

# Central Reservoir Replacement Project



**Community Meeting #1**  
**September 28, 2017**

# Project Team



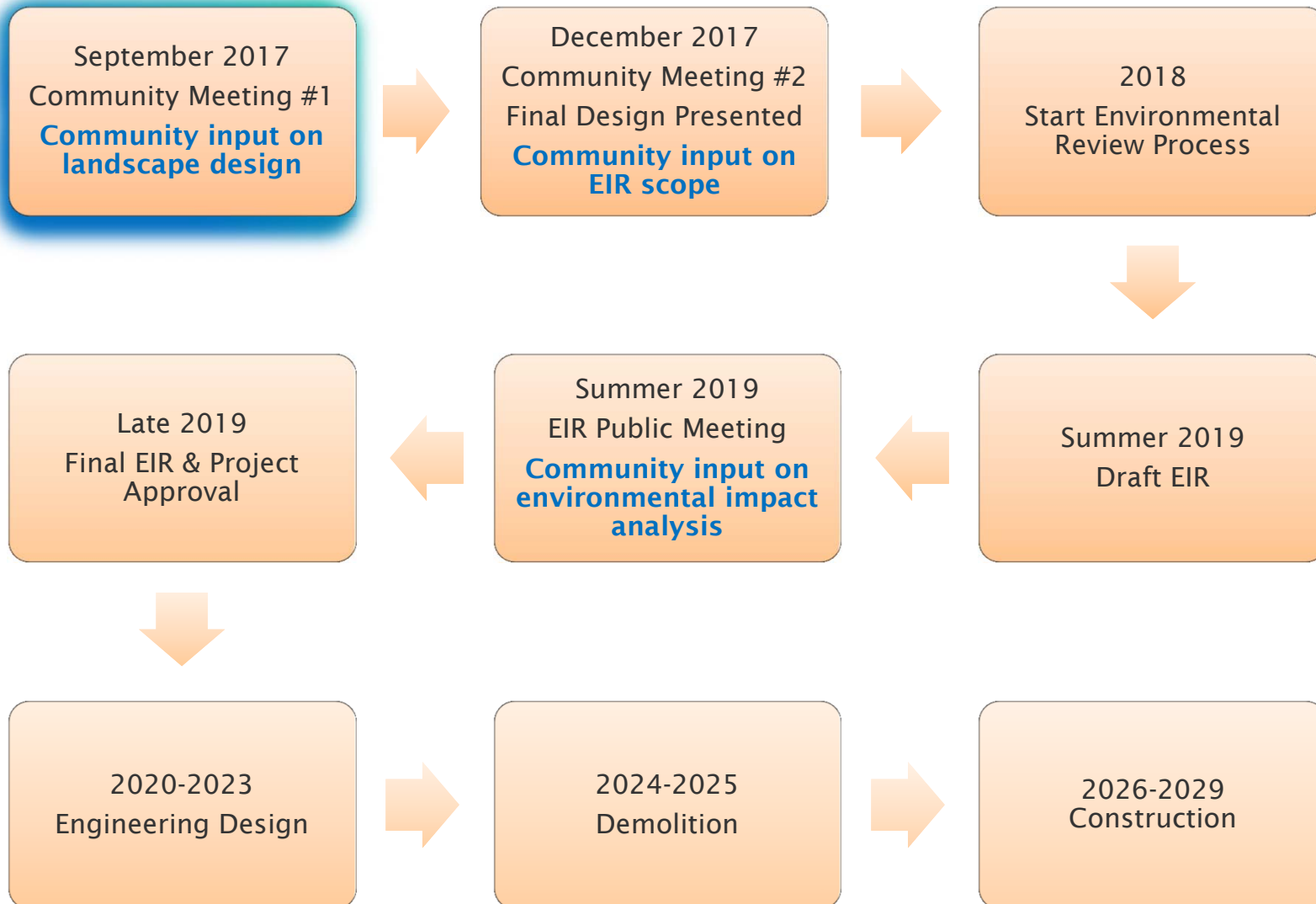
- EBMUD
  - David Rehnstrom, P.E., Division Manager
  - Bill Maggiore, P.E., Senior Engineer
  - Aaron Hope, P.E., Project Manager
  - Laura Luong, Community Affairs
- Consultants
  - ESA, Specialty CEQA Consultants
  - Muller & Caulfield, Architecture
  - Dillingham Associates, Landscape Architecture

# Agenda




- Schedule
- Background
- Project Purpose & Need
- Site Planning
- Conceptual Landscape Plans
- Q & A

# Central Reservoir Replacement Schedule



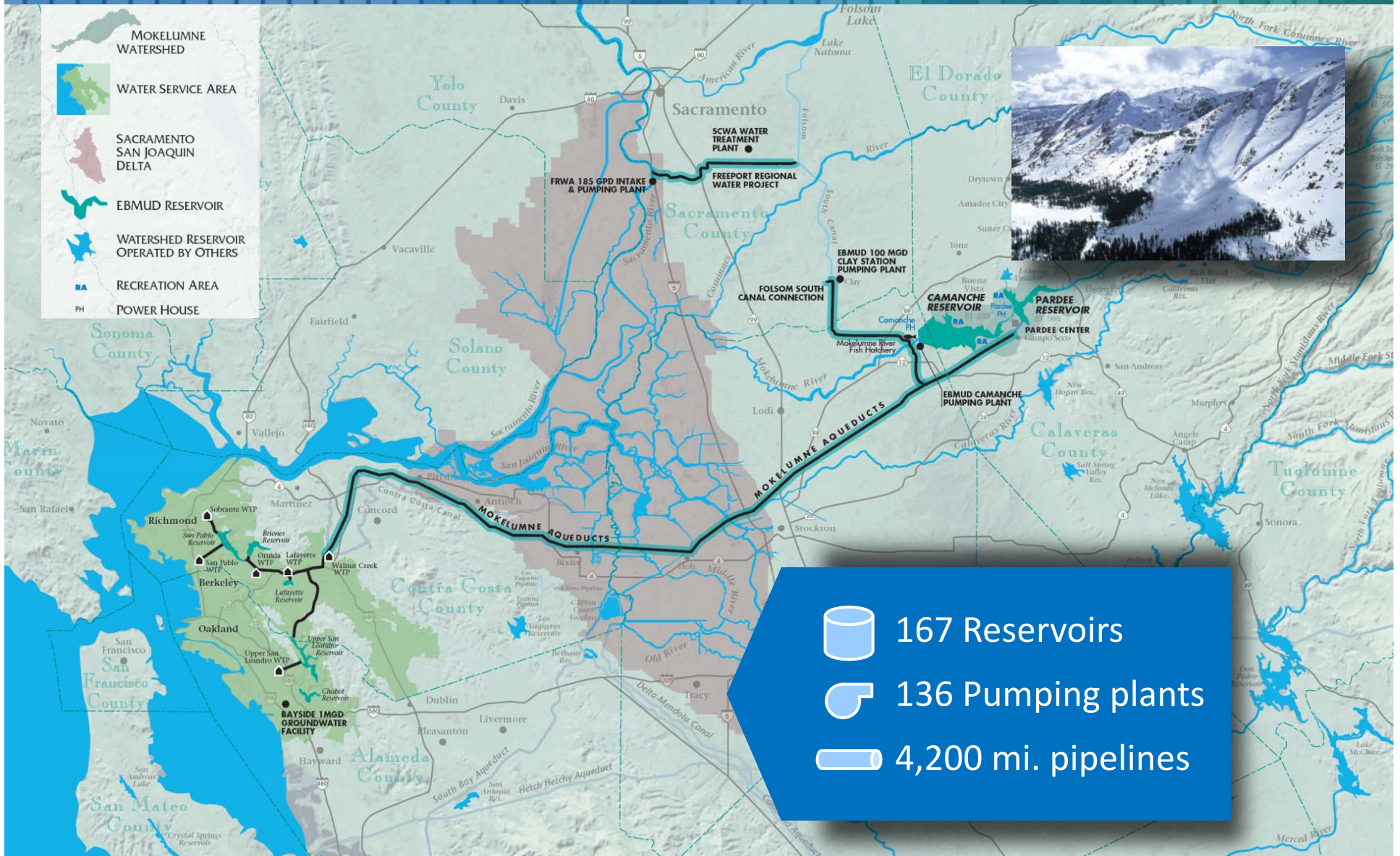


An aerial photograph of a city, likely San Francisco, showing a large reservoir (Central Reservoir) in the center-right. A major highway interchange (San Francisco State University Interchange) is visible on the left side of the image. The city is densely packed with buildings and trees. The text "Background on EBMUD and Central Reservoir" is overlaid in the center of the image.

# Background on EBMUD and Central Reservoir

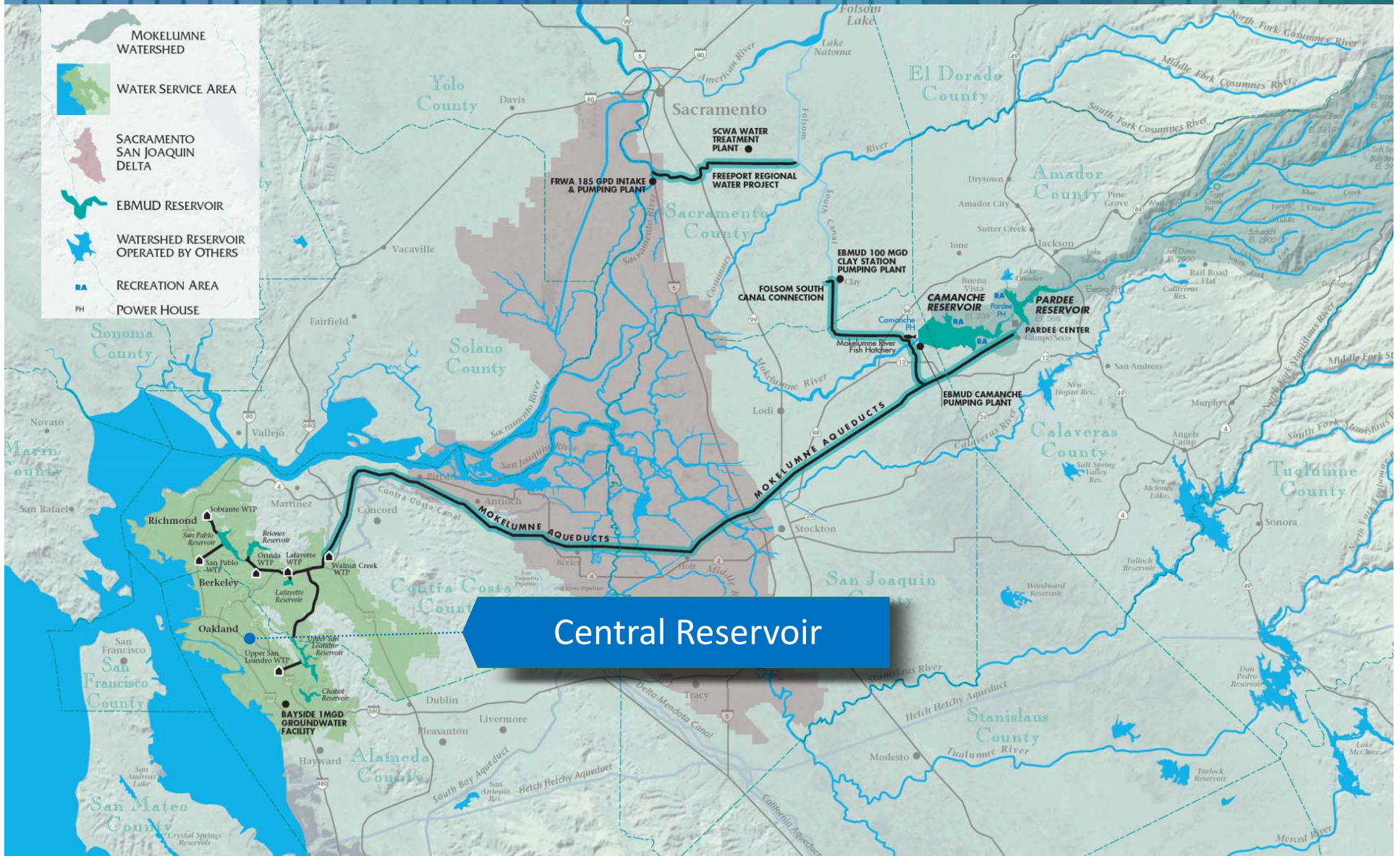


# EBMUD Water System



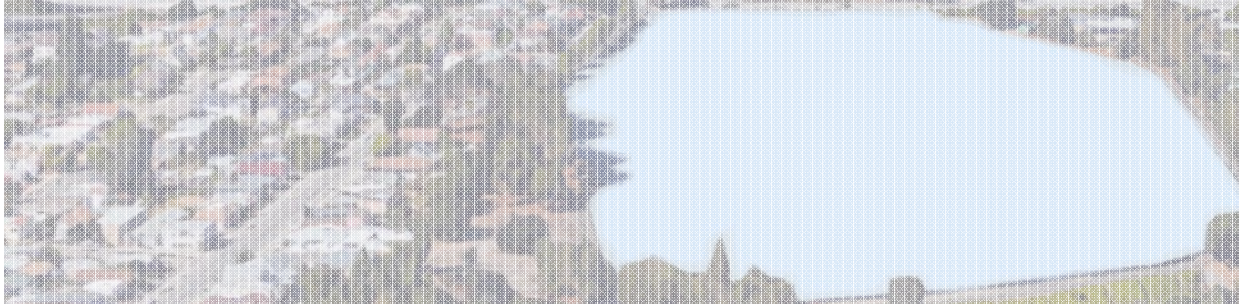


# EBMUD Water System

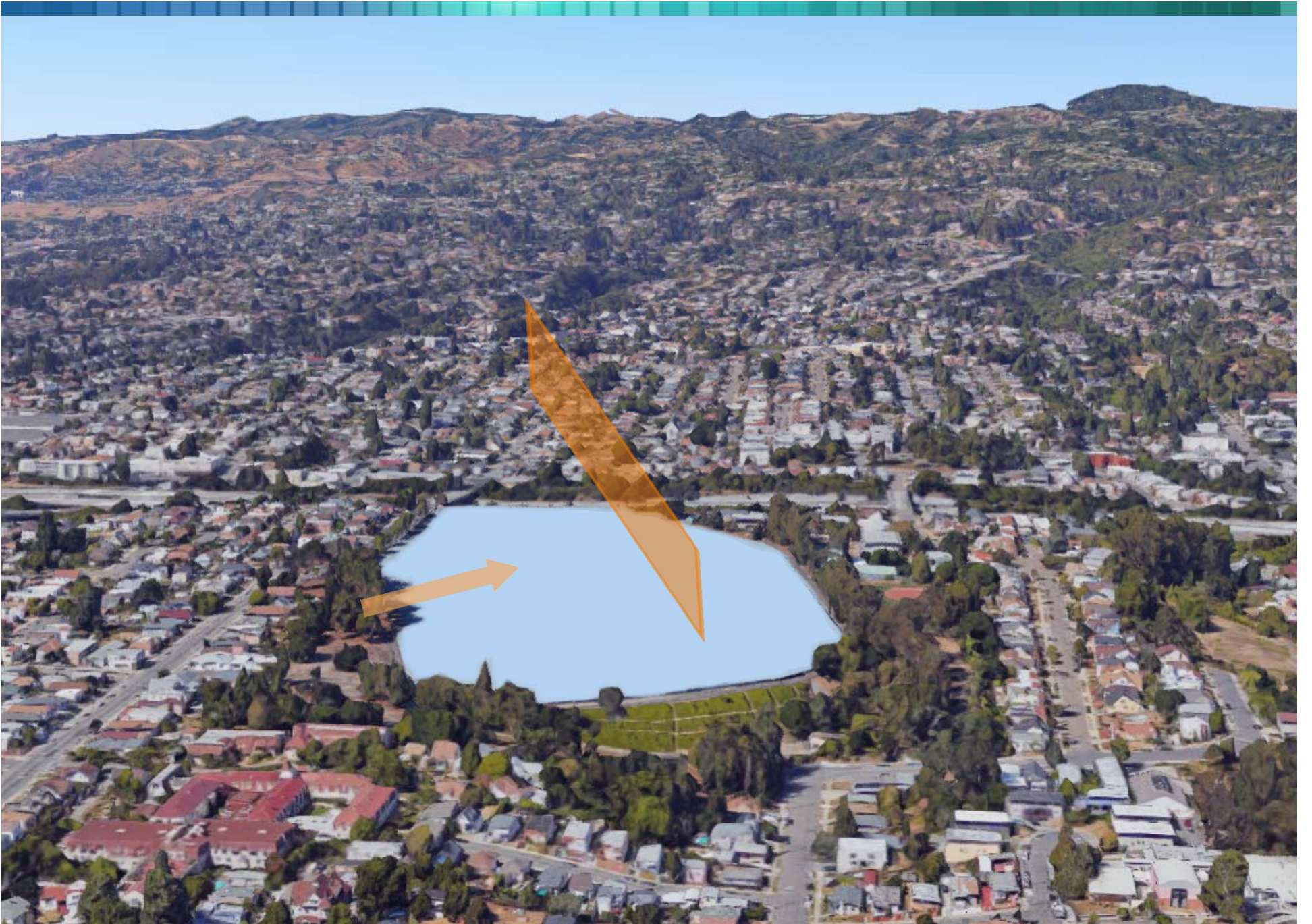




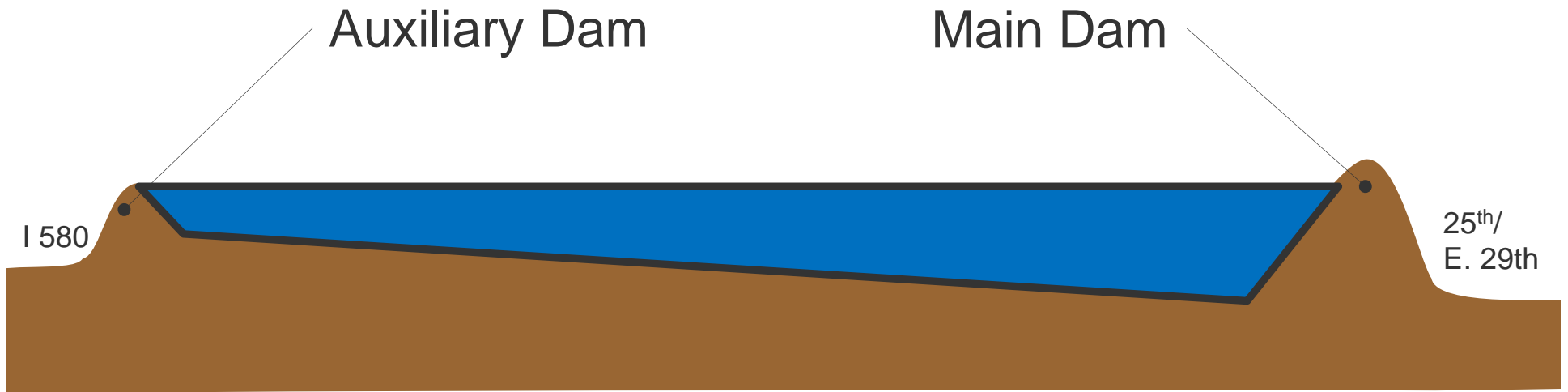
- EBMUD's largest distribution reservoir
- 153 Million Gallons
- 27 acre site
- Provides emergency and operational storage to about 52,000 of the District's 382,000 meters
- Open cut reservoir







# Cross Section of Central Reservoir

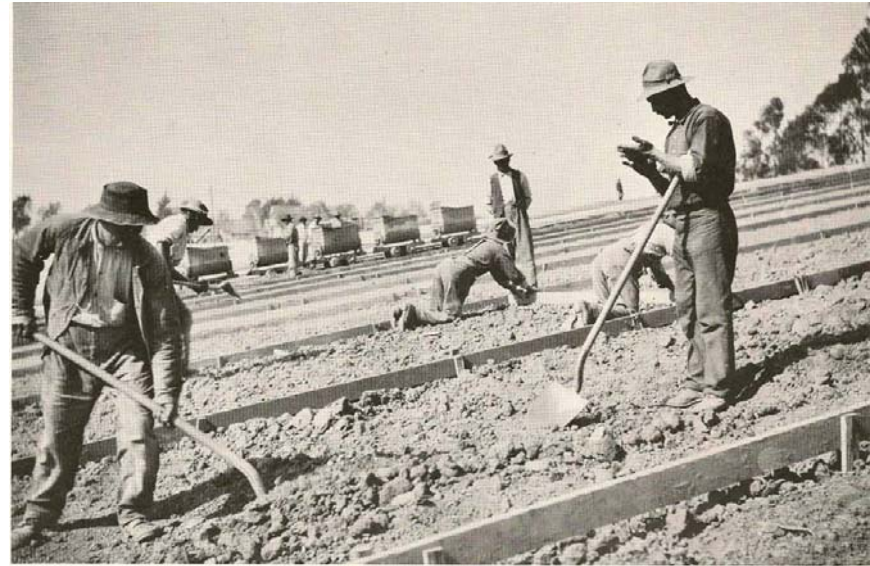




# Central Reservoir Construction



- Built in 1910 by the People's Water Company
- Originally constructed to distribute water from Lake Chabot





# Central Reservoir Modifications



- Major modifications in the early 1960s
- North embankment (auxiliary dam) modified to make room for I580.
- Roof in 1961





# Central Reservoir Modifications



- Liner in 1961
- Encapsulate Roof in 2004





An aerial photograph of a city, likely Los Angeles, showing a large stadium (SoFi Stadium) and a complex highway interchange. The stadium is a large, oval-shaped structure with a white roof. The highway interchange is a multi-level structure with several lanes of traffic. The surrounding area is densely populated with residential and commercial buildings. The text "Project Purpose and Need" is overlaid on the image in a bold, black font.

# Project Purpose and Need

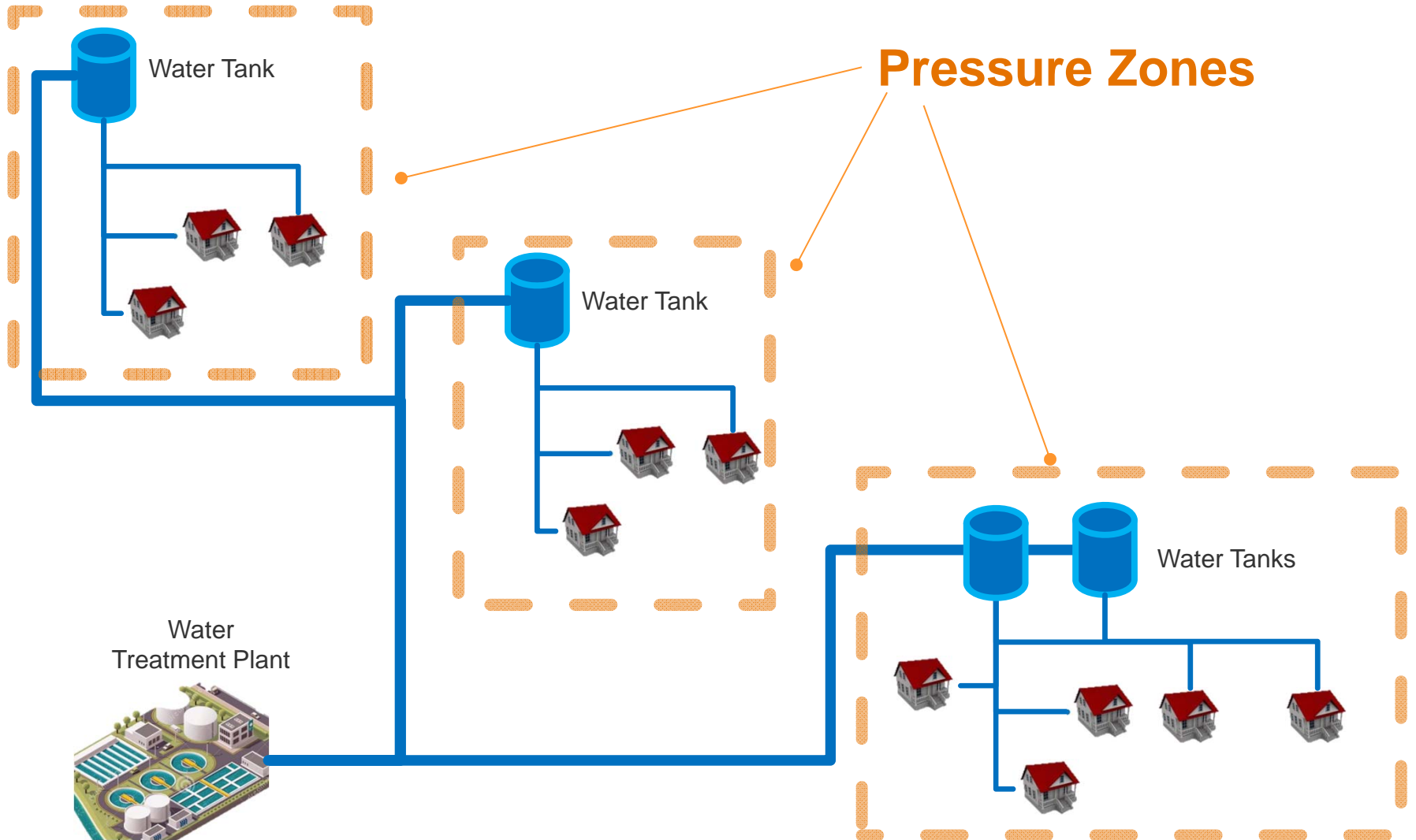


# Why are we Replacing the Reservoir?



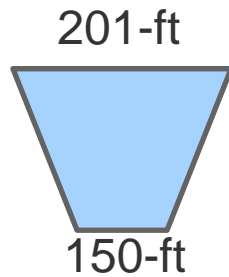
- The reservoir has reached the end of its useful life
- Reduce water loss through the liner
- Resize to meet existing & future demands
- Improve water distribution system

# Improve Water Distribution

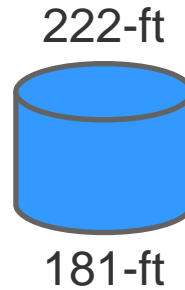




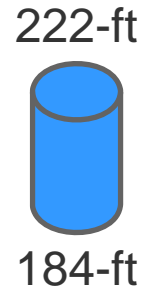
# Central Pressure Zone - Existing



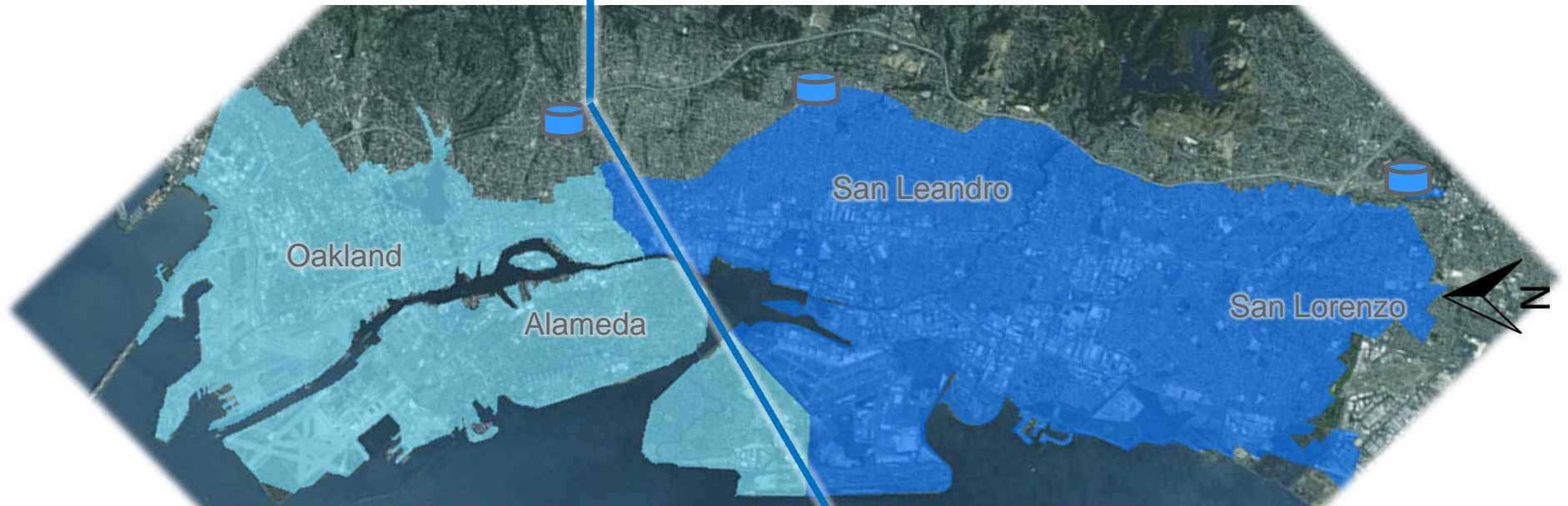
Central Reservoir



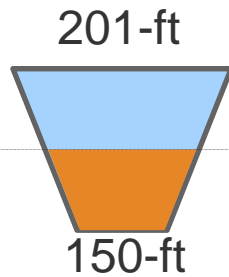
Dunsmuir Reservoirs



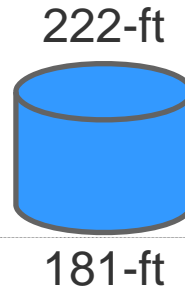
South Reservoir



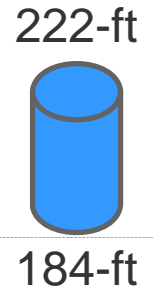
# Central Pressure Zone - Existing



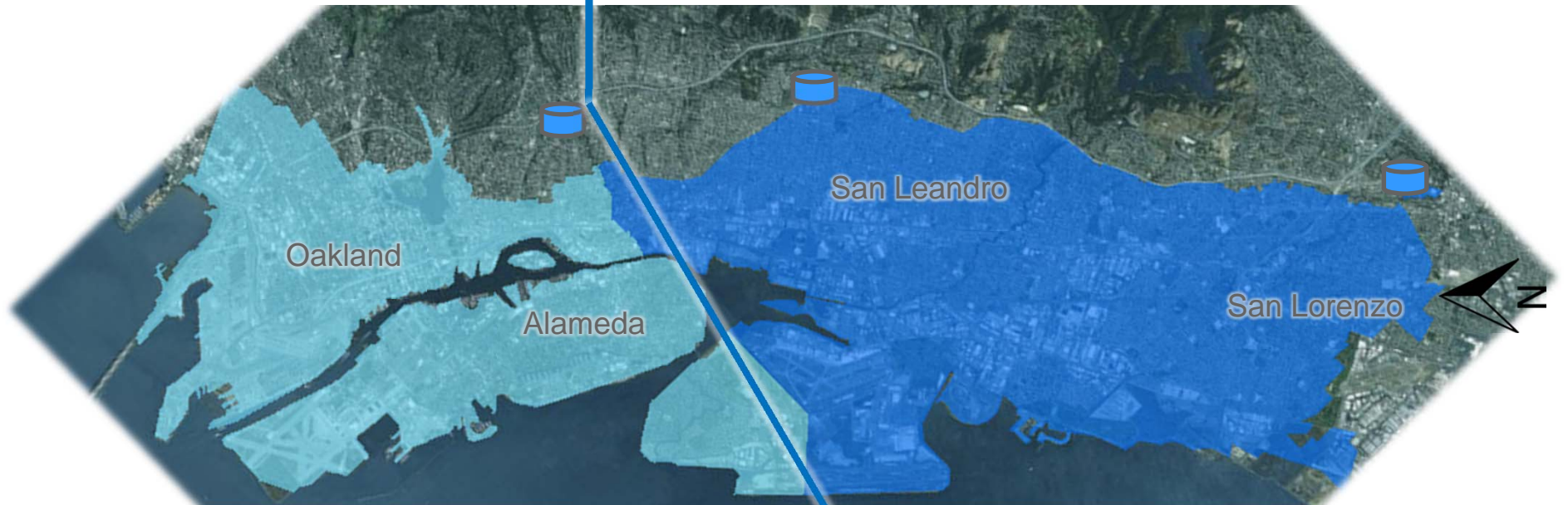
Central Reservoir



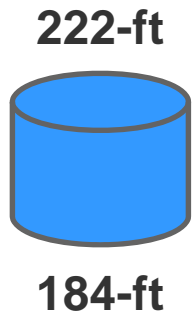
Dunsmuir Reservoirs



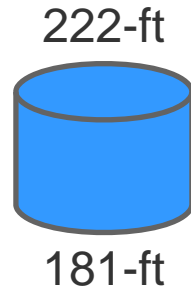
South Reservoir



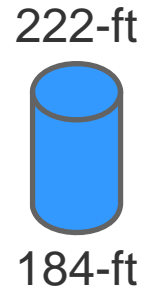
# Central Pressure Zone - Future



Central Reservoir



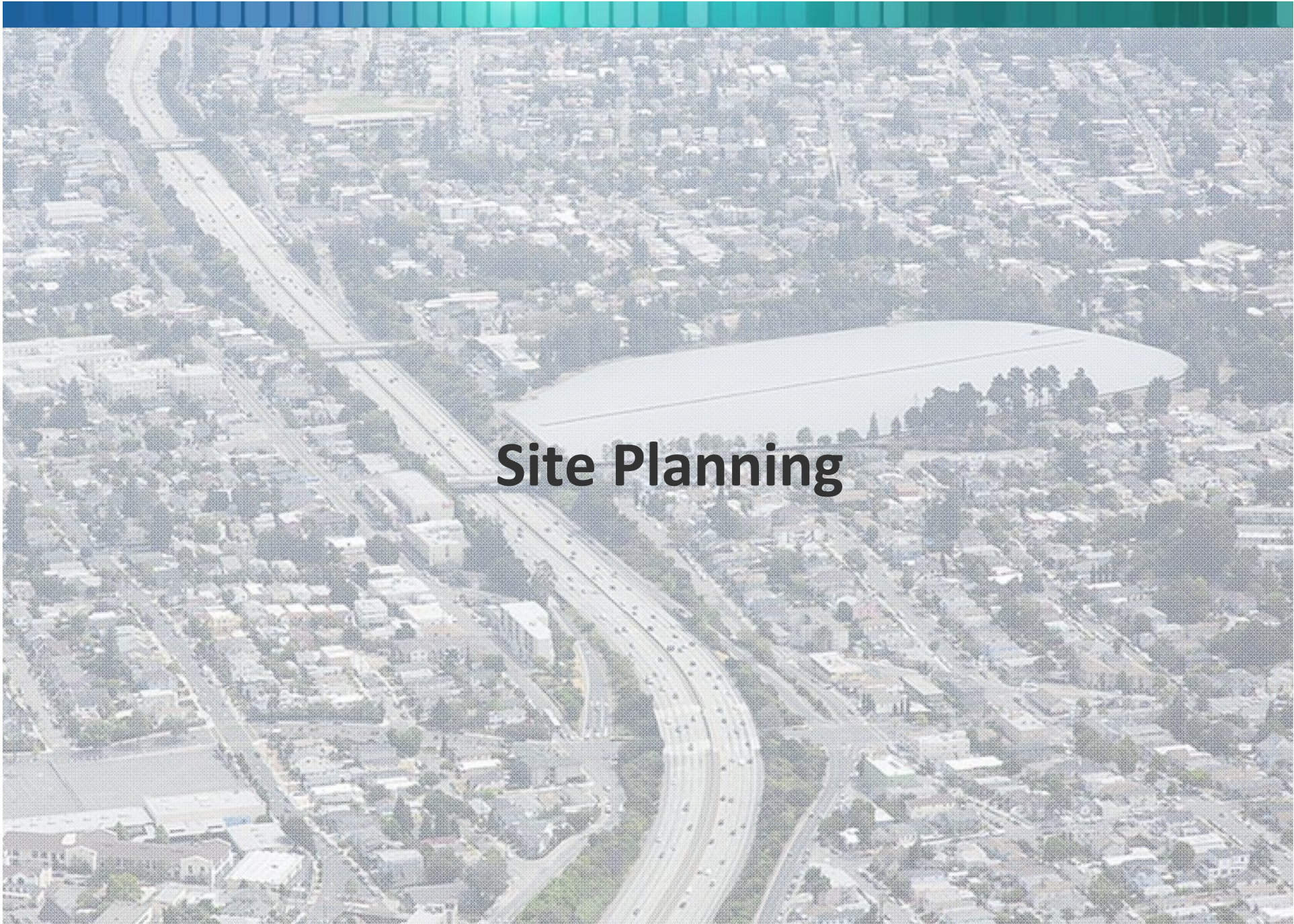
Dunsmuir Reservoirs



South Reservoir







# Site Planning

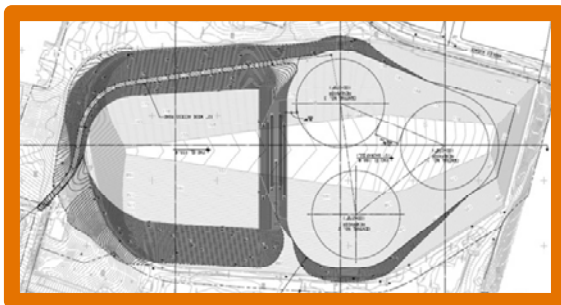
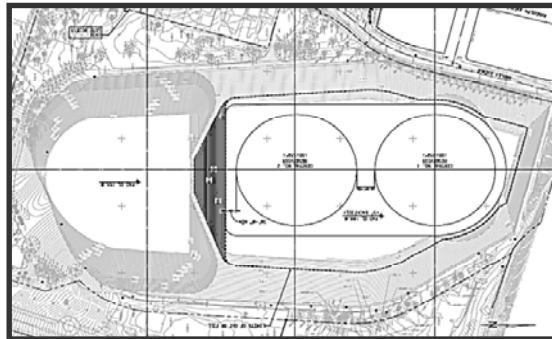
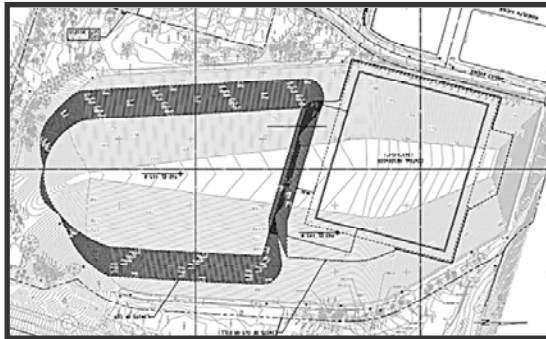


# Conceptual Site Plan





# Conceptual Site Plan



- One, Two and Three Tank Configuration
- Eleven construction methods to strengthen soil beneath existing reservoir and new fill pad
- Three different tank construction methods/materials
- Four different roof types

## Three concrete tanks

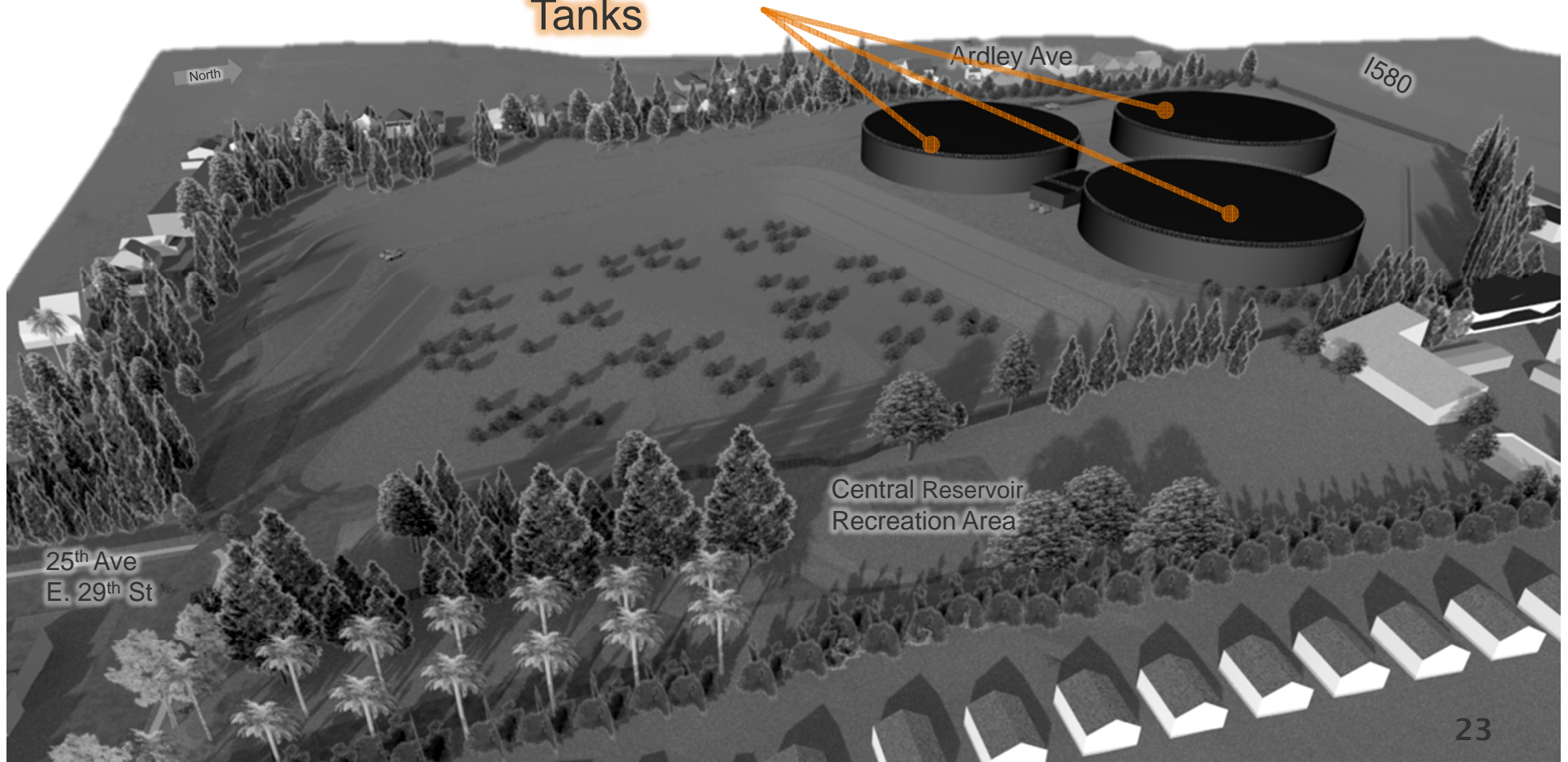
- Three tanks has fewest truck trips
- Concrete has smallest visual impact
- Avoid recurring “sandblasting”
- Most cost effective



# Conceptual Site Plan

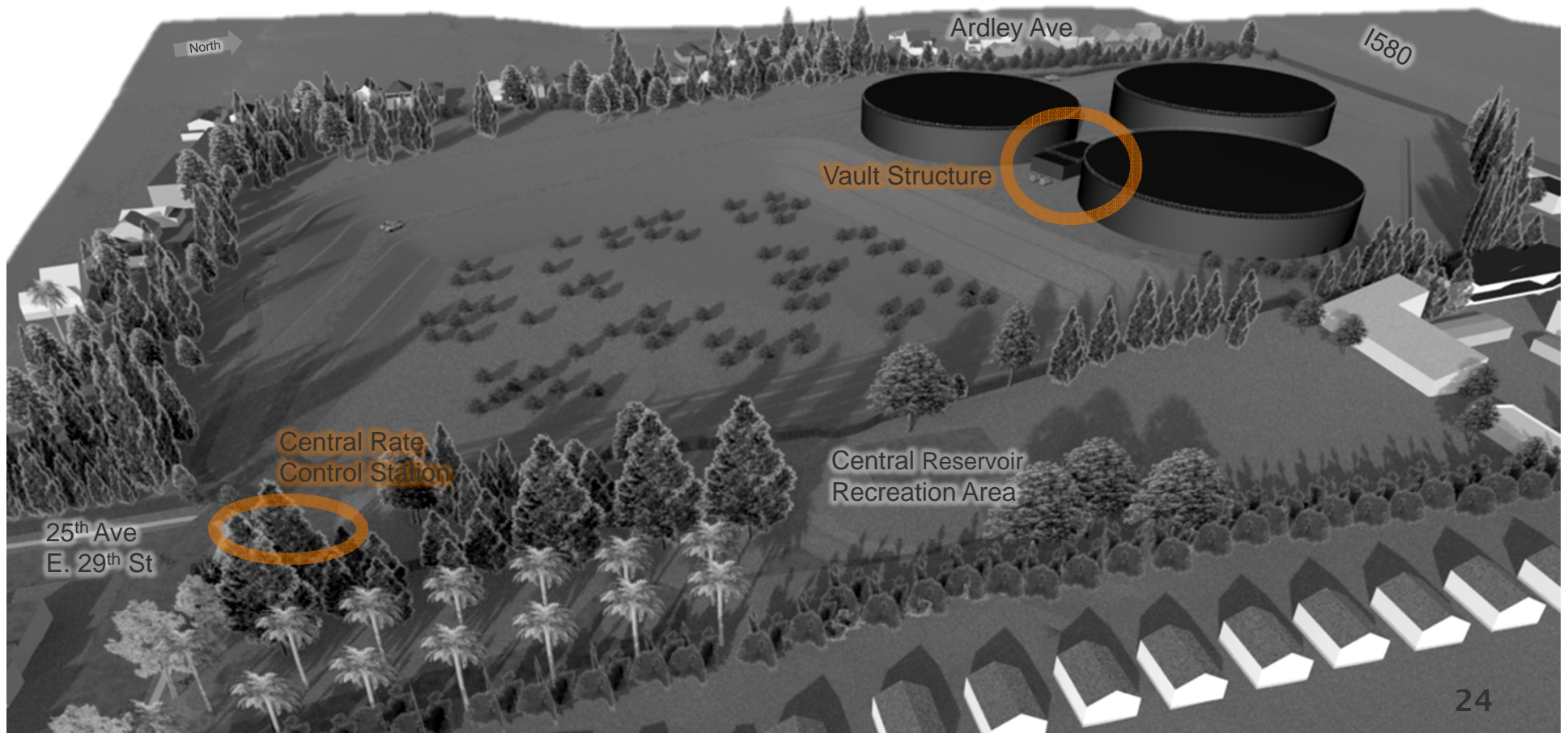


Three 17 Million  
Gallon Concrete  
Tanks



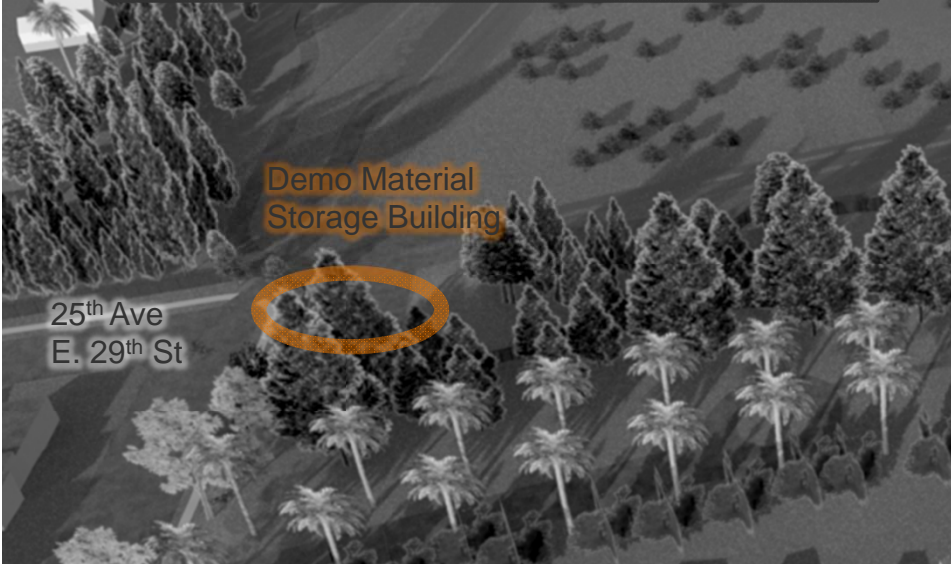
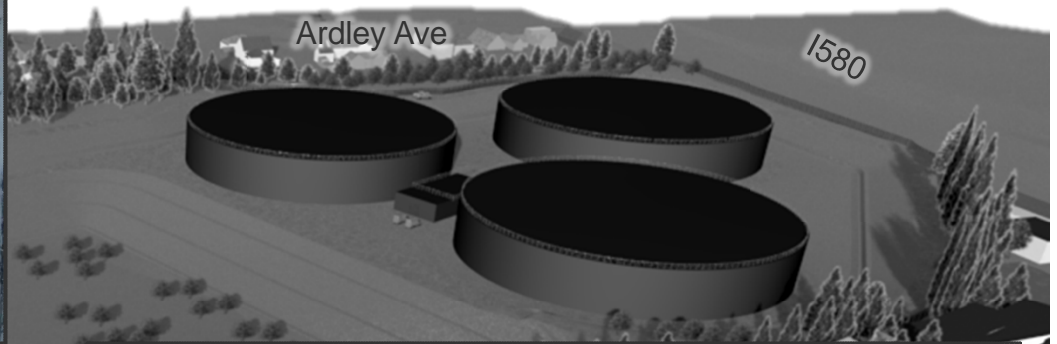


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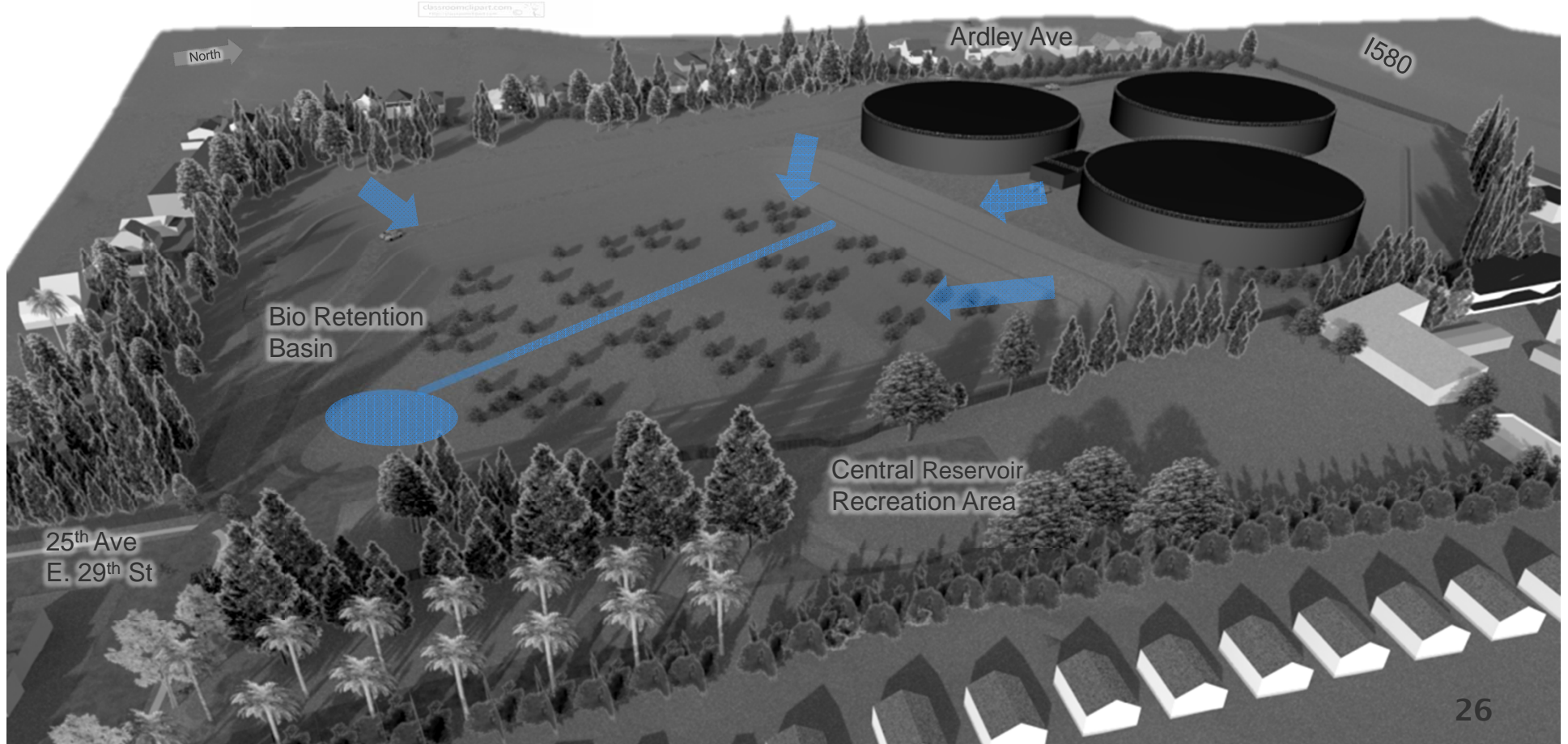


# Conceptual Site Plan



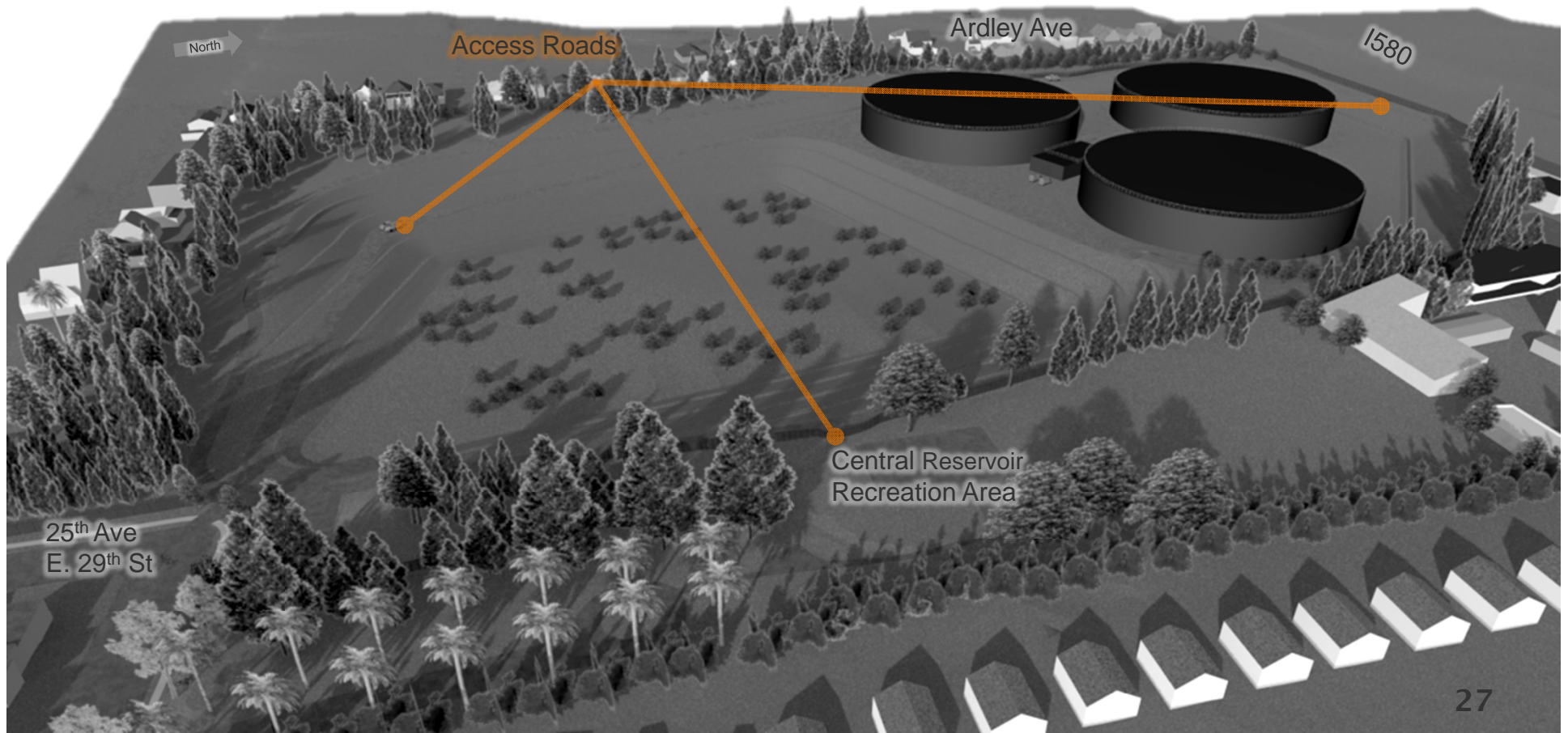


# Conceptual Site Plan



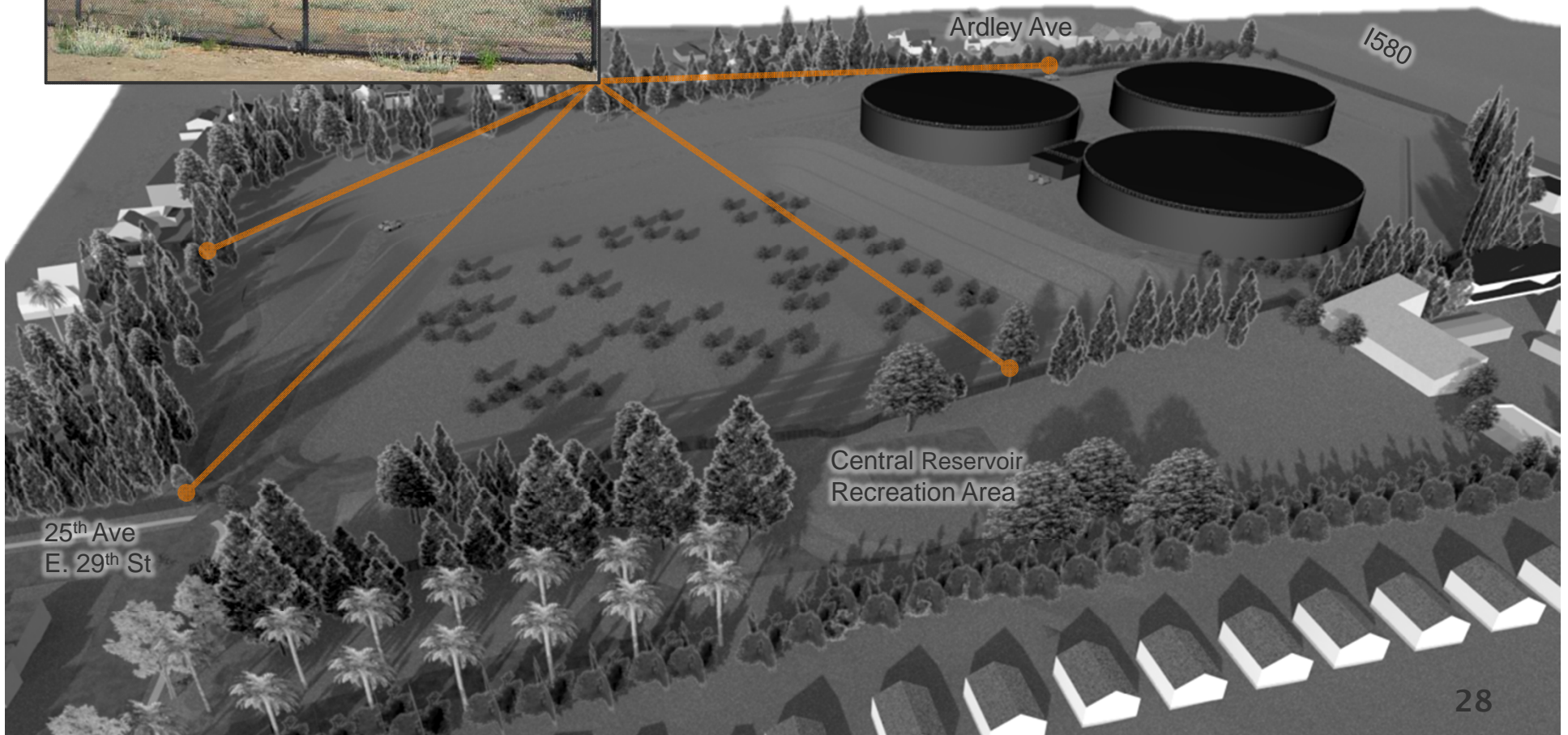


# Conceptual Site Plan





# Conceptual Site Plan





# Conceptual Landscape Plans



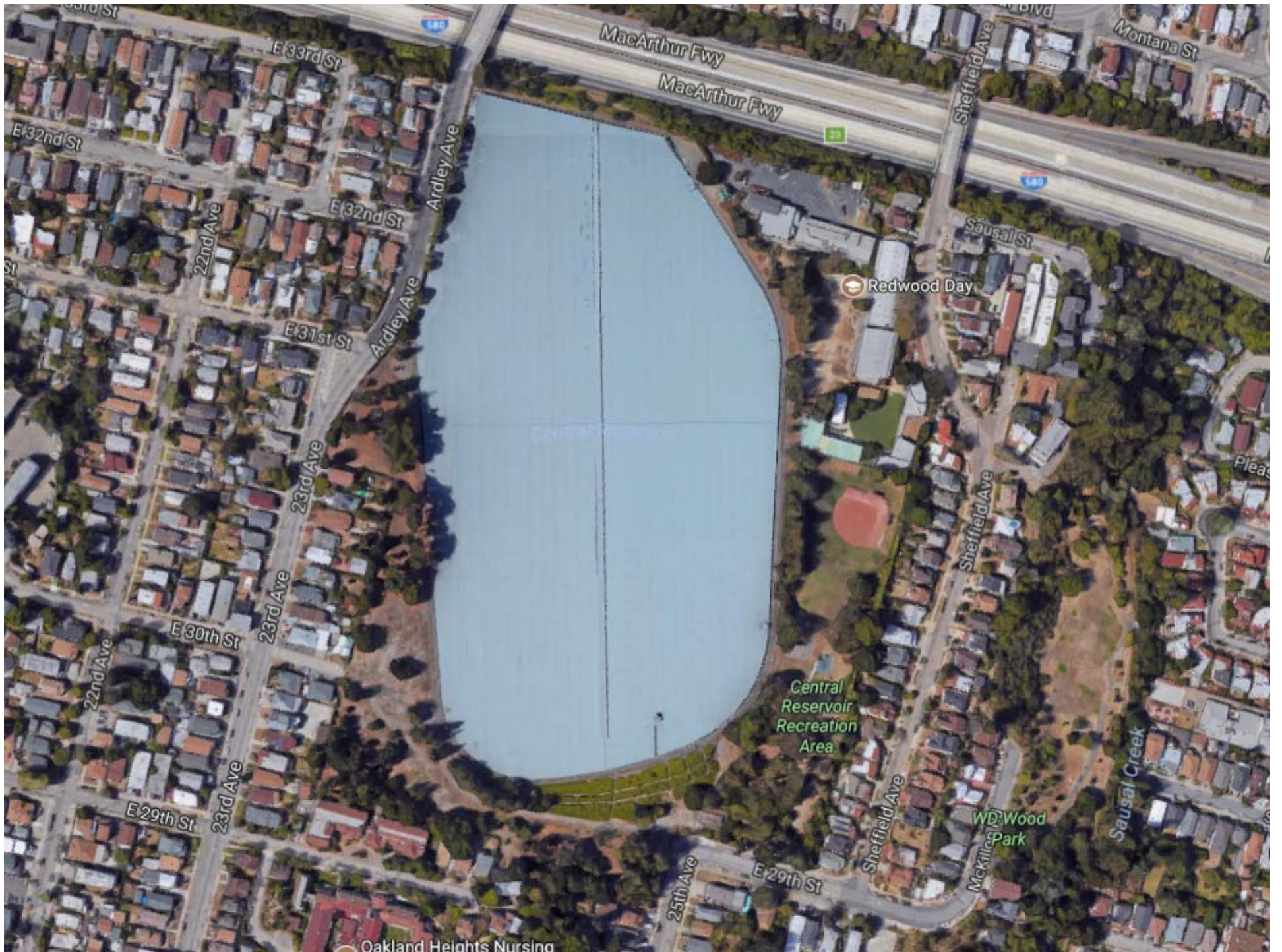
- Reed Dillingham, ASLA, Dillingham Associates Landscape Architects
- Rosemary Muller, FAIA, Muller & Caulfield Architects



An aerial photograph of a city, showing a multi-lane highway running diagonally from the top left towards the bottom center. To the right of the highway is a large, irregularly shaped lake. The surrounding area is densely packed with residential buildings and trees. The image has a semi-transparent, light blue overlay.

# Conceptual Landscape Plans





Oakland Heights Nursing





Viewpoint 1

Viewpoint 2

Viewpoint 3

Viewpoint 5

Viewpoint 4



# Viewpoint 1: Ardley Near Bridge







Viewpoint 1

Viewpoint 2

Viewpoint 3

Viewpoint 5

Viewpoint 4



# Viewpoint 2: Ardley at E 32<sup>nd</sup>







Viewpoint 1

Viewpoint 2

Viewpoint 3

Viewpoint 5

Viewpoint 4



# Viewpoint 3: Ardley and 23<sup>rd</sup>







Viewpoint 1

Viewpoint 2

Viewpoint 3

Viewpoint 5

Viewpoint 4



# Viewpoint 4: 25<sup>th</sup> and E. 29<sup>th</sup>







Viewpoint 1

Viewpoint 2

Viewpoint 3

Viewpoint 5

Viewpoint 4



# Viewpoint 5: Redwood Day School

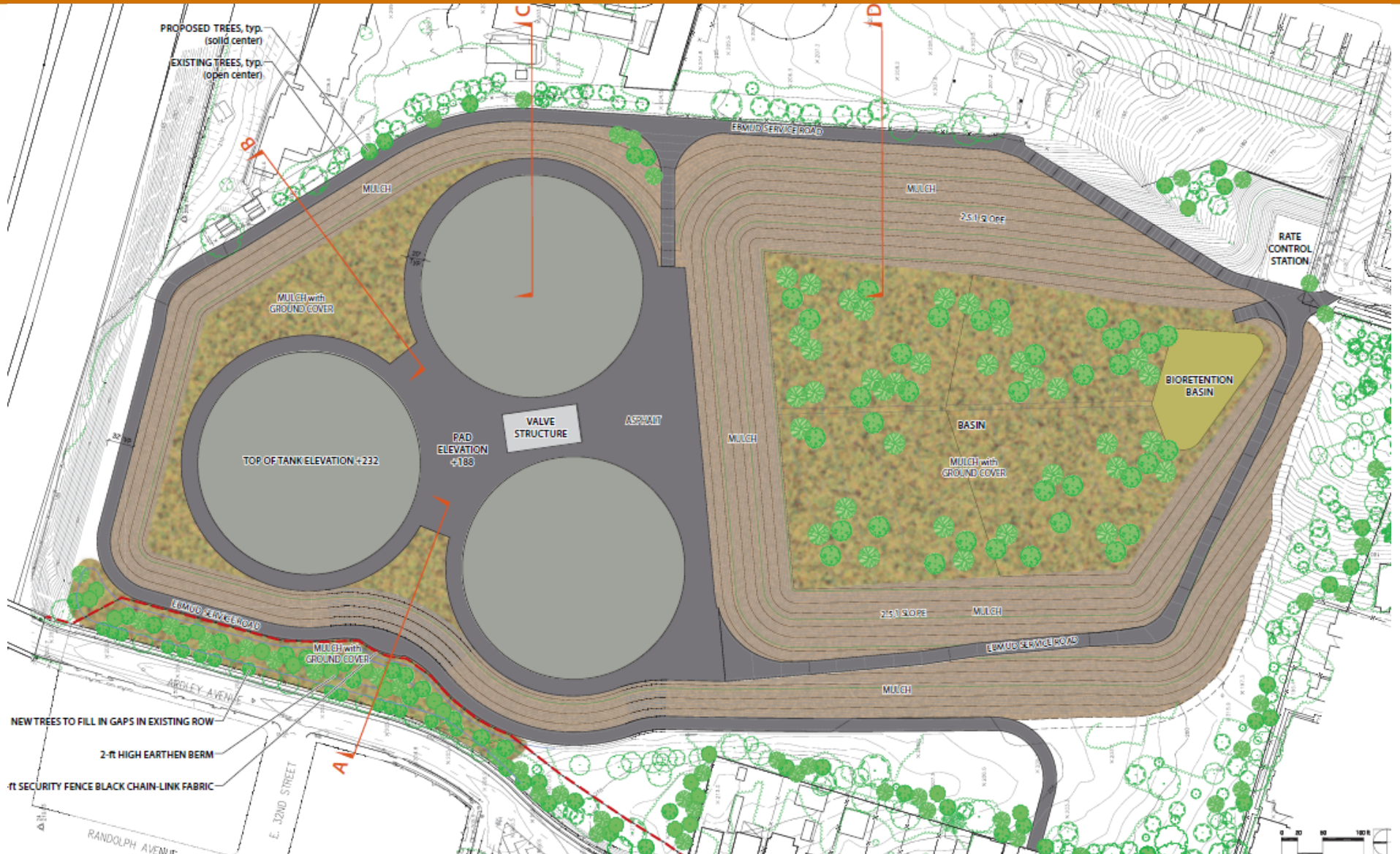








# Concept Plan 2: Planting









# Plant Palette - Trees



Big-leaf Maple



California Buckeye



Elderberry



Ginkgo



Canyon Live Oak



Valley Oak



Coast Live Oak



# Plant Palette - Shrubs



Edmunds Manzanita



Wayside Manzanita



Manzanita



Pajaro Manzanita



McMinn Manzanita



Joyce Coulter Ceanothus



Skylark Ceanothus



# Trellis





**Thank You**



**For comments or questions  
please email:  
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