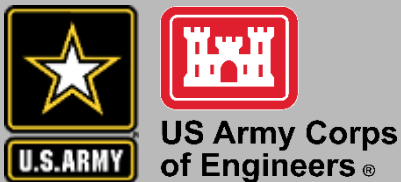
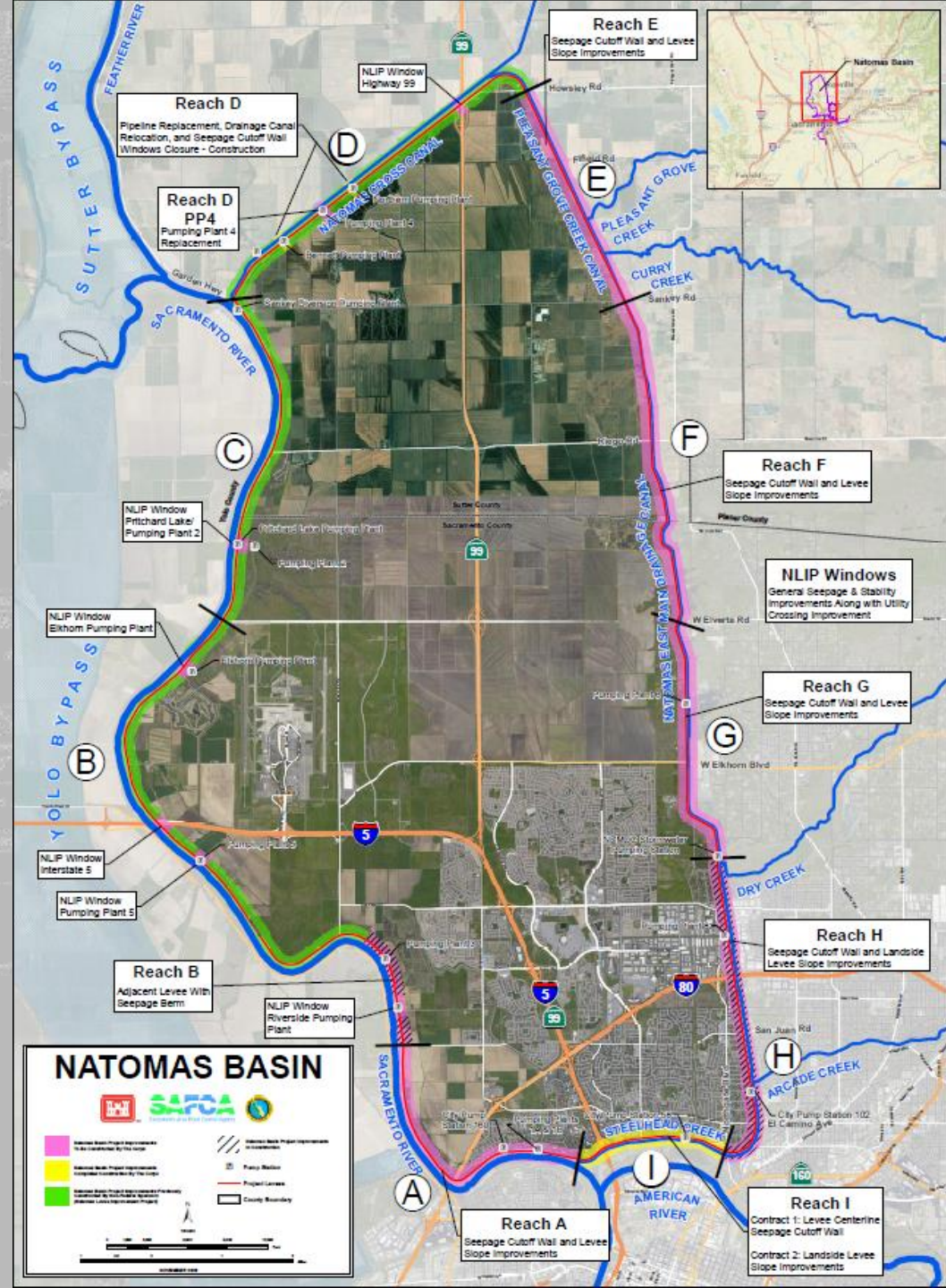


# NATOMAS LEVEE IMPROVEMENTS: REACH A UPDATE

Krystal Bell  
Senior Project Manager

Kylan Kegel  
Technical Lead

November 16, 2020





## TOPICS COVERED

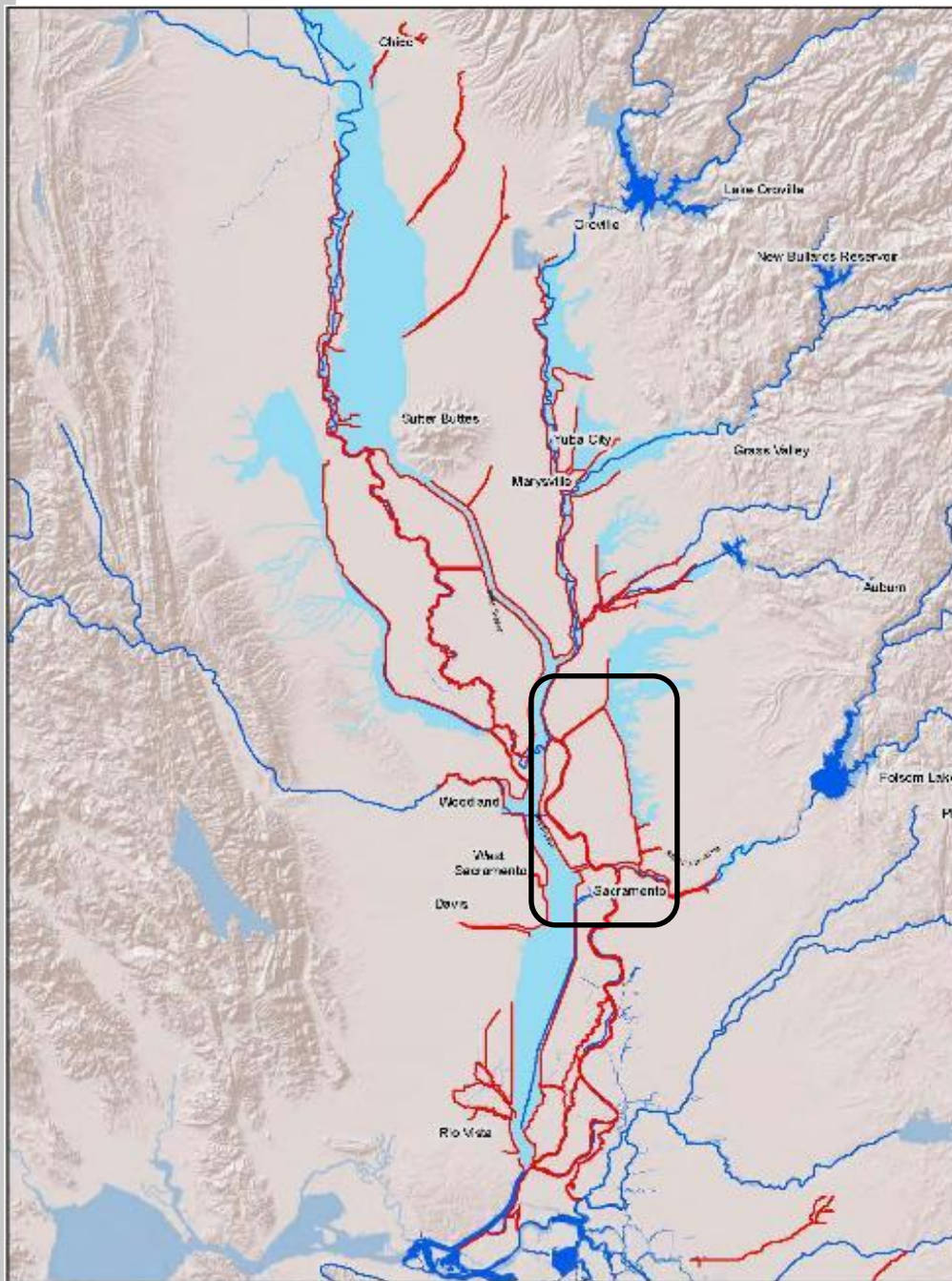
- Natomas Basin Levee Improvements Overview
- Project Partners
- Project Progress
- Technical Overview
- Schedule
- Construction
- Contact Information



Natomas Levee Improvements are a **CRITICAL** part of a larger flood risk reduction system for Sacramento.

The system is over 100 years old, and has served us well, in many flood events.

However, each successive high water event diminishes the system resiliency during future events.



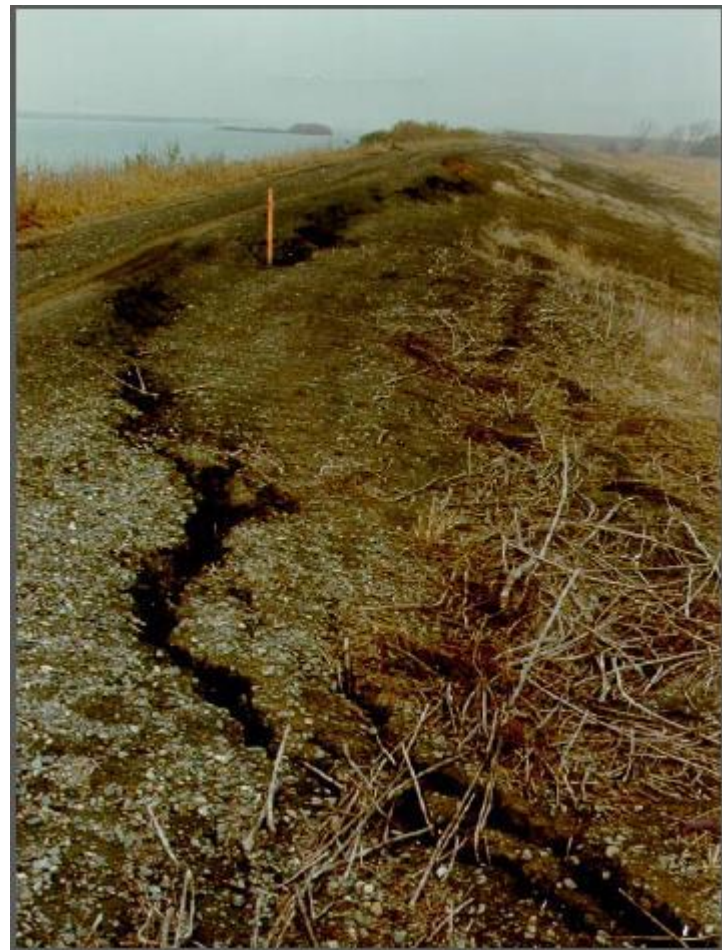


# FLOOD FIGHTING, 1986

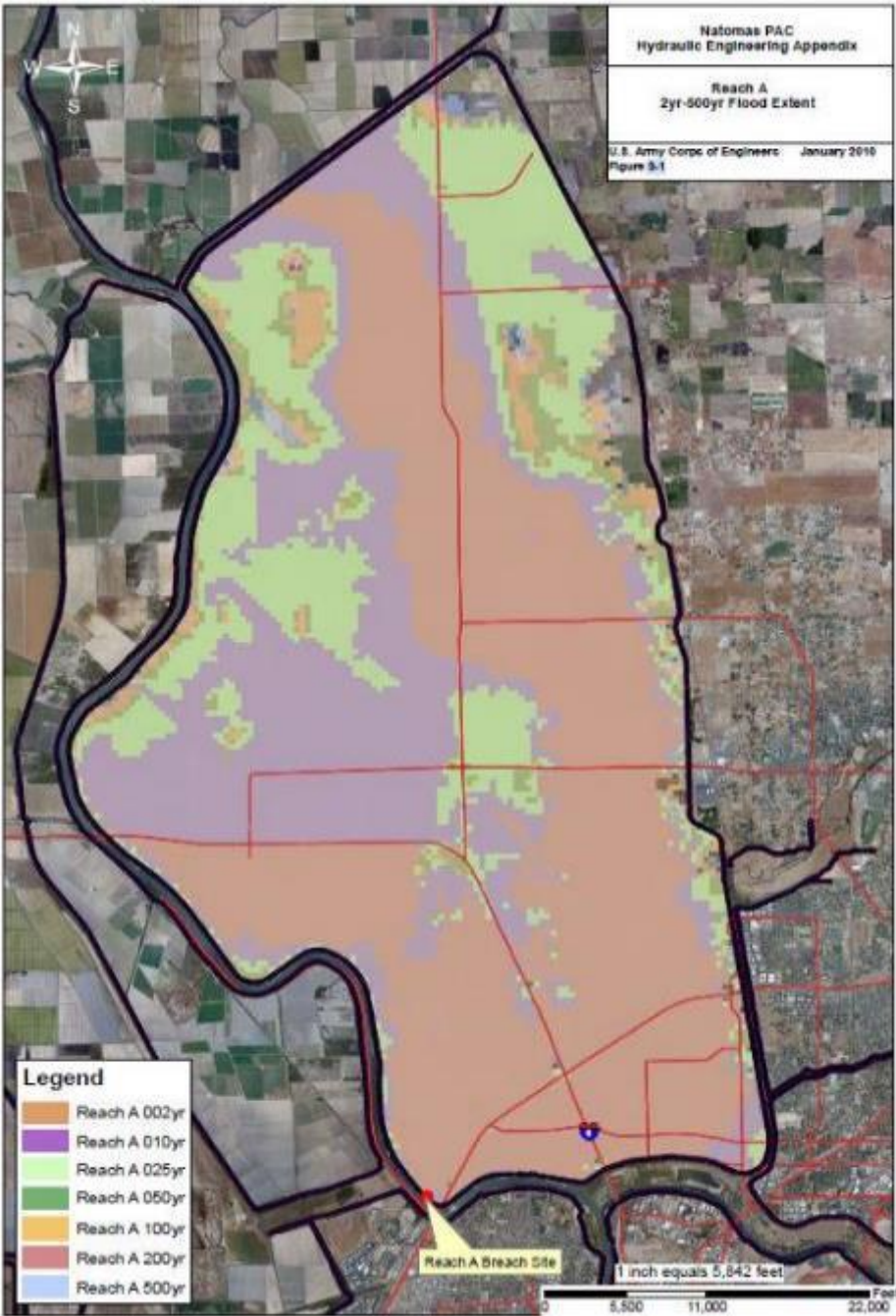


Levee land side levee sloughing caused by through levee seepage.

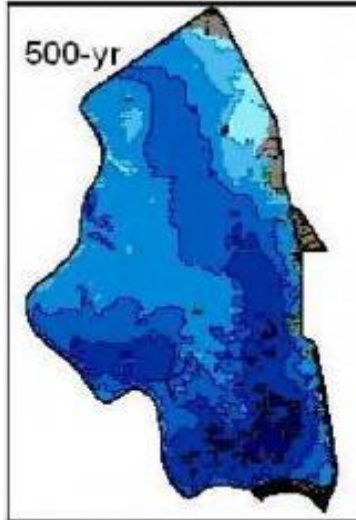
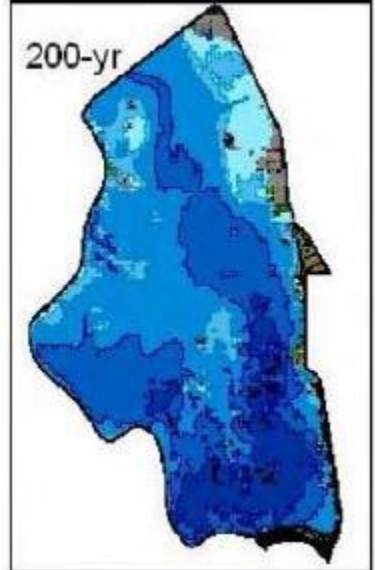
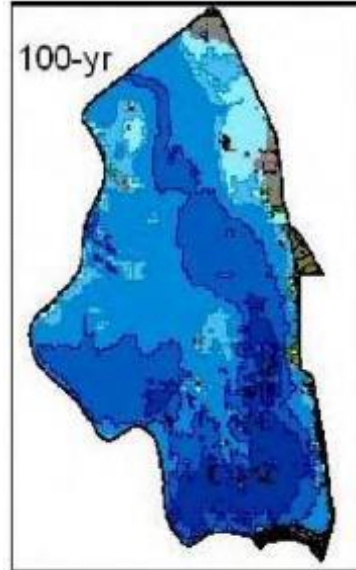
The shallow cutoff wall constructed in Garden Highway after the 1986 flood was meant to stop through-levee seepage. New construction techniques now allow deeper cutoff wall construction to address under-seepage, which was a problem experienced during in the 1997 floods.



Levee crown cracking due to settlement from levee under seepage.



# FLOOD RISK



Floodplains for breach at Reach A



# PROJECT PARTNERS



Federal Government – USACE

State Government – Central Valley Flood Protection Board/Department of Water Resources

Local Government – Sacramento Area Flood Control Agency and Reclamation District 1000



**US Army Corps  
of Engineers®**





# PROJECT OVERVIEW



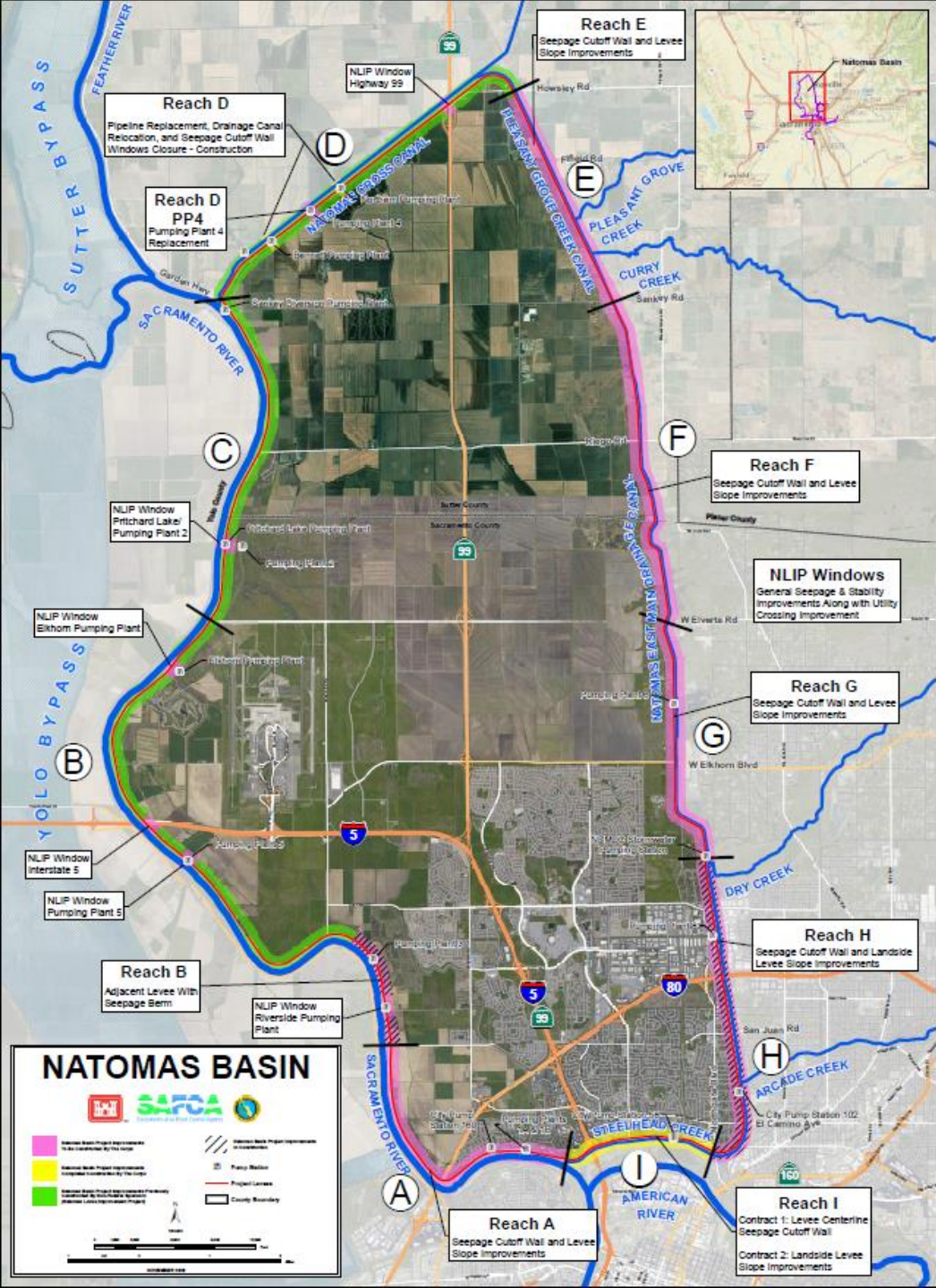
Together USACE, State of California, the Sacramento Area Flood Control Agency (SAFCA), and Reclamation District (RD) 1000 have made tremendous progress in reducing flood risk for the Natomas Basin and the City of Sacramento.





# PROGRESS:

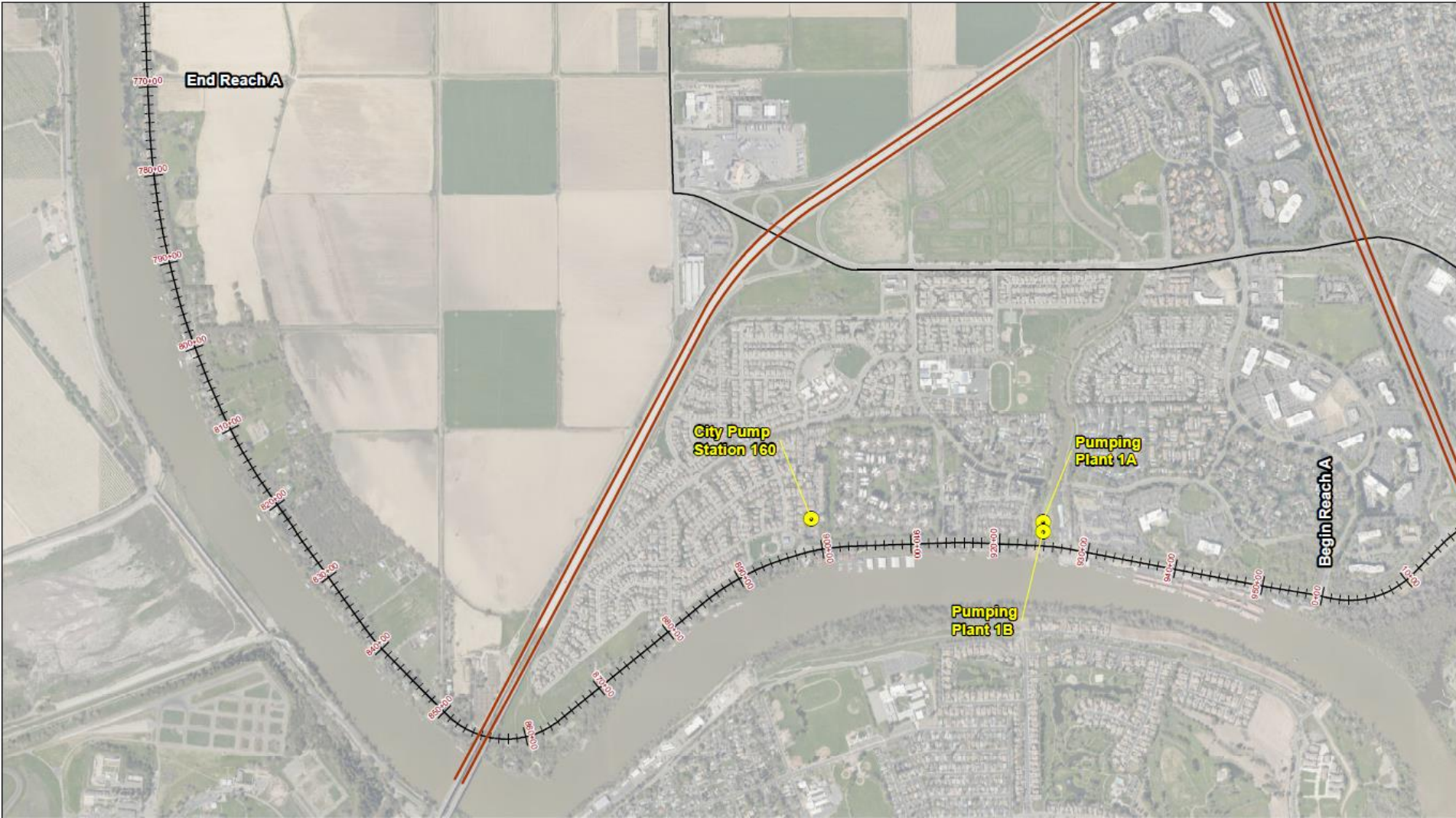
- 2020 Reaches D and Reach I Contract 1 completed construction. Reach B construction and Reach H construction ongoing. Reaches A, E, F, G, and Windows design.
- 2021 Reach B and H construction complete. Reach A design finalized and contract award. Reach B I-5 Window construction award and construction completion. Reach E, F, and G design continues.
- 2022 Reach A construction begins. Design completion for Reaches E, F, G, and Natomas Windows: Hwy 99 and Pumping Plant #5. Reach I, Contract 2 construction begins.
- 2023 Reach A season 2 construction continues. Reach E, F, and G construction begins.







# REACH A – LOCATED FROM GATEWAY OAKS DRIVE TO FARM ROAD (APPROXIMATELY 3.5 MILES)



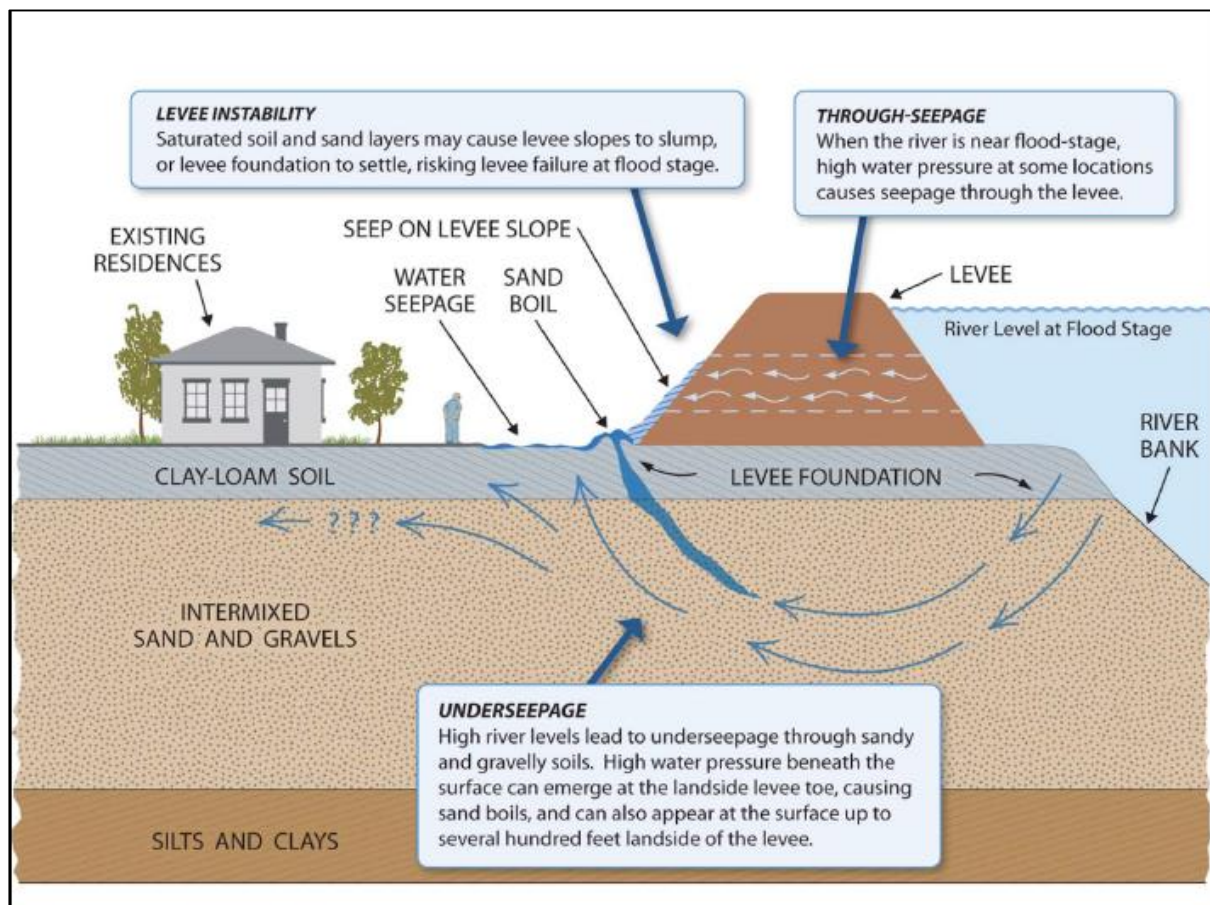


# GOAL OF NATOMAS LEVEE IMPROVEMENTS:

REDUCE FLOOD RISK USING THROUGH-SEEPAGE, UNDER-SEEPAGE, AND SLOPE STABILITY TREATMENTS



Garden Highway Levee Improvements,  
c. 2012





# TYPICAL ADJACENT LEVELLEE DESIGN



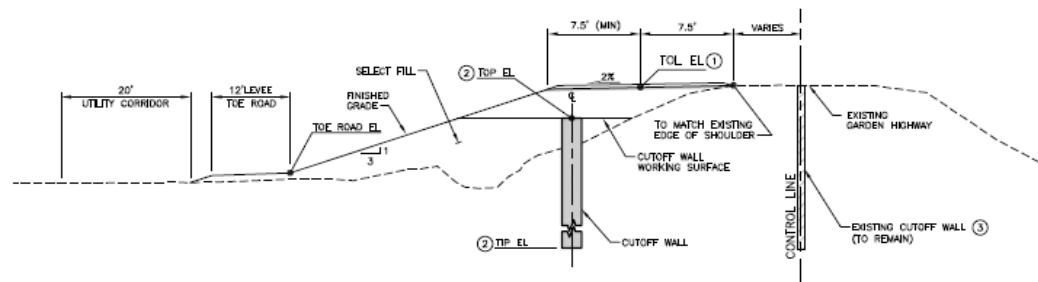
### GENERAL NOTES:

1. REFER TO LEVELLEE PLAN AND PROFILE DRAWINGS FOR TOL AND LIMITS OF EACH FEATURE

### KEY NOTES:

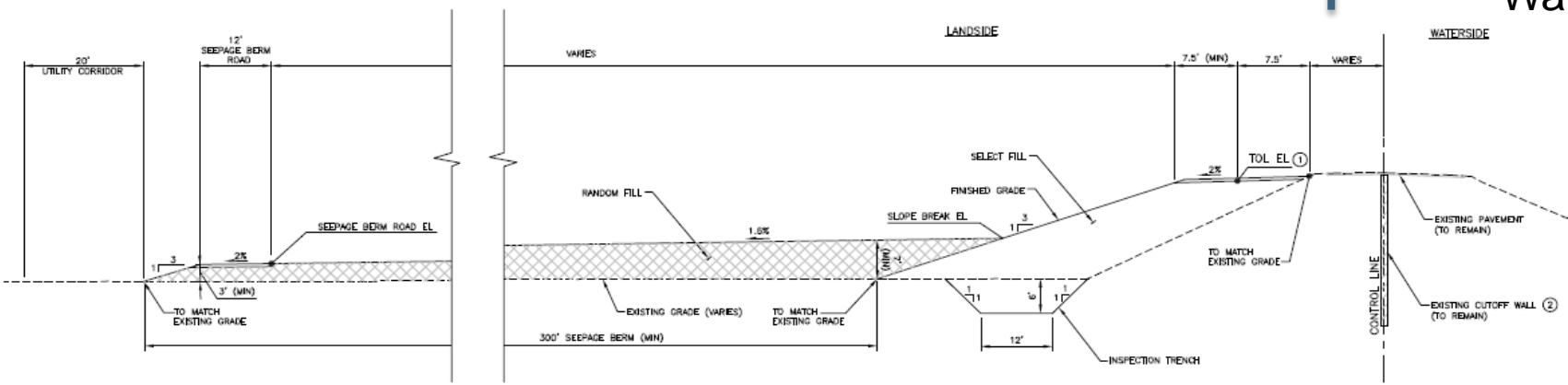
- ① REFER TO DRAWINGS C-100 TO C-104 FOR ELEVATIONS.
- ② REFER TO DRAWINGS C-150 TO C-151 FOR CUTOFF WALL ELEVATIONS AND DETAILS.
- ③ REFER TO DRAWINGS C-150 TO C-151 FOR EXISTING CUTOFF WALL LOCATIONS.

## Waterside



REDUCED EIP – TYPICAL LEVELLEE WIDENING WITH CUTOFF WALL

## Waterside



REDUCED EIP – TYPICAL LEVELLEE WIDENING WITH CUTOFF WALL 300 FT. SEEPAGE BERM



SCALE: 1"=10'

NOT FOR CONSTRUCTION



# SUMMARY OF PROPOSED LEVEE DESIGN

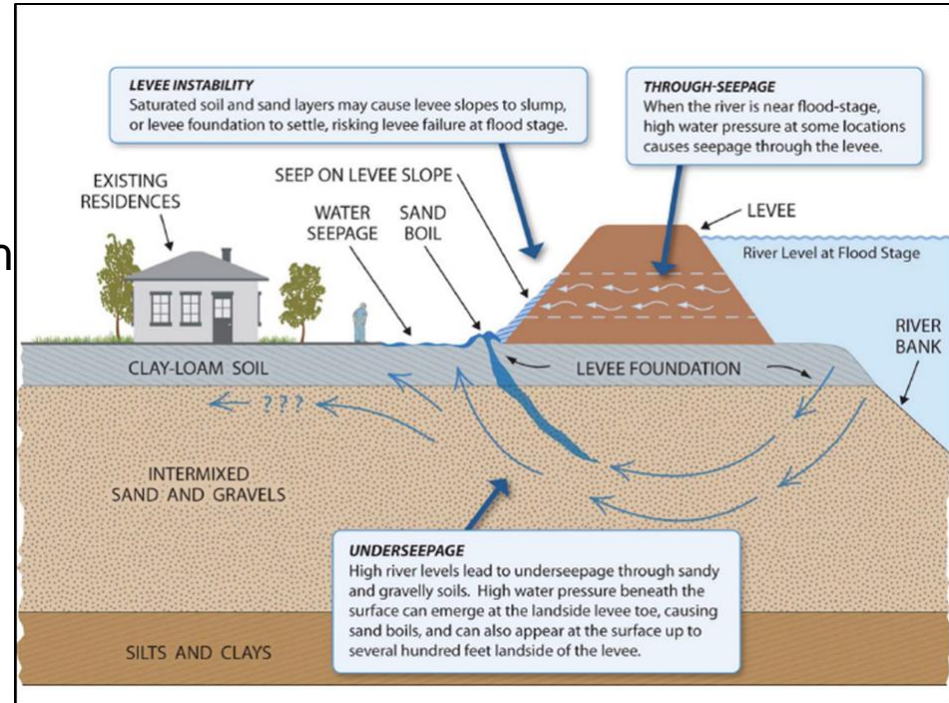


**From just south of Farm Road to Interstate 80** - Levee widening (adjacent levee) with seepage cutoff wall and landside slope stability

**Interstate 80** - Landside stability berm with landside seepage berm (no new seepage cutoff wall) and waterside clay blanket

**Interstate 80 to City Sump 160 (east of Shorebird Park)** - Levee widening (adjacent levee) with seepage cutoff wall and landside slope stability

**City Sump 160 to Gateway Oaks Drive** - Levee widening (adjacent levee) and landside slope stability (no new seepage cutoff wall)





# REACH A – SCHEDULE

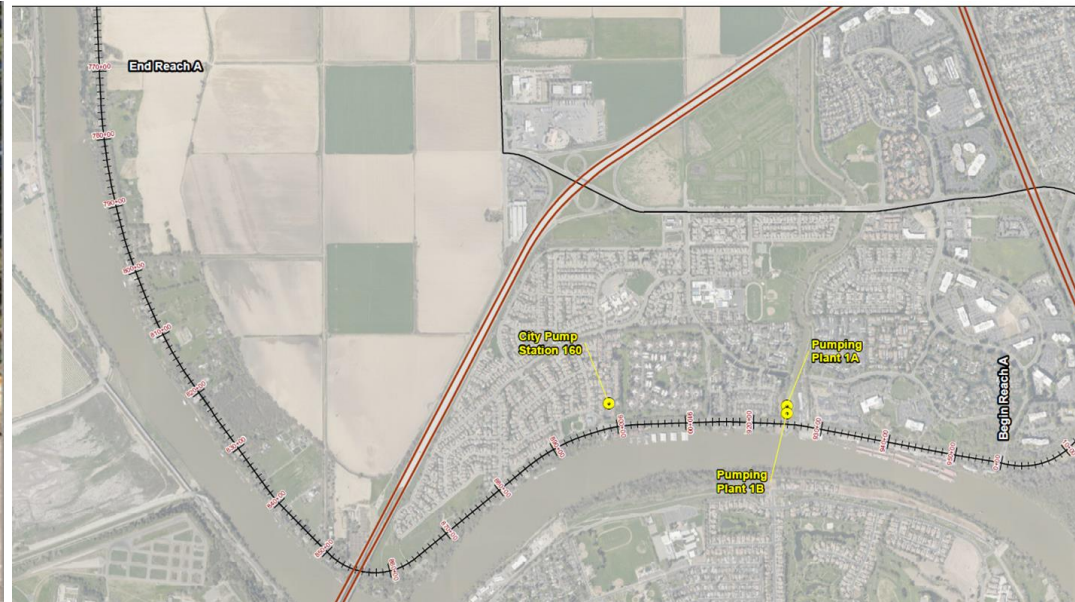


## Current:

- 100% Design in progress working hard
- Utility relocation design in progress
- Landside tree cutting and mitigation Nov 2020 until Feb 2022

## Future:

- Final design early 2021
- Tree removal 2020-2022
- Utility re-locations 2021-22
- Contract Award 2021
- Construction 2022 & 2023





# REACH A CONSTRUCTION



## ANTICIPATED IMPACTS DURING CONSTRUCTION:

- Garden Highway Lane Reductions
  - Most construction will require lane reductions
  - Traffic plan developed and reviewed by City of Sacramento
- Temporary, full Garden Highway lane closures possible
  - Under I-80
  - Pumping Plants 160 and 1A & 1B
  - Utility Service Crossings
- During construction there may be dust, noise, vibration





# IN CLOSING...



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