**Marin Coastal Watersheds Permit Coordination Program 2019 Ranch Restoration Projects
adopted 04/10/2019, public comment period 4/11/2019 - 5/13/2019**

The Marin Coastal Watersheds Permit Coordination Program (PCP) has and will continue to provide the catalyst for high-quality pollutant and erosion control and habitat restoration projects throughout the program

Project Reference Number	Watershed	Envir. Setting	Description of PCP Practice(s)	Materials Quantity <i>italics = uncertain of actual project size</i>	Project Actions	Regulatory Requirements	Potential for Listed Species	Vegetation Setting & Impacts & Planting	Actions Required due to Potential Presence of Listed Species	Presence of Barriers to Aquatic Species Migration	Funding Source(s)
2019-01	Tomales Bay	Dairy Facility	Heavy Use Area Protection (561)	AREA 3,000 SQFT CONCRETE: 100 CY	The project is converting the freestall barn from flush to scrape. The current footprint of the existing concrete pad needs to be extended for the scrape system to collect the manure and then transfer it away from the barn. Also includes a housekeeping slab for the in-vessel composter.	possible Coastal Permit	none	The area is devoid of vegetation as it is either covered by a concrete pad or compacted soil from heavy use from concentrated livestock.	CRLF: ranch activities are ESA exempt per USFWS with no federal involvement; USDA NRCS is contributing to this project, and will be included in their BO.	None within project area	319 (h) grant, USDA NRCS EQIP, MALT SAP
			Waste Transfer (634)	DIAMETER: 36" LENGTH: ~200 LF	This project includes a culvert to transport the scraped manure from the freestall barn to the waste separation pit.						
			Waste Transfer (634)	VOLUME: 15,000 GAL	The dairy's existing waste separation pit will be renovated by the project, so it ties into the new waste transfer culvert and heavy use area.						
			Waste Transfer (634)	10 HP Pump, 10 HP Agitator	The pump and agitator are necessary to transfer manure from the waste separation pit to the separator.						
			Waste Treatment (639)	VOLUME: 700 CF	The separator is attached to a compost/bedding master, which is a new type of technology to manage the byproduct of the separation process.						
			Waste Transfer (634)	DIAMETER: 8" LENGTH: ~200 LF	This project includes an 8" flume charge line which recirculates liquid manure to keep the 36" waste transfer culvert flowing.						
			Waste Separation Facility (632)	SCREW PRESS SEPARATOR	The manure in the water storage facility will be processed by a separator. The by-products of the separation process will either go to a manure pond or into a composter/bedding master.						
			Waste Storage Facility (313)	AREA: 200 SF CONCRETE: 10 CY	The final composted product of the compost/bedding master will be temporarily stored on a stacking pad until it is either temporarily stored indoors or dispersed on land or used as bedding material.						
2019-02	Laguna Lake > Tomales Bay	Dairy Facility	Heavy Use Area Protection (561)	LENGTH: <400 LF DISTURBANCE AREA: <0.5 AC	The project will install a concrete pad and curbs over an animal walkway, currently a rock barren earthen surface, that is used by dairy cows multiple times per day. This project also includes pipe fence that is embedded into the concrete curb. The walkway transitions to gravel at the western end.	\$401: Water Quality Certification	CRLF	The project area is confined to the existing animal walkway or heavy use area, which is traveled by the dairy cows multiple times per day.	CRLF: ranching activities are ESA exempt per USFWS with no federal involvement	None	319 (h) grant
2019-03	Tomales Bay	Irrigated Pastureland	Waste Transfer (634)	LENGTH: <5,500 LF of waste transfer pipeline (<50 LF spanning channel)	The project will replace sections of existing water transfer pipeline because the old pipeline is old and cannot handle the pressure from the new pump to operate the sprinklers/irrigation reel in the upland irrigated pasture area. In addition, the extent of the waste transfer pipeline will be extend to enable the dairy to disperse the manured water across more pasture. New manure sprinklers will be installed to improve the operations ability to manure the entire system.	N/A	CRLF	Ranch vegetation consists of annual & perennial grasses & forbs.	CRLF: ranching activities are ESA exempt per USFWS with no federal involvement	None	319 (h) grant

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2019-04	Chileno Creek > Tomales Bay	Dairy Facility	Stream Crossing (578)	LENGTH: <100 LF (~60 LF) DISTURBANCE AREA: <0.2 AC SOIL DISTURBANCE: <250 CY	The project will renovate the existing stream crossing that is no longer fully operational.	§401: Water Quality Cert.; §404: Nationwide; §1600: SAA; Grading Permit Ag Exempt; Building Permit (if bridge)	CRLF	Existing road along a tributary to Olema Creek.	CRLF: ranching activities are ESA exempt per USFWS with no federal involvement; if USDA NRCS becomes involved then project will be added to their BO	None	319 (h) grant
			Waste Transfer (634)	LENGTH: <250 LF w.transfer pipeline (<50 LF spanning channel)	Existing waste transfer pipelines will be relocated by the project.						
			Underground Outlet (620)	LENGTH: 40 LF DIAMETER: 12"	The underground outlet will transport fresh water runoff from an open grass swale across the stream crossing into to the creek.						
2019-06	San Antonio	Active rangeland	Pipeline (516)	<i>LENGTH: <2,000 LF; Does not extend over a channel.</i>	A pipeline will carry pressurized water to a tank and to gravity flow water to a trough.	N/A	CRLF	Ranch vegetation consists of annual & perennial grasses & forbs.	CRLF: ranching activities are ESA exempt per USFWS with no federal involvement; if USDA NRCS becomes involved then project will be added to their BO	None	Prop 1
			Pumping Plant (533)	<i><3 hp and maximum pump rate is 10 gallons per minute</i>	A pumping plant will take egg wash water from a low point to a high point on the ranch, so water can gravity flow to trough and hedgerow planting.						
			Watering Facility (614)	<i>COUNT: 2 tanks (5,000 gal, 500 gal), 1 trough</i>	A transfer tank is necessary to pump up to a storage tank. The storage tank will hold the pumped egg wash water, and gravity feed to a trough for livestock and to irrigate the hedgerow.						
			Hedgerow (422)	<i>AREA: 0.275 AC 2 rows, 751 LF</i>	Two rows of native trees and shrubs will be planted to sequester carbon in the plant biomass, improve micro-climate and enhance habitat.						
2019-07	Tomales Bay	Active rangeland	Pipeline (516)	<i>LENGTH: <1,000 LF; <50 LF spanning channel</i>	A pipeline will tap into an existing line to provide livestock water in a new field created by the project.	Possible permits if large grade stabilization structures are treated with grading and rock/biotechnical repair.	CRLF	Ranch vegetation consists of annual & perennial grasses & forbs.	CRLF: ranching activities are ESA exempt per USFWS with no federal involvement; if USDA NRCS becomes involved then project will be added to their BO	None	Prop 1
			Watering Facility (614)	COUNT: 1 (trough)	A new trough is needed because the project will create a new field without water.						
			Critical Planting Area (342)	AREA: 1 AC	The slopes of the spillway and gully of the pond are eroding; therefore, the area will be treated with willows.						
			Fence (382)	LENGTH: 4,000 LF	The project will install livestock fence to help improve livestock management, which will improve pasture health and will exclude livestock from an eroding spillway and gully.						
			Grade Stabilization Structure (410)	<i>LENGTH: <1,000 LF Disturbance Area: 1.5 AC Soil Disturbance: 1,000 CY</i>	Repair points of erosion/headcutting within a gully.						

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