Tribal Informational Meeting #3

California Aqueduct Subsidence Program (CASP)

California Aqueduct Subsidence Program

January 10, 2023

Anecita Agustinez, Tribal Policy Advisor

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

STATE WATER PROJECT

Welcome & Introductions

Anecita Agustinez – Tribal Policy Advisor

Project Team & Roles

Anecita Agustinez, *DWR Tribal Policy Advisor*

Mariko Falke, *DWR Executive Tribal Liaison*

Dan Whisman, *CASP Program Manager**

Jim Lopes, *CASP Deputy Program Manager*

Marea McCann, *CASP Environmental Job Manager*

Holly Nichols, *CASP Geology Lead*

Chad Carlson, *CASP Geology Deputy*

Monica Nolte, *DWR Cultural Lead*

Candace Ehringer, *Consultant Cultural Support*

Kristina Lecina, *Consultant Project Management Support*

* not present at this meeting

Proposed Agenda

Welcome & Introductions

Meeting Purpose

Prior Engagement

What's Happened Since?

Interim Actions

Key Takeaways

Discussion

Meeting Purpose

Informational Meetings
Pre-AB 52 consultation
Consultation

Anecita Agustinez – Tribal Policy Advisor

Continue to Follow Consultation Policies

- E.O. B-10-11 (Brown)
- CNRA Tribal Consultation Policy (2012)
- DWR's Tribal Engagement Policy (2016)
- Assembly Bill 52 (2014) effective July 1, 2015 (Amended CEQA)
- E.O. N-10-19 (Water Resilience Portfolio)
- E.O. N-15-19 (Apology/ Truth and Healing Council)
- Administration Policy on Native American Ancestral Lands (2020)
- Local Government and Tribal Intergovernmental Consultation SB 18 (2005)
- E.O. N-82-20 (Incorporation of tribal expertise and Tribal Ecological Knowledge [TEK])
- AB 923 (2022) Government-to-Government Tribal Consultation Training

Prior Engagement

Marea McCann – Environmental Job Manager

Prior Engagement

Embankment Raise Projects

- Jul. 15, 2020: Informational Meeting #1
  - Attendees
    - Picayune Rancheria of Chukchansi Indians
    - Santa Rosa Rancheria Tachi Yokut Tribe
    - Tule River Indian Tribe
- Aug. 20, 2021: Meeting Postponed
- Jan. 12, 2022: Informational Meeting #2
  - Attendees
    - Santa Rosa Rancheria Tachi Yokut Tribe

MP 208 Groundwater Monitoring Station

- Sept. 22, 2022: Consultation Meeting #1
  - Attendees
    - Santa Rosa Rancheria Tachi Yokut Tribe

Embankment Raise Project Locations

- San Joaquin Valley
- Fresno and Kings Counties
- Between Los Banos and Kettleman City
- Area of Potential Effect: 5,595 acres
- San Luis Division of the California Aqueduct (San Luis Canal)
  - Pools 17-18
    - Mileposts 122-143
  - Pools 20-21
    - Mileposts 155-172
- 41 miles of Embankment Raises
  - The Aqueduct is a series of pools, each roughly 10 miles long. Each pool has a check structure at the downstream end.

What's Happened Since

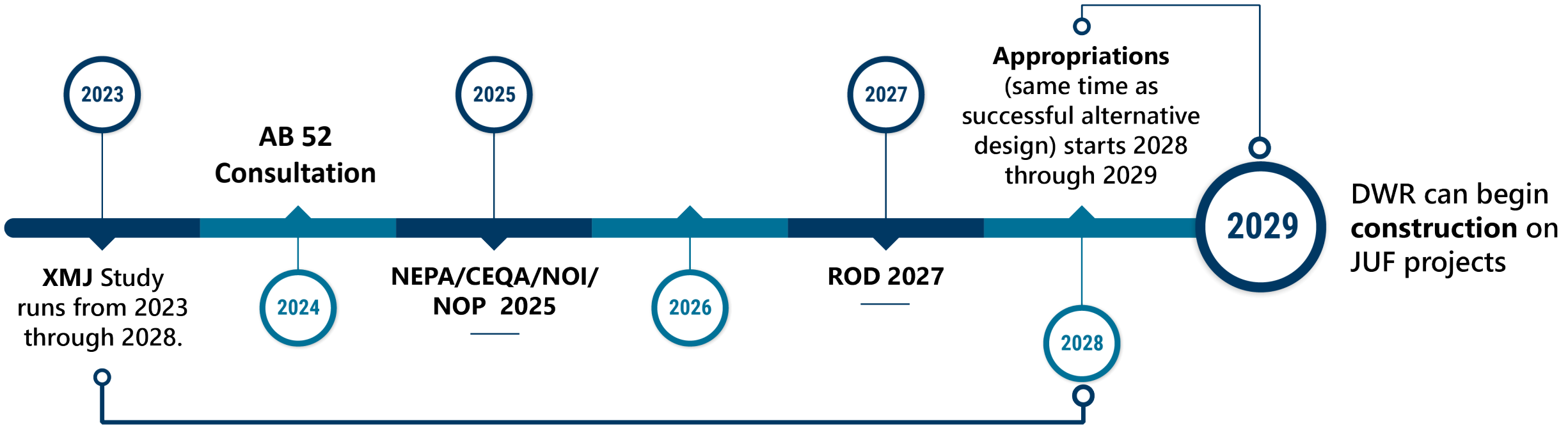
Jim Lopes – Deputy Program Director

Newly Identified Requirements: Federal Feasibility Study

- DWR needs to comply with a federal feasibility process
  - Aqueduct is a joint-use facility, owned by Reclamation and operated by DWR so federal approval is required for any projects
  - **CMP 09-04: Extraordinary Maintenance Justification Study (XMJ)**
  - Adopted project must have "greatest net benefit" to the public
  - Analyses include engineering, economics, social justice, environment (NEPA), cost benefit, schedule, etc.
  - NEPA ROD is required to complete the study
- The project previously discussed is now one major alternative to be analyzed
- **CEQA/NEPA NOI/NOP to be filed early 2025**

- Updates will be provided at future on-going meetings.

Timeline (Current – subject to change)



Interim Actions

Jim Lopes – Deputy Program Manager

Other Work Concurrent to XMJ Study

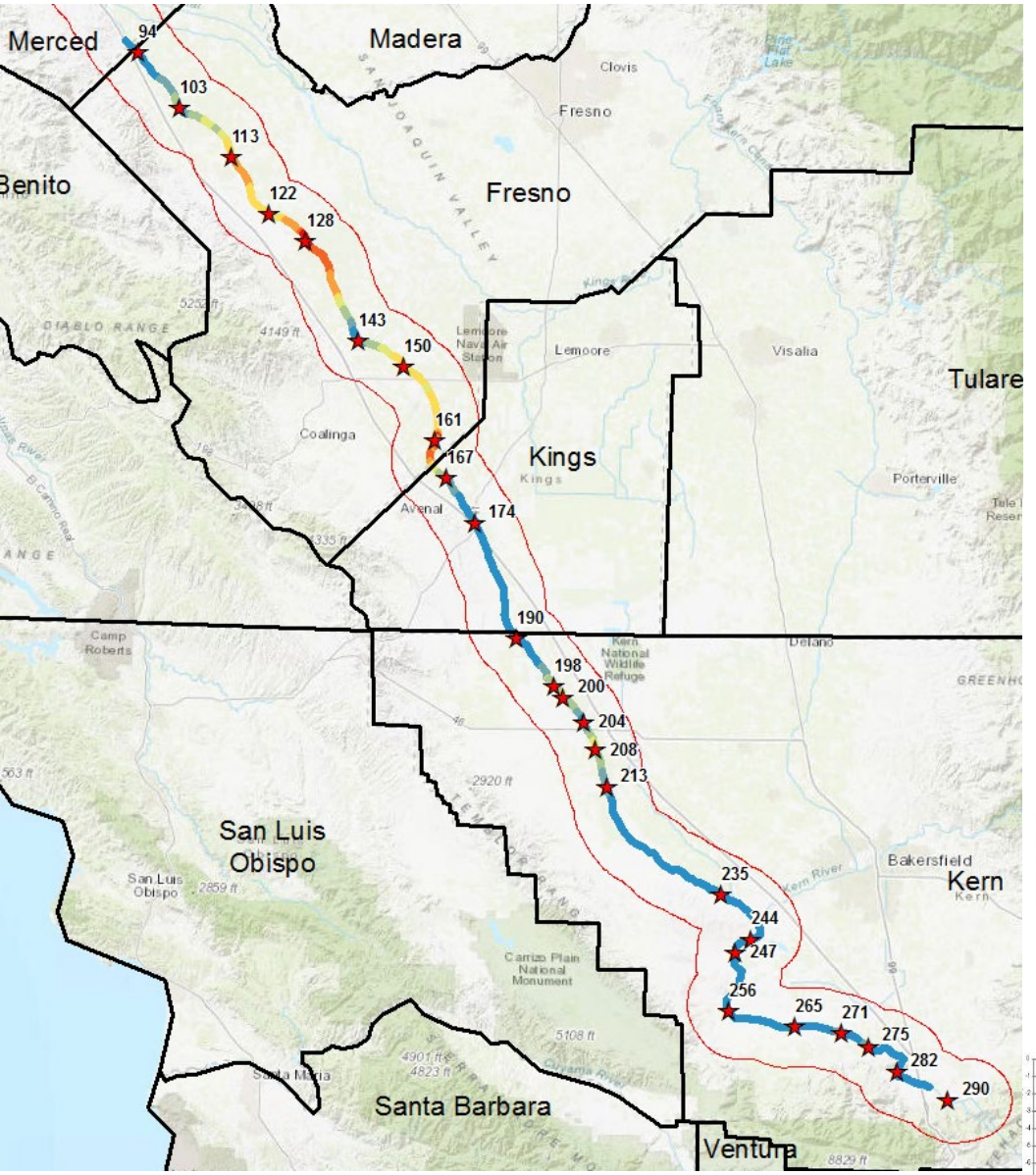
- Potential Concrete Liner Raises in the aqueduct (without embankment raises)
- Non-Structural actions to slow down or eliminate continuing subsidence
  - Review past and ongoing data to better understand and help prevent future subsidence
    - Finalize development of Subsidence Forecast model
    - Perform technical analyses to establish pumping/subsidence causation
  - Review pumping contracts with pumpers/landowners/SWP Contractors
  - Review and comment on Groundwater Sustainability Plans and work with Groundwater Sustainability Agencies to include subsidence prevention enforcement
  - Create a subsidence and groundwater monitoring program along the aqueduct
    - Install monitoring wells, extensometers, and continuous GPS monitoring stations

Monitoring Program Goals

- Fill monitoring data gaps along the aqueduct
- Measure ground surface elevations at higher frequency along the aqueduct
- Monitor groundwater elevations at various levels in the aquifer system (multi-completion wells)
- Measure aquifer compaction
- Evaluate relationship between monitored/measured parameters
- Share monitoring data in public sphere via SGMA Data Viewer (https://sgma.water.ca.gov/webgis)

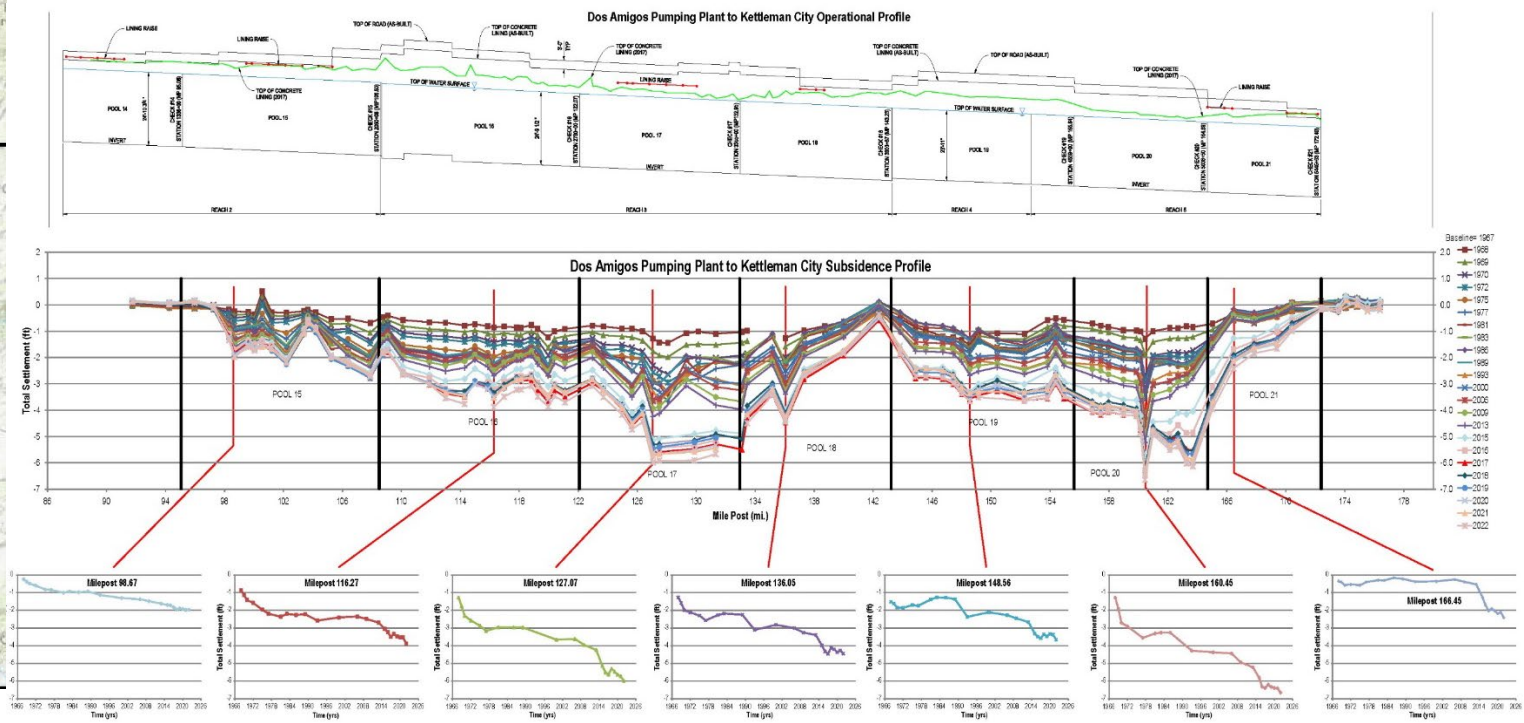
Monitoring Program Approach

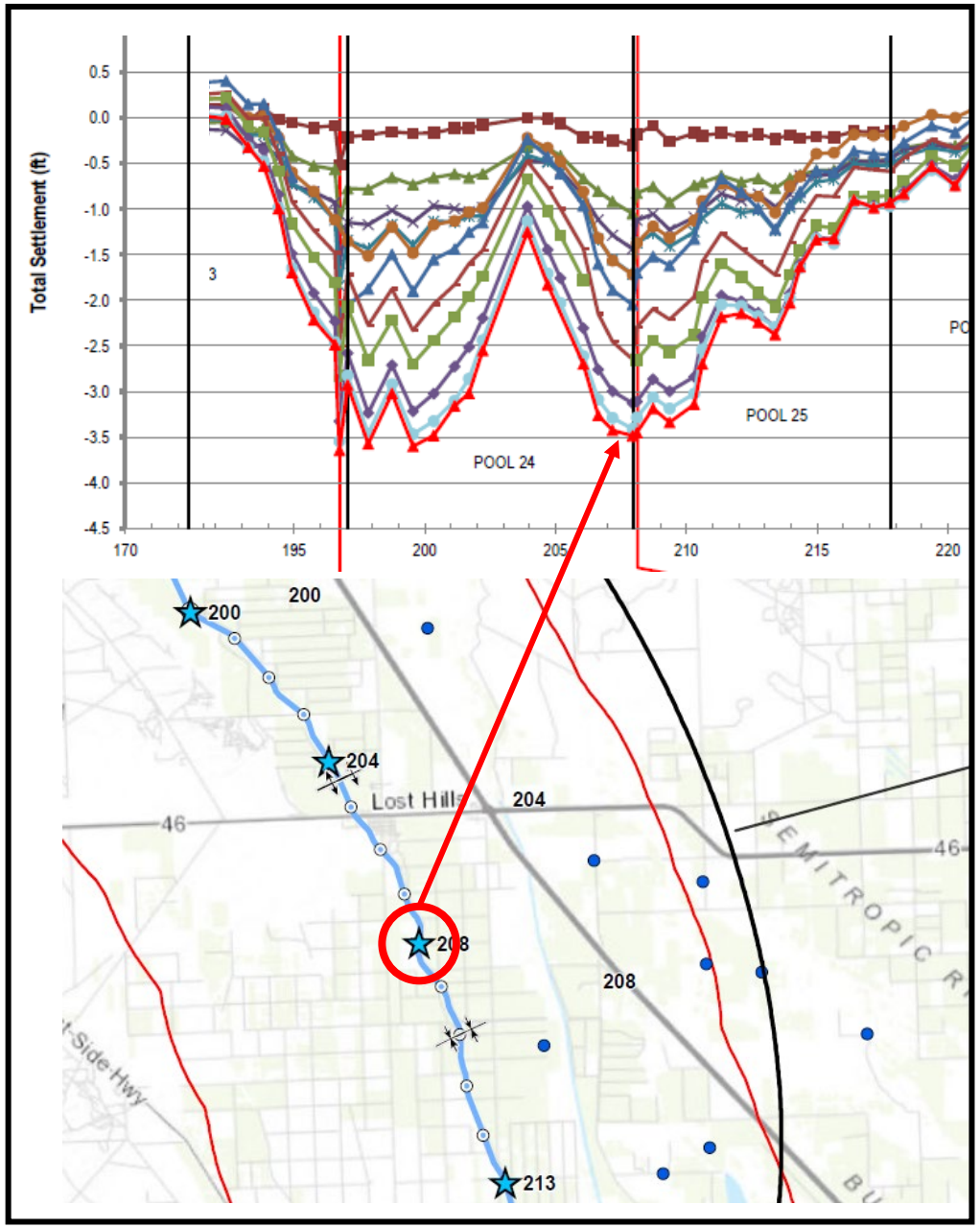
- Evaluate and compile available data
  - Satellite data (e.g., InSAR), survey data, extensometers, groundwater monitoring wells, continuous GPS, etc.
- Identify monitoring needs along the aqueduct
- Adjust DWR locations based on other existing monitoring networks



Monitoring Program Status

26 preliminary sites selected

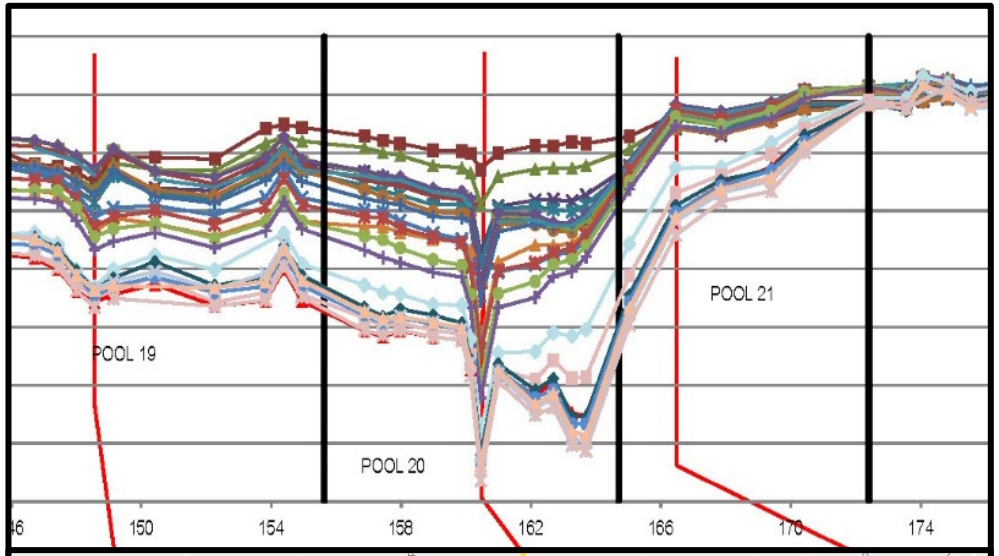


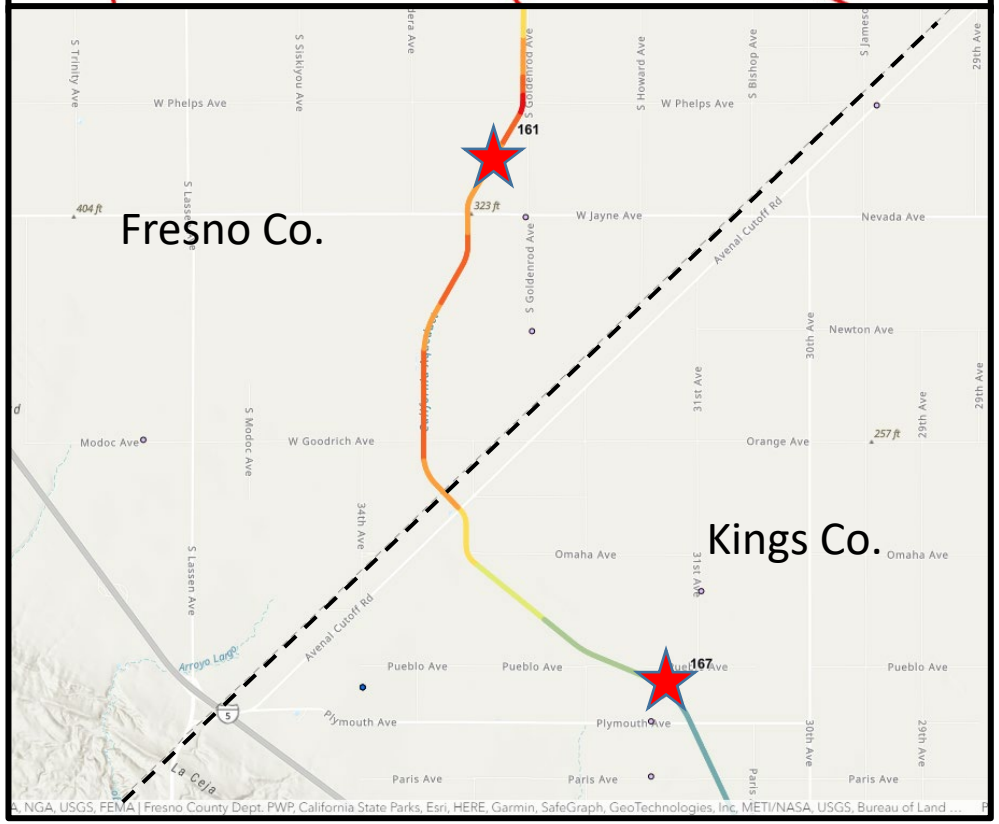


Monitoring Program Status

Early Implementation

- First location near Check 24
- ~650 ft multi-completion groundwater monitoring well
  - Installed November 2022
- Continuous GPS station
  - Anticipated install date: 2023
- Extensometer
  - Anticipated install date: 2023





Monitoring Program Status

Next wells anticipated to install:

- Mile Posts 167, 161, 128 (not shown)
- Multi-completion groundwater monitoring wells
  - Anticipated start date: Summer 2023
- Continuous GPS station
  - Anticipated start date: Late Summer 2023
- Extensometer
  - Anticipated start date: Late Summer 2023

Monitoring Program – Next Steps

- Consult with Tribal Governments and other relevant partners then adjust locations if needed
- Complete monitoring location adjustments
- Prioritize installation locations
- Start installations (May 2023)

- Questions so far?

Monitoring Station Installations

- Main ground surface disturbance/digging within a few feet of the drill hole (but there is a lot of equipment that moves around).
- Depths to natural, in-place soils varies along Aqueduct.
  - Commonly encountered within 10-20 feet below ground surface.
- Shallow ‘mud’ pits for drilling could be utilized (e.g., 1-2 feet deep), but mud pan is preferred.
- Tribal engagement during installation

Drilling – Deep Holes for Multi-completion Groundwater Monitoring Wells

Drilling – Shallow Holes for Geotechnical Properties

Surface and Infrastructure Completions

- Lockable well monuments.
- Small structures housing infrastructure
  - e.g., cable or pipe extensometer
- Fenced-off areas
  - e.g., Continuous GPS station (cGPS)
- Limited site activity after installation

Key Takeaways

Marea McCann – Environmental Job Manager

Key Takeaways

1

Subsidence and Groundwater Monitoring Program

Addressing subsidence and groundwater monitoring gaps along the aqueduct. The anticipated timeline is 2023-2028.

2

From Project to Alternative

Previous embankment raise projects now alternatives for the XMJ (CEQA/NEPA Timeline 2025-2027)

3

Consultation

DWR will be reaching out for consultation on groundwater monitoring program (asap) and on XMJ (late 2024)

Questions and Discussion

DWR is committed to proactive and meaningful engagement with Tribes who are interested in this project.

Contacts for Additional Information

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