

# HEARING IN THE MATTER OF CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION'S REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX

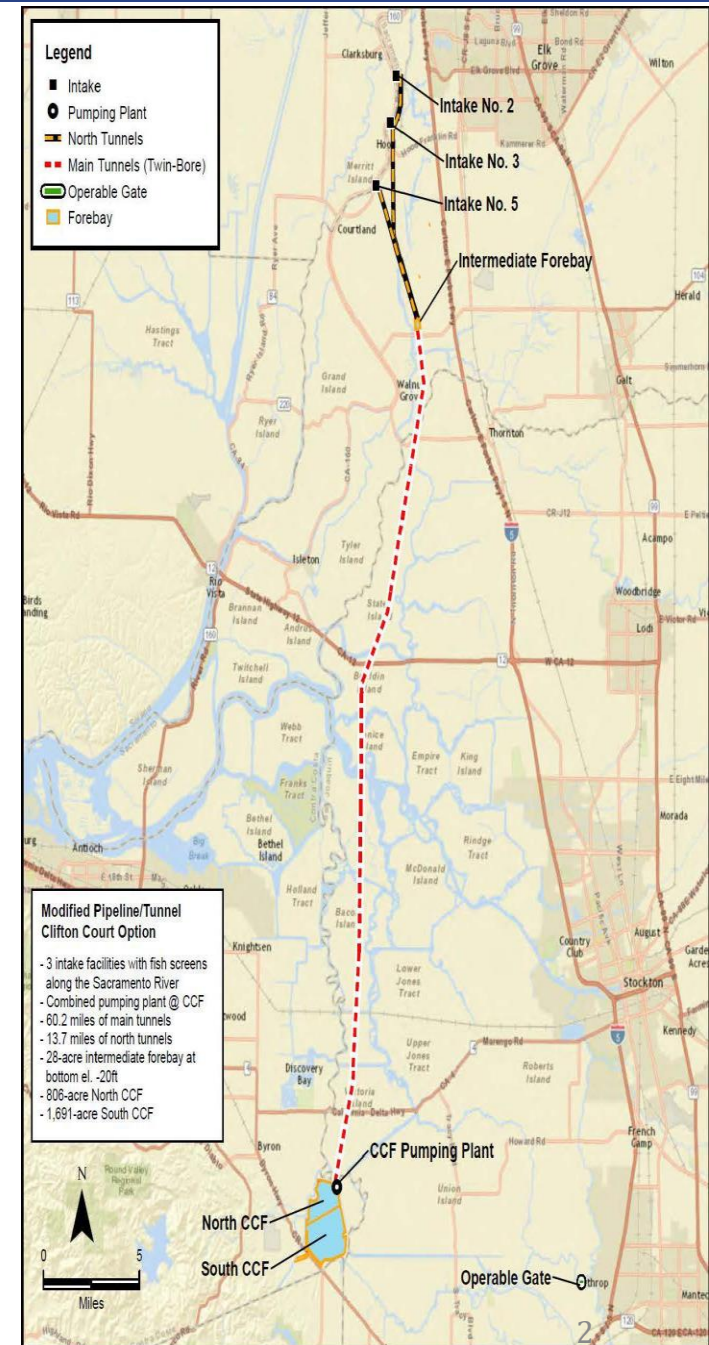


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# BACKGROUND

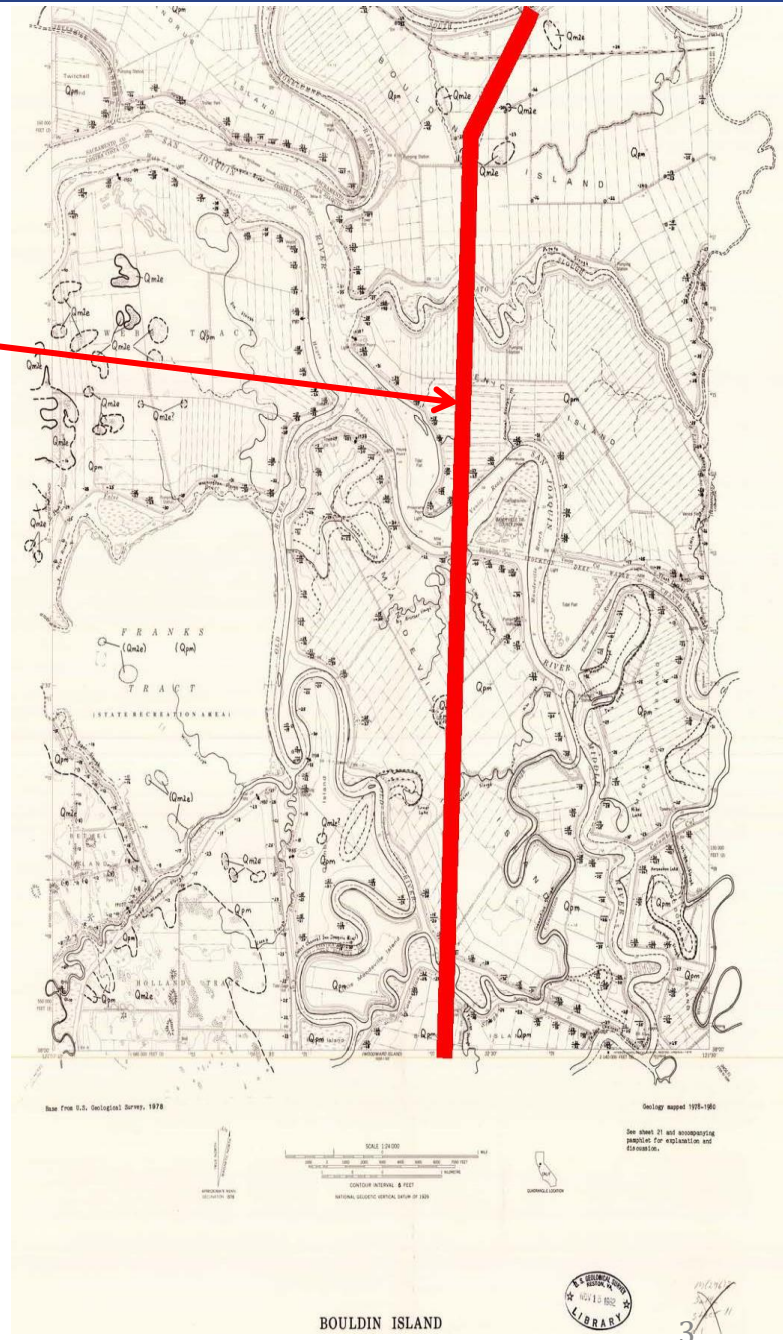
- CWF Imposes Temporary Dewatering Impacts
- Mitigation Includes Slurry Cutoff Walls
  - Intakes
  - Pumping Plants
  - Forebay Embankments
  - Tunnel Shafts
- Permanent Solution to Temporary Impact



# BACKGROUND

APPROXIMATE  
TUNNEL ALIGNMENT

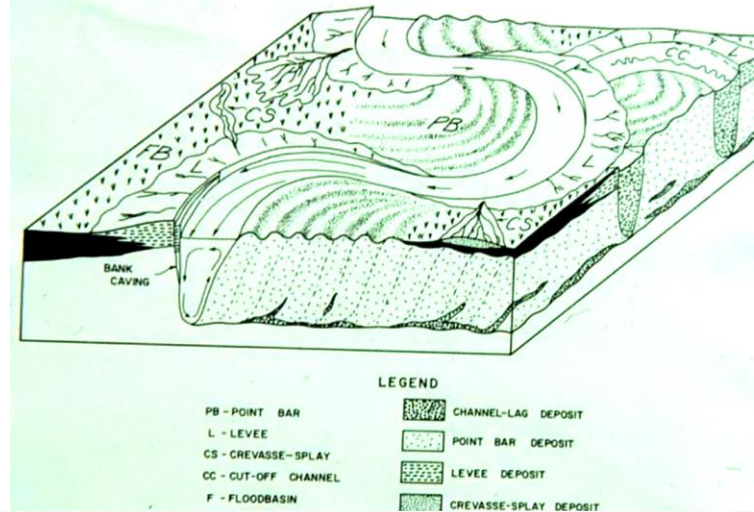
- Complex Delta Geology
- Active Holocene Process
- Many Concealed Former Channels



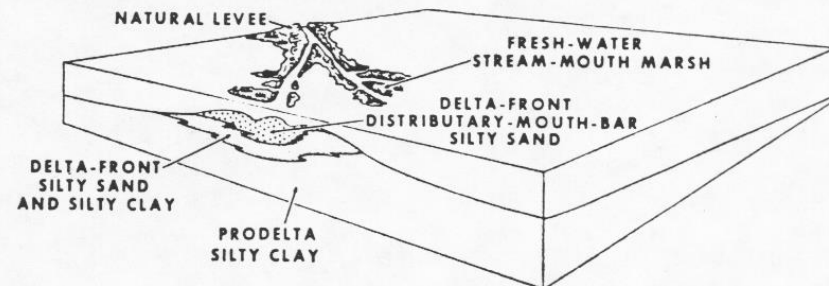


# BACKGROUND

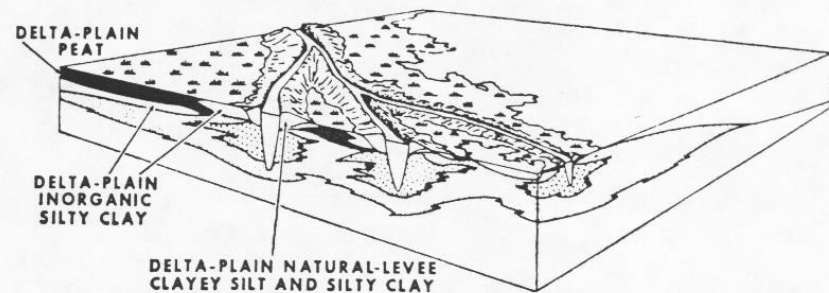
- Complex Delta Geomorphology
- Gradual and Abrupt Stratigraphy Changes
- 3-Dimensional Variations
  - Permeable Sands
  - Low Permeable Clays
  - Highly Variable Peat



## A. INITIAL PROGRADATION

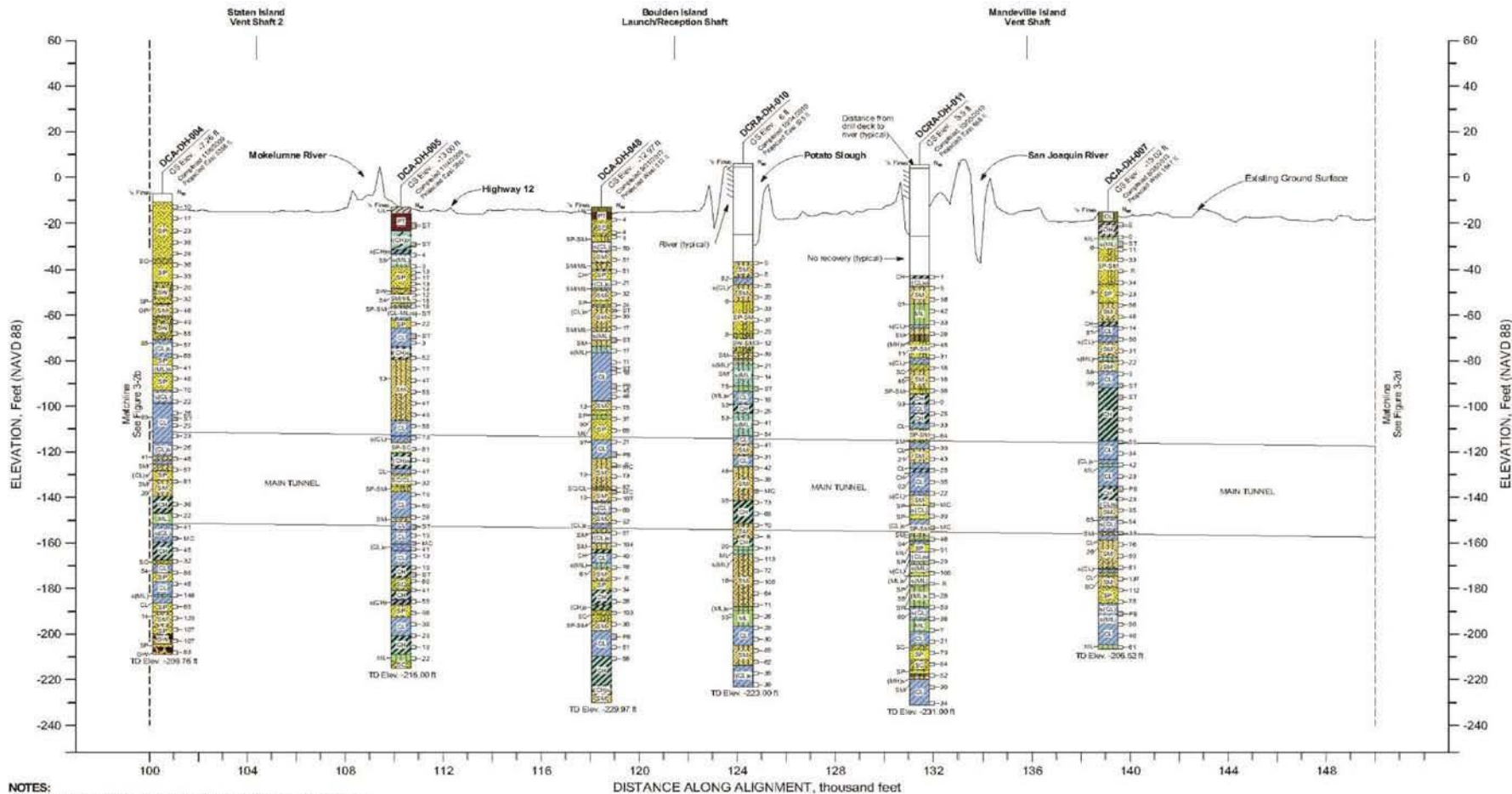


## B. ENLARGEMENT BY FURTHER PROGRADATION

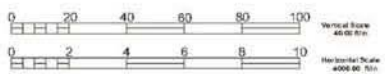


# TUNNELS

DWR-212, p. 55



- NOTES:**
1. For definition of Unified Soil Classification System abbreviations, consult ASTM D2487.
  2. Consult geotechnical data report for Pipeline/Tunnel Option (draft April 2013) for complete boring logs and subsurface data.



# SLURRY CUTOFF WALLS

(EXHIBIT DWR-218, P. 4)

- “Groundwater that previously moved horizontally through the soil toward the excavation location would then be redirected by the slurry cutoff wall to move around the wall and construction site.”

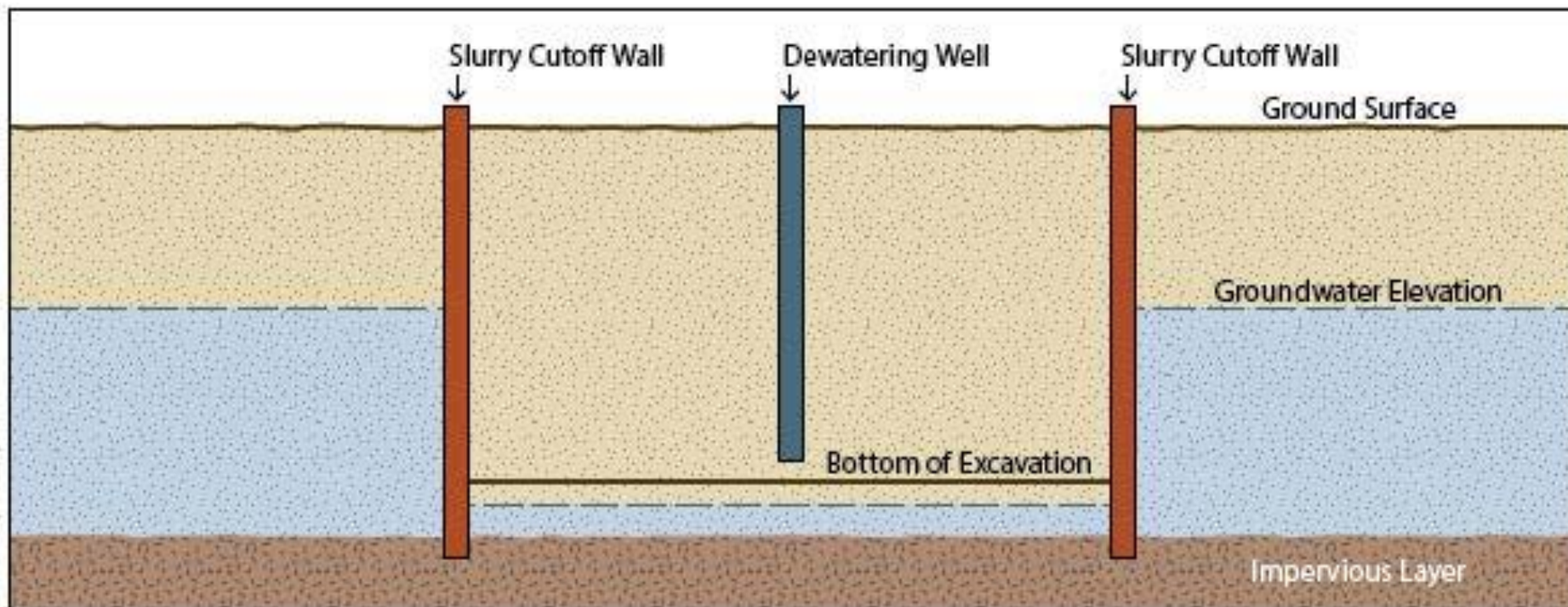


Figure 1C: Example of Groundwater Elevation During Dewatering Actions with Slurry Cutoff Walls

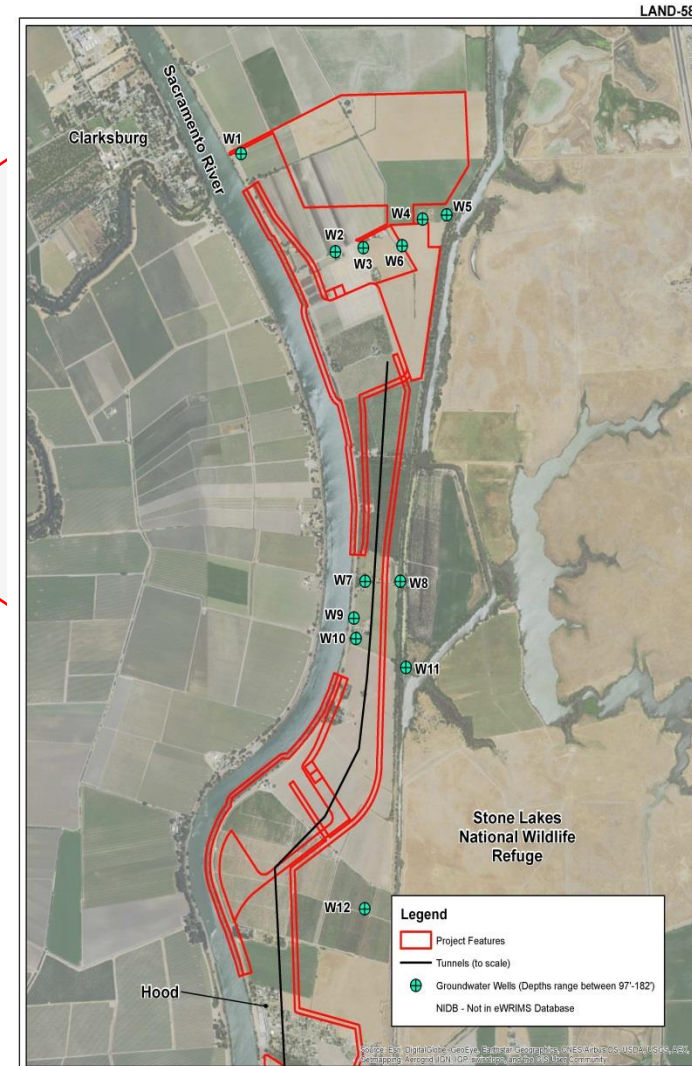


# IDENTIFICATION OF POTENTIAL INJURY

- Groundwater Supply Depletion
- Groundwater Recharge Interference
- Groundwater Well Capacity Reduction.



Figure 1 Location of Facilities



LAND-58