

# Seaside Municipal Water System

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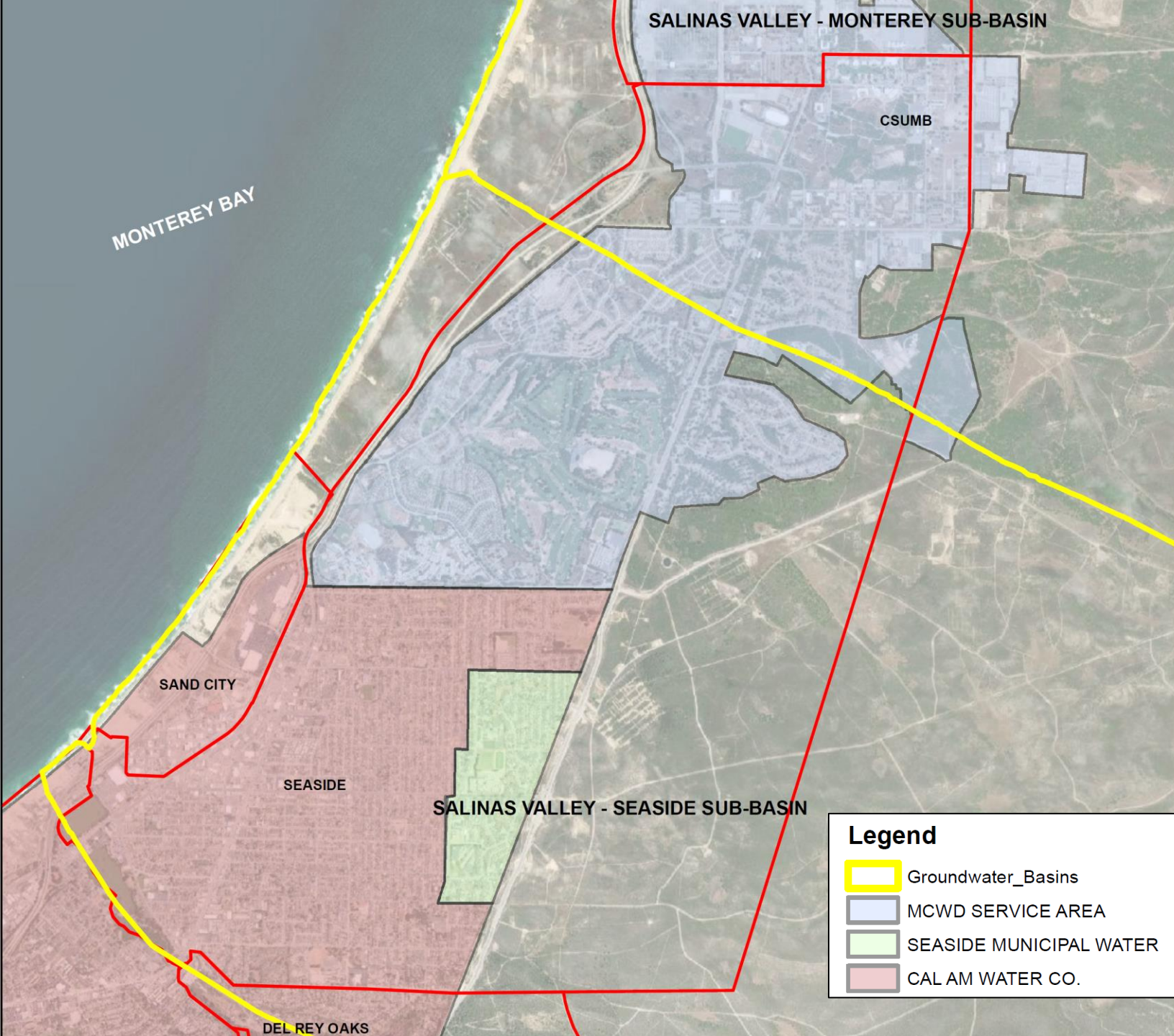
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# Background

- There are three water suppliers in Seaside:
  - Seaside Municipal Water System (SMWS) serves the east-central portion of the City (about 800 customers)
  - Cal Am serves the rest of the City outside the former Fort Ord
  - Marina Coast Water District serves the portion inside the former Fort Ord
- The water comes from Groundwater Wells
  - The City and Cal Am supply water from the Seaside Subbasin of the Salinas Groundwater Basin.
  - Marina Coast Water District (MCWD) supplies water from the Monterey Subbasin of the Salinas Groundwater Basin.
  - The two subbasins are adjacent but are not connected.



SALINAS VALLEY - MONTEREY SUB-BASIN

CSUMB

MONTEREY BAY





SAND CITY

SEASIDE

SALINAS VALLEY - SEASIDE SUB-BASIN

DEL REY OAKS

**Legend**

-  Groundwater\_Basins
-  MCWD SERVICE AREA
-  SEASIDE MUNICIPAL WATER
-  CAL AM WATER CO.

# SMWS System Reliability

- Water from the Seaside Sub-Basin meets all State and Federal drinking water requirements.
- The Seaside Groundwater Basin Watermaster manages withdrawals by the various well owners.
- SMWS has only one active water well.
  - SMWS had multiple drinking water wells, but the older wells are no longer in service.
  - The remaining well was drilled in 2001.
- Water systems need to have multiple sources of supply for customer reliability. The system needs to meet the maximum demand day with the largest drinking water well out of service.

# Supply Options

- Add another water well in the Seaside Sub-Basin
- Connect to an adjacent system with available capacity
  - Cal Am has multiple wells, but they need them to meet their customer demands. They can only provide limited emergency backup.
  - MCWD has multiple wells, but they cannot export water from the Salinas basin. They can only provide emergency backup. This would require a new connection.
- Develop an entirely new source of supply (such as seawater desalination)

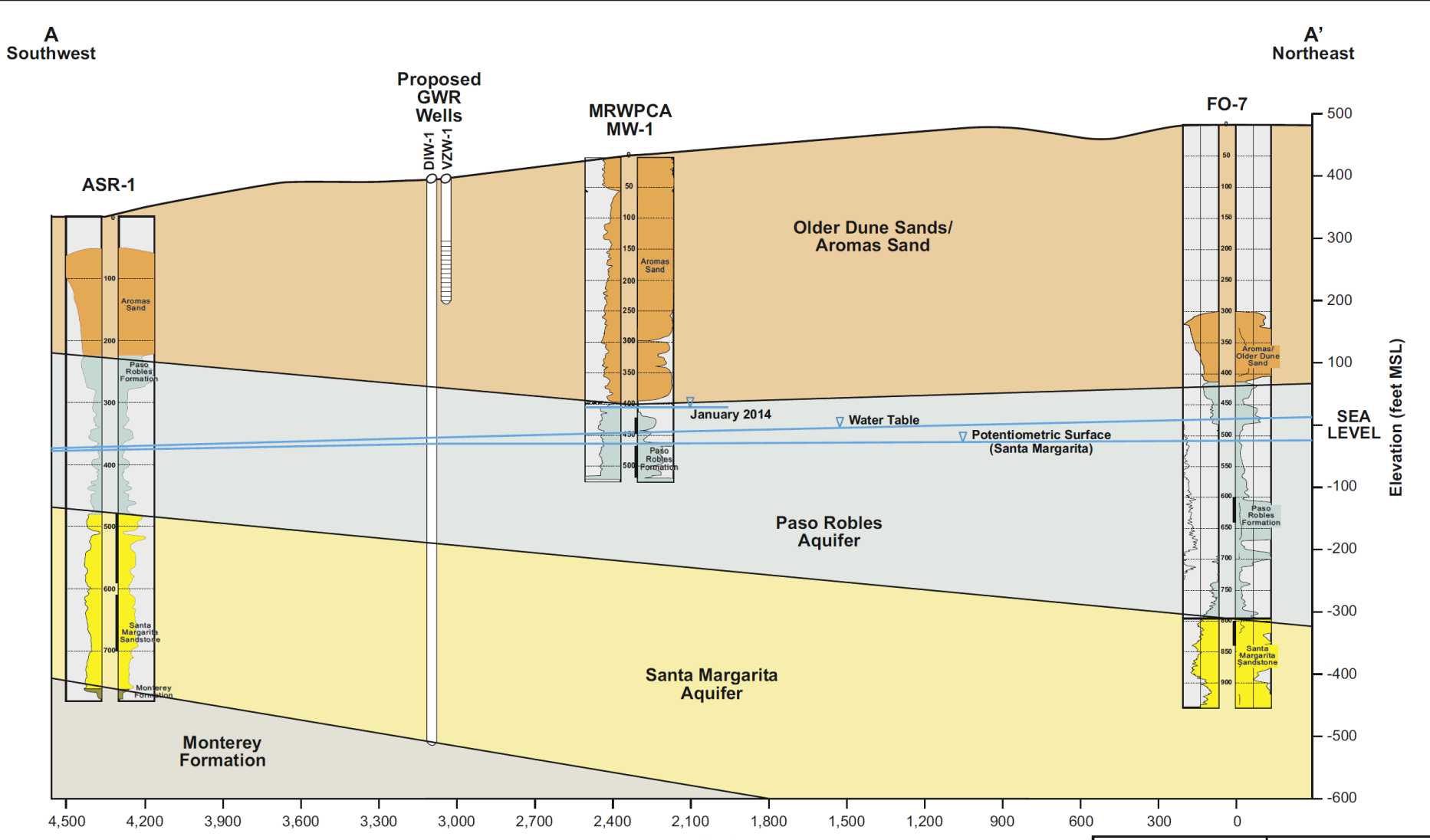
# Other Water Supply Factors

- It costs more to buy water from Cal Am than to operate an SMWS well. The SMWS retail water rates are based on self-supplying water, so any time SMWS buys water it sells it at a loss.
  - 2022 rates:
    - Cal Am Division 1 rate is \$17.65/hcf.
    - SMWS Tier 1 rate is \$10.60/hcf
- SMWS needs at least 600 gpm of well production capacity to meet the needs of its customers.

# Where can a new drinking water well be located?

- The new well must be:
  - In the Seaside Subbasin
  - At least 1000-ft from the nearest production well
  - At least 750-ft from the nearest Pure Water Monterey injection well
  - More than 50-ft from a sanitary or storm sewer or non-potable fluid pipeline
  - On a site the City owns or can reasonably acquire
- The new well should be:
  - In the Santa Margarita strata which is deeper and more productive than the Paso Robles strata
  - North of the Ord Terrace Fault (deeper zone)
  - Close to the municipal service area (less connecting pipe)

# Groundwater Strata



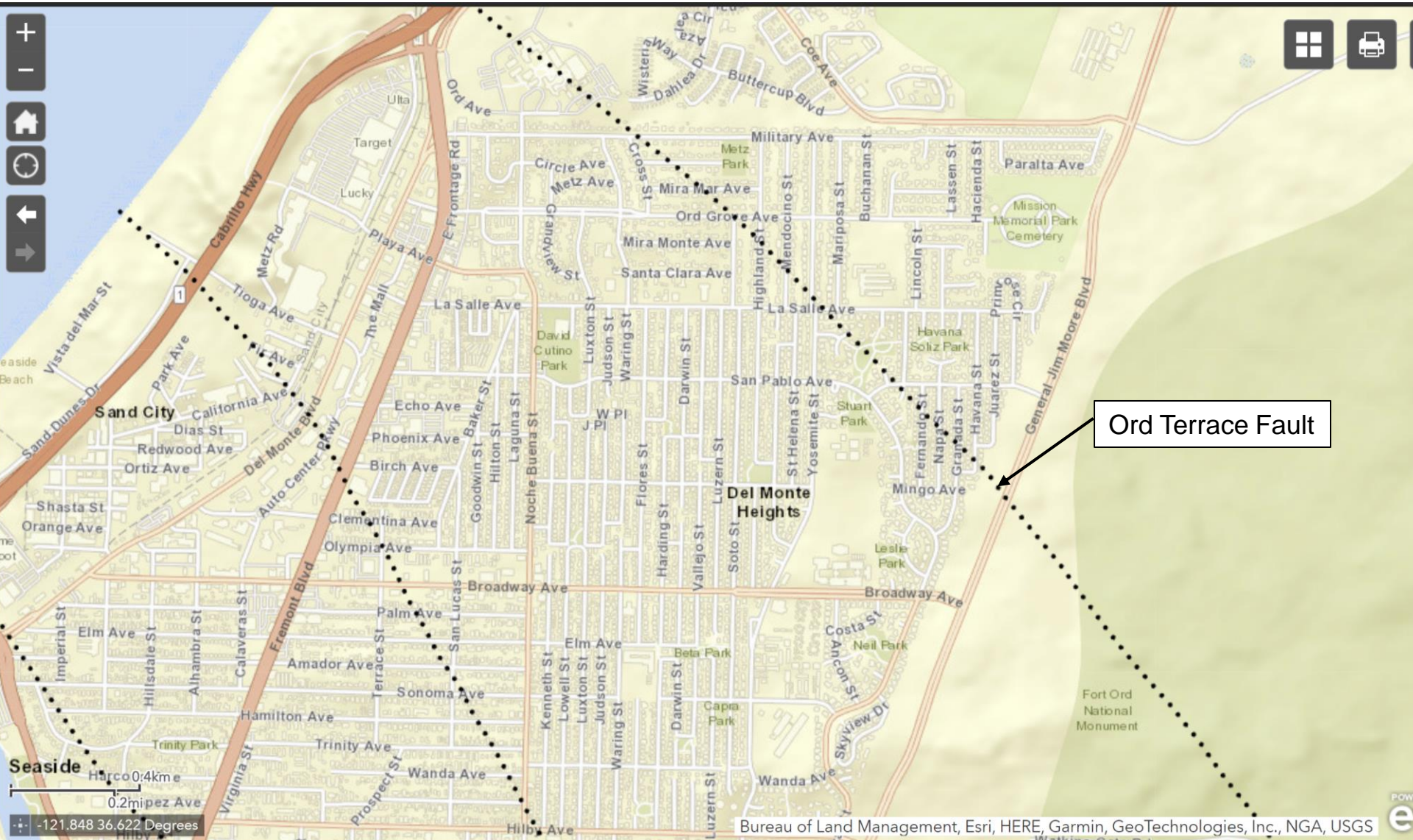
Vertical Exaggeration 2.4x

Water levels from July/August 2013 contour maps in HydroMetrics, December 2013.  
 Water table in MRWPCA MW-1 measured by Todd Groundwater, January 2014.

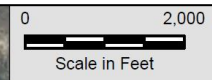
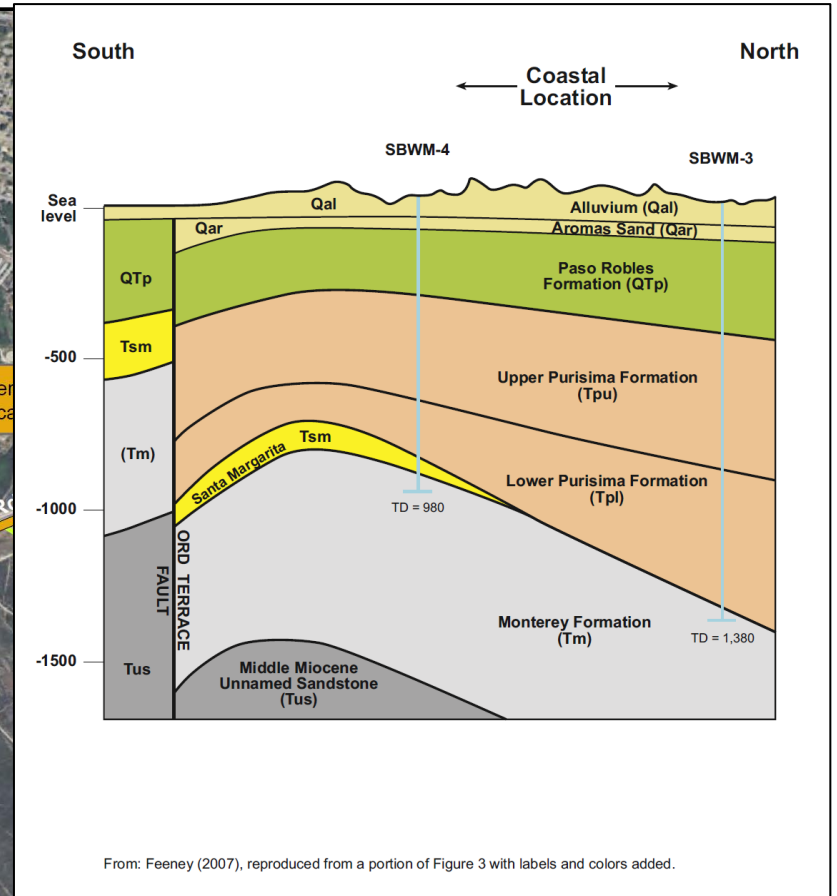
May 2014

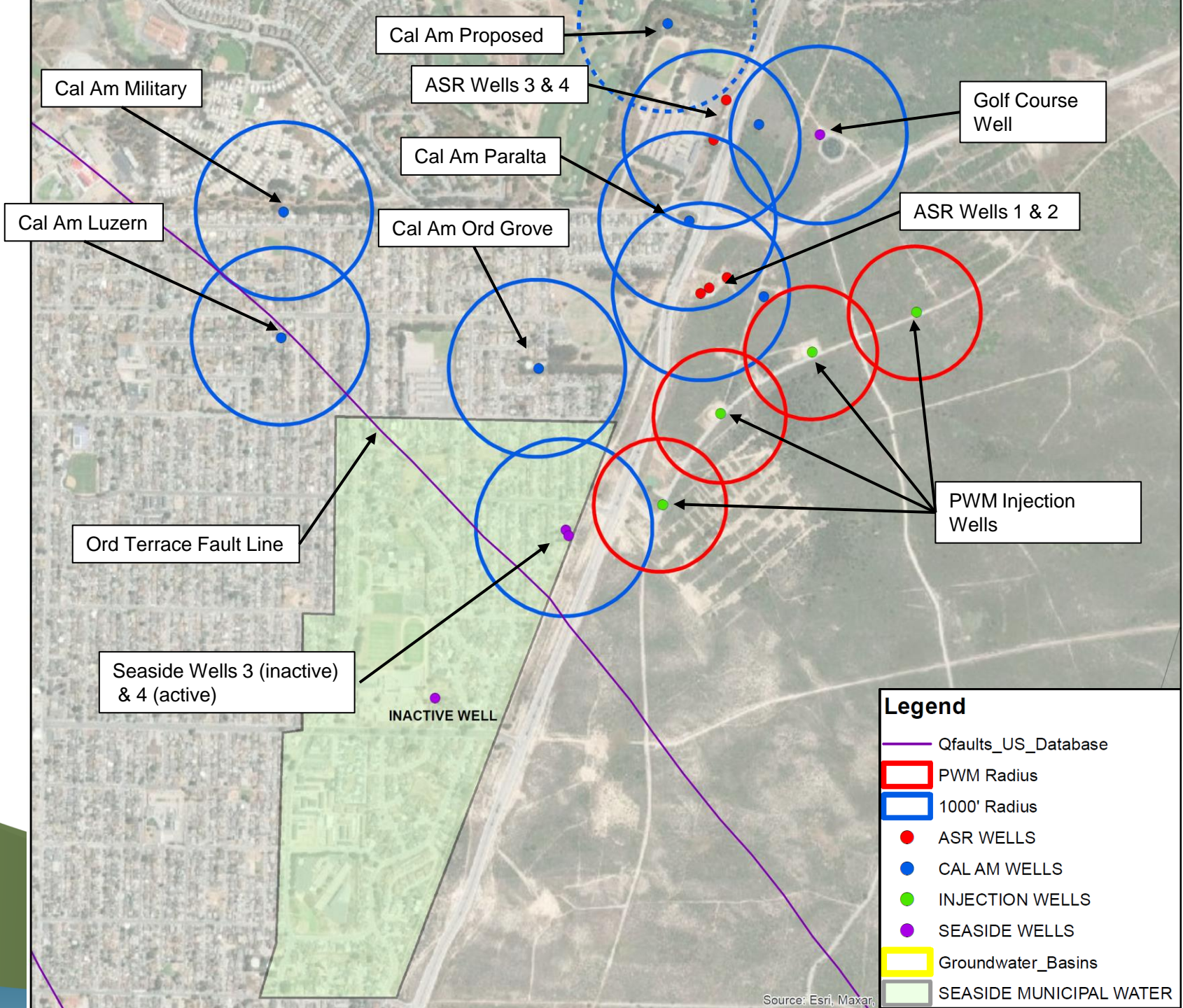
**Figure 5**  
**Cross Section A - A'**  
 across  
**Proposed Project Site**

# Where is Ord Terrace Fault?



# Why north of the fault?



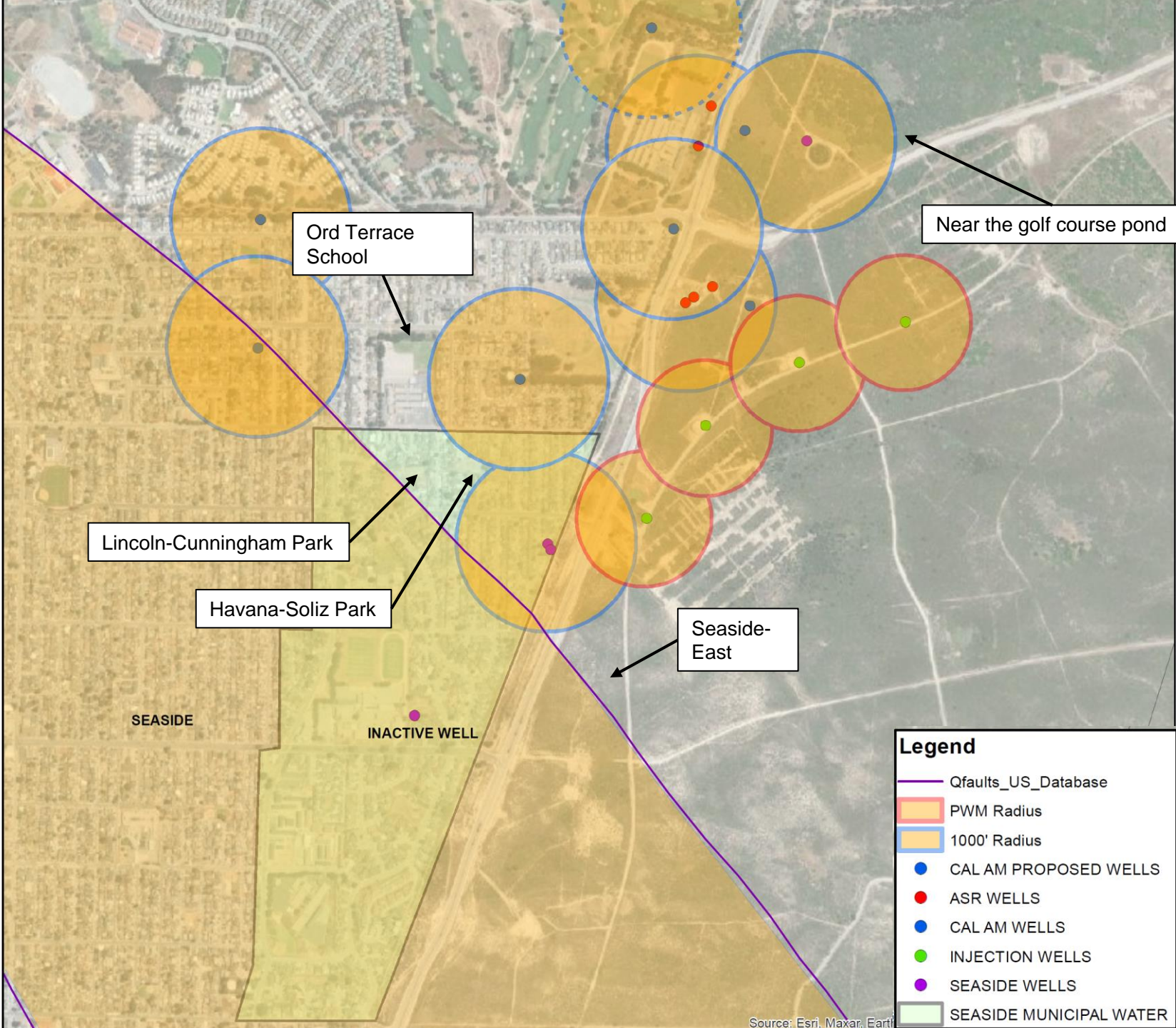


# How much space is needed?

- A drinking water well needs a 50-ft control radius with no conflicting land uses
- The site will have a well pump house to protect the electrical equipment and muffle the motor noise and a chlorination building
- The fenced area can be as small as 50' x 50', but there needs to be space to bring in a pump servicing rig when needed.

# Possible Locations

- Deep wells (Santa Margarita strata):
  - Havana-Soliz Park
  - Lincoln-Cunningham Park (northeast portion)
  - Ord Terrace School (would need an easement)
  - Former Fort Ord near golf course pond
  - Seaside East near BLM boundary



Ord Terrace School

Near the golf course pond

Lincoln-Cunningham Park










Havana-Soliz Park

Seaside-East

SEASIDE

INACTIVE WELL

**Legend**

-  Qfaults\_US\_Database
-  PWM Radius
-  1000' Radius
-  CAL AM PROPOSED WELLS
-  ASR WELLS
-  CAL AM WELLS
-  INJECTION WELLS
-  SEASIDE WELLS
-  SEASIDE MUNICIPAL WATER

# Additional Considerations

## Things Yet To Be Determined/Before Council Consideration

- Cost of the Facilities
- Electrical Power / Backup Power
- Construction Impacts
- CEQA Process
  - Initial Study
  - Mitigation Plan

# Common Questions (1 of 2)

- Can the new well be located where the last one was located?
  - Possibly. Well 3 was right next to the Well 4, so we couldn't run them both at the same time.
- Does it have to be located in a City park?
  - Not necessarily, but it needs to be on City-owned land.
- Can we buy water from Cal Am rather than drilling a new well?
  - Not as a long-term solution. CalAm needs their full well capacity to meet their own customer maximum day demands.
- How long do wells last?
  - Wells can last 40 to 80 years, depending on the conditions. Well 3 lasted about 50 years.
  - Electrical components (motor and controller) require periodic upgrades and/or repairs

# Common Questions (2 of 2)

- How long does it take to construct a well?
  - Drilling and testing a deep well takes about two months. Outfitting the well is an additional 6- to 9-months of on-site construction.
- What impact will the drilling have on nearby residents?
  - The drilling operation should not cause ground vibrations, but there will be noise and traffic impacts around the work area. Portions of the work require 24-hour operations with work lights on-site.
- Can the State help finance this new well?
  - The City is currently looking at applying for grants and/or a low interest loan from the State

# Questions?

You can also email questions and  
comments to [pwinfo@ci.seaside.ca.us](mailto:pwinfo@ci.seaside.ca.us)

# Definitions

- Aquifer: water bearing layer of sands, gravels or fractured rock
  - Adjudicated: a matter determined by a court. The Seaside Basin water users have allocations based on the court decision.
  - Watermaster: A special board formed by the court to manage the Seaside Groundwater Basin
  - Zone/Strata: subsurface layer of similar materials, usually defined by depth
  - Fault: location where subsurface layers are displaced and not contiguous
  - hcf = 100 cubic feet = 748 gallons
  - gpm = gallons per minute
- 