



# San Joaquin River Restoration Program Mendota Pool Bypass and Reach 2B Improvements Project

## Stakeholder Meeting

August 26, 2013 1:30 pm

Alfred Firebaugh Community Center  
Firebaugh, CA

# Agenda

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1. Introductions
2. Program Update
3. Mendota Pool Bypass/Reach 2B Project Update
4. Mendota Pool Bypass/Reach 2B Geotechnical Investigations
5. Meeting Wrap-Up and Next Steps

# Introductions





# Program Update





# Settlement Goals

- **Restoration Goal**
  - To restore and maintain fish populations in “good condition” in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.
- **Water Management Goal**
  - To reduce or avoid adverse water supply impacts to all of the Friant Division long-term contractors that may result from the Interim Flows and Restoration Flows provided for in the Settlement.

# Restoration Goal Activities

- Improve channel/structures to convey flows and improve habitat
  - Reach specific projects moving forward:
    - Reach 2B – working on Draft EIS/R
    - Reach 4B – working on Alternatives Evaluation & Project Description
    - Arroyo Canal/Sack Dam – Final EA/IS published in May 2013
  - Fisheries Activities
    - NMFS released draft 10(j) and draft 4(d) rules and draft EA for public review in January 2013
    - Spring-run salmon broodstock activities underway
  - Settlement requires 10 specific channel and structural improvement projects to address:
    - Channel capacity limitations
    - Fish habitat limitations
    - Fish passage and entrainment issues
  - Combined into 4 major projects
    - Reach 2B, Reach 4B, Arroyo Canal and Sack Dam, Salt and Mud Slough Seasonal Barriers



# Mendota Pool Bypass/Reach 2B Project Update



# Reach 2B Project Update

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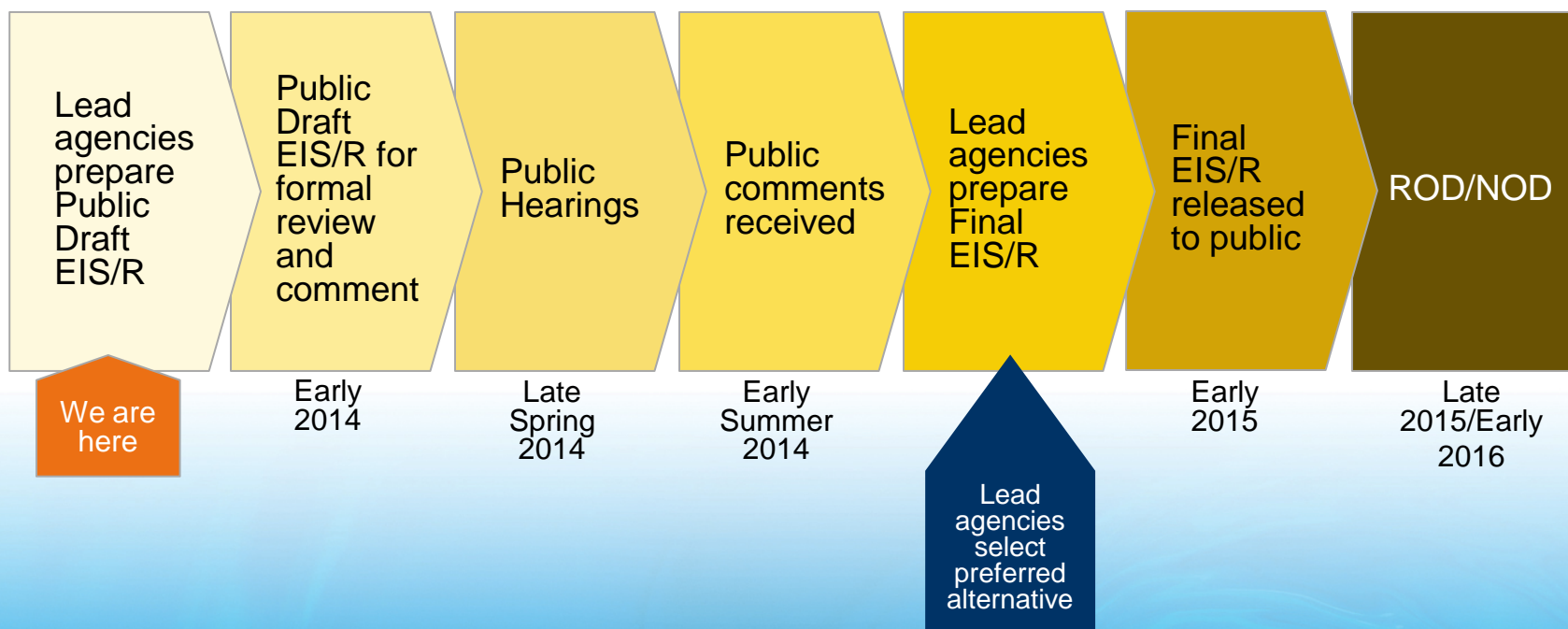
## Today's Topics:

- EIS/R process overview and schedule
- Landowner Recommended Alternative review
- Flood management operations and coordination



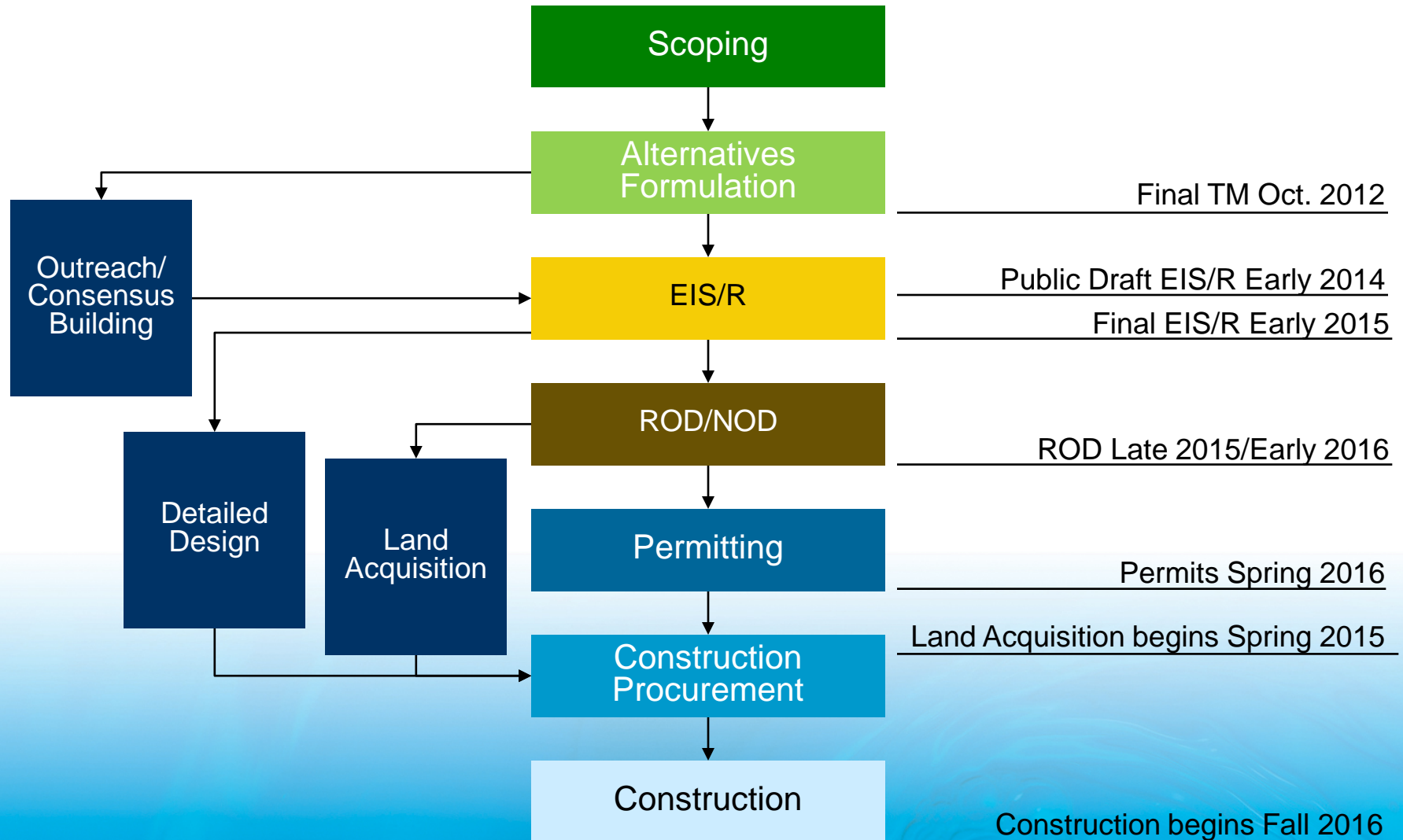
# Reach 2B Project Update

## EIS/R Process and Schedule



# Reach 2B Project Update

## Project Process and Schedule



# Reach 2B Project Update

## Landowner Recommended Alternative Review

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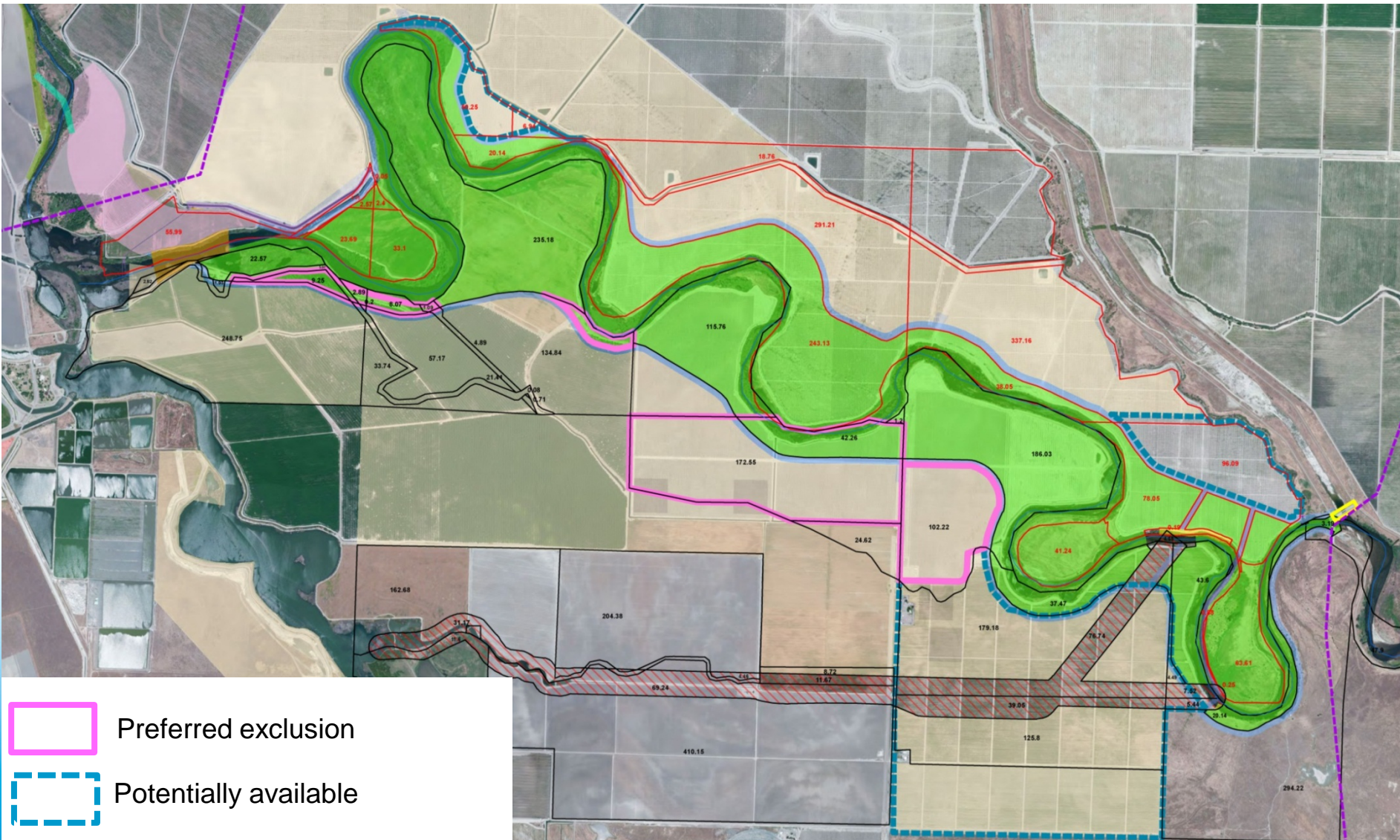
### Landowner comment summary:

- Feel it is paramount to address flood control and structural issues
- Created a map identifying lands they wish to retain and other lands that are open to Program acquisition
- Expect full mitigation for program impacts, particularly:
  - City of Mendota wells on BB Limited property
  - Mendota Pool Group ability to pump groundwater to Mendota Pool
- Uniformly in opposition to Fresno Slough Dam
- Prefer appraisals using income based approach
- Prefer to interact with Program as a landowner group



# Reach 2B Project Update

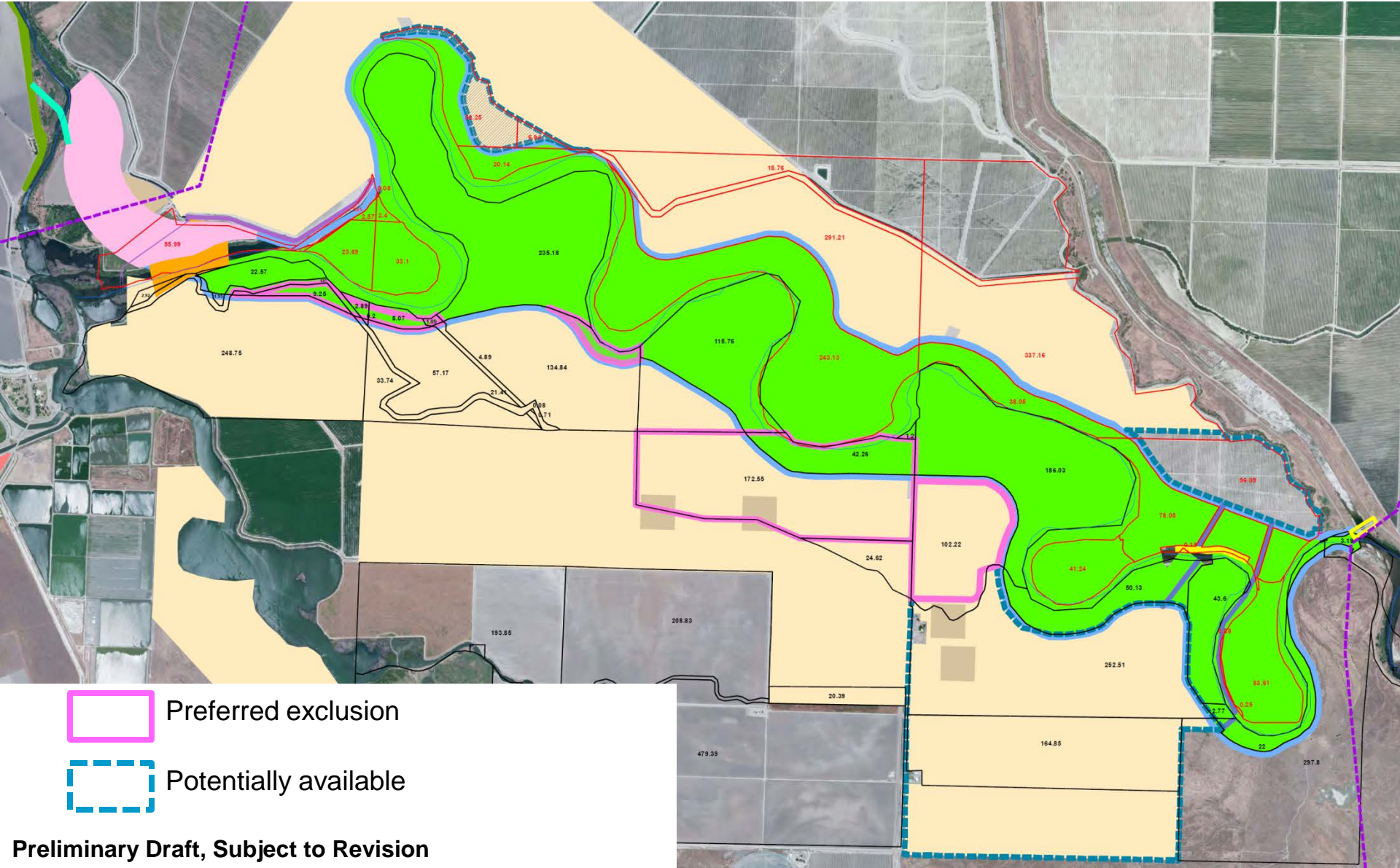
## Landowner Recommended Alternative Review





# Reach 2B Project Update

## Landowner Recommended Alternative Review



Preferred exclusion



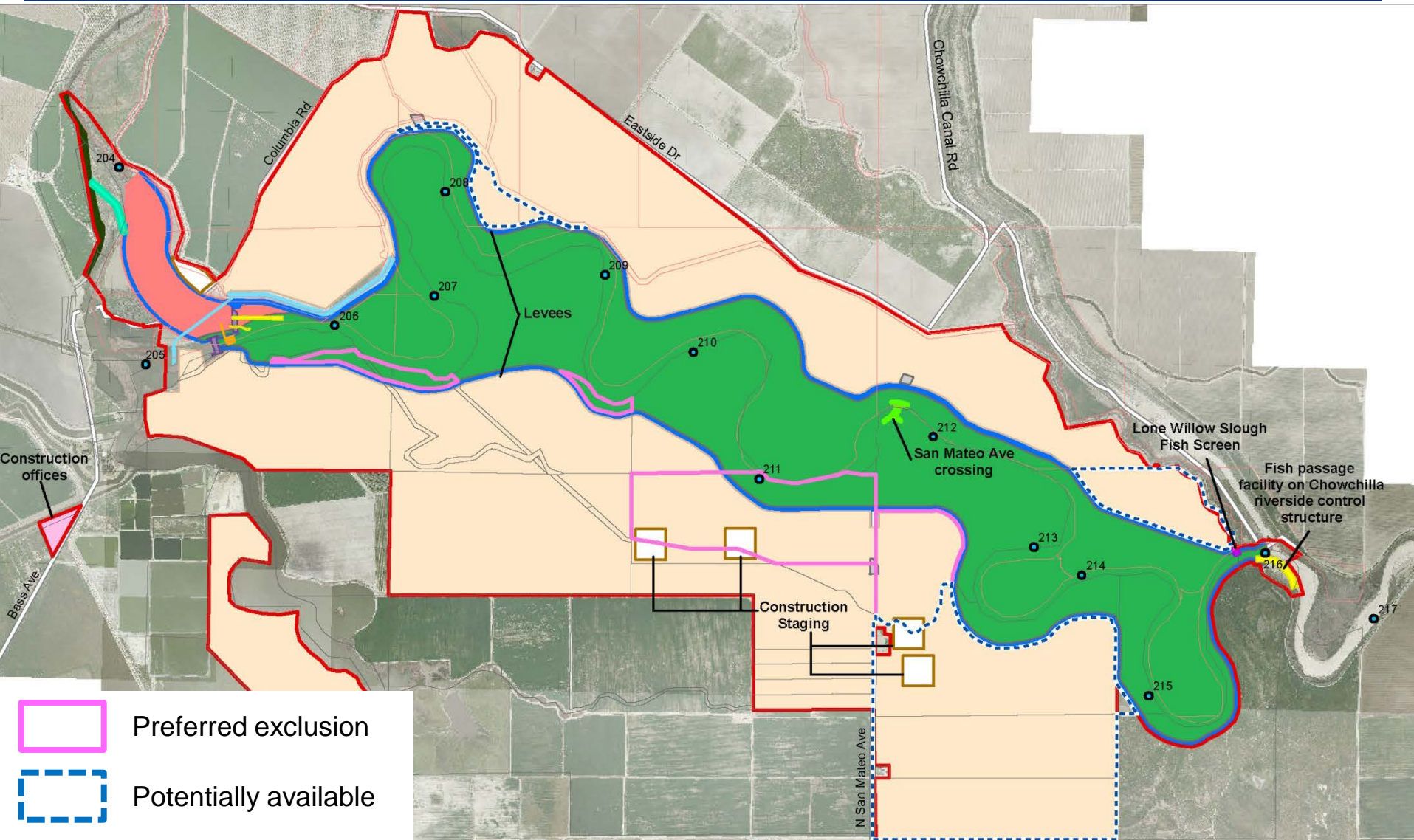
Potentially available

**Preliminary Draft, Subject to Revision**



# Reach 2B Project Update

## Landowner Recommended Alternative Review



# Reach 2B Project Update

## Flood Management Operations & Coordination

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### LSJLD comment summary:

- District objects to the removal of the San Joaquin River control structure because:
  - Existing twin-structure configuration allows flood flows to be monitored simultaneously for safe and consistent operation
  - Existing structure is a grade-control point and removal could induce channel base level lowering and incision
  - It is unknown who would operate a new structure
  - Sediment and debris management is a concern
  - New levees between Reach 2A and the new structure would need to be designed for Reach 2A water levels
- Concerned about how fish passage would be accomplished with SJR flood flows diverted into Chowchilla Bypass
- Concerned about loss of revenue

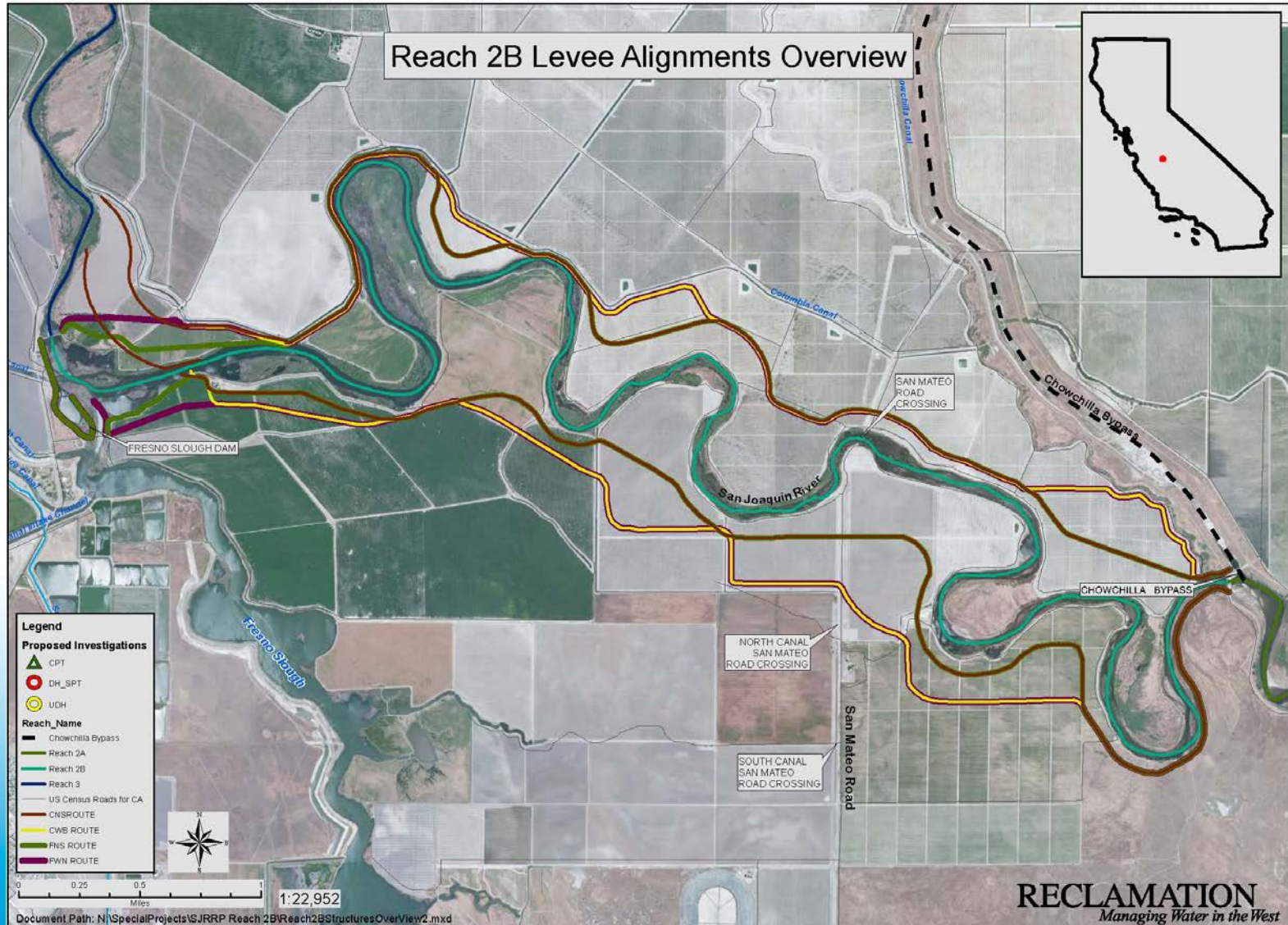


# Mendota Pool Bypass/Reach 2B Geotechnical Investigations





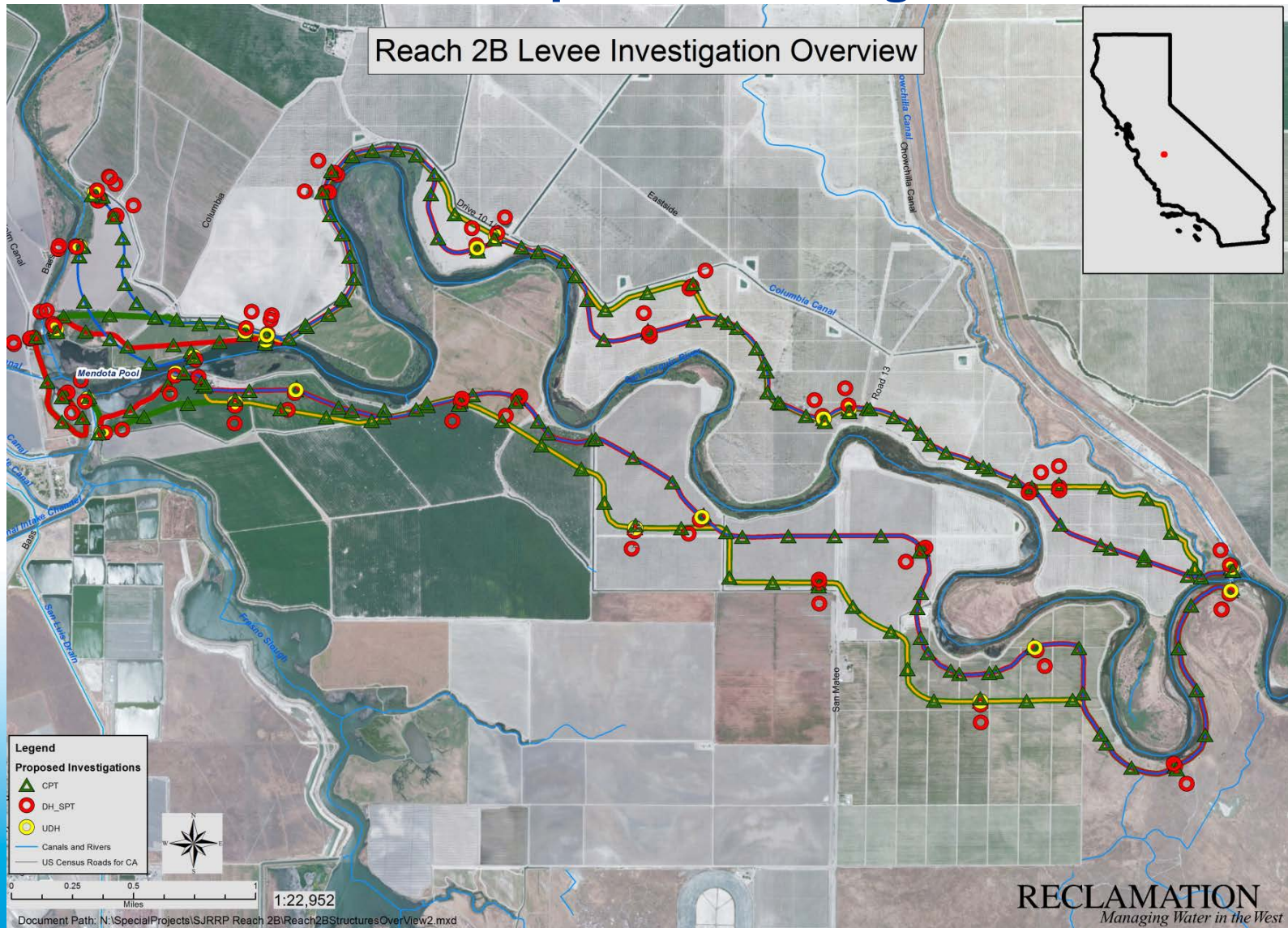
# Reach 2B Geotech Investigations Proposed Alignments





# Reach 2B Geotech Investigations

## Proposed Investigations





# Reach 2B Geotech Investigations

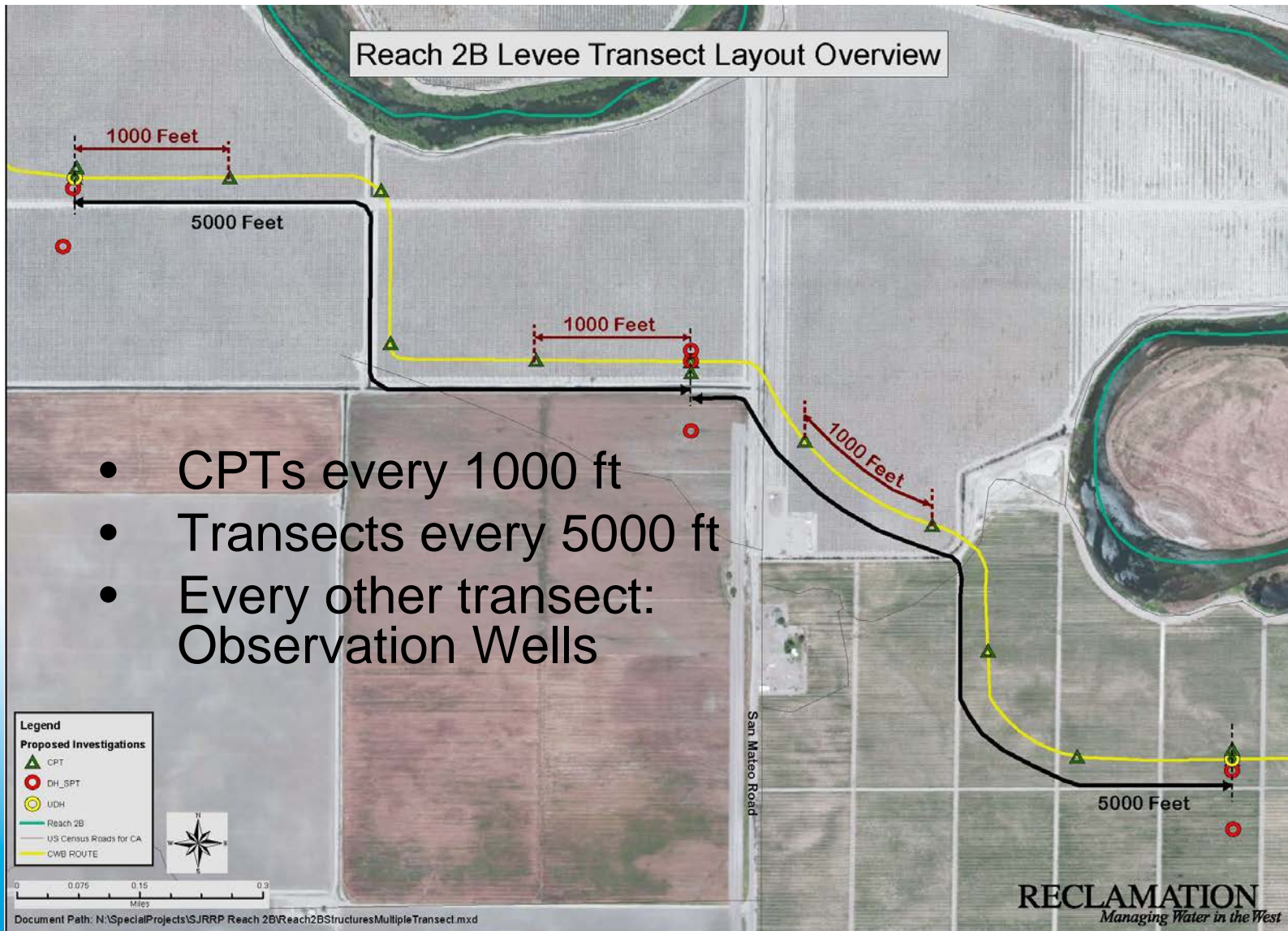
## Scope of Work

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- 230 Cone Penetration Test (CPT) Holes
- 135 Drill Holes (DH) along Transects
  - Standard Penetration Test (SPT)
  - Core Samples, Undisturbed
  - Some Completions as Observation Wells

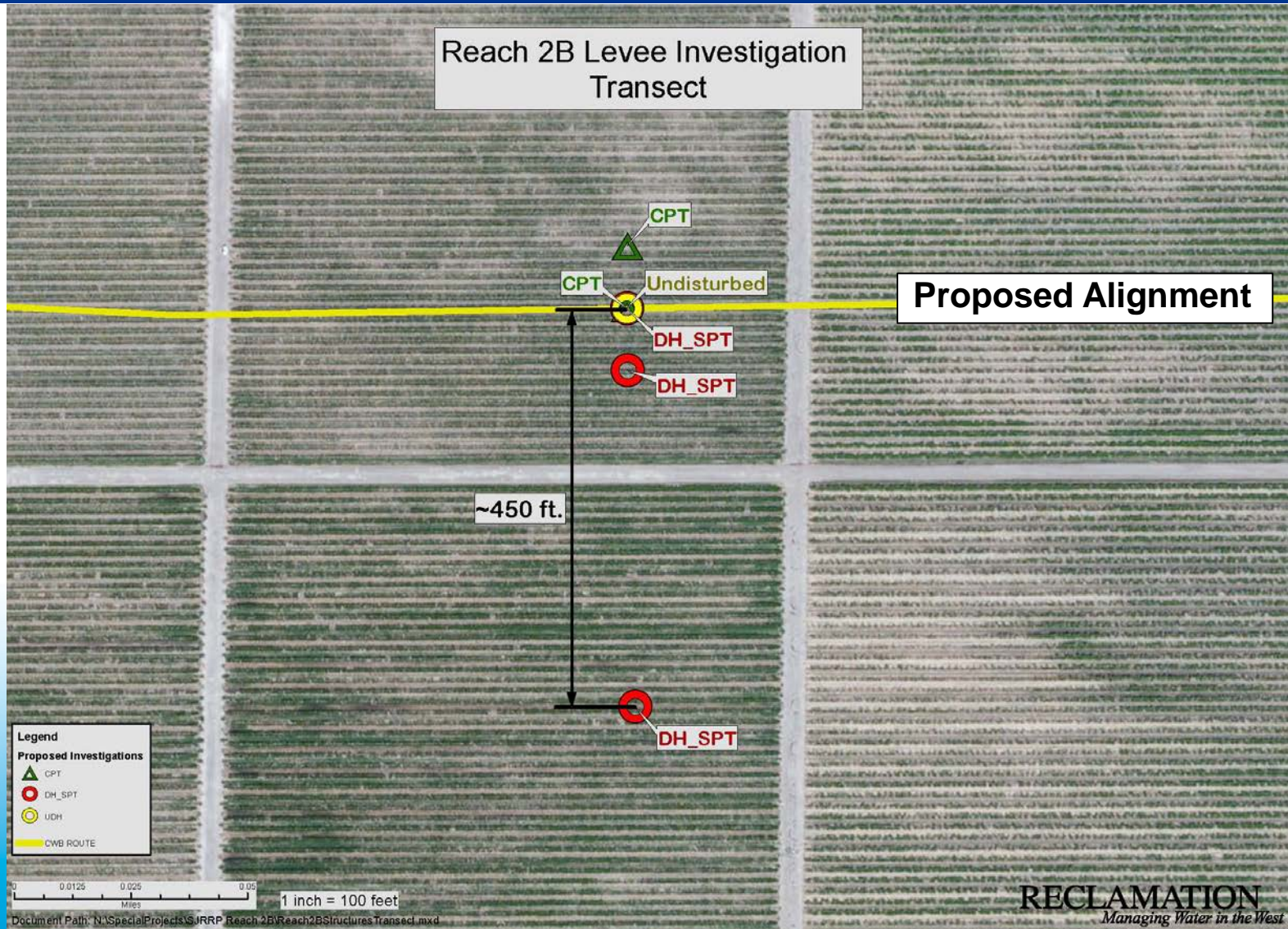


# Reach 2B Geotech Investigations Scope of Work



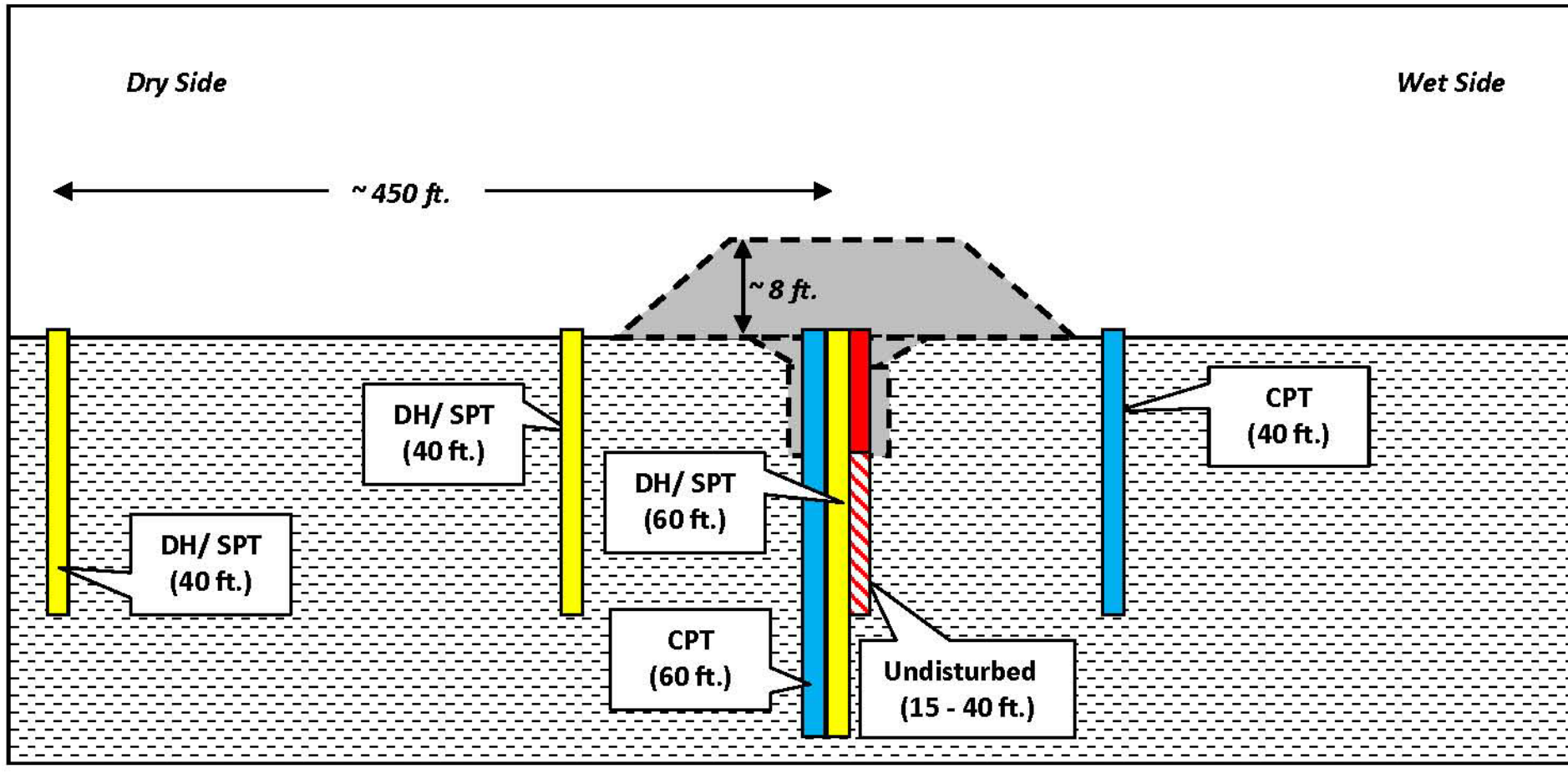


# Reach 2B Geotech Investigations Transects



# Reach 2B Geotech Investigations

## Cross Section Through Transect







# Reach 2B Geotech Investigations

## Course of Action

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- Right of Entry
- Preliminary Site Reconnaissance
- Underground Utilities Mapping
- Landowner Coordination
- Environmental and Cultural Surveys
- Begin Drilling Investigations

# Reach 2B Geotech Investigations

## Field Reconnaissance

### Walking the Site



### Locked Gates



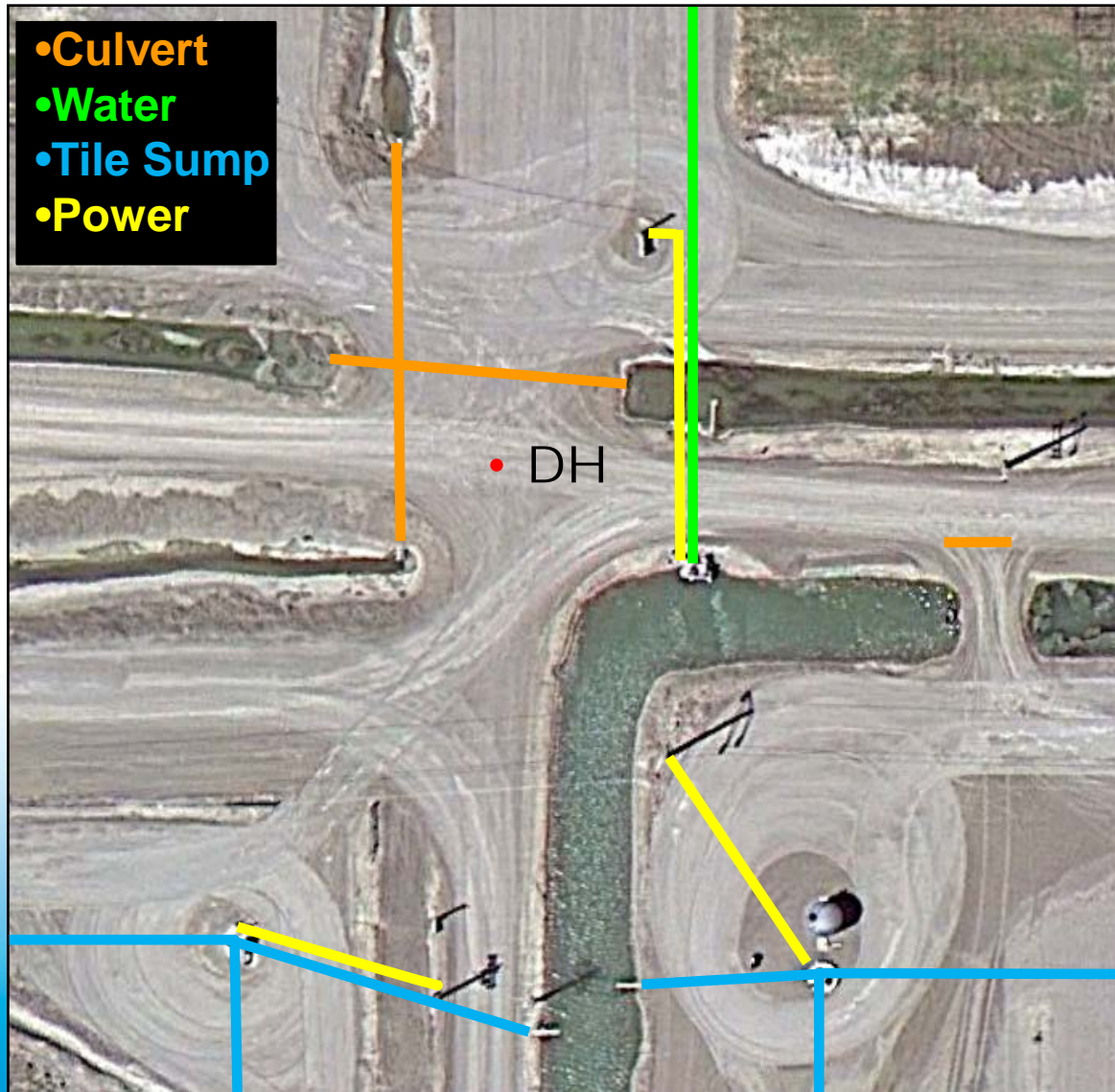
# Reach 2B Geotech Investigations

## Underground Utilities Mapping



# Reach 2B Geotech Investigations

## Map of Subsurface Lines





# Reach 2B Geotech Investigations

## Landowner Coordination

### Irrigation Schedules



### Harvesting Schedules



# Reach 2B Geotech Investigations

## Environmental and Cultural Surveys



# Reach 2B Geotech Investigations

## Drilling Methods

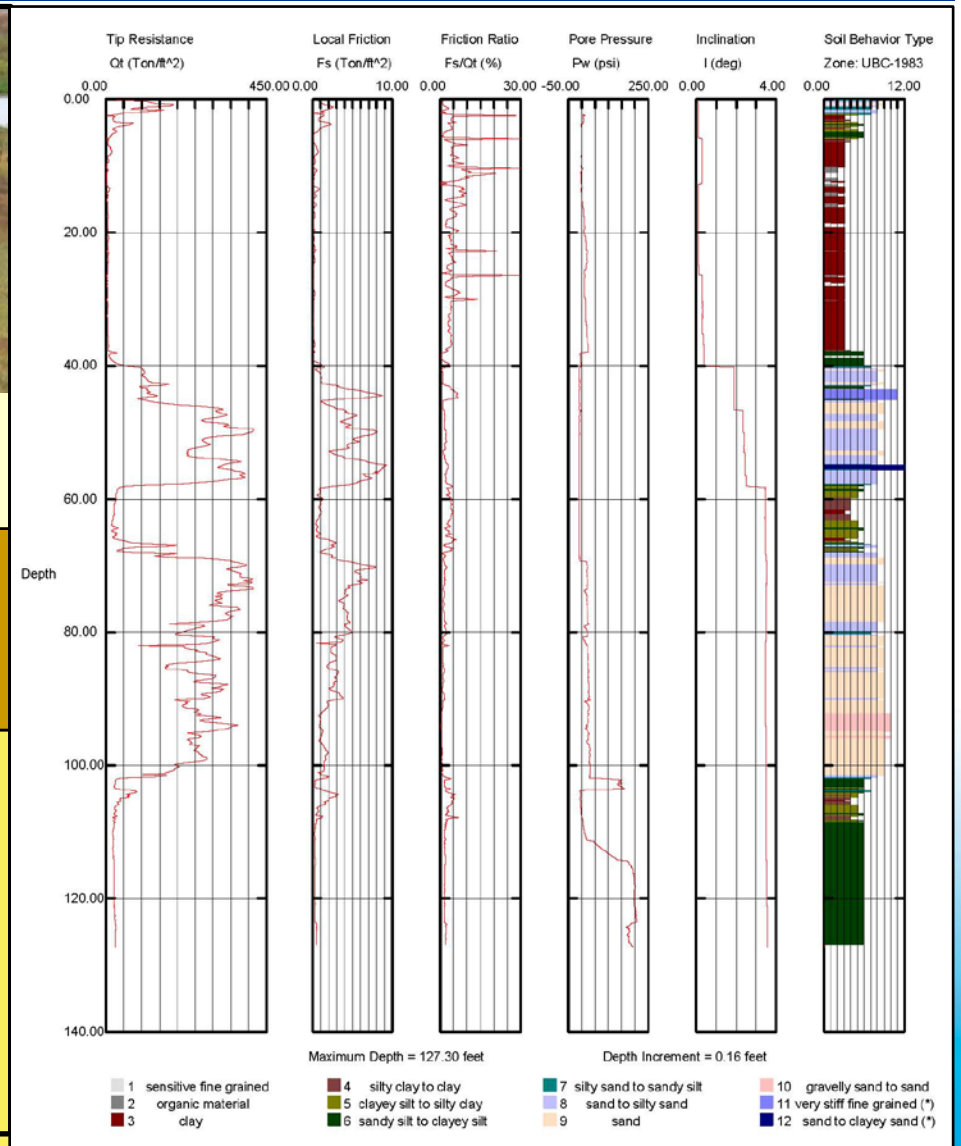
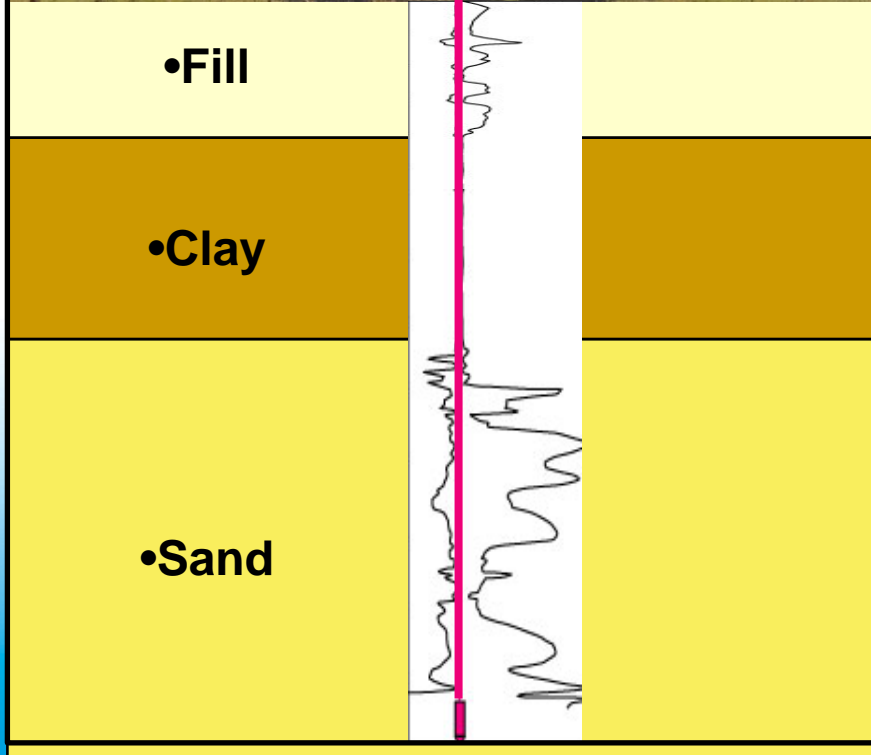
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- **Cone Penetration Test (CPT) Holes**  
1½-inch diameter  
Approximately 40 feet deep
- **Drill Holes**  
8½-inch diameter  
Approximately 40 feet deep



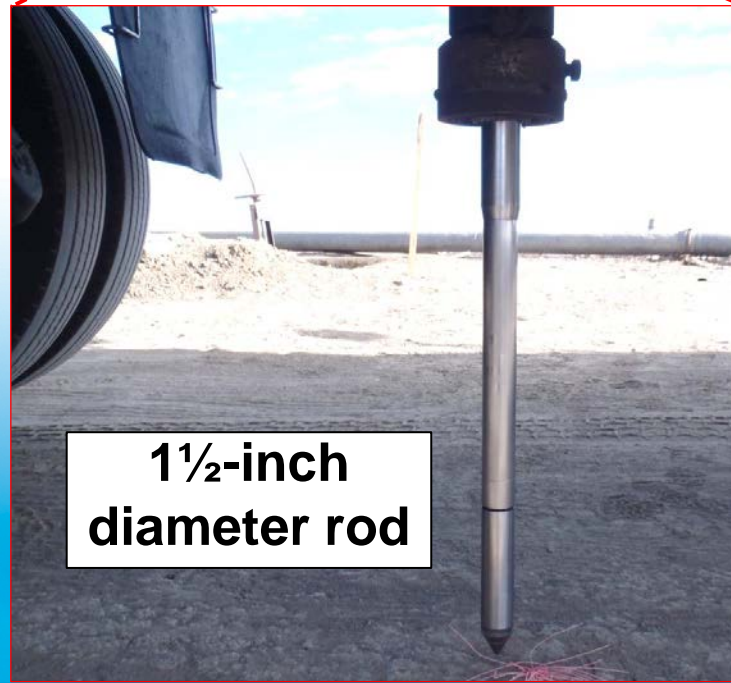
# Reach 2B Geotech Investigations

## CPT



# Reach 2B Geotech Investigations

## Cone Truck (CPT)



**1 1/2-inch  
diameter rod**



# Reach 2B Geotech Investigations

## Backfilled CPT Hole



Completed CPT hole backfilled with granular bentonite



# Reach 2B Geotech Investigations

## Hollow Stem Auger Drilling



**CME 75**



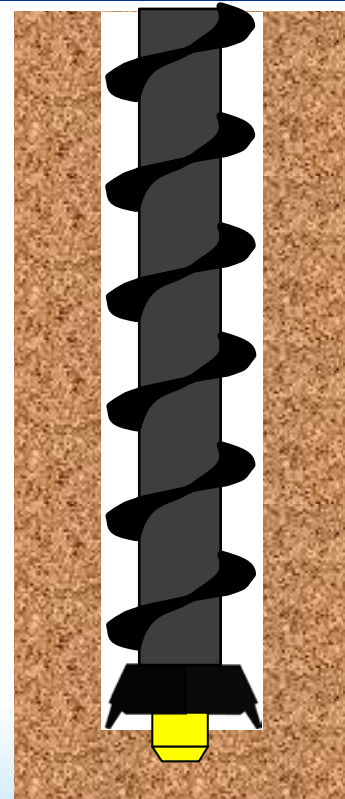


# Reach 2B Geotech Investigations

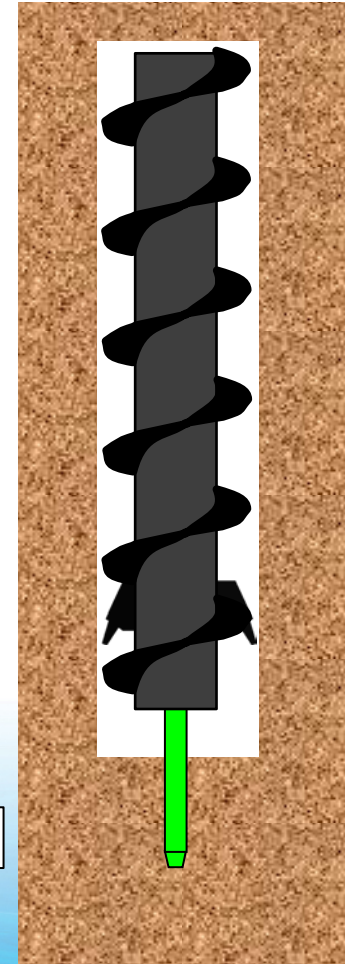
## Soil Logging and Testing



8½-inch diameter auger



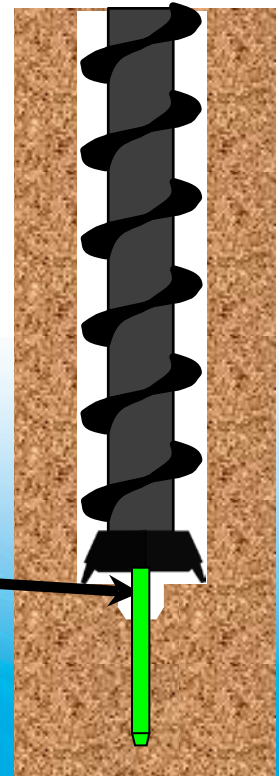
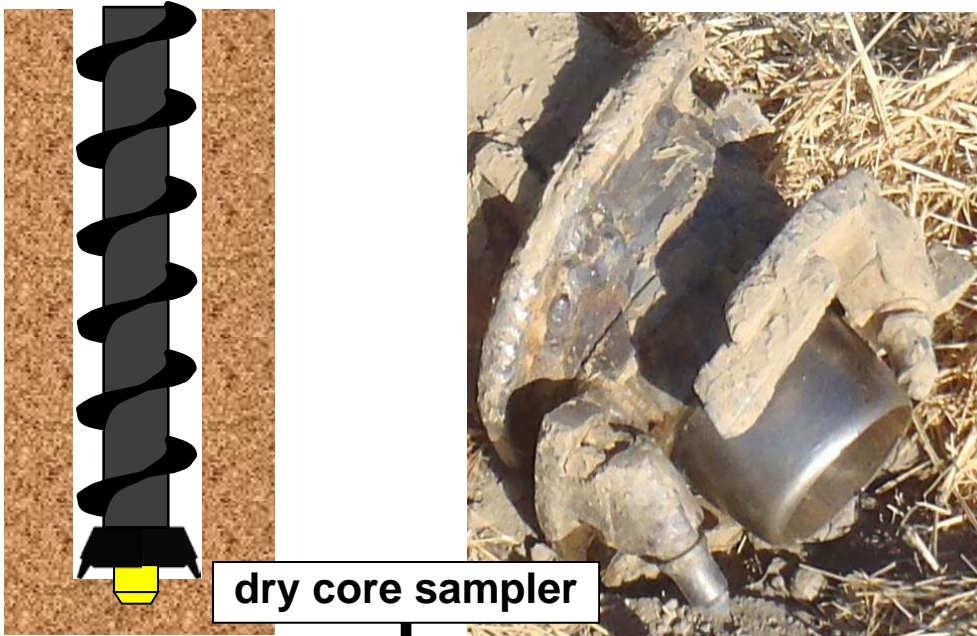
Dry Core Sampler



SPT Sampler

# Reach 2B Geotech Investigations

## Soil Logging, Sampling and Testing





# Reach 2B Geotech Investigations

## Observation Wells: Above Ground View





# Reach 2B Geotech Investigations

## Observation Wells: Flush Mount







# Reach 2B Geotech Investigations

## Field Work Schedule

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- 10 Days On (Tuesday through the following Thursday) and 4 Days Off (Friday through the Monday)
- 10 Hour Days (7:00 a.m. to 5:00 p.m.)
- No work during the week of Thanksgiving, Christmas, and New Year's
- Tentative Start Date – October 2013

# Reach 2B Geotech Investigations

## Schedule Impacts



- Weather
- Equipment Breakdowns
- Landowner Concerns



# Review Assignments & Follow-up



# Questions?







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