



Drainage & Watershed CIP Projects



2022 CIP Project Sheet

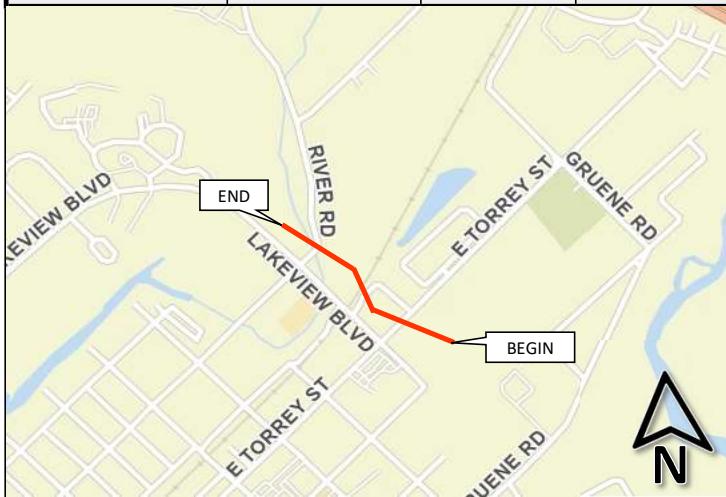
BAC Presentation

PROJECT TITLE: Blieders Creek/German Creek Channel		PROJECT #: 4,5					
PROJECT CATEGORY: Drainage		COUNCIL DISTRICT #: 4,5					
FUNDING SOURCES: PER 2013 Bond		PROJECT BUDGET: \$13,009,000					
POTENTIAL EXTERNAL Veramendi		FUNDING NEEDS: \$13,009,000					
FUNDING SOURCES:		DEPARTMENT: Public Works					
PROJECT MANAGER:		START	FINISH				
DESIGN PHASE:		CONSTRUCTION:					
PROJECT OBJECTIVES							
<p>This project is a continuation of ongoing engineering study and work from the 2010 flood. It is intended to reduce flooding in the Blieders Creek and German Creek watersheds by conveying flows to the Guadalupe River. This project is also intended to relieve flooding in the Landa Park area.</p>							
PROJECT SCOPE AND PHASING OPPORTUNITIES							
<p>This project consists of installation of box culverts generally aligned along property lines and through undeveloped areas. The alignment diverts and conveys flows from Blieders Creek and Comal River headwaters to German Creek then to the Guadalupe River, crossing River Rd, the railroad tracks and Torrey St in a potential easement. Permits would be required from FEMA, TCEQ, USACE and UPRR. This project would require minor channel grading at box culvert entrance and exit, road trenching and reconstruction, and boring under the railroad.</p> <p>Design will require additional study to re-establish existing conditions to incorporate upstream dam built and incorporate Atlas-14 rainfall.</p>							
KEY PROJECT STAKEHOLDERS		PUBLIC ENGAGEMENT TOPICS					
UPRR Veramendi Development Parks and Recreation		Floodplain Elevation and Headwaters					
CRITICAL PROJECT RISKS							
<p>Crossing of the railroad Additional drainage improvements may be required in the River Road and Lakeview Street intersection. Atlas-14 rainfall may increase project cost to achieve project objectives.</p>							
CAPITAL EXPENDITURE SCHEDULE							
FISCAL YEAR	Design	Land Acquisition	Utility Relocation	Construction	PM/CM	Inspection	Total
2023	\$2,731,000	\$326,000	\$0	\$9,511,000	\$189,000	\$252,000	\$13,009,000
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,731,000	\$326,000	\$0	\$9,511,000	\$189,000	\$252,000	\$13,009,000
Inflation Assumptions:							
Contingency Assumptions:							

2022 CIP Project Sheet

BAC Presentation

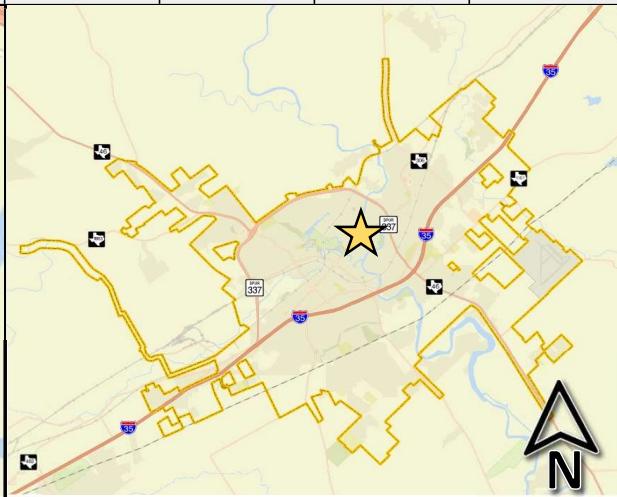
ESTIMATED OPERATIONS AND MAINTENANCE COSTS					■ ≥10% O&M INCREASE		
FISCAL YEAR	Personnel (Salary/ Benefits)	Supplies	Maintenance	Professional Services	Purchased Services	Capital Outlay	Rearranging or One-Time
2023	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2025	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2026	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2027	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2028	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2029	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2030	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A



END

BEGIN

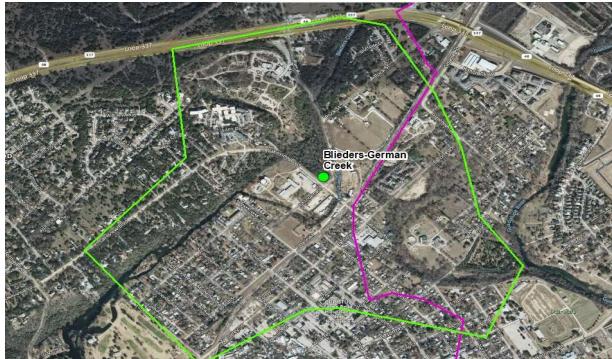
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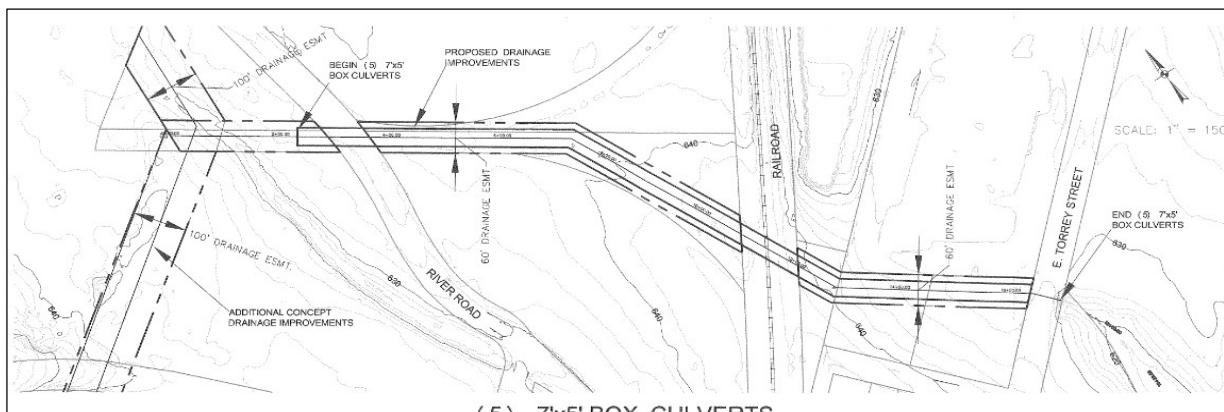
END

BEGIN

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Bieders-German Creek



100' DRAINAGE EMT

BEGIN (S) 7'x5' BOX CULVERTS

PROPOSED DRAINAGE IMPROVEMENTS

100' DRAINAGE EMT

60' DRAINAGE EMT

RAILROAD

RIVER ROAD

ADDITIONAL CONCEPT DRAINAGE IMPROVEMENTS

SCALE: 1" = 150

END (S) 7'x5' BOX CULVERTS

(5) 7'x5' BOX CULVERTS



2022 CIP Project Sheet

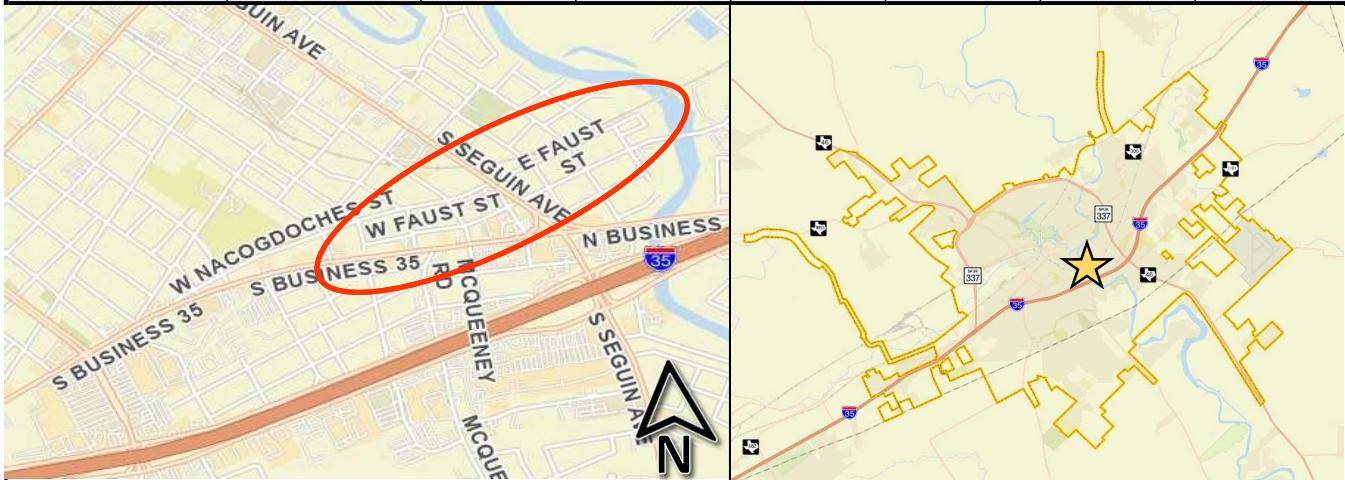
BAC Presentation

PROJECT TITLE: Faust St/Nacogdoches Ave Improvement		PROJECT #: 5					
PROJECT CATEGORY: Drainage		COUNCIL DISTRICT #: 5					
FUNDING SOURCES:		PROJECT BUDGET: \$13,900,000					
POTENTIAL EXTERNAL FUNDING SOURCES:		FUNDING NEEDS: \$13,900,000					
PROJECT MANAGER:		DEPARTMENT: START FINISH					
DESIGN PHASE: CONSTRUCTION:							
PROJECT OBJECTIVES							
Analyze drainage conveyance and flooding issues within the Faust Street and Nacogdoches Avenue area. Develop and implement solutions within project area and within available funding.							
PROJECT SCOPE AND PHASING OPPORTUNITIES							
Solutions may include: construction of drainage systems in Faust Street, Nacogdoches Avenue, and connecting streets; incorporation and improvement of the drainage system located in Comal Avenue, which drains the intersection of Comal Avenue and Selee Street; improvement of the outfall to the Guadalupe River and control the erosion on the river bank; installation of curb and gutter and inlets as needed and possible to improve conveyance of flows.							
Project scope will include value engineering the PER to restudy the design with potential 2D modeling and effects of the tailwater from the Guadalupe River.							
KEY PROJECT STAKEHOLDERS		PUBLIC ENGAGEMENT TOPICS					
UPRR TxDOT FEMA		Neighborhood flooding					
CRITICAL PROJECT RISKS							
Analysis was based on local flood event without tailwater effect of the Guadalupe River and 100-yr floodplain. Crossing of the railroad. Atlas-14 rainfall may increase project cost to achieve project objectives.							
CAPITAL EXPENDITURE SCHEDULE							
FISCAL YEAR	Design	Land Acquisition	Utility Relocation	Construction	PM/CM	Inspection	Total
2023	\$2,855,000	\$142,000	\$0	\$10,432,000	\$202,000	\$269,000	\$13,900,000
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,855,000	\$142,000	\$0	\$10,432,000	\$202,000	\$269,000	\$13,900,000
Inflation Assumptions:							
Contingency Assumptions:							

2022 CIP Project Sheet

BAC Presentation

ESTIMATED OPERATIONS AND MAINTENANCE COSTS					■ ≥10% O&M INCREASE		
FISCAL YEAR	Personnel (Salary/ Benefits)	Supplies	Maintenance	Professional Services	Purchased Services	Capital Outlay	Recurring or One-Time
2023	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2025	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2026	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2027	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2028	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2029	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2030	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A





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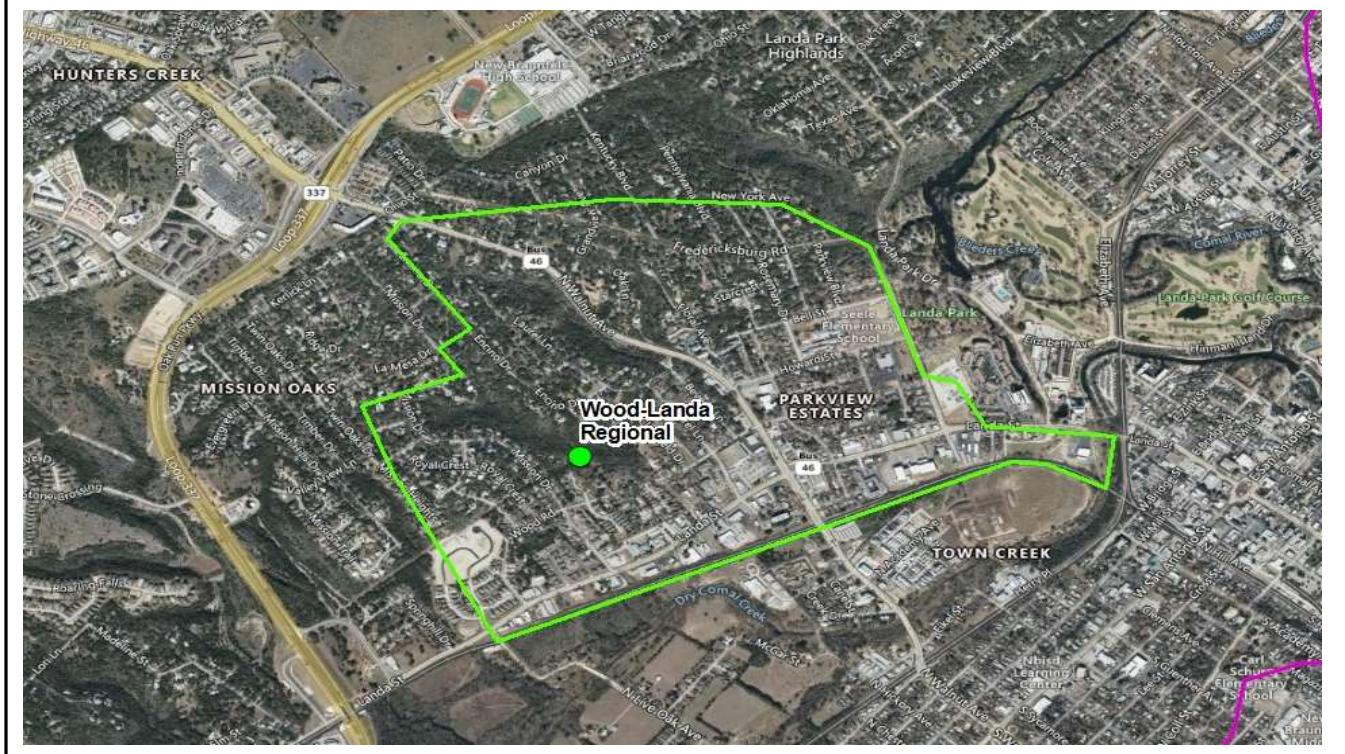
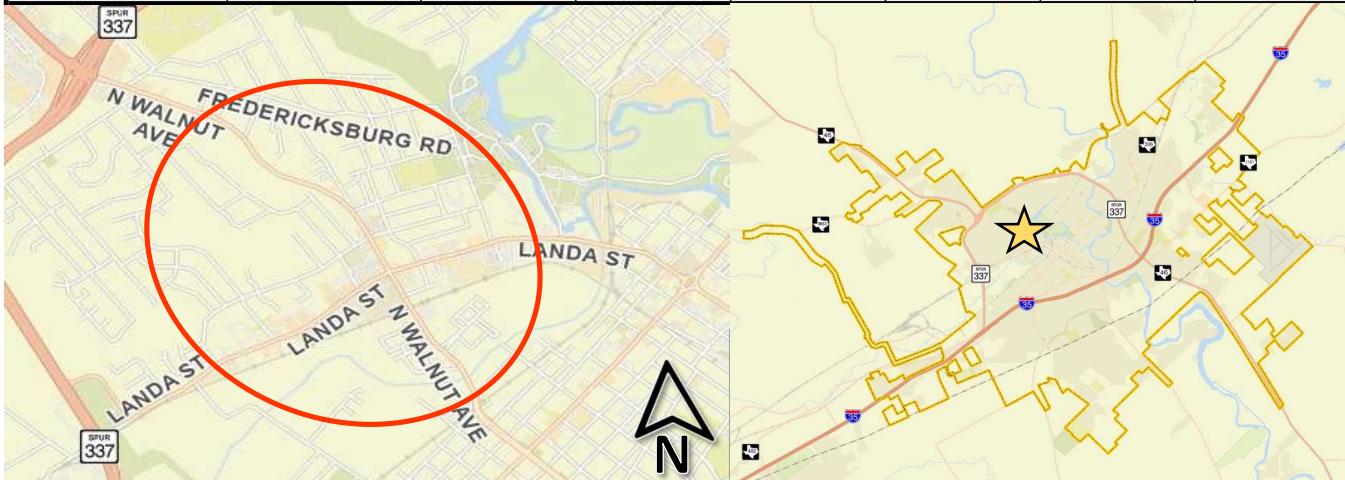
BAC Presentation

PROJECT TITLE: Wood Rd-Landa St Regional Detention Study		PROJECT #: _____					
PROJECT CATEGORY: Drainage		COUNCIL DISTRICT #: 3					
FUNDING SOURCES: PER 2013 Bond		PROJECT BUDGET: \$1,000,000					
POTENTIAL EXTERNAL FUNDING SOURCES:		FUNDING NEEDS: \$1,000,000					
PROJECT MANAGER: _____		DEPARTMENT: _____					
		START	FINISH				
		DESIGN PHASE: _____	CONSTRUCTION: _____				
PROJECT OBJECTIVES							
<p>This project is a continuation of ongoing engineering study and work. The project is intended to reduce flooding common to the Wood Road and Inspiration Drive drainage areas by managing storm flows from the large watershed.</p>							
PROJECT SCOPE AND PHASING OPPORTUNITIES							
<p>Continue to develop design based on Alternative 7B - 25-year diversion from the 2019 Wood Road/Landa Street Drainage Improvements Study. Perform recommended geotechnical investigation and Level A Subsurface utility Engineering to obtain detailed information regarding soils and utilities around the pond and proposed intake pipe alignments. Perform additional design level study including additional finished floor elevations for structures currently affected by flooding. Identify required easements for utility relocations, pond footprint, and associated diversion pipes. Perform preliminary engineering study for development of the regional detention facility.</p>							
KEY PROJECT STAKEHOLDERS		PUBLIC ENGAGEMENT TOPICS					
TCEQ LCRA		Construction of Flood Control Structure					
CRITICAL PROJECT RISKS							
<p>Atlas-14 rainfall may increase project cost to achieve project objectives.</p>							
CAPITAL EXPENDITURE SCHEDULE							
FISCAL YEAR	Design	Land Acquisition	Utility Relocation	Construction	PM/CM	Inspection	Total
2023	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,000,000
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,000,000
Inflation Assumptions: _____							
Contingency Assumptions: _____							

2022 CIP Project Sheet

BAC Presentation

FISCAL YEAR	ESTIMATED OPERATIONS AND MAINTENANCE COSTS					■ ≥10% O&M INCREASE		
	Personnel (Salary/ Benefits)	Supplies	Maintenance	Professional Services	Purchased Services	Capital Outlay	Recurring or One-Time	
2023	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2025	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2026	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2027	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2028	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2029	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2030	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	





2022 CIP Project Sheet

BAC Presentation

PROJECT TITLE: Dry Comal Creek - West Watershed Project				PROJECT #:									
PROJECT CATEGORY: Drainage				COUNCIL DISTRICT #: 3									
FUNDING SOURCES:				PROJECT BUDGET: \$1,805,000									
POTENTIAL EXTERNAL FUNDING SOURCES:				FUNDING NEEDS: \$1,805,000									
PROJECT MANAGER:				DEPARTMENT: Public Works									
				START		FINISH							
				DESIGN PHASE:		CONSTRUCTION:							
PROJECT OBJECTIVES													
Potential solutions to minimize flooding issues within the Cedar Elm Street, Landa-Madeline drainage area. This project is a result of citizen concerns presented after the June 2010 flood.													
PROJECT SCOPE AND PHASING OPPORTUNITIES													
Constructing drainage swales and replacement of existing drainage structures in the area. Three drainage swales proposed along the backside of even number lots along the west side of Cedar Elm Street. Replacement of existing culverts that convey flows from the study area across the railroad and Wald Road rights-of-way. Improvements could be constructed as one phase or broken into multiple phases depending on need and funding. Requires the acquisition of drainage easements													
Design will require additional study to scale PER design to a watershed level and incorporate Atlas 14. *Project scope is based on 2011 PER that does not reflect Atlas 14 rainfall statistics													
KEY PROJECT STAKEHOLDERS				PUBLIC ENGAGEMENT TOPICS									
Union Pacific Rail Road Watershed Advisory Committee Impacted Residents				Incorporation of Drainage Area Master Plan Updated Detention Requirements									
CRITICAL PROJECT RISKS													
Project site has large slopes Railroad acts as a dam Large soil disturbance Swales conflict with trees Limited access Potential Caves and recharge features Requires 14 property owners to sell a drainage easement													
CAPITAL EXPENDITURE SCHEDULE													
FISCAL YEAR	Design	Land Acquisition	Utility Relocation	Construction	PM/CM	Inspection	Total						
2023	\$451,000	\$165,000	\$0	\$1,127,000	\$27,000	\$35,000	\$1,805,000						
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
TOTAL	\$451,000	\$165,000	\$0	\$1,127,000	\$27,000	\$35,000	\$1,805,000						
Inflation Assumptions:													
Contingency Assumptions:													

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BAC Presentation

FISCAL YEAR	ESTIMATED OPERATIONS AND MAINTENANCE COSTS				■ ≥10% O&M INCREASE		
	Personnel (Salary/ Benefits)	Supplies	Maintenance	Professional Services	Purchased Services	Capital Outlay	Recurring or One-Time
2023	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2024	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2025	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2026	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2027	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2028	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2029	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2030	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A

