

## **Appendix 5E**

### **FMSs Recommended by the RFPG**

Table 5E. Flood Management Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	Strategy Type	Strategy Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of nature-based solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	RFPG Recommendation (Y/N)	Reason for Recommendation
142000001	FEMA Levee Accreditation for All Rio Grande Levees at El Paso	Coordination needed between USIBWC, FEMA, El Paso Water, El Paso County, Doña Ana County, and Hudspeth County to certify and accredit all remaining levee segments through El Paso County. Interior drainage studies are needed in Hudspeth and Doña Ana.	14004001	El Paso	13030102, 13040100	Regulatory and Guidance	91.19	Riverine	USIBWC, El Paso Water, El Paso County, Doña Ana County, Hudspeth County	USIBWC, El Paso Water, El Paso County, Doña Ana County, Hudspeth County	No	\$ 482,000	Federal, State, Local	\$ 44	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000002	Irrigation and Recharge Application of Captured Rainwater Runoff at Alpine	Construct rainwater basins at 3 locations around Kokernot Park to drain neighboring streets, impound runoff volume, promote infiltration and aquifer recharge, reduce landscaping water costs, and remediate pollutants.	14012001, 14013001	Brewster	13070006	Infrastructure Projects	0.06	Urban/Local	City of Alpine, Brewster County	City of Alpine, Brewster County	No	\$ 1,282,000	State, Local	N/A	Yes	No	No	Yes	Yes	Aligns with RFPG and stakeholder goals
142000003	Implement Colonia-wide Drainage System and Maintenance and Outreach Program for Roadside Swales and Driveway Culverts at Fort Hancock	Construct drainage improvements as detailed in FME ID: 141000014; maintain existing roadside ditches/swales to ensure positive drainage; and develop an outreach program to encourage residents to maintain and repair driveway culverts.	14007001, 14007002, 14014001, 14009002, 14009004, 14010001, 14010002	Hudspeth	13040100	Education and Outreach, Other	1.12	Urban/Local	City of Fort Hancock, Hudspeth County	City of Fort Hancock, Hudspeth County	No	\$ 404,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000004	Coordination with Ft. Bliss for FMP Permitting and Maintenance Access	El Paso Water designed NE7 on Ft. Bliss near unexploded ordinances (UXOs), and has an easement to maintain Fusselman and Northgate Dams, but can't access them due to UXOs. El Paso County designed MON1 on Ft. Bliss near a training ground and potential UXOs.	14007003, 14011001, 14009001, 14009003, 14010001, 14010002	El Paso	13040100	Infrastructure Projects	0.67	Urban/Local	El Paso Water, El Paso County, U.S. Army	El Paso Water, El Paso County, U.S. Army	No	\$ 49,000	Federal, State, Local	\$ 415	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000005	Maintenance Program to control Salt Cedar vegetation along Rio Grande upstream of Presidio	Study to develop alternatives to clear vegetation along the Rio Grande between Candelaria and City of Presidio to allow for proper drainage for communities located along FM 170. Coordination needed between RGCOG, Presidio County, TXDOT, USACE and USIBWC.	14007003, 14012001	Presidio	13040201	Education and Outreach, Other	28.86	Urban/Local	RGCOG, Presidio County, TXDOT, USIBWC, USACE	Presidio County, TXDOT, USIBWC, USACE	No	\$ 97,000	Federal, State, Local	N/A	Yes	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000006	Study Binational Streamflow Recommendations for Big Bend Reach of Rio Grande/Rio Bravo	Conduct study with recommendations for binationally beneficial stream flows for Big Bend reach of the Rio Grande/Rio Bravo. Study will identify stream flows to support the river's ecological environment in state and federal parks in the U.S. and Mexico.	14007003, 14012001	Presidio, Brewster	13040203, 13040204, 13040205, 13040202, 13040201	Other	212.79	Riverine	Presidio County, USIBWC, RG/B Basin Flows Collaboration, Rio Grande Joint Venture	City of Presidio, Presidio County, Brewster County, Big Bend National Park, Rio Grande Wild and Scenic River, Big Bend Ranch State Park, Black Gap Wildlife Management Area, Santa Elena Canyon Wildlife and Plant Protection Area, Maderas del Carmen Wildlife and Plant Protection Area, Ocampo Wildlife and Plant Protection Area, and the Rio Bravo Monument	No	\$ 63,000	Federal, State	N/A	Yes	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000007	Study to plan the management of saltcedar growth and debris in channels in/adjacent to City of Pecos	Study to identify and characterize alternatives to manage vegetation in natural drainages in and adjacent to the City of Pecos to increase conveyance and reduce flooding within the City of Pecos.	14012001	Reeves	13060007, 13060011, 13040212, 13070002, 13070003, 13070006	Other	124.33	Riverine	City of Pecos, Reeves County	City of Pecos, Reeves County	No	\$ 73,000	Federal, State, Local	N/A	Yes	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000008	Develop Certification Package for Cibolo Creek Channel and Levee	Perform planning and design required by FEMA for levee accreditation, then complete certification package for Cibolo Creek levee in vicinity of City of Presidio. Package includes O&M Plan.	14015001, 14007000, 14004002	Presidio	13040201	Regulatory and Guidance	2.75	Riverine	USACE, Presidio County, City of Presidio	USACE, Presidio County	No	\$ 79,000	Federal, State, Local	\$ 116	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000009	Regulatory Review of Off-Road Traffic on State Lands	Coordination should take place between EPCWID1, El Paso County, and State land owners to discuss enforcement of restrictions associated with off-road motor vehicles on undeveloped land.	14002001, 14007003	El Paso	13040100, 13050003	Regulatory and Guidance	620.49	Other	EPCWID1, El Paso County, Texas GLO	EPCWID1, El Paso County, Texas GLO	No	\$ 99,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals

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142000010	Regulatory Review of Impervious Cover on New Development in El Paso County	Coordination should take place between EPCWID1, El Paso County, and Texas GLO land owners to discuss revisions to development regulations associated with detention and impervious cover.	14001001, 14007003	El Paso	13040100, 13050003	Regulatory and Guidance	619.88	Urban/Local	EPCWID1, El Paso County, Texas GLO	EPCWID1, El Paso County, Texas GLO	No	\$ 64,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000013	Staff augmentation support or funding for at risk communities to join and/or enforce the NFIP	Prioritize and provide staff augmentation support or funding for at risk communities not currently participating in the NFIP or communities with limited resources to enforce the NFIP. Aid communities in implementing recommended minimum standards.	14001001, 14001002	Presidio, Hudspeth, Reeves, Andrews, Edwards, Pecos, Winkler		Regulatory and Guidance	16144.52	Urban/Local, Riverine	RGCOG	Presidio County, Hudspeth County, Reeves County, Andrews County, Edwards County, Pecos County, Winkler County, City of Alpine, City of Sonora, City of Barstow, City of Kermit, City of Rankin, City of Thorntonville, Town of Valentine, City of Wickett, City of Wink	No	\$ 44,000	Federal, State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000014	Develop new flood gages throughout the region	Prioritize, fund, and develop new flood gages (rainfall and/or stream gages) throughout the region to support flood warning system improvements and improve ability to validate or calibrate existing and new flood models	14005001, 14006001, 1400602	All of Region 14		Flood Measurement and Warning	43031.15	Riverine	RGCOG		Yes	\$ 240,000	Federal, State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000015	Develop and design standard options for addressing identified development-related flooding in El Paso	Evaluate COEP and El Paso County drainage design standards for inlets, curb cuts, requirements for on-site storage in new developments, addressing as-built elevations, protecting remaining on-site storage and recovering original storage for existing developments.	14002001, 14003001	El Paso	13030102, 13040100, 13050003	Regulatory and Guidance	1011.05	Urban/Local	El Paso Water, El Paso County	El Paso Water, El Paso County	No	\$ 35,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000016	Develop regional solutions to address erosion issues in natural channels affecting stormwater conveyance	Develop consensus region-specific erosion-resistant designs to prevent removal of material from drainage conveyances, with functional comparisons to aid selection of best practices.	14007003, 14002001, 14003001, 14007001, 14007002	All of Region 14	13030102, 13040100, 13050003	Other	1011.05	Urban/Local, Riverine	RGCOG		No	\$ 57,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000017	Develop solutions to address city/county stormwater conveyance into the Rio Grande (El Paso County)	Refine agency action coordination in conveyance of interior flooding to the Rio Grande. Develop FMP designs and costs for improvements of conveyance from river terrace storm water infrastructure, considering high ground water.	14006001, 14004001, 14004002, 14007003	El Paso	13030102, 13040100, 13040201, 13040202, 13040203, 13040204, 13040205, 13040206, 13040207, 13040208, 13040209, 13040210, 13040211, 13040212, 13070006, 13070008, 13070010, 13070012, 13050003, 13050004, 13070007	Infrastructure Projects, Other	17923.72	Urban/Local, Riverine	El Paso Water, El Paso County	El Paso Water, El Paso County	No	\$ 99,000	Federal, State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000019	Initiate program to develop integrated solutions to improve irrigation system/stormwater conveyance system interaction in El Paso area	Initiate program to develop integrated solutions to improve irrigation system/stormwater conveyance system interaction in El Paso area	14014001, 14007000	El Paso	13030102, 13040100, 13050003	Other	1011.05	Urban/Local, Riverine	El Paso Water, El Paso County, EPCWID1	El Paso Water, El Paso County, EPCWID1	No	\$ 21,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000020	Develop and Improve Early Warning System for El Paso City/ County interior drainage	Conduct study to evaluate and proposed improvements to Early Warning Systems (EWSs) for interior drainage in El Paso City and El Paso County. Includes assessment of existing flood EWS.	14006001, 1400602	El Paso	13030102, 13040100, 13050003	Flood Measurement and Warning	1010.83	Urban/Local, Riverine	El Paso Water, COEP, El Paso County, EPCWID1	El Paso Water, COEP, El Paso County, EPCWID1	Yes	\$ 140,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000021	Develop and Improve Early Warning System for City of Pecos	Conduct study to evaluate and propose improvements to Early Warning Systems (EWSs) for City of Pecos and adjacent Lindsay Census Designated Place. Includes assessment of existing flood EWS.	14006001, 1400602	Reeves	13070003, 13070001	Flood Measurement and Warning	23.03	Urban/Local, Riverine	City of Pecos, Reeves County	City of Pecos, Reeves County	Yes	\$ 50,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000022	Develop and Improve Early Warning System for City of Alpine	Conduct study to evaluate and propose improvements to Early Warning Systems (EWSs) for City of Alpine. Includes assessment of existing flood EWS.	14006001, 1400602	Brewster	13070006	Flood Measurement and Warning	4.79	Urban/Local, Riverine	City of Alpine, Brewster County	City of Alpine, Brewster County	Yes	\$ 50,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000023	Develop and Improve Early Warning System for City of Presidio, Presidio County	Identify and design access routes and bridges/culverts to provide emergency access during extreme flood events in the City of Presidio.	14006001, 1400602	Presidio	13040201	Flood Measurement and Warning	2.57	Urban/Local, Riverine	City of Presidio, Presidio County	City of Presidio, Presidio County	Yes	\$ 50,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
141000024	Develop and Improve Early Warning System for City of Fort Stockton	Conduct study to evaluate and propose improvements to Early Warning Systems (EWSs) for City of Fort Stockton. Includes assessment of existing flood EWS.	14006001, 1400602	Pecos	13070007	Flood Measurement and Warning	5.53	Urban/Local, Riverine	City of Fort Stockton, Pecos County	City of Fort Stockton, Pecos County	Yes	\$ 50,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals
142000025	Develop and Improve Early Warning System for City of Marfa, Presidio County	Identify and design access routes and bridges/culverts to provide emergency access during extreme flood events in Marfa. Southeast Marfa and dirt portion of FM2810 were identified as problem areas by Presidio County Office of Emergency Management.	14006001, 1400602	Presidio	13040202	Flood Measur	1.62	Urban/Local, Riverine	City of Marfa, Presidio County	City of Marfa, Presidio County	Yes	\$ 50,000	State, Local	N/A	No	No	No	No	Yes	Aligns with RFPG and stakeholder goals