

## **Appendix 4C**

### **Evaluation Summary Table of Potentially Feasible Flood Mitigation Projects**

Table 4C. Potentially Feasible Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Associated FME, FMS, or FMP	Counties	HUC12s	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount
143000003	Small pond at San Elizario	Construct a new 0.34 ac-ft pond to relieve roadway flooding. Described as Alternative 3 from City of San Elizario "Drainage Feasibility Study" (2018).	14009001, 14009003		El Paso	130401000307	Detention Pond	0.001	Urban/Local	San Elizario city	San Elizario city	No	\$224,000	General Revenue
143000005	SH20 Drainage Improvements from Doniphan Drive to Texas Avenue	Improvements to inlet and culvert capacities at 8 crossings, with cost estimates and prioritizations available.	14010001, 14010002		El Paso	130401000107	Storm Drain	0.1	Urban/Local	TXDOT, El Paso Water	TXDOT, El Paso Water	No	\$3,745,000	Revenue bonds, Cash Revenues, Credit
143000007	Install Flood Gates in Marfa and Monitoring Gage on North Alamito Creek and Highway 17	Add flood gates to roadways at 4 LWCs on Alamito Creek, and a monitoring gage/early detection on North Alamito Creek at Hwy 17 Bridge upstream of Marfa. This provides early warning for Emergency Management to deploy before imminent road flooding.	14005001, 14006001	FMS ID: 142000025	Presidio County	130402020105	Preparedness	0.02	Riverine	Marfa city	Marfa city	Yes	\$358,000	General Funds
143000009	Develop and Implement Floodplain Ordinance to Regulate Development at Hudspeth County	Coordinate with Hudspeth County Commissioners, Road & Bridge Departments, Safety & Inspection Departments, & County Attorney to draft a floodplain ordinance (or modify existing subdivision ordinance) to regulate development standards in Hudspeth County.	14001001, 14002001		Hudspeth County		Other	4552.1	Riverine, Playa, Urban/Local	Hudspeth County	Hudspeth County	No	\$50,000	General Revenue
143000011	SSA4	Detention Basin SSA4	14009003, 14009001, 14011001		El Paso	130401000204	Detention Pond	0.1	Riverine	El Paso County	El Paso County	No	\$14,744,000	General Funds, Bonds, Tax Notes
143000021	SOC4	Sediment/Detention Basin at "Mankato Arroyo"	14009003, 14009001, 14011001		El Paso	130401000307	Detention Pond	0.04	Riverine	El Paso County, EPCWID1	El Paso County, EPCWID1	No	\$2,383,000	Taxes, water use fees
143000024	MON3	Sediment/Retention Basin	14009003, 14009001, 14011001		El Paso	130401000203	Detention Pond	1.3	Playa	El Paso County	El Paso County	No	\$27,033,000	General Funds, Bonds, Tax Notes
143000025	HAC3	Sediment/Retention Basin	14009003, 14009001, 14011001		El Paso	130401000307	Detention Pond	0.1	Riverine	El Paso County	El Paso County	No	\$4,619,000	General Funds, Bonds, Tax Notes
143000097	NW16	Expand channel from Village Ct to Doniphan Dr	14009003, 14009001		El Paso	130301020906	Channel	0.0	Urban/Local	El Paso Water	El Paso Water	No	\$1,570,000	Revenue bonds, Cash Revenues, Credit
143000100	NE3B	Alcan Pond: new catch basin to capture FP15 upstream	14009003, 14009001, 14011001		El Paso	130401000103	Detention Pond	0.1	Urban/Local	El Paso Water	El Paso Water	No	\$21,234,000	Revenue bonds, Cash Revenues, Credit
143000105	EA10A	Build sediment/detention basin upstream of Paseo del Este Drive	14009003, 14009001, 1401101		El Paso	130401000204	Detention Pond	0.02	Riverine	El Paso Water	El Paso Water, El Paso County	No	\$9,647,000	Revenue bonds, Cash Revenues, Credit
143000111	NW3	Construction of new larger capacity Doniphan Pump Station to replace PS1, with new force main directly to the Rio Grande. Install new catch basin with mechanical bar screen upstream of PS2.	14009003, 14009001		El Paso	130401000107	Detention Pond	0.3	Urban/Local	El Paso Water	El Paso Water	No	\$16,132,000	Revenue bonds, Cash Revenues, Credit
143000113	NW26	Acquire land, construct a permanent wetland, install a storm drain system to Doniphan Drive, construct pipeline to Doniphan Pump Station and build new pump station to control flood levels.	14009003, 14009001		El Paso	130401000107	Detention Pond	0.2	Urban/Local	El Paso Water	El Paso Water	No	\$35,568,000	Revenue bonds, Cash Revenues, Credit
143000116	EA9A	Build sediment/detention basin upstream of Paseo del Este Drive	14009003, 14009001, 14011001		El Paso	130401000204	Detention Pond	0.04	Riverine	El Paso Water	El Paso Water	No	\$11,897,000	Revenue bonds, Cash Revenues, Credit

Table 4C. Potentially Feasible Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Flood Risk										Reduction in Flood Risk										
		Area in 100yr (1% annual chance) Floodplain in square miles	Area in 500yr (0.2% annual chance) Floodplain in square miles	Estimated number of structures at 100yr flood risk	Residential structures at 100-year flood risk	Estimated Population at 100-year flood risk	Critical facilities at 100-year flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at 100-year flood risk (Miles)	Estimated farm & ranch land at 100-year flood risk (acres)	Number of structures with reduced 100yr (1% annual chance) flood risk	Number of structures removed from 100yr (1% annual chance) flood risk	Number of structures removed from 500yr (0.2% annual chance) flood risk	Residential structures removed from 100yr (1% annual chance) flood risk	Estimated Population removed from 100yr (1% annual chance) flood risk	Critical facilities removed from 100yr (1% annual chance) flood risk (#)	Number of low water crossings removed from 100yr (1% annual chance) flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities (if available)
143000003	Small pond at San Elizario	0.0	0	0	0	0	0	0	2	0.2	0	0	0	0	0	0	0	2	0.2	0		
143000005	SH20 Drainage Improvements from Doniphan Drive to Texas Avenue	0.005	0.004	2	0	30	0	8	16	0.21	0	0	0	0	0	0	8	0	0	0		
143000007	Install Flood Gates in Marfa and Monitoring Gage on North Alamito Creek and Highway 17	0.022	0	0	0	0	0	4	4	0.32	0.001	0	0	0	0	0	0	0	0	0	0	1
143000009	Develop and Implement Floodplain Ordinance to Regulate Development at Hudspeth County	937	1155	823	44	1629	2	70	489	288	246	0	0	0	0	0	0	0	0	0	0	
143000011	SSA4	0.77	2.8	185	139	564	1	0	32	3.7	314.6	185	99	184	74	299	0	0	0	0.02	4.0	
143000021	SOC4	0.21	0.6	10	2	26	0	0	4	0.3	99.9	10	10	65	2	26	0	0	4	0.3	19.2	
143000024	MON3	8.69	13.4	756	557	1977	2	23	267	64.1	0.0	660	327	609	248	820	0	0	11	14.9	0	
143000025	HAC3	0.42	0.7	10	6	23	0	0	1	0.2	96.7	10	10	11	6	23	0	0	1	0.1	43.2	
143000097	NW16	0.01	0.02	3	0	12	0	0	0	0.01	0.0	3	3	0	0	12	0	0	0	0.01	0	
143000100	NE3B	0.11	0.3	136	107	615	1	0	34	3.9	0.0	98	54	0	104	167	0	0	8	1.1	0	
143000105	EA10A	0.79	1.7	17	6	287	0	10	23	4.3	331.5	8	1	30	1	3	0	0	0	0.1	29.2	
143000111	NW3	0.03	0.3	6	1	37	1	0	7	0.7	0.0	6	6	0	1	37	1	0	7	0.7	0	
143000113	NW26	0.03	0.3	6	1	37	1	0	7	0.7	0.0	6	0	0	0	0	0	0	1	0.1	0	
143000116	EA9A	0.79	1.7	17	6	287	0	10	23	4.3	331.5	17	13	37	2	282	0	1	9	1.4	89.2	

Table 4C. Potentially Feasible Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Pre-Project Level-of-Service	Post-Project Level-of-Service	Cost/ Structure removed	Percent Nature-based Solution (by cost)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Social Vulnerability Index (SVI)	Water Supply Benefit (Y/N)	Benefit-Cost Ratio
143000003	Small pond at San Elizario	Unknown	10% annual chance	N/A	0	No	No	0	No	0
143000005	SH20 Drainage Improvements from Doniphan Drive to Texas Avenue	<20% annual chance	10% annual chance	N/A	0	No	No	0.29	No	0
143000007	Install Flood Gates in Marfa and Monitoring Gage on North Alamito Creek and Highway 17	<20% annual chance	<20% annual chance	N/A	0	No	No	0.00	No	0
143000009	Develop and Implement Floodplain Ordinance to Regulate Development at Hudspeth County	Unknown	Unknown	N/A	0	No	No	0.56	No	0
143000011	SSA4	<1% annual chance	1% annual chance	\$148,929	0	No	No	0.90	No	0.1
143000021	SOC4	<1% annual chance	1% annual chance	\$238,300	0	No	No	0.94	No	0.1
143000024	MON3	<1% annual chance	1% annual chance	\$82,670	0	No	No	0.74	No	0.2
143000025	HAC3	<1% annual chance	1% annual chance	\$461,900	0	No	No	0.99	No	0
143000097	NW16	<1% annual chance	1% annual chance	\$523,333	0	No	No	0.89	No	0
143000100	NE3B	<1% annual chance	1% annual chance	\$393,222	0	No	No	0.78	No	0.1
143000105	EA10A	<1% annual chance	0.2% annual chance	\$9,647,000	0	No	No	0.64	No	0
143000111	NW3	<1% annual chance	1% annual chance	\$2,688,667	0	No	No	0.79	No	0
143000113	NW26	<1% annual chance	1% annual chance	N/A	1	No	No	0.00	No	0
143000116	EA9A	<1% annual chance	0.2% annual chance	\$915,154	0	No	No	0.64	No	0