

WHARTON LEVEE SYSTEM

Wharton Levee System, Texas

Commissioners Court Briefing

Wharton County

28 October 2019



**US Army Corps
of Engineers.**



BRIEFING PURPOSE

Purpose

- Give overview of history of project
- Provide status of current efforts
- Reduce concerns regarding induced damages



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STUDY PURPOSE AND AUTHORITY

Study Purpose: Investigate flooding with an effort to reduce risk from future floods for the Lower Guadalupe River Basin, Texas.

Authority: Authorities for conducting studies within the Colorado River Basin of Texas have been in place since the mid-1930's. Despite being somewhat aged, they have remained active throughout the years, and remain valid today for studies in or near Wharton, Texas.

The applicable Congressional Study Authorization is shown below:

- Resolution by the Committee on Commerce, United States Senate, adopted August 4, 1936
- River and Harbor Act, approved August 26, 1937
- River and Harbor Act, approved March 2, 1945
- **Bipartisan Budget Act of 2018 – Provides full federal funding for completion of the recommended plan**



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TIMELINE

Feasibility Study Completed – 2006

First Design Contract - 2012

Hurricane Harvey - 2017

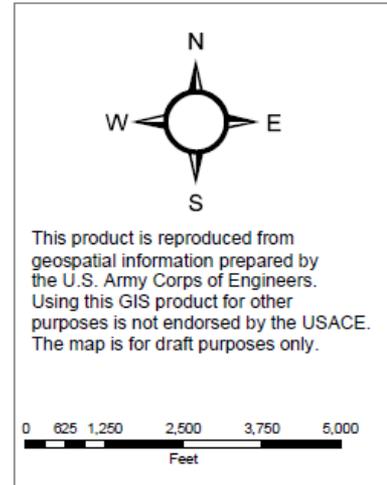
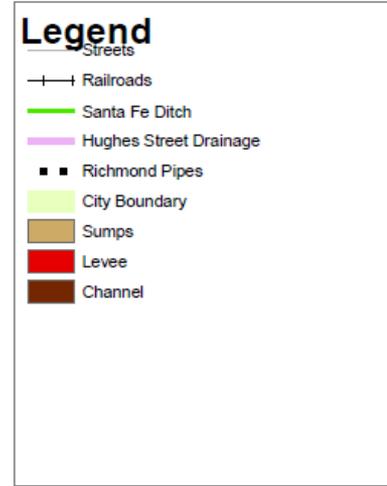
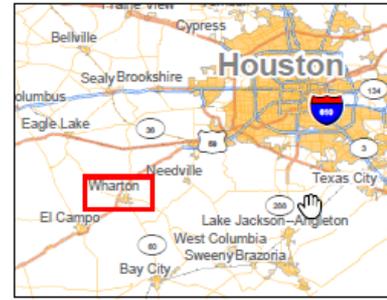
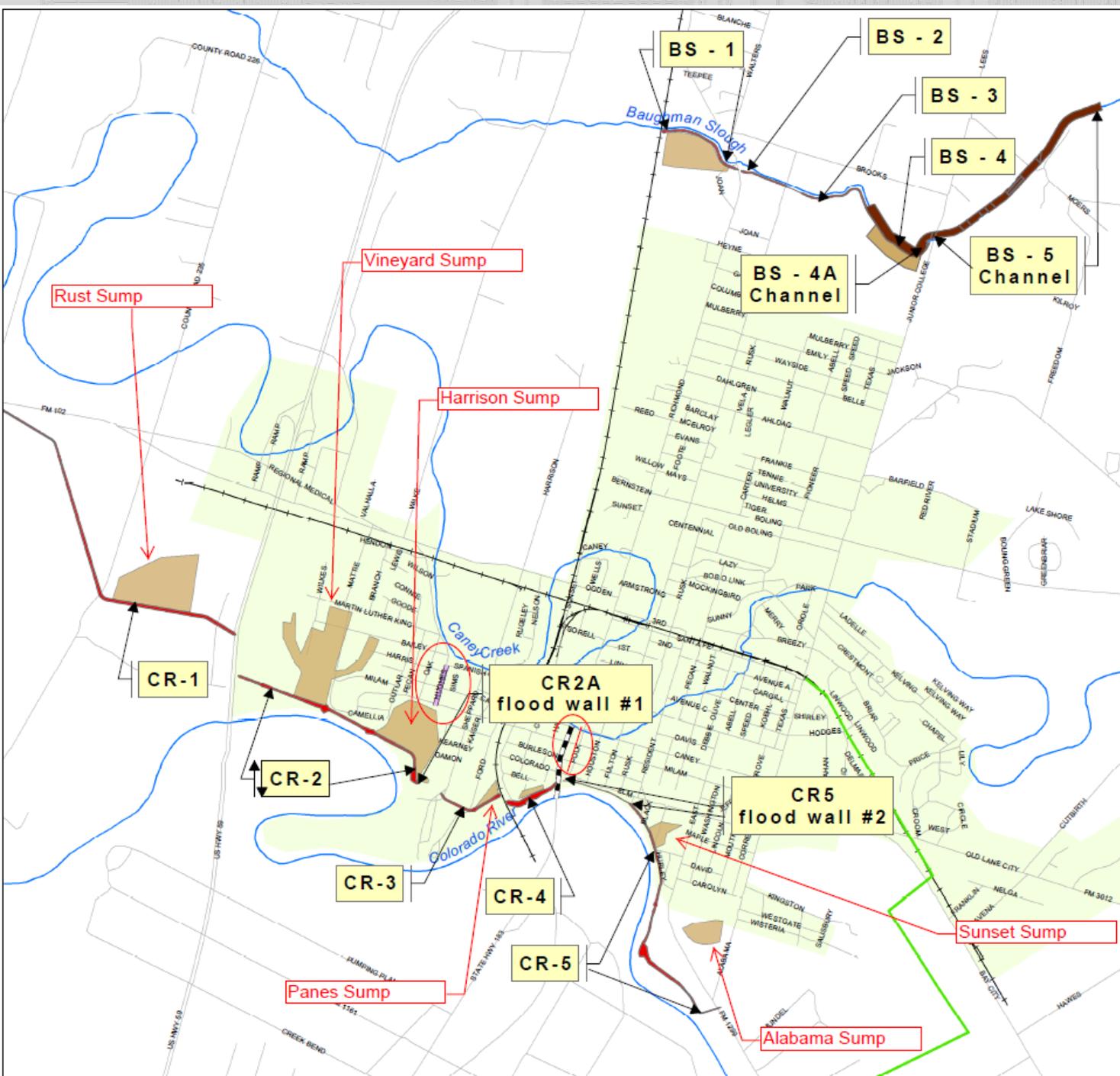
Bipartisan Budget Act of 2018

Award of current design contract 2018

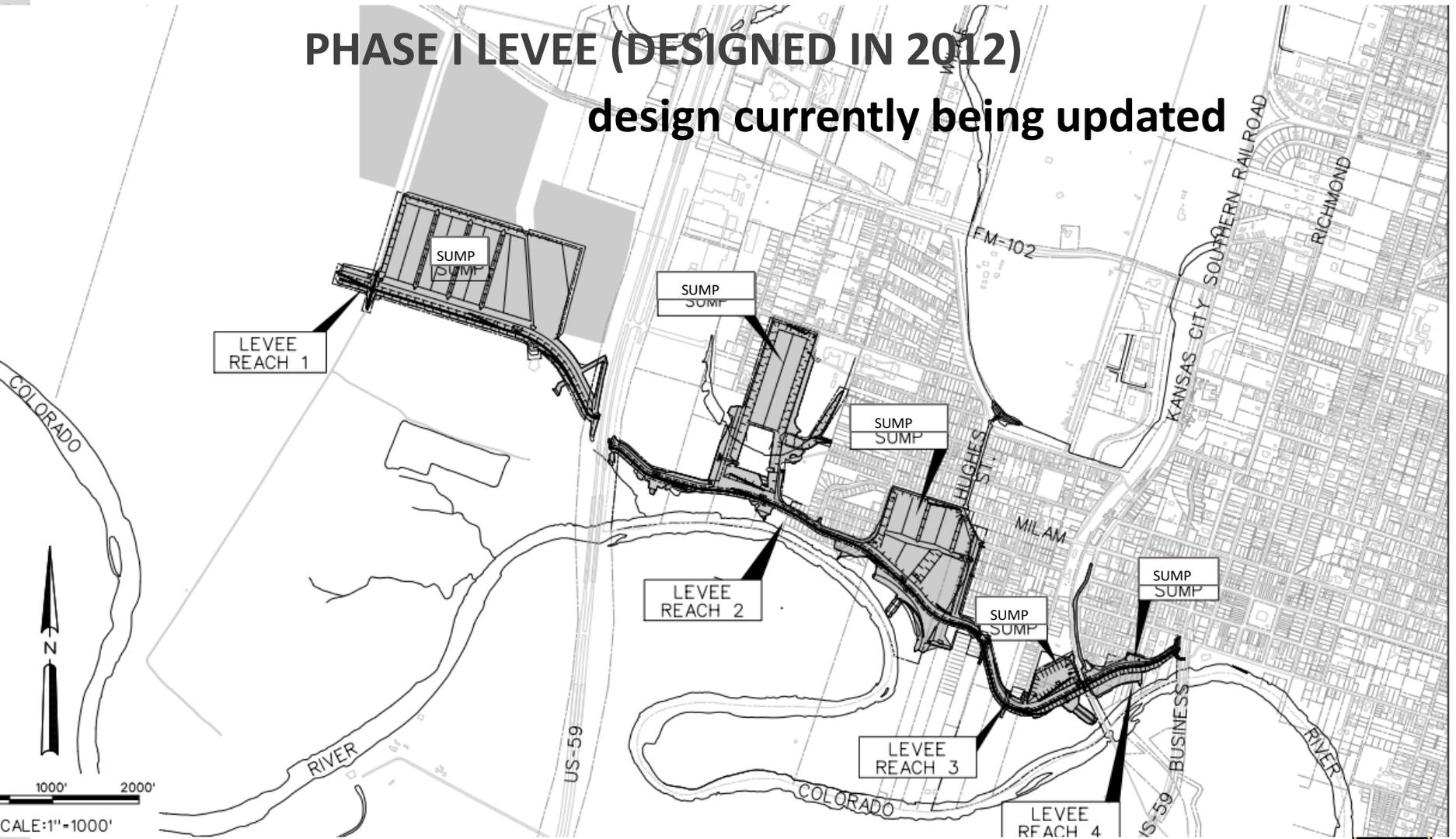


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PHASE I LEVEL (DESIGNED IN 2012) design currently being updated



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CURRENT LEVEE STATUS

- After Harvey, Congress appropriated funds to complete the levee system, as part of the Bipartisan Budget Act of 2018, which became law in February 2018
- Special cost sharing rules for disaster relief were also included, allowing the project to be 100% Federally funded.
- Design and property acquisition are currently underway.
- New technology and data are being utilized for the final design
- Levee will be built to current USACE and FEMA criteria
- Construction duration will take 24 month

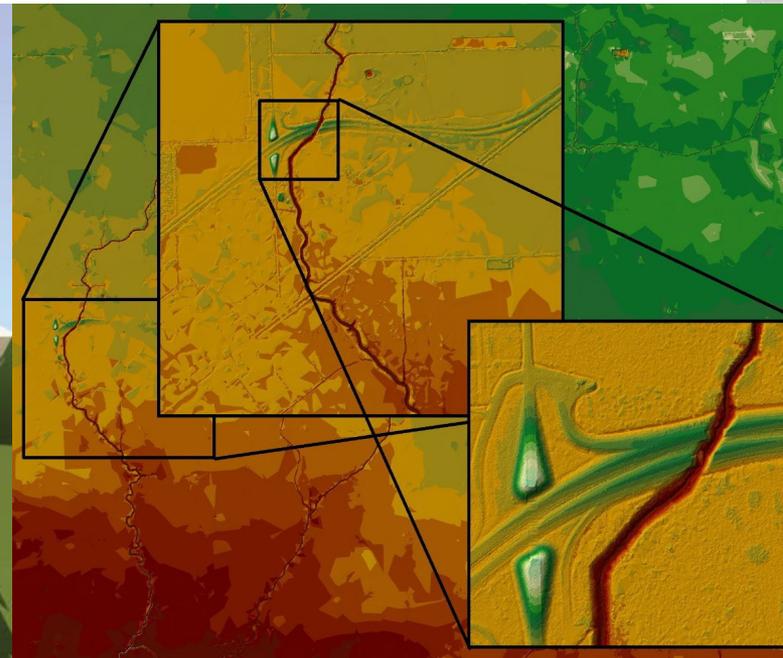
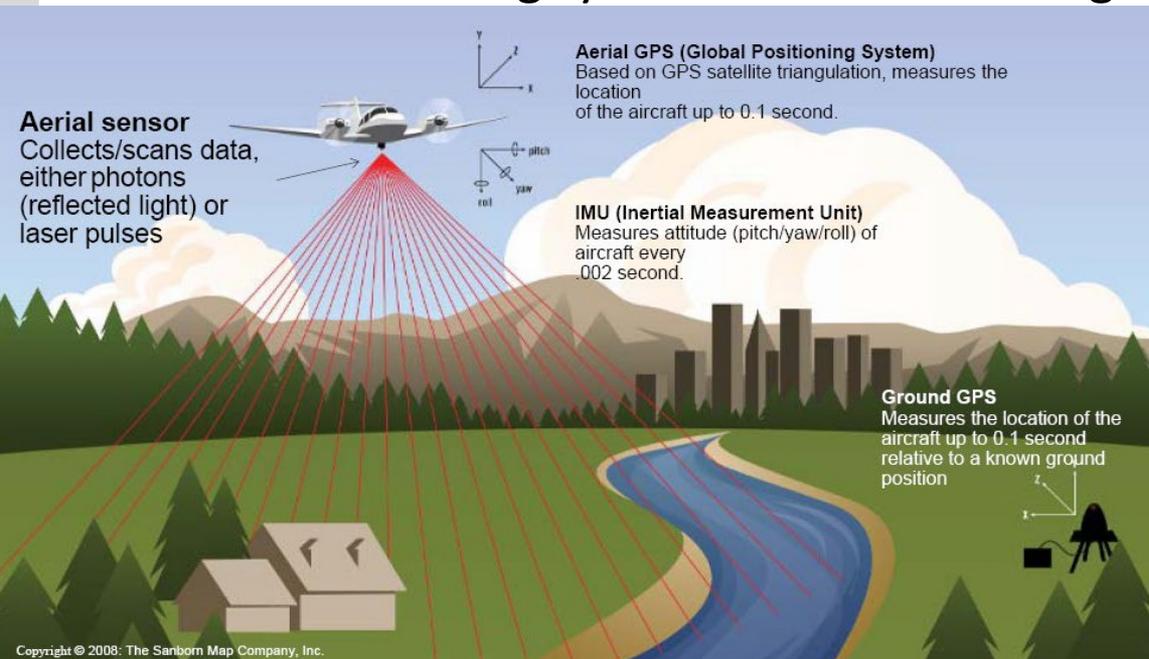


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LIGHT DETECTION AND RANGING (LIDAR)

- Remote sensing system that uses laser light to measure distances

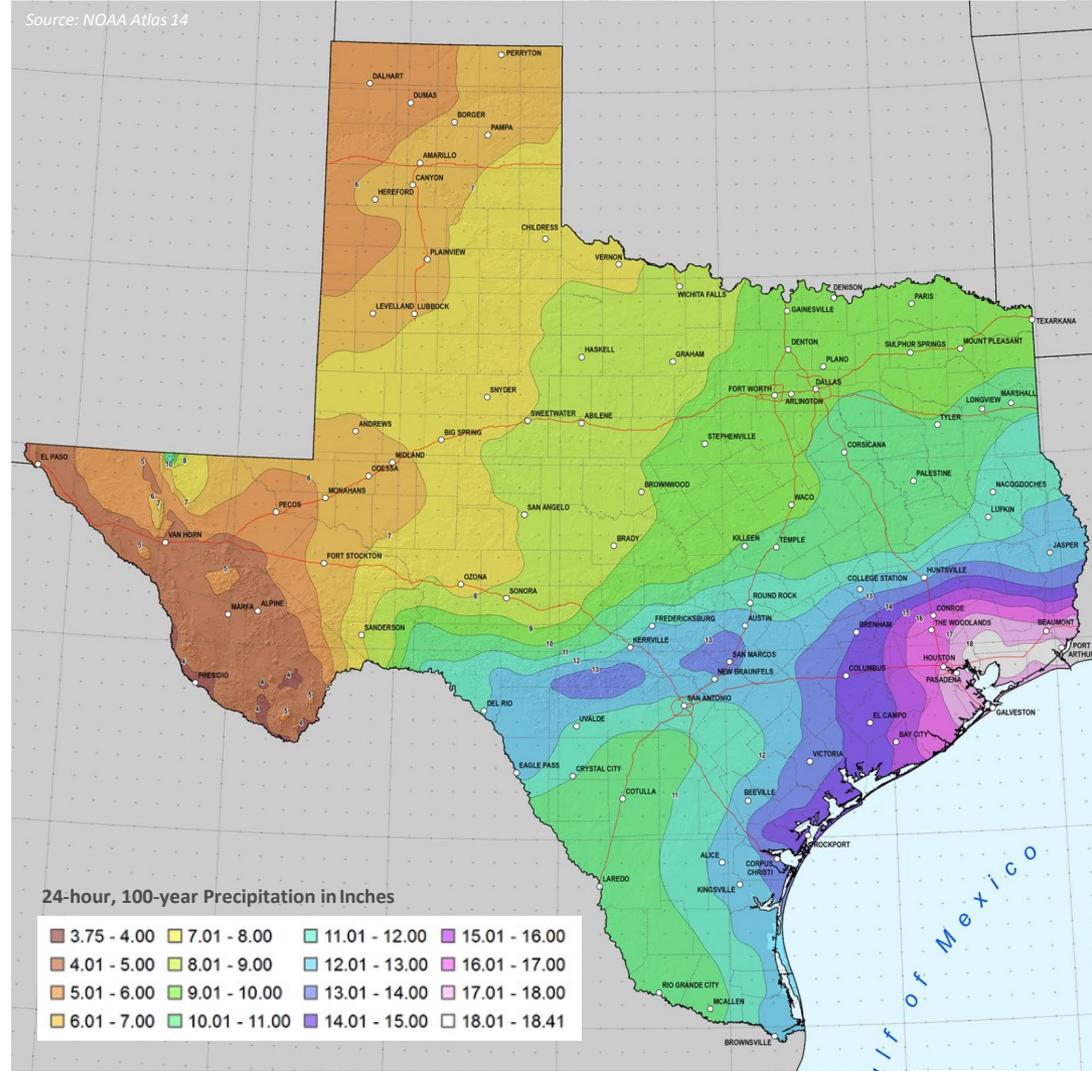


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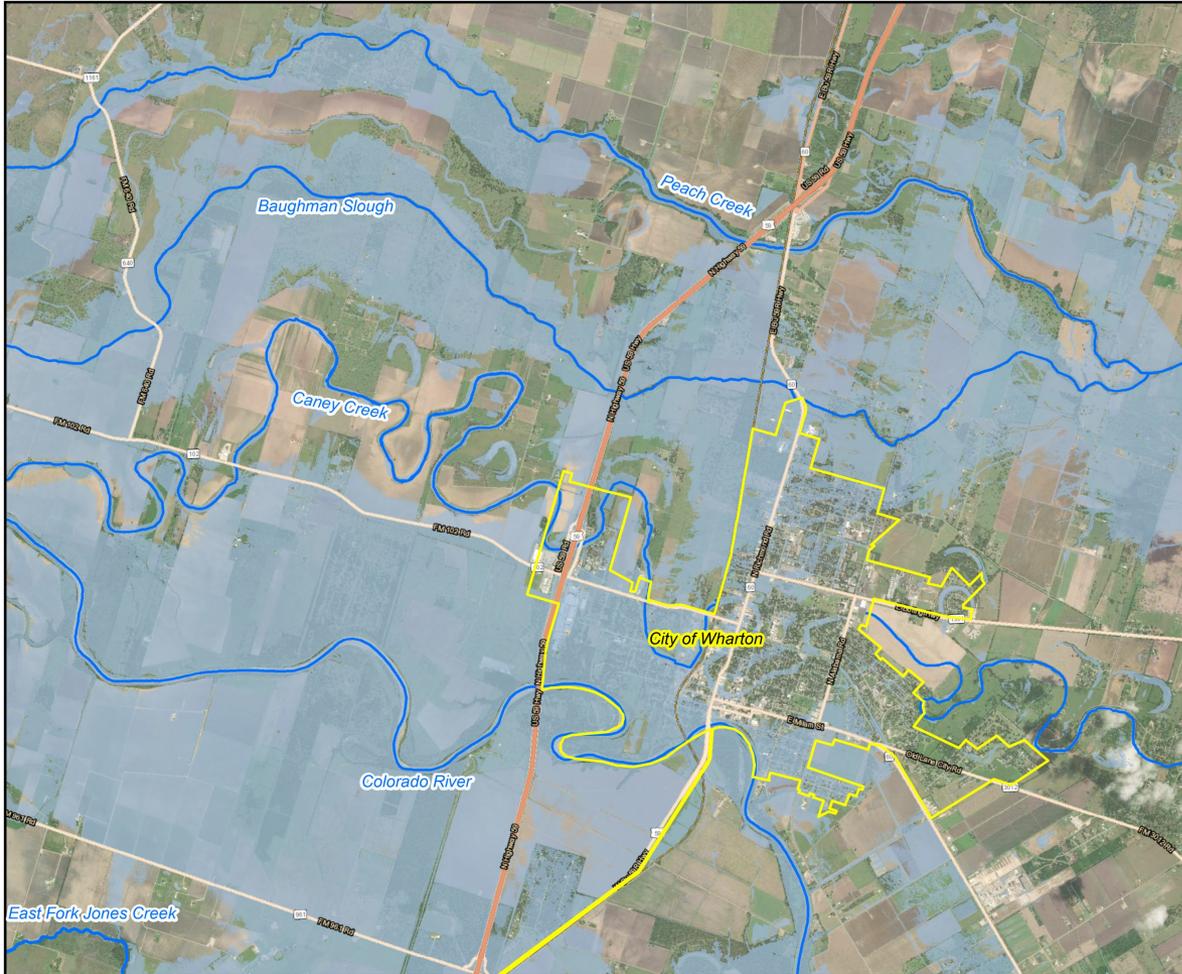
ATLAS 14 RAINFALL

- Released September 27, 2018
- Atlas 14 indicates that the 1% (100-year) annual chance event may be greater than what we previously considered.
- The greatest rainfall changes occur in central Texas and along the Texas coast.



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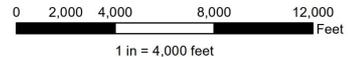


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Colorado River Flood Control Project 100-Year Storm Inundation Mapping - Existing Conditions Wharton, TX

Legend

-  City of Wharton
-  Stream Centerlines
-  Inundated Area



Imagery Source:
ESRI World Imagery
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus

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Colorado River Flood Control Project 100-Year Storm Inundation Mapping - All Phases Wharton, TX

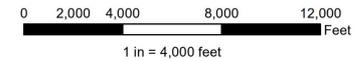
Legend

-  Proposed Levees
-  Proposed Channel Improvements
-  City of Wharton
-  Stream Centerlines
-  Inundated Area

Note: Mapping not shown in proposed sump areas



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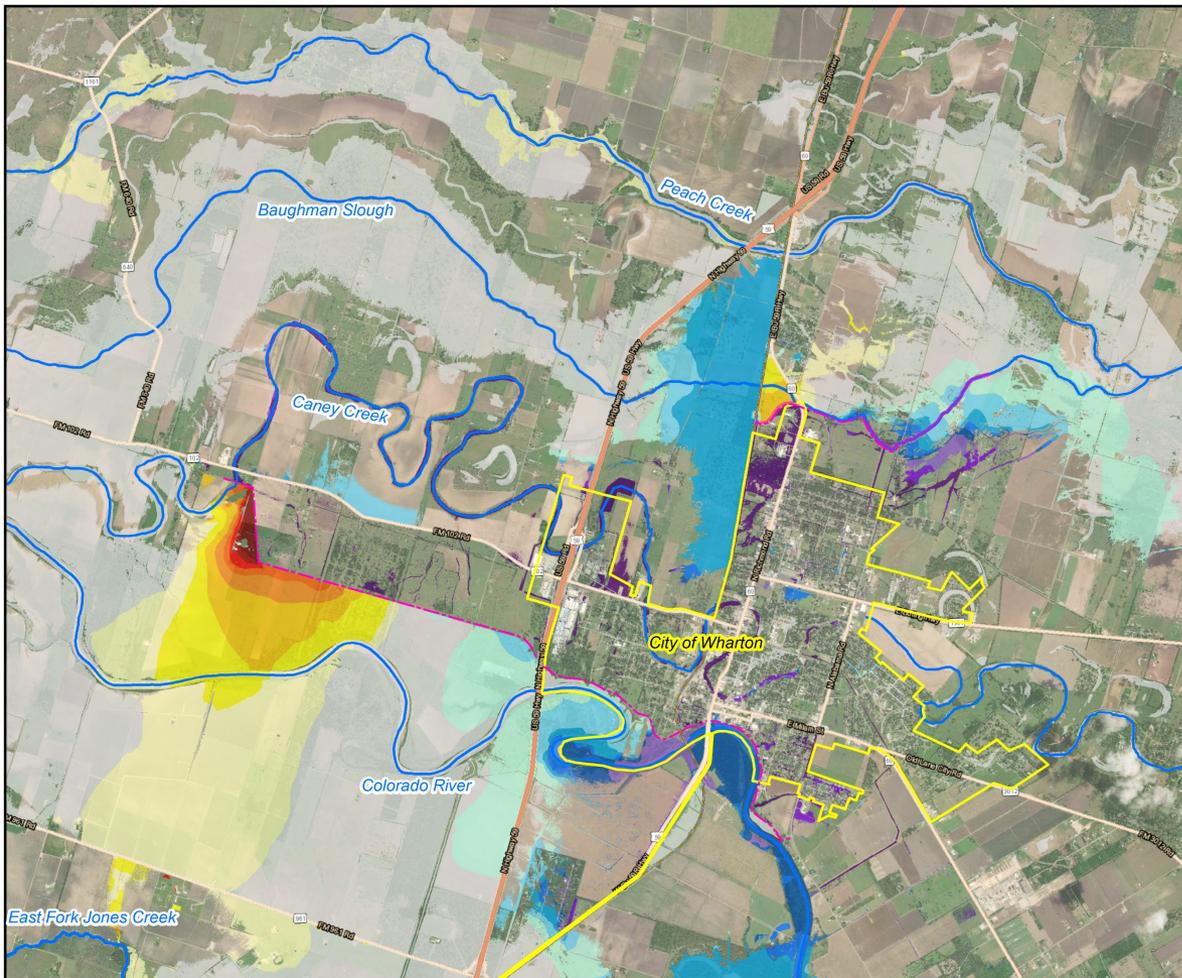


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Colorado River Flood Control Project 100-Year Water Surface Elevation (WSEL) Difference Mapping - All Phases Wharton, TX

Legend

- Proposed Levees
- Proposed Channel Improvements
- City of Wharton
- Stream Centerlines

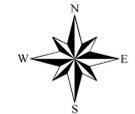
Change in WSEL (ft)

	- 0.1 - 0.1
	0.1 - 0.2
	0.2 - 0.3
	0.3 - 0.4
	0.4 - 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1
	1+

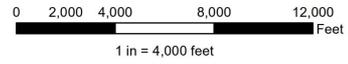
Proposed minus Existing

	< -1
	-1 - -0.8
	-0.8 - -0.6
	-0.6 - -0.5
	-0.5 - -0.4
	-0.4 - -0.3
	-0.3 - -0.2
	-0.2 - -0.1

Note: Mapping not shown in proposed sump areas



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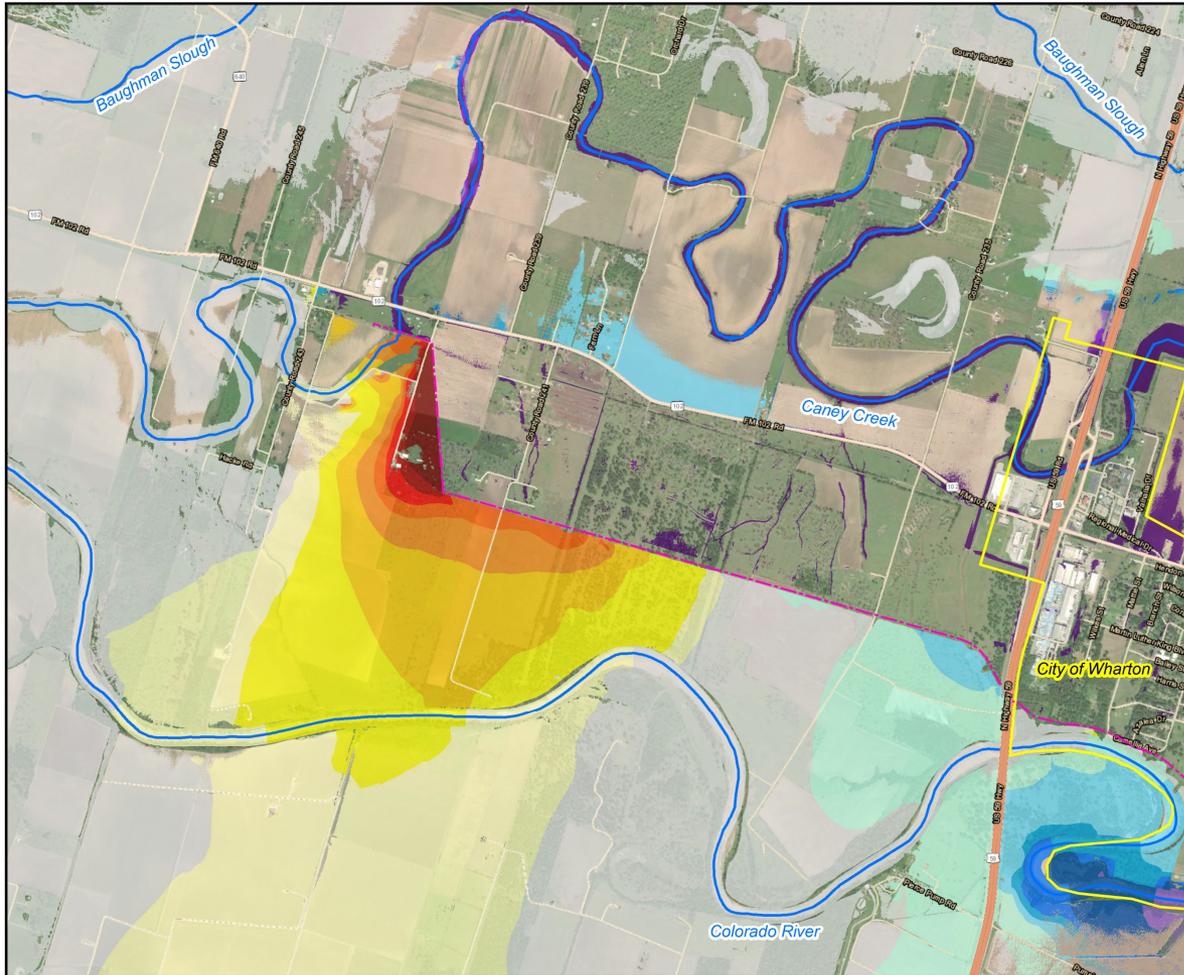


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Colorado River Flood Control Project 100-Year Water Surface Elevation (WSEL) Difference Mapping - All Phases Upper Colorado River Levee

Legend

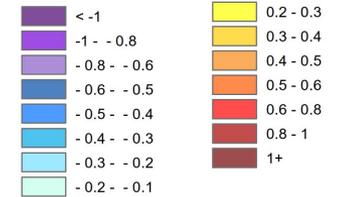
— Proposed Levees

□ City of Wharton

~ Stream Centerlines

Change in WSEL (ft)

Proposed minus Existing



Note: Mapping not shown in proposed sump areas



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ESRI World Imagery

Service Layer Credits: Esri, HERE,
Garmin, (c) OpenStreetMap
contributors
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1 in = 2,000 feet

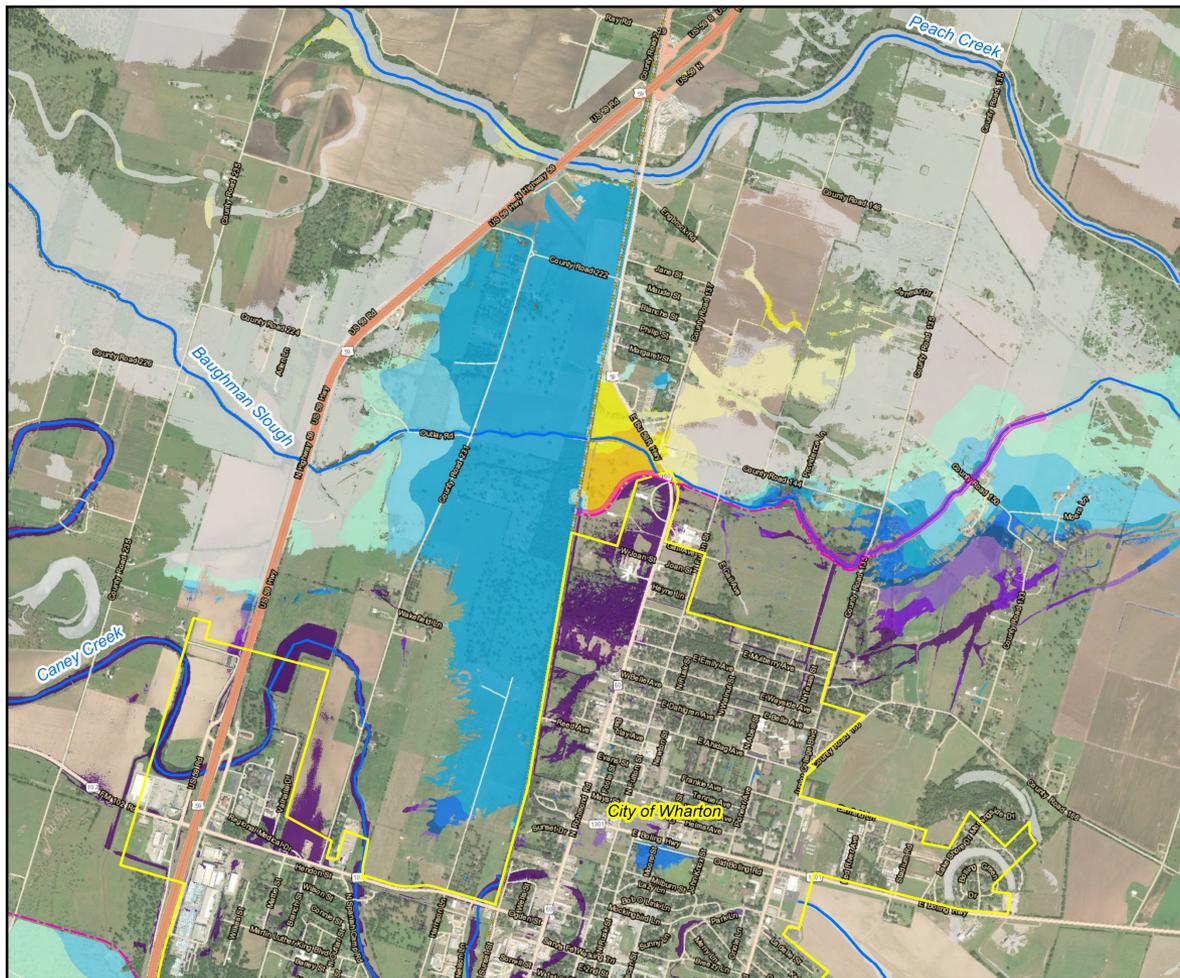
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Colorado River Flood Control Project 100-Year Water Surface Elevation (WSEL) Difference Mapping - All Phases Baughman Slough Levee

Legend

- Proposed Levees
- Proposed Channel Improvements
- City of Wharton
- Stream Centerlines

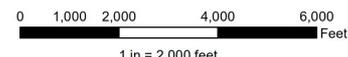
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Note: Mapping not shown in proposed sump areas

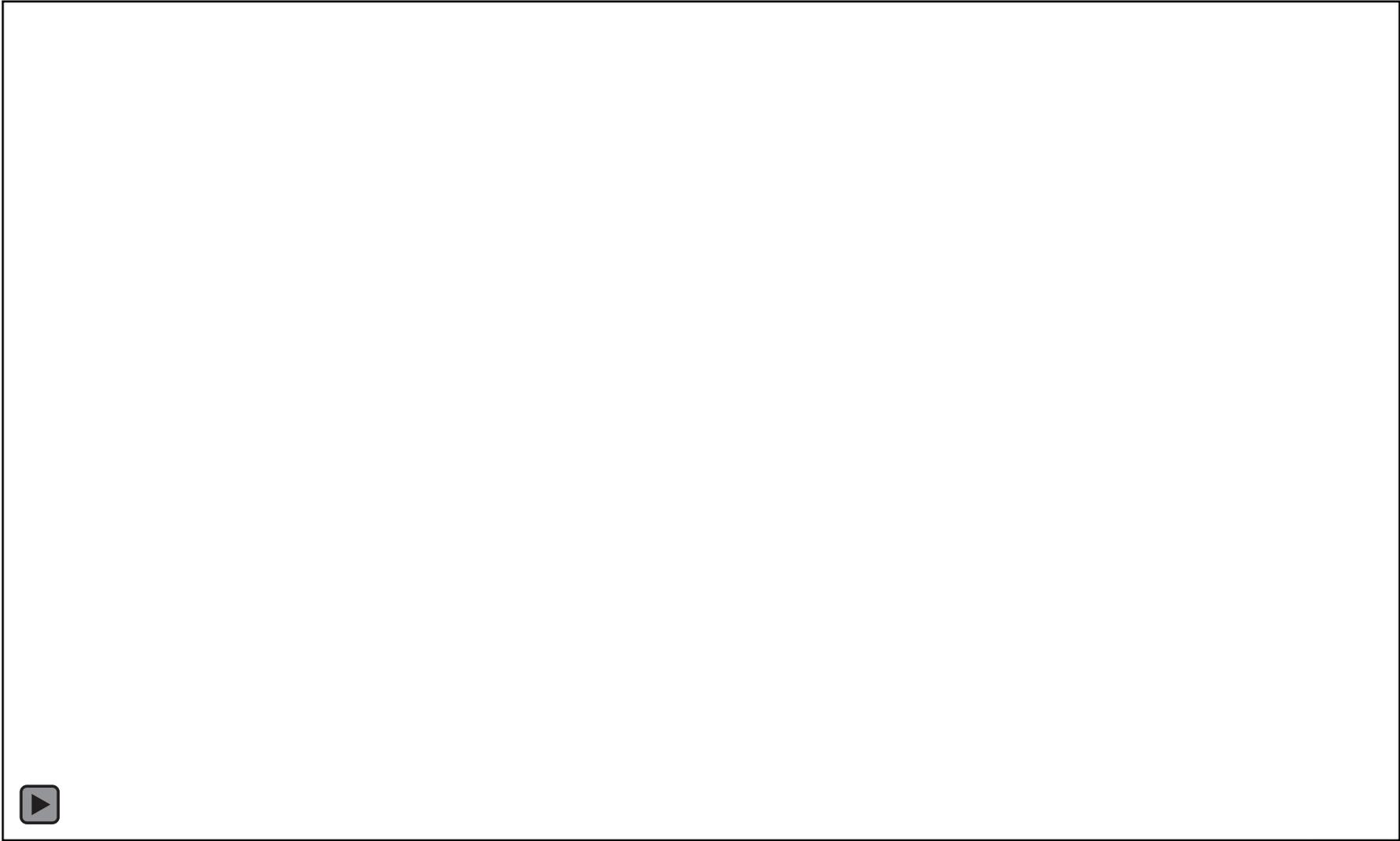


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MILESTONE SCHEDULE



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CONCLUSION

- Changes in water surface elevation are acceptable and appropriate for this sort of project.
- The design is ongoing and the final alignment is continuing to be refined



City of Wharton:

<http://www.cityofwharton.com/page/Levee%20Project>

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