9.0 PRIORITIZATION

This section describes the process by which projects presented in Section 8 were compared and ranked for funding.

9.1 Background Information Provided

In Engagement 3 (see Section 7), EPWater presented a proposed Prioritization Table to be used in the comparative ranking of projects for funding within the SMP Update CIP.

The table included this descriptive information about each project:

- <u>Project Name</u>: Project name and project designation (e.g., CE2) presented in Engagement 2;
- Location: Region and System per maps in Section 2;
- Approximate Location: Word description of location;
- <u>Issue to be Addressed</u>: Short description of the flood mitigation purpose of the project, matching the description in Table 8-2 in Section 8;
- <u>Project Description per the 2009 SMP</u>: Short description of the project as configured in 2009 that matches the description in Table 8-2 in Section 8;
- New Project Description: Short description of the project as configured in 2018 that matches the description in Table 8-2 in Section 8; and
- 2018 Estimated Construction Costs: The construction costs as estimated by EPWater, given previous planning cost estimates and annual inflation, that matches costs presented in Table 8-2 in Section 8.

9.2 Development of Comparison Factors

The Prioritization Table also included a series of factors to be considered in comparing project benefits and permit complexity. Each factor was discussed project by project during the meeting associated with Engagement 3. The factor discussion was facilitated by the figure for the project presented in Engagement 2. The factors to be considered in assessing benefits included:

- Dam safety. The project reduces risk of dam failure and met TCEQ dam safety requirements.
- Reduce flooding of real property. The project reduces flooding of real property.
- Reduce flooding of IH-10. The project reduces flooding at known portions of IH-10 subject to flooding.
- Remove 100+ properties from the flood zone. The project reduces flooding for a very large number of properties. This benefit was aided by a previous

assessment performed for the 2009 SMP and by the project maps which provided a strong visual subjective indication of density and extent of urban area protected.

- Reduce the risk associated with debris flow. Detention projects located across arroyos downstream of undeveloped watershed and upstream of developed properties would provide this benefit.
- Reduce flooding of major arterial roadways. The project reduces flooding at known portions of major arterial roadways subject to flooding.
- Reduce maintenance.
- Reduce nuisance flooding.

The discussion would lead to a consensus decision as to whether each factor described above was a significant project benefit.

Each project was assessed as to its likely need for a permit from the following agencies/permit entities: EPCWID No. 1 (Irrigation District), Fort Bliss, State Historic Preservation Office (SHPO), USIBWC, U.S. Army Corps of Engineers (USACE), railroad company right-of-way permit, TxDOT, TCEQ, Texas Parks and Wildlife Department (TPWD), and local ordinances (affecting parks, open space, unexploded ordinance).

In addition, the presence of the following factors affecting project complexity were noted as appropriate:

- Significant potential environmental impacts;
- Significant potential land acquisition issues; and
- Complex street, utility and amenities reconstruction.

9.3 Comparison Factor Value Assignments

<u>Benefits Factors</u>. The list of benefits to consider and the values assigned to presence of a benefit were approved in consensus fashion during Engagement 3. The values assigned are presented in Table 9-1. The consensus list of benefits was not changed from the original list proposed by EPWater, but values assigned per benefits were marginally altered from the original assignments proposed by EPWater. The Benefits subtotal for each project presented in the table was the sum of values assigned for benefits for that project, as shown in Table 9-1.

<u>Permit Complexity Factors</u>. A project was assigned a "-1" value for each permit required. The relative complexity of each permit was assessed by assigning an additional value of "-2" if the permit complexity was uncertain and could be very significant, "-1" if permit acquisition was difficult; "0" if the permit acquisition was normal, and "+1" if the permit acquisition was easy. The Permit Complexity subtotal for each

project presented in the table was the sum of permit-related values assigned for that project, as shown in Table 9-1.

9.4 Addressing Projects Not in 2018 Prioritization Table

Several projects are included in the 2021 Prioritization Table that were not in the 2018 table vetted by the Focus Group. A listing of these projects and how they were scored for this 2021 Draft SMP Update is provided in this section. These projects all have scores equal to or less than 11 points and rankings less than 14 out of the 100 projects. All of these projects were discussed as part of early presentations to the Focus Group.

Projects with 2009 Scores, but No 2018 Score. The 2009 SMP used a different project prioritization method than was developed by the Focus Group in 2017. Five projects (MidV7, NE5, NW18, WC6A, and WC8) expected to be fully funded by EPWater had scores from 2009 but were not included in the 2017 scoring. Additional projects (MV1, MV2A, MV2B, MV2C, MV6, MV8, MV10, NW3, WC6B, WC6C, and WC7) had scores from 2009 but were not included in the 2017 scoring because EPWater is seeking alternative funding for these projects. The basis for the 2009 scoring and the relative ranking for each of these projects from 2009 were reviewed. The projects were then scored per the 2017 Focus Group methodology described above. The result in terms of project ranking was compared to the 2009 ranking for reasonableness.

Projects not in the 2009 SMP. These projects include the six added per 2020 planning in the Mid Valley Region (CE6A, CE6B, EA11, MidV10, MidV11, and MidV12). These projects were scored per the 2017 Focus Group methodology described above. The only other project included in Table 9-1 not in the 2009 SMP is MidV7. Engineering judgment was used to relate the elements of this project to similar elements of other projects that were scored by the Focus Group.

9.5 Final Prioritization 2021

The total score used in project prioritization was estimated as the sum of the benefits subtotal and the permit complexity subtotal. This total score is shown for projects sorted by region in Table 9-1 and for projects sorted in descending order of total score in Table 9-2. These tables, minus the projects added in the 2021 changes, were provided to the Focus Group and results discussed in Engagement 4 (Section 7). Ranking of projects is provided in the first column. Ranking can be changed based upon changes in availability of funding for specific projects.

Table 9-1. Prioritization with Weighting Factors

		Dam Safety	Reduce Flooding of Real Property	Reduce Flooding of IH-10	Remove 100+ Properties from the Flood Zone	Reduce the Risk Associated with Debris Flow	Reduce Flooding of Major Arterial Roadways	Reduce Maintenance	Neutre nuisaine riooning	SUB-TOTAL	RR Permit	Permit Complexity	BWC Fermit	TCEO Permit	Domeit Completit	Permit Complexity	Permit Complexity	EDCIMID #1 Dermit / EBMID	Permit Complexity	TXDOT Permit	Permit Complexity	Fort Bliss Permit	Permit Complexity	Texas Parks and Wildlife	Permit Complexity	Historic District / Archaeologic	Permit Complexity	Land Acquisition	Permit Complexity	Street, Utility and Amenities Reconstruction	Permit Complexity	Environmental Impacts	Permit Complexity	Other Ordinances (Parks, UXO, Ospace)	Permit Complexity	SUB-TOTAL		Alter- native Funding Sought		
Project Designation*	PROJECT NAMES	4	4	4	3	3	4	4	2					Pe	ermit	Req	uired	-1; P	ermit	Con	ıplex	ity : E	asy ·	⊦1 , N	orma	ıl 0, [Difficu	ult -1 ,	, Unk	nowr	1 -2						2020 Total Points		18 Esti onstru Cos	ction
CE Dam 2	Dam 2 Morehead	4		4		3	4		2	17	П	Т	Т	1	-1	0	Т	Τ	T	Τ	T	T	Ť	П			П	-1	0	T	П	T		П		-2	15		\$ 7	'50,000
CE Dam 10	Dam 10 Cliff	4	П	4		П	4		2	14	寸	十	十	1	-1	0	T	T	\top	T	十	\top	T		Т	П	ヿ	一		寸	1	1	7	T	7	-1	13		\$ 6	600,000
CE Dam 4	Dam 4 Memphis	4		4			4		2	14	1	f	十	1	-1	0	1	Ť	Ť	T	T	1	T				7	-1	0	1	T	1			7	-2	12		\$ 4	100,000
CE Dam 6	Dam 6 Scenic			4			4		2	10	寸	T	十	-	-1	0		T	1	T	+	\top	T	T	T	Ħ	\exists	\neg	寸	1	寸	1			寸	-1	9		\$ 6	600,000
CE Dam 7	Dam 7 Tremont		Г	4			4		2	10	寸	\top	十	+	-1	0	T	T	†	T	十	\top	T	T	T	П	┪	寸	7	十	7	7	7		┪	-1	9		\$ 6	600,000
CE Dam 8	Dam 8 Murchinson			4			4		2	10	1		\top	†	-1	0		T		T	T		T						1	7	T	1		1		-1	9		\$ 6	600,000
CE3	Government Hills Conduit				3		4		2	9	1	T	\top	\top	1	T	T	Ť	T		-1	0	T			Ħ	7			-1	0	T		1	T	-2	7		\$ 2,5	500,000
CE4A	Magnolia Pond (Houston School Ball Field)	Г		4			\neg	4	2	10	T	十	\top	十	T	T	T	T	T	T	T	T	T					-1	-1	T	1	1		-1	-1	-4	6		\$ 7,2	200,000
CE4B	Gateway Ponds Drain System (Pump Station)			4				4	2	10	T	i	T	Ť	1	T		T	T	T	1		1				7		1			1				0	10		\$ 7,2	200,000
CE4C	Cebada Pump Station Wet Well Improvements			4				4	2	10	T	十	-1	0	T	Ť	T		-1	0	T	十	T	T		\Box		-1	-1	十	T	T	1	-1	-1	-6	4		\$ 9,5	500,000
CE5A	Dallas PS		4	4	3		4		2	17	寸	十	十	十	Ť	T	T	T	T		-1	0	T			П	T	\exists		寸	1	1	1	T	寸	-1	16		\$ 1	35,000
CE5B	Dallas Basin	2222	4	4	3	344)2	4		2	17				1				T	200			1				-		-1	-1	1		1				-2	15		\$ 7,5	522,081
CE5C	Cypress PS by River to complete Dallas Watershed Improvements		4	4	3		4		2	17		1																-1	-1	1	1	1	1	Ì		-2	15		\$ 11,73	31,200
CE6A*	Altura Avenue Drainage Improvements		4					4 :	2	10	寸		十	T	T	T		T		T	T		T		Γ	Ħ	T	寸	寸	-1	0	1			寸	-1	9		\$ 2	250,000
CE6B	Montana Avenue Drainage Improvements		4					4	2	10	T		\dagger	Ť	Ť	T	Ť	T	Ť		T	T	T				T	T	İ	-1	0	1	1	T	1	-1	9		\$ 2	220,000
EA1A	Fort Bliss Spur Drain		П	П			4		\top	4	寸	\top	十	十	十	\top	T	T	T	T	Τ	Τ	T	Г	Γ	П	寸	\dashv	1	-1	0	\top	7		\dashv	-1	3		\$ 1,6	50,000
EA1B	Fort Bliss Spur Drain		П			\Box	4	\top	\top	4	十	十	十	\top	\top	十	T	\top	Ť	T	\top	T	T	Т	T	П	一	\dashv	\dashv	-1	0	\top	\dashv	\top	\dashv	-1	3		\$ 8,5	500,000
EA2	Sunmount Channel			П			\top	4	2	6	十	\dagger	\dagger	\dagger	\dagger	\dagger	T	\dagger	Ť	T	T	T	T			П	1	\dashv	\dashv	1	\top	\dagger	1	-1	0	-1	5		\$ 9	900,000
EA2 Alternate	Sunmount Channel		П				\top	4	2	6	\top	\top	\top	\top	\top	\dagger	T	\top	\dagger	T	\top	T	T			П	\exists	\dashv	\dashv		\top	\top	1	-1	0	-1	5		\$ 5,0	000,000
EA3A	Lorne Channel - (Ph I)		4				4		2	10	1		\top	\dagger	Ť	T		T	T	T	T	T		Г		П		T	1	-1	0	T	1		1	-1	9		\$ 1,1	00,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

		Dam Safety	Reduce Flooding of Real Property	Reduce Flooding of IH-10	Remove 100+ Properties from the Flood Zone	Reduce the Risk Associated with Debris Flow	Reduce Flooding of Major Arterial Roadways	Reduce Maintenance	Reduce Nuisance Flooding	SUB-TOTAL	RR Permit	Permit Complexity	IBWC Permit	Permit Complexity	TCEQ Permit	Permit Complexity	USACE Permits	Permit Complexity	EPCWID #1 Permit / EBWID	Permit Complexity	I XDOI Permit	Permit Complexity	Fort Bliss Permit	Termin Complexity Texas Parks and Wildlife	Permit Complexity	Historic District / Archaeologic	Permit Complexity	Land Acquisition	Permit Complexity	Street, Utility and Amenities Reconstruction	Permit Complexity	Environmental Impacts	Permit Complexity	Other Ordinances (Parks, UXO, Ospace)	Permit Complexity	SUB-TOTAL		Alter- native Funding Sought		
Project Designation*	PROJECT NAMES	4	4	4	3	3	4	4	2					F	ermi	t Rea	uirec	d -1;	Permi	t Co	mple	kity:	Easy	+1, I	Norm	al 0,	Diffic	:ult -1	, Unl	knowi	n -2						2020 Total Points		18 Esti onstruc Cos	
EA3B	Lorne Channel - (Ph II)		4				4		2	10			П	Т	T	T	T	Ť	Т	Т	Ť	Í	T	T	Т	T				-1	0	Т	T	T		-1	9		\$ 5,4	160,000
EA4A	Album Park-Pond Expansion	H	4		Н		4		2	10			\dashv	\top	$^{+}$	1	+	十	\top	\top	\dagger	1	\top	+	\dagger	+				-1	0	\top	1	-1	-1	-3	7		\$ 9,5	500,000
EA4B	Wedgewood Storm Drain				Н		4		2	6			\dashv	\dashv	+	1	+	十	+	\dagger	\dagger	Ť	1	\dagger	t					-1	0	+	1		\dashv	-1	5		\$ 1,5	500,000
EA4C	Zanzibar Storm Drain				Н		4			4				\top	\dagger	1	T	\dagger	\top	†	†	1	\dagger	+	\dagger	+				-1	0	\dagger	1		\exists	-1	3		\$ 1,5	500,000
EA4D	Ballymonte & Orkney Storm Drain				П		4			4					Ť		T	\top		T			1	1	Ť					-1	0	T	1			-1	3		\$ 2,5	500,000
EA5	Upgrade Eastwood Dam	4			П					4			Ħ	\top	-1	0	T	十	\top	†	\dagger	Ť	\dagger	\dagger	Ť	\dagger					\top	\top	1	-1	0	-2	2		\$ 2,5	500,000
EA6A	Sam Snead Drive	Г	4		3		4	4	2	17			\Box	\top	1		1	十	\top	T	T		1	\top	T					-1	-1	T	T		\neg	-2	15		\$ 4,5	532,000
EA6B	Sam Snead Drive		4		3		4	4	2	17			\Box	1	Ť		1	T	\top	T			T	\top	T					-1	-1	T				-2	15		\$ 3,9	922,000
EA6C	Sam Snead Drive		4		3		4	4	2	17			\Box	1	Ť	1		1	\top	1				\top						-1	-1	T				-2	15		\$ 5,6	300,000
EA6D	Sam Snead Drive		4		0		4		2	10																				-1	-1		1			-2	8		\$ 3,2	284,000
EA6E	Sam Snead Drive		4		0		4		2	10				1	Ť					T	1					1				-1	-1	1				-2	8		\$ 2,9	928,000
EA6F	Bywood Drive		4		П		4		2	10			\Box	1	T	1	1	T	十	\top	Ť		1	\top	Ť					-1	-1	T	1			-2	8		\$ 8,8	310,850
EA6I	Eads Place		4		П				2	6			\Box	1		T	1	T	\top	T	Ť		1	T						-1	0	T	1			-1	5		\$ 9,9	962,138
EA6J	Ashwood Drive		4		П				2	6				\top	1		1	T		T	Ť			\uparrow	T					-1	0	1	1			-1	5		\$ 8,0	070,200
EA6K	Ashwood Drive		4		П				2	6			\Box	1	Ť		1	T		T	T				T					-1	0	T	1			-1	5		\$ 5,3	389,800
EA7 Ph2	Rojas at Lee Trevino, Kaiser & GWW		4				4			8				T				T		T	-1	-1		T						-1	0	T				-3	5		\$ 8,4	100,000
EA8A	Pullman Storm Drain						4		2	6							-1	-1		\top				\top						-1	0	\top				-3	3		\$ 2,5	500,000
EA8B	Peter Cooper Storm Drain						4		2	6							-1	-1												-1	0					-3	3		\$ 3,0	000,000
EA8C	Henry Brennan Storm Drain						4		2	6							-1	-1												-1	0					-3	3		\$ 3,0	000,000
EA8D	G. Dieter Storm Drain						4	4	2	10											-1	-2								-1	-2					-6	4		\$ 4,0	000,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

		Dam Safety	Reduce Flooding of Real Property	Reduce Flooding of IH-10	Remove 100+ Properties from the Flood Zone	Reduce the Risk Associated with Debris Flow	Reduce Flooding of Major Arterial Roadways	Reduce Nuisance Flooding	SUB-TOTAL	RR Permit	Permit Complexity	IBWC Permit	Permit Complexity	TCEQ Permit	Permit Complexity	USACE Permits Dermit Complexity	Fermit Complexity	Permit Complexity	TXDOT Permit	Permit Complexity	Fort Bliss Permit	Permit Complexity	Texas Parks and Wildlife	Permit Complexity	Historic District / Archaeologic	Permit Complexity	Land Acquisition Permit Complexity	Street, Utility and Amenities Reconstruction	Permit Complexity	Environmental Impacts	Permit Complexity	Other Ordinances (Parks, UXO, Ospace)	Permit Complexity	SUB-TOTAL		Alter- native Funding Sought	
Project			-																																2020 Total		8 Estimated nstruction
Designation* EA8E	PROJECT NAMES Zaragoza Storm Drain	4	4	4	3	_	4 4	2	6	-	ľ		<u> </u>	Perm T	it Re	quired T	-1; P	ermit	Com	nplexi		asy +	1 , No	rmal	0 , Dif	ficult	-1, U	nkno	vn -2	ı		Т	-	-4	Points 2		\$ Cost 4,000,000
	SAC 1 -Detention/Sediment Basin	┡	Ш	_	_	_				╄	_		4	1		+	\bot	+	╄	1			Ш		_	4	1		<u> </u>	1		Н	4				
EA9A		L	Ш			3		2	9				\perp	-1	Ů				L				Ш			\perp	-1 -	<u>'</u>				Ц		-3	6		\$ 7,500,000
EA9B	Concrete Line RV Channel					3	4		7																		-1 -	1						-2	5		\$ 2,700,000
EA10A	SAC 2 -Detention/Sediment Basin					3	4	2	9					-1	0											T	-1	1				П		-1	8		\$ 6,100,000
EA10B	Concrete Line Mercantile Channel					3	4		7					1	T		T		T							1	-1 -	1		1				-2	5		\$ 2,000,000
EA11	Avalon Drive Drainage Improvements		4				4	2	10					1	1		T		T							1	-1 -	2 -	-2	2 0				-6	4		\$ 550,060
MidV1	Clardy Fox Pump Station Improvement	T	4		3	7	4	2	13			-1	0	1	1	1	T	+	T	t					1	Ť	\top	t	T			Ħ	T	-1	12		\$ 4,100,000
MidV5	Montview Pump Station and Basin Improvements		4				4	2	10					1	1										1		-1 -	2						-3	7		\$ 5,000,000
MidV6	Bassett-Geronimo Improvements	Т	4			\dashv	十	2	6				寸			T	T	十	T		1				十	1	-1 -	2 -	0			П		-4	2		\$ 4,348,740
MidV7	Basin A System		1		7	1	1 1	1	4	t			1	1	1		1		t							+	+	1-	1	1			\dashv	-1	3		\$ 227,500
MidV8	Raynolds Street Drainage Improvements		4			1		2	6					1	1				-	-1						t	-1 -	2 -	-2	2				-7	-1		\$ 4,304,300
MidV9	Yandell Drive Drainage Improvements	T	4		1	\dashv	4	2	10				7	+	1		\dagger	\dagger	I.	-1 -:	2					\dagger	\top	-	0			H	寸	-4	6		\$ 405,080
MidV10	El Paso Drive Drainage Improvements	H	4		\dashv	+	4	2	10				+	1	+		\dagger		\dagger		┢		H			+	1	-	0			\vdash	\dashv	-1	9		\$ 585,004
MV1	Upgrade Basin A Pump Station		4	0	0	0	0 4	2	10	+		0	0	+	+	+		70	+	-1 -:	2					+	+	╁	-				+	-3	7	Х	\$ 24,804,000
MV2A	Basin B Improvement (Vocational Pond)	\vdash	4	0	0	0	0 4	. 2	10			0	0	+		+	\dagger		T						+	+	+	-	1			-1	-1	-2	8	Х	\$ 300,000
MV2B	New Basin B Pump Station	\vdash	4	0	0	0	0 4	2	10	T		-1	-2	\dashv	\dagger	+	\dagger	\dagger	1	-1	0		Н	\forall	+	\dagger	-1 -	2	t	H		-1	-2	-10	0	х	\$ 13,536,900
MV2C	Expand Basin B Pump Station	\vdash	4	0	0	0	0 4	2	10	0	0	-1	-2	0	0	0	0	0	0 -	-1	0 0	0	0	0	0	0	-1 -	2 (0	0	0	-1	-2	-10	0	х	\$ 7,829,900
MV3	Featherlake II Improvements				\dashv	\dashv	4		4				\dashv	1		\top	T		t		1				\dashv	\dagger	\top	1				$ \uparrow $	寸	0	4		\$ 1,000,000
MV4	Middle Drain Interceptor Storage						4	2	6					1	1												-1 -	1					1	-2	4		\$ 21,000,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

		Dam Safety	Reduce Flooding of Real Property	Reduce Flooding of IH-10	Remove 100+ Properties from the Flood Zone	Reduce the Risk Associated with Debris Flow	Reduce Flooding of Major Arterial Roadways	Reduce Maintenance	Reduce Nuisance Flooding	SUB-TOTAL	RR Permit	Permit Complexity	IBWC Permit	Permit Complexity	TCEQ Permit	Permit Complexity	USACE Permits	Permit Complexity	EPCWID #1 Permit / EBWID	Permit Complexity	TXDOT Permit	Permit Complexity	Permit Complexity	Texas Parks and Wildlife	Permit Complexity	Historic District / Archaeologic	Permit Complexity	Land Acquisition	Permit Complexity	Street, Utility and Amenities Reconstruction	Permit Complexity	Environmental Impacts	Permit Complexity	Other Ordinances (Parks, UXO, Ospace)	Permit Complexity	SUB-TOTAL		Alter- native Funding Sought		
Project Designation*	PROJECT NAMES	4	4	4	3	3	4	4	2						Perm	it Re	equire	d -1;	Perm	it Co	mple	xity:	Easy	+1 , N	lorma	al 0,	Diffic	cult -1	, Uni	know	n -2						2020 Total Points		Cons	Estimated struction Cost
MV5B	Basin G Improvements		4					4		8			-1	-1					-1	0		Ī	T					-1	0		П	П				-4	4		\$ 3	35,000,000
MV7	Playa Drain Crossing at Yarbrough					3	4	4	2	13						\dashv	\top	1		\top	\dagger	+	1	\dagger		T	T	T		-1	1	\dashv				0	13		\$	125,000
MV8	Basin C Pump Station (Shawver Pond)		2	0	0	0	0	4	0	6	0	0	-1	-2	0	0	0	0	0	0	-1	-1	-1	0	0	0 (0 0	0	0	0	0	0	0	0	0	-6	0	Х	\$ 1	13,962,000
MV10	Mesa Drain Storage		4	0	0	0	1	4	0	9	0	0	0	0	0	0	0	0	-1	-2	0	0	0	0	0	0 (0 0	-1	-2	-1	-2	0	0	0	0	-9	0	Х	\$	8,138,000
MV12	Americas 10 Basin Outfall	4				3		1	1	7					-1	0	十	1	+	1	1		T		t	\dagger	†	-1	-1			1			\dashv	-3	4	Х	\$	1,800,000
NE1	Railroad Drive Upstream Crossings		4		П		4	4	2	14	-1	-1					\top	7	1	\top	\top	\dagger	T		1	\dagger	T	T			\forall	┪			\dashv	-2	12		\$	1,200,000
NE2	Concrete Line Railroad Channel						4	4	2	10	-1	-1					\top	1	1	1			-1	-1	1	1						-1	-1			-6	4		\$	6,500,000
NE3A	Will Ruth Pond		4		3		4	1	2	13							\top			1		\top	T			\dagger		-1	-1		\Box	┪				-2	11		\$	7,500,000
NE3B	Alcan Pond		4		3		4			11							十	1	1	1	\top	†	1		T	\top		-1	-1			\dashv			\neg	-2	9		\$ 1	13,500,000
NE4	Range Dam Outlet Channel		4					1	2	6						1	\top	1		1										-1	0					-1	5		\$	1,900,000
NE5	Clearview Channel		2			3	2	2	2	11							\top	1			1	T		-	1 -:	2 -	1	-1	-2	-1		-1		-1		-10	1		\$	2,197,000
NE6	Johnson Channel							4		4																				-1	0				П	-1	3		\$	800,000
NE7C	Castner Range Sediment Basin		4			3	4	4		15					-1	0	-1	-1		1	-1	0	-1	-1 -	1 -	1 -	1 -2	2			\Box	-1	-1	-1	-2	-16	-1		\$,	10,000,000
NE7D	Castner Range Detention Basin (if needed after construction of NE7 Ph 3)		4				4	4		12					-1	0	-1	-1			-1	0	-1 -	-1 -	1 -	1 -	1 -2	2				-1	-1	-1	-2	-16	-4		\$ 2	20,000,000
NE9	Northgate Diversion Channel					3	4	4	2	13							\top											-1	-1					-1	0	-3	10		\$	1,000,000
NW2	Construct Sediment Basin						4		2	6							\top					\top				\top		-1	-1							-2	4		\$	6,500,000
NW3	Doniphan System PS Improvements		4	0	0	0	4	4	2	14	-1	-1	-1	-2	0	0	0	0	0	0	0	0	0	0	0	0 (0 0	-1	-1	0	0	0	0	0	0	-7	7	Х	\$,	10,000,000
NW4	Flow Path 38				3	3			2	8											\top									-1	0					-1	7		\$	600,000
NW5	Flow Path 39A Detention		4		3		4	\top	2	13					-1	0	-1	0		\top	\top	\top				\top	T	-1	-1		\dashv	\dashv		-1	-1	-6	7		\$	8,400,000
NW6	Flow Path 40					3		1	2	5							-1	-2			\top	\top	T													-3	2		\$	4,600,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

		Dam Safety	Reduce Flooding of Real Property	Reduce Flooding of IH-10	Remove 100+ Properties from the Flood Zone	Reduce the Risk Associated with Debris Flow	Reduce Flooding of Major Arterial Roadways	Reduce Misance Flooding	SUB-TOTAL	RR Permit	Permit Complexity	IBWC Pemit	Permit Complexity	TCEQ Permit	Permit Complexity	USACE Permits	Permit Complexity	EPCWID #1 Permit / EBWID	Permit Complexity	TXDOT Permit	Permit Complexity	Fort Bliss Permit Permit Complexity	Texas Parks and Wildlife	Permit Complexity	Historic District / Archaeologic	Permit Complexity	Land Acquisition		Street, Utility and Amenities Reconstruction	Permit Complexity	Environmental impacts		Other Ordinances (Parks, UXO, Ospace)	Permit complexity	SUB-TOTAL		Alter- native Funding Sought	
Project Designation*	PROJECT NAMES	4	4	4	3	3	4	4 2						Per	mit R	equir	-1- ha	Perm	it Co	mnle	vitv ·	Easy	+1 N	orma	I O T)iffici	ılt -1	Unkr	nown	-2						2020 Total Points		18 Estimated onstruction Cost
NW7	Arroyo 4 (Study in-house)					3		2			Т	Т	Т	-1	0	-1	0			TIPIC/	, i.y .	Lusy					-1	0			Т	Т	Т	2.	-3	2		\$ 4,000,000
NW9	Arroyo 1 - Detention Improvements	4	4	+	\dashv	3	4	4	19		+	+	+	-1	C	-1	0	\dashv	+	+	+		+	+	\forall		-1	0	+	+	+	+	-1	0	-4	15		\$ 3,000,000
NW11A	Ojo de Agua Arroyo (Upstream Sediment Basin)	\vdash		+	\dashv	3	4	4 2	13	t	$^{+}$	+	+	+	\vdash	Н		1	+	\dagger	+			1 -2	2 -1		-1	-2	\dashv	+	-1	+	-1	+	-9	4	Х	\$ 2,500,000
NW11B	Ojo de Agua Arroyo (Upstream Sediment Basin)	Н		+	1		2	1 1	4		+	\dagger	+		\vdash	Н			$^{+}$		†	+	+	+	Н			\top	-1		+	0	$^{+}$	-	-1	3	Х	\$ 132,600
NW11C	Ojo de Agua Arroyo (Upstream Sediment Basin)	H		\dashv	1	1	2	1 1	4	†	\dagger	\dagger	\dagger	T	H	Н		\dashv	\dagger	1	\top		+	\dagger	Н		\dashv	1	-1		\dagger	0	\dagger		-1	3	Х	\$ 383,500
NW11D	Ojo de Agua Arroyo (Upstream Sediment Basin)	П			1	1	2	1 1	4		+	T	T	1		П		\dashv	\dagger	\dagger	1	+			П			\top	-1	\top	\dagger	0	\top		-1	3	Х	\$ 1,261,000
NW16	White Spur Drain - Upstream	Н		1			4	4 2	10				\dagger	T	T	Н		\dashv	\dagger				+	T	П		-1	0	1		\dagger	\top	\top		-1	9		\$ 1,000,000
NW18	Mesa Hills Channel Improvements							2 2	4													1 2 20							-1			1			-1	3		\$ 750,000
NW26	New Montoya Drain Wetland	П	4	Ť		3	4	4 2	17	-1	-1	-1	0			-1	-2	-1	0	\dagger	1	\dagger	+	T			-1	-2	1		\dagger	\top		-	-10	7		\$ 35,000,000
WC1	Canterbury Channel			T	1	3		4 2	9	Ť	t	T	T	-1	C	-1	0		十				T	T	П		-1	-1	1		\dagger	\top	1		-4	5		\$ 1,000,000
WC3	Flow Path 20				1		4	4 2	10	-1	-2	2 -1	0			П				-1	0				П		-1	-1	-1	0	\dagger	\top		†	-8	2		\$ 3,800,000
WC4	Flow Path 21	П		1	1	3		4	7	-1	-2	2 -1	0			П			T	-1	0		T	T	П				1			\top	1		-5	2		\$ 3,000,000
WC5	Flow Path 21	П			1		4	4 2	10	-1	-2	2 -1	0					\top		-1	0	\top			П				-1	0	\dagger	\top	+		-6	4		\$ 3,800,000
WC6A	Flow Path 23 Detention, Palisades	П	2	+	1	3	2	2 2	11		T	T	T			П		\dashv	\top	\dagger	1	\dagger		1 -2	-1		-1	-2	-1	\top	\dagger	\top	\top		-8	3		\$ 897,000
WC6B	Flow Path 23 Channel Improvements	П	4	0	0	0	4	4 0	12		0	0	0	0 0	0	0	0	0	0	-1	0	0	0 (0 0	0	0	-1	-2	-1	-2	0	0	0	0	-7	5	Х	\$ 172,900
WC6C	Flow Path 23 Crossing Improvements	П	4	0	0	0	0	4 0	8		0	0	0	0 0	0	0	0	0	0	0	0	0	0 (0 0	0	0	0	0	-1	-2	0	0	0	0	-3	5	Х	\$ 1,796,600
WC8	New Sediment Basin	П	2			3		2 2	9							П			\top			1		1 -2	-1		-1	-2	-1		\top	\top			-8	1		\$ 897,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

Table 9-2. Priority Summary

Project Designation*	Figure	Project Names	New Project Description	2017 Total Points	Rank	Alternative Funding Sought	2018 Estimated Construction Cost
CE5A	8-1-5	Dallas PS	Modify existing street inlets, design/construct new inlet to the existing Dallas basins, and start land acquisition process for a new 43 ac-ft basin	16	1		\$135,000
CE Dam 2	8-1-2	Dam 2 Morehead	Upgrade dam to meet TCEQ requirements	15	2		\$750,000
NW9	8-5-8	Arroyo 1 Dam - Detention Improvements	Construction of new debris and volume Dam to prevent breach of existing channel.	15	3		\$3,000,000
EA6B	8-2-6	Sam Snead Drive	Sam Snead Storm Drain System (Lee Trevino to Dan Sikes)	15	4		\$3,922,000
EA6A	8-2-6	Sam Snead Drive	Sam Snead Storm Drain System (Pico Norte to Lee Trevino)	15	5		\$4,532,000
EA6C	8-2-6	Sam Snead Drive	Sam Snead Storm Drain System (Lee Trevino from Sam Snead to Amy Sue)	15	6		\$5,600,000
CE5B	8-1-5	Dallas Basin	Buy land and build new basin to connect to existing Dallas PS basins, including new inlets, and install one new pumping unit at Dallas PS	15	7		\$7,522,081
CE5C	8-1-5	Cypress PS by River to Complete Dallas Water-shed Improvements	Complete phased construction of new basin to connect to existing Dallas PS basins; also build new Cypress PS facility by river	15	8		\$12,767,000
MV7	8-3-7	Playa Drain Crossing @ Yarbrough	Increase existing culvert capacity to two 5-ft x 5-ft concreate box culverts	13	9		\$125,000
CE Dam 10	8-1-1	Dam 10 Cliff	Upgrade dam to meet TCEQ requirements	13	10		\$600,000
CE Dam 4	8-1-2	Dam 4 Memphis	Upgrade dam to meet TCEQ requirements	12	11		\$400,000
NE1	8-4-1	Railroad Drive Ditch Upstream Crossings	Replacement of five crossing structures over Railroad Drive Ditch upstream of Railroad Drive	12	12		\$1,200,000
MidV1	8-7-1	Clardy Fox Pump Station Improvement	Add Pump Capacity to Clardy Fox Pump Station	12	13		\$4,100,000
NE3A	8-4-3	Will Ruth Pond	New Will Ruth Pond to catch FP 15 midstream	11	14		\$7,500,000
NE9	8-4-8	Northgate Diversion Channel	Placing RCP culverts to divert Flowpath from Northgate Diversion Channel to Northgate Dam	10	15		\$1,000,000
CE4B	8-1-4	Gateway Ponds Drain System (Pump Station)	Gateway ponds dewatering pump station and discharge header to the existing Cebada conduit	10	16		\$7,200,000
CE6B	8-1-7	Montana Avenue 24-Inch Drainage Improvements	Approx. 500 LF of new 24" storm drain system at the intersection of Montana Avenue and Houston Street tying back into channel	9	17		\$220,000
CE6A	8-1-6	Altura Avenue 36-Inch Drainage Improvements	Extend existing storm drain system on Altura 150 LF towards Boone Street with 36" pipe and new 36" storm drain pipe at intersection of Boone Street and Altura Avenue to existing system under Boone Street	9	18		\$250,000
MidV10	8-7-7	El Paso Drainage Improvements	Upsizing existing storm drain system located along El Paso Street to 36"	9	19		\$585,004
CE Dam 6	8-1-2	Dam 6 Scenic	Upgrade dam to meet TCEQ requirements	9	20		\$600,000
CE Dam 7	8-1-2	Dam 7 Tremont	Upgrade dam to meet TCEQ requirements	9	21		\$600,000
CE Dam 8	8-1-1	Dam 8 Murchison	Upgrade dam to meet TCEQ requirements	9	22		\$600,000
NW16	8-5-12	White Spur Drain - Upstream	Expand channel from Village Ct to Doniphan Dr	9	23		\$1,000,000
EA3A	8-2-3	Lorne Channel - (Ph I)	Increase channel capacity down to retention basin.	9	24		\$1,100,000
EA3B	8-2-3	Lorne Channel - (Ph II)	Add storm drain system within streets to reduce street flooding issues.	9	25		\$5,460,000
NE3B	8-4-3	Alcan Pond	Alcan Pond: new catch basin to capture FP15 upstream	9	26		\$13,500,000
MV2A	8-3-2	Basin B Improvement (Vocational Pond)	Excavate and regrade slope in Basin B so that water flows to pump station. Install new culverts	8	27	Х	\$300,000
EA6F	8-2-6	Bywood Drive	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.	8	28		\$2,207,500
EA6E	8-2-6	Sam Snead Drive	Sam Snead Storm Drain System (Octubre Drive from Sam Snead to Montwood)	8	29		\$2,928,000
EA6D	8-2-6	Sam Snead Drive	Sam Snead Storm Drain System (Frank Beard from Sam Snead to Anise)	8	30		\$3,284,000
EA10A	8-2-10	SAC 2 -Detention/Sediment Basin	Build sediment/detention basin upstream of Paseo del Este Drive	8	31		\$6,100,000
NW4	8-5-3	Flow Path No. 38	Replace 3 undersized culvert x-sings at Playa del Sol, Corona del Sol, and Villa del Sol; Increase capacity to culvert at Resler Drive	7	32		\$600,000

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Project Designation*	Figure	Project Names	New Project Description	2017 Total Points	Rank	Alternative Funding Sought	2018 Estimated Construction Cost
CE3	8-1-3	Government Hills 90-in conduit	Pressurize conduit to increase capacity, install automatic gate at Rio Grande	7	33		\$2,500,000
MidV5	8-7-2	Montview Pump Station and Basin Improvement	Expand existing basin; add one new detention basin; interconnecting pipe and new pump station	7	34		\$5,000,000
NW5	8-5-4	Flow Path No. 39A Detention	FP39 Dam/ sediment basin; 2 small detention ponds, Resler Drive culvert improvement,	7	35		\$8,400,000
EA4A	8-2-4	Album Park-Pond Expansion	Expand 85 ac-ft capacity to Album Park	7	36		\$9,500,000
NW3	8-5-2	Doniphan System PS Improvements	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.	7	37	х	\$10,000,000
MV1	8-3-1	Upgrade Basin A Pump Station	Upgrade Basin A Pump Station	7	38	х	\$24,804,000
NW26	8-5-14	NEW Montoya Drain Wetland	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.	7	39		\$35,000,000
MidV9	8-7-6	Yandell Drive Drainage Improvements	1200 LF of new 36-inch storm drain along Yandell tying into existing system located in Paisano Drive and extending to the intersection with Argentina Street	6	40		\$405,080
CE4A	8-1-4	Magnolia Pond (Houston School Ball Field)	Magnolia Pond Expansion	6	41		\$7,200,000
EA9A	8-2-9	SAC 1 -Detention/Sediment Basin	Build sediment/detention basin upstream of Paseo del Este Drive	6	42		\$7,500,000
WC6B	8-6-6	Flow Path No. 23 Channel Improvements	Improve channel upstream of Hwy 20	5	43	х	\$172,900
EA2	8-2-2	Sunmount Channel	Expand existing drain to add 20 ac-ft of storage	5	44		\$900,000
WC1	8-6-1	Canterbury Channel	Construct debris basin and Build check-dams along arroyo	5	45		\$1,000,000
EA4B	8-2-4	Wedgewood Storm Drain	Install Wedgewood Storm Drain	5	46		\$1,500,000
WC6C	8-6-6	Flow Path No. 23 Crossing Improvements	Improve 2 crossings, University Avenue and Oregon St	5	47	х	\$1,796,600
NE4	8-4-4	Range Dam Outlet Channel	Increase crossing capacity over Range Dam Outlet Channel, improve junction of Range Dam Outlet Channel and Tobin Drain Channel	5	48		\$1,900,000
EA10B	8-2-10	Concrete line Mercantile Channel	Concrete line Mercantile Channel (20-ft bottom width, 5 ft depth; rectangular channel)	5	49		\$2,000,000
EA9B	8-2-9	Concrete line RV Channel	Concrete line RV Channel (20-ft bottom width, 4 ft depth; rectangular channel)	5	50		\$2,700,000
EA2 Alternate	8-2-2	Sunmount Channel	Alternate - Enclose drain using underground storage system to utilize as park space; or installation of 10-10x10 CBC along 900 ft of drain OR Installation of underground large span crossing)	5	51		\$5,000,000
EA6K	8-2-6	Ashwood Drive	Storm drain system consisting of 66-inch RCP to handle flows from surrounding residential areas	5	52		\$5,389,800
EA6I	8-2-6	Eads Place	Storm drain system consisting of 9' x 9' CBC & cross street trench drains along Eads Pl. to handle flows from surrounding residential areas. Eads Pl to Pebble Hills Blvd.	5	53		\$9,962,138
EA6J	8-2-6	Ashwood Drive	Storm drain system consisting of 9-foot by 5-foot CBC to handle flows from surrounding residential areas	5	54		\$8,070,200
EA7 Ph2	8-2-7	Rojas @ Lee Trevino, Kaiser & GWW	Install storm drain system and increase capacity of existing storm drain system	5	55		\$8,400,000
EA11	8-2-11	Avalon Drive 36" Storm Drainage Improvements	400 LF of 36-inch and 700 LF of 48-inch storm drain pipe connecting to existing system on Airway Boulevard	4	56		\$550,060
MV3	8-3-3	Featherlake II Improvements	Installation of auto-gates, 25 cfs pump station, two new concrete box culverts	4	57		\$1,000,000
MV12	8-3-11	Americas Ten Basin Outfall	Reconstruct Americas Ten Basin outfall	4	58	х	\$1,800,000
NW11A	8-5-9	Build sediment basin upstream at Via Serena	Build sediment basin upstream at Via Serena	4	59	х	\$2,500,000
WC5	8-6-4	Flow Path No. 21	Bore outfall bubbler unto the River	4	60		\$3,800,000
EA8D	8-2-8	G. Dieter Storm Drain	New Dieter Storm Drain	4	61		\$4,000,000
NE2	8-4-2	Concrete line Railroad Drive Ditch	Concrete line Railroad Drive Ditch, increase capacity of existing ditch crossing, improve channel into Fort Bliss sump	4	62		\$6,500,000
NW2	8-5-1	Construct sediment basin	Phase 2: Construct sediment basin	4	63		\$6,500,000
CE4C	8-1-4	Cebada Pump Station Wet Well Improvements	Add mechanical bar screen to remove debris from the existing wet well.	4	64		\$9,500,000

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Project Designation*	Figure	Project Names	New Project Description	2017 Total Points	Rank	Alternative Funding Sought	2018 Estimated Construction Cost
MV4	8-3-4	Middle Drain Interceptor Storage	Excavate 115 Ac-Ft pond and culverts to divert Franklin Drain , put in auto-gates to Middle Drain Interceptor, and 25 cfs pump station to dewater pond	4	65		\$21,000,000
MV5B	8-3-5	Basin G Improvements	Upgrade PS to 820 cfs w/ new Rio Grande conduits - Proposed Land Acquisition from EPCWID	4	66		\$35,000,000
NW11B	8-5-9	Add culvert at Via Descanso Drive (may not be needed upon completion of sediment basin)	Add culvert at Via Descanso Drive (culvert may not be needed upon completion of sediment basin)	3	67	х	\$132,600
MidV7	8-7-4	Basin A System	Reconstruct 36 inch existing storm drain	3	68		\$227,500
NW11C	8-5-9	Add culvert at Loma de Cristo Drive (may not be needed upon completion of sediment basin)	Add culvert at Loma de Cristo Drive (culvert may not be needed upon completion of sediment basin)	3	69	х	\$383,500
NW18	8-5-13	Mesa Hills Channel Improvements	Mesa Hills Channel Improvements	3	70		\$750,000
NE6	8-4-6	Johnson Channel	Installation of subsurface conduit from outfall to open channel	3	71		\$800,000
WC6A	8-6-5	Flow Path No. 23 Detention	Improve existing dam, build new basin	3	72		\$897,000
NW11D	8-5-9	Add culvert at Westwind Drive (may not be needed upon completion of sediment basin)	Add culvert at Westwind Drive (culvert may not be needed upon completion of sediment basin)	3	73	х	\$1,261,000
EA4C	8-2-4	Zanzibar Storm Drain	Install Zanzibar Storm Drain	3	74		\$1,500,000
EA1A	8-2-1	Fort Bliss Spur Drain	install culverts @ 4 crossings	3	75		\$1,650,000
EA4D	8-2-4	Ballymonte & Orkney Storm Drain	Install Ballymonte & Orkney Storm Drain	3	76		\$2,500,000
EA8A	8-2-8	Pullman Storm Drain	New Pullman Storm Drain	3	77		\$2,500,000
EA8B	8-2-8	Peter Cooper Storm Drain	Expand existing Peter Cooper Storm Drain	3	78		\$3,000,000
EA8C	8-2-8	Henry Brennan Storm Drain	Expand existing and add new Henry Brennan Storm Drain	3	79		\$3,000,000
EA1B	8-2-1	Fort Bliss Spur Drain	Install drain system on Cielo Vista Drive	3	80		\$8,500,000
EA5	8-2-5	Upgrade Eastwood Dam	Upgrade Eastwood Dam to meet TCEQ requirements	2	81		\$2,500,000
MidV6	8-7-3	Bassett-Geronimo Improvements	Construction of two retention basins and storm drain systems	2	82		\$4,348,740
WC4	8-6-3	Flow Path No. 21	Build detention basin on EPWater land on O'Keefe	2	83		\$3,000,000
WC3	8-6-2	Flow Path No. 20	Widen channel at downstream @ Paisano, and replace bridge	2	84		\$3,800,000
EA8E	8-2-8	Zaragoza Storm Drain	expand existing and add new Zaragoza Storm Drain	2	85		\$4,000,000
NW7	8-5-6	Arroyo 4 (Study in-house)	Slipline existing storm drain, construct detention basin	2	86		\$4,000,000
NW6	8-5-5	Flow Path No. 40	FP-40 Dam; build sediment & detention basin	2	87		\$4,600,000
WC8	8-6-7	New Sediment Basin	New Sediment Basin	1	88		\$897,000
NE5	8-4-5	Clearview Channel	Add new sediment basin	1	89		\$2,197,000
MV2C	8-3-2	Expand Basin B Pump Station	Expand pump station by installing an additional 165 cfs pump and conduit.	0	90	х	\$7,829,900
MV10	8-3-10	Mesa Drain improvements	Expand channel	0	91	х	\$8,138,000
MV2B	8-3-2	New Basin B Pump Station	Install a new pump station (165 cfs total capacity) and conduit in the portion of Basin B west of Mimosa Avenue to pump water to the Rio Grande River.	0	92	х	\$13,536,900
MV8	8-3-8	Basin C improvements (Shawver Pond)	Install pump station plus conduits to basin, from basin into Rio Grande	0	93	х	\$13,962,000
MidV8*	8-7-5	Raynolds Street Drainage Improvements	New detention pond with outlet tower, upsizing pipes to 48" and 60", installing new drainage inlets along Raynolds, new 48" pipe extending north to Hastings Drive	-1	94		\$4,304,300
NE7C	8-4-7	Castner Range Sediment Basin	Construct sediment basin with 10-ft depth	-1	95		\$10,000,000
NE7D	8-4-7	Castner Range Detention Basin (if needed after construction of NE7 Ph 3)	Addition of detention to sediment basin if appropriate	-4	96		\$20,000,000

^{*} Key to shading for Project Designations. Yellow-shaded projects were scored for prioritization in November 2020 workshops. Green-shaded projects were scored in workshops in November 2019.

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