Discussion and City Council Direction
Huebner Creek Channel Improvements Project
Segment 1

Melinda Moritz
Public Works Director
City Council Meeting
February 24, 2024

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Summary

- Question
  - City Council is being asked whether they want to continue with design and engineering of the Huebner Creek Channel Improvements Project or abandon project and perform bank stabilization only
- Options
  - Continue as directed
  - Abandon project and perform bank stabilization only
- Declaration
  - At Council discretion

Purpose

- To determine project scope going forward
- Current scope of project is from the Bandera Road bridge to Poss Rd at Cherryleaf St with revised creek alignment

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Background

- City Council approved a budget adjustment in the amount of $633,167 to engineer and design channel improvements to widen Huebner Creek to reduce the threat of flooding and erosion
- City Engineer has completed the hydrologic analysis, preliminary design, all surveying and utility locates, and is now at the stage of finalizing the drainage design
- The tree survey that was performed indicates that a large number of trees must be removed should the project move forward

Aerial View of Project

Project Limits —

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Tree Mitigation Plan

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Tree Mitigation Plan

SUMMARY OF TREE REMOVAL (INCHES)

TREE STATUS	TREES (IN INCHES)
REMAIN	1272
REMOVE	5429
TOTAL	6701

SUMMARY OF TREE REMOVAL (NUMBER)

TREE STATUS	TREES (NUMBER)
REMAIN	83
REMOVE	403
TOTAL	486

TREE SUMMARY (INCHES)

SIGNIFICANT TREE 6" - 23.5" (OAK, ELM, PECAN, PALM, LIVE OAK)		SIGNIFICANT TREE** 10.0" - 23.5" (MESQUITE, HACKBERRY, CEDAR, ASH, UNKNOWN)		HERITAGE 3:1 >23.5" (OAK, ELM, PECAN, PALM, LIVE OAK)		HERITAGE 1:1 >23.5" (MESQUITE, HACKBERRY, CEDAR, ASH, UNKNOWN)		OTHER TREES (CHINABERRY, HUISACHE, MULBERRY, TALLOW)		DEAD TREES
REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE
1841	294	2971	575	218	166	141	140	176	97	82
TOTAL										
2135		3546		384		281		273		82

TREE SUMMARY (NUMBERS)

SIGNIFICANT TREE 6" - 23.5" (OAK, ELM, PECAN, PALM, LIVE OAK)		SIGNIFICANT TREE** 10.0" - 23.5" (MESQUITE, HACKBERRY, CEDAR, ASH, UNKNOWN)		HERITAGE 3:1 >23.5" (OAK, ELM, PECAN, PALM, LIVE OAK)		HERITAGE 1:1 >23.5" (MESQUITE, HACKBERRY, CEDAR, ASH, UNKNOWN)		OTHER TREES (CHINABERRY, HUISACHE, MULBERRY, TALLOW)		DEAD TREES
REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE	REMAIN	REMOVE
133	21	239	44	8	5	5	5	13	8	5
TOTAL										
154		283		13		10		21		5

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Tree Removal Plan

- Heritage: Number: 8 Inches: 218
  - Oak, Elm, Pecan, Palm, Live Oak
- Heritage: Number: 5 Inches: 141
  - Mesquite, Hackberry, Cedar, Ash, Unknown
- Medium/Large: Number: 133 Inches: 1841
  - Oak, Elm, Palm, Live Oak
- Medium/Large: Number: 239 Inches: 2971
  - Mesquite, Hackberry, Cedar, Ash, Unknown
- Non-native/invasive: Number: 13 Inches: 176
  - Chinaberry, Huisache, Mulberry, Tallow
- Dead trees: Number: 5 Inches: 82

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Purpose

- Summary tree removal in project area:
- Trees / remain: Number: 83 Inches: 1272
- Trees / remove: Number: 403 Inches: 5429

- Previous Huebner-Onion Natural Park Master Plan advised removing any non-native & invasive trees
- Can replant new trees in other areas that are native using Tree Mitigation Funds

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Discussion

- Continue with design and engineering?
- Consider concrete bank and keep existing creek alignment?
- Abandon project and design bank stabilization only, from Poss at entrance to small pavilion to Bandera Road bridge?
- Other

Fiscal Impact

- Council approved $633,167 for design and engineering, spent $162,000, remaining balance $471,167

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Fiscal Impact

OPINION OF PROBABLE CONSTRUCTION COST
Rimkus Park Low Water Crossing and Huebner Creek Drainage Improvements
City of Leon Valley

ARDURRA
COLLABORATE. INNOVATE. CREATE.

Revised Date: 12/21/2023

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	COST
100.1	MOBILIZATION	LS	11%	1	$ 255,552.00
101.1	PREPARING RIGHT OF WAY	LS	4%	1	$ 92,928.00
103.3	REMOVE DRIVEWAYS	SF	$ 5.00	1,600	$ 8,000.00
103.4	REMOVE MISCELLANEOUS CONCRETE	SF	$ 5.00	800	$ 4,000.00
105.1	CHANNEL EXCAVATION	CY	$ 60.00	17,020	$ 1,021,200.00
106.1	BOX CULVERT EXCAVATION AND BACKFILL	CY	$ 35.00	55	$ 1,925.00
107.1	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	$ 50.00	83	$ 4,150.00
200.1	FLEXIBLE BASE (6" COMPACTED DEPTH)(TYPE B)	SY	$ 20.00	100	$ 2,000.00
307.1	CONCRETE STRUCTURE (HEADWALLS)	CY	$ 2,000.00	7	$ 14,000.00
309.1	PRECAST REINFORCED CONCRETE BOX CULVERTS (3' x 2')	LF	$ 700.00	50	$ 35,000.00
503.1	PORTLAND CEMENT CONCRETE DRIVEWAY	SY	$ 100.00	190	$ 19,000.00
505.1	CONCRETE RIPRAP (5" THICK)	SY	$ 120.00	6,600	$ 792,000.00
506.0	TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS	LS	3%	1	$ 69,696.00
509.1	METAL BEAM GUARD RAIL	LF	$ 140.00	100	$ 14,000.00
515.1	TOPSOIL (4")	CY	$ 30.00	1,314	$ 39,417.00
516.1	BLOCK SODDING	SY	$ 20.00	225	$ 4,500.00
520.1	HYDROMULCHING (RESIDENTIAL OR COMMERCIAL)	SY	$ 10.00	11,600	$ 116,000.00
530.1	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	2%	1	$ 46,464.00
531.1	WB8-19 FLOOD GAUGE SIGN AND SCALE	EA	$ 1,500.00	2	$ 3,000.00
554.1	EROSION CONTROL BLANKET (BIODEGRADEABLE)	SY	$ 10.00	11,600	$ 116,000.00
9003.1	BOLLARDS, 4" DIAMETER X 42" HIGH	EA	$ 1,500.00	6	$ 9,000.00
	TREE REMOVAL (24" DIA OR BIGGER)	EA	$ 2,500.00	48	$ 120,000.00
			SUBTOTAL		$ 2,787,832.00
			CONTINGENCY	30%	$ 836,350.00
			TOTAL		**$ 3,624,182.00**

*UTILITY ADJUSTMENTS/RELOCATION IS NOT INCLUDED IN THIS ESTIMATE

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S.E.E. Statement

Social Equity – Reducing flood hazards benefits all citizens by reducing remediation funds after a flood event

Economic Development – Reducing the footprint of the floodplain reclaims properties and increases their overall value

Environmental Stewardship – Reducing the floodplain reduces the amount of erosion entering our waterways, which improves the quality of the water

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