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DRAFT Department of Water Resources Coastal Watershed Flood Reduction Program Grant Application

Deadline: November 20th at 5 pm.

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Project Name: Carmel River Floodplain Restoration and Environmental Enhancement Project (CRFREE)

Project Location: South of Carmel, Monterey County

Applicant Name: Monterey County Resource Management Agency

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Section 1: Contact Information

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Section 2: Scope of Work

The multi-benefit Carmel River Floodplain Restoration and Ecological Enhancement (CRFREE) Project is a green infrastructure project that will recreate hydrological connectivity, restore habitat, and significantly reduce flood hazards in the lower Carmel River Watershed. The key components of the project are to 1) Remove sections of the south bank levee flanking the river to redirect flood flows into the adjoining floodplain, 2) Reconnect the south bank floodplain with the Carmel River Lagoon by allowing water to flow through a new causeway along Highway 1, and 3) Restore the floodplain habitat in former agricultural fields where ruderal vegetation now dominates. The Environmental Impact Report was accepted and certified by the Monterey County Board of Supervisors in January 2020.

CRFREE will reduce high-loss, repetitive flooding to critical state infrastructure, as well as commercial, residential and conserved recreational lands by notching levees on the south side of the Carmel River and directing high stream flows to a restored floodplain and then to the river mouth through a new causeway (overflow bridge) under Highway 1 (SR-1). Over 20 major flooding events have occurred in this region since 1911. Flood events in 1995 and 1998 produced two of the highest flows on record causing substantial residential and commercial property damage in the vicinity. The new causeway will eliminate ponding of floodwaters and upstream backwater impacts that result in flood damage to residential and commercial areas on the north side of the river channel. CRFREE will significantly reduce flood risks within Monterey County Community Service Area-50 (CSA-50) and to important State infrastructure and property (SR-1 and State Park land), as well as a local utility (Carmel Area Wastewater District sewage treatment plant), which is located immediately downstream of the project footprint.

The Carmel River and adjacent floodplains support several declining native aquatic species and one of the largest densities of migratory songbirds in the state. Over 100 acres in the southern floodplain of the Carmel River will be restored by reconnecting the river channel to its floodplain and the Carmel River Lagoon and river mouth at the Carmel River State Beach. Species benefitting most directly from CRFREE include California Central Coast Distinct Population Segment Steelhead Trout (federally threatened) and California Red-Legged Frog (federally threatened). Additional species that may benefit from CRFREE include Pacific lamprey, California newt, Western pond turtle, numerous shorebirds, raptors, migratory birds, bats, mammals and invertebrates like the federally endangered Smith's blue butterfly. Natural, self-sustaining floodplain function and fluvial topography will be reestablished, riparian and wetland habitat will be restored, groundwater and base flows will be recharged, and natural hydrological processes will be reestablished throughout the project area. The new causeway will create a wildlife corridor on the southern floodplain that connects State Park lands on the west side of SR-1 with Big Sur Land Trust property and the Monterey Peninsula Regional Park District Palo Corona Regional Park located east of the highway.

CRFREE will complete a major coordinated regional effort to restore cohesiveness and dynamic function to the entire lower Carmel River coastal system. The first restoration projects in this geography were completed by Caltrans in 1998 and California State Parks in 2004. Caltrans and the California State Parks cooperatively funded the 43-acre Carmel River Mitigation Bank, while State Parks' Lagoon Enhancement Project restored 100 acres and increased lagoon volume and surface area. CRFREE will build on these restoration investments by creating a critical hydrologic connection between south bank floodplain flows and the Lagoon that will enable periodic flushing flows and the removal of sediment that accumulates through tidal action and limits steelhead rearing habitat. CRFREE will also help protect

historically important structures west of SR-1 that are owned by State Parks, including a barn and several outbuildings (the “Barn Complex”).

Section 3: Schedule

The CRFREE Environmental Impact Report (EIR) was certified by the County of Monterey Board of Supervisors in January 2020. At that time the Board of Supervisors elected to select a project after an agreement has been reached with the Carmel Area Wastewater District regarding their concurrent pipeline undergrounding project, and with a private entity regarding the protection of a well located near the project area. At this time these topics have been resolved, and the CRFREE project will be presented to the Monterey County Board of Supervisors for selection in December of 2020.

In 2021, contractors will finalize causeway and floodplain restoration design plans, and manage the relocation of utilities in the floodplain restoration area (expected completion in 2022). Upon completion of the utility relocation, construction will begin on detour road construction, roadway preparation for the temporary removal of the existing highway. Construction of the causeway bridge, and the first stages of floodplain restoration and reconfiguration will begin in 2023. Elevation of a historic barn, and biological monitoring and mitigation will occur in 2022-2023. All project construction is expected to be complete by the end of 2024. (Table 1)

2020	2021	2022	2023	2024
▪ Project selection by the County of Monterey Board of Supervisors	▪ Utility relocation ▪ 90-100% design phase ▪ Pre-construction phase	▪ Utility relocation ▪ Roadway preparation ▪ Highway detour construction ▪ Floodplain construction begins ▪ Floodplain restoration begins ▪ Carmel Overflow Bridge construction ▪ Elevation of State Parks historical structures ▪ Mitigation and monitoring ▪ CAWD outfall pipeline and sewer force main replacement		▪ Causeway construction continues ▪ Levee notches constructed ▪ Highway detour removed

Table 1: Project schedule.

Section 4: Budget

If awarded, funds from the DWR CRFF grant will be utilized in the Pre-construction and construction phases, to begin in 2021. (Table 2)

Project Element	Cost	Requested	FEMA Match	Anticipated start date	Anticipated end date
	$40,299,618	**$5,147,149**	**$4,165,101**		
Task 1: Pre-construction	**$2,360,478**	**$141,255**		**2020**	**2022**
Utility relocation pre-construction costs				April 2021	Dec 2022
Task 2: Construction	**$22,766,279**	**$1,995,791**	**$2,081,122**	**2021**	**2024**
Utility relocation				2022	2023
Carmel Overflow Bridge				2023	2024
Roadway items				2023	2024
Detours				2024	2024
Task 3: Floodplain construction	**$9,174,001**	**$2,408,879**	**$1,873,979**		
Floodplain construction				2024	2025
Floodplain restoration				2025	2026
Task 4: Mitigation	**$5,998,860**	**$601,225**	**$210,000**	**2022**	**2024**
Elevation of State Parks Historical Structures				2022	2024
Mitigation and monitoring				2022	2024
CAWD Outfall Pipeline and Sewer Force Main Replacement (independently funded)				2022	2024

Table 2: Project task level, expected costs, requested grant funds, and federal match amount.

Task 1: Pre-construction

Task 1: Pre-Construction *Utility relocation preconstruction costs*		**Requested**	**Matching**
1.1	Big Sur Land Trust staff time for project management (2021 – 2024)		$45,091
1.2	County staff time for project management (2021 – 2024)	$26,255	
1.3	Permit fees and regulatory requirements	$95,000	
1.4	SR-1 Right-of-Way Grantor's appraisal costs	$20,000	
	TOTAL:	**$141,255**	**$45,091**

Task 2: Construction

Task 2: Construction		**Requested**	**Matching**
2.1	Utility relocation	$1,000,000	$1,570,940
2.2	Detour construction	$623,282	
2.3	Construction support	$90,000	$420,000
	TOTAL:	**$1,995,791**	**$2,081,122**

Task 3: Floodplain construction

Task 3: Floodplain Construction *Floodplain construction and restoration*		**Requested**	**Matching**
3.1	Develop water supply	$2,750	$2,750
3.2	Job site management	$11,000	$11,000
3.3	Temporary best management practices during construction	$30,250	$30,250
3.4	Demolition	$44,000	$44,00
3.5	Clearing and Grubbing	$34,650	$34,650
3.6	Clear trees and salvage logs and logs with root wads	$71,500	$71,500
3.7	Blister* material excavation	$33,000	$330,000
3.8	Raised agricultural road and well site stockpile excavation	$61,200	$612,000
3.9	Floodplain excavation	$717,200	$717,000
3.10	Floodplain excavation (local topsoil)	$326,700	
3.11	Fine grading (channel and floodplain)	$20,629	$20,629
3.12	Channel bed fill	$396,000	
3.13	Mobilization	$600,000	
	TOTAL:	$2,408,879	$1,873,979

*The 'blister' is a linear debris pile composed of material previously relocated from the south bank levee.

Task 4: Mitigation

Task 4: Mitigation and monitoring		**Requested**	**Matching**
4.1	Elevation of State Parks historic structures	$535,613	
4.2	Construction monitoring	$65,612	$210,000
	TOTAL:	**$601,225**	**$210,000**

Section 5: State and Local cost share percentages

The CRFREE project is supported by $12,800,342 of active grant funding; $8.5 million from the State, $300,342 from the National Fish and Wildlife Foundation, and $4 million from local sources. A grant application for $22.9 million from the FEMA HGMP/CALOES program is pending. In addition to the secured grant funds, 79.07 acres of floodplain land were donated by the Eastwood Foundation in 2016, at a valuation of $2 million. The matching requirement will be met from FEMA grant funds at an amount of $4,165,101 and by staff costs of $45,091 donated by Big Sur Land Trust.

Section 6: Project location

The site of the Carmel River Floodplain Restoration and Environmental Enhancement Project (CRFREE) is located strategically at the northern terminus of a large complex of over 19,400 acres of protected open space lands conserved by Big Sur Land Trust, California Department of Parks and Recreation, and Monterey Peninsula Regional Park District. The CRFREE Project is situated in the California Coastal Zone fronting the southern side of the lower Carmel River between river mile 0.5 and river mile 1.5 in Monterey County, CA. The 135-acre project area flanks both sides of State Route 1 (SR-1) immediately upstream of the Carmel River Lagoon and river mouth at Stewart's Cove, south of Carmel Bay. The Project area is approximately 1 mile south of Carmel, CA. Figure 1 outlies the entire Carmel River Watershed, while the general Project location and the lower Carmel River Watershed are depicted in Figure 2. Figure 3 outlines the Project vicinity.

Figures will be inserted here.

Section 7: Authorizing Resolution

Section 8: Attorney's certification

Section 9: Environmental Information Form

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