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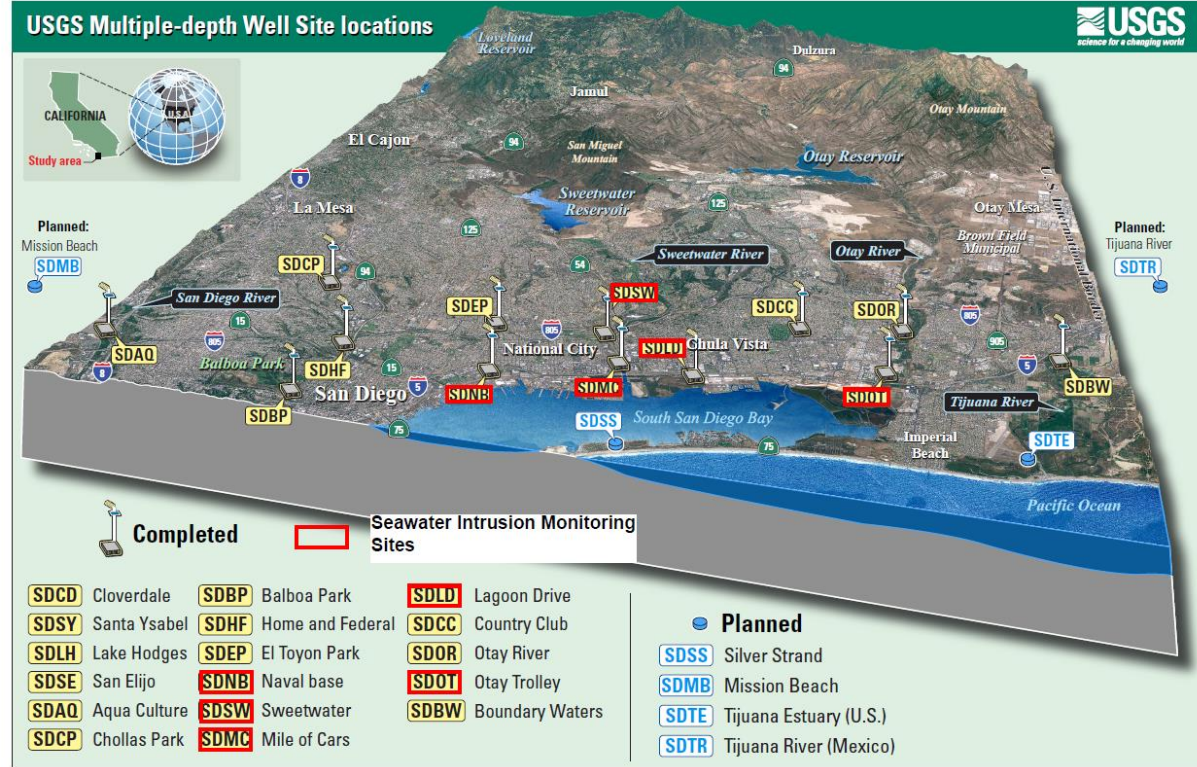
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# Consideration of U.S. Geological Survey Proposal for Seawater Intrusion and Land Subsidence Investigations

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# Background

- USGS & Authority have collaborated on groundwater investigations in the SDF since 2001 in support of expanding the Reynolds Desalination Plant
- Several multiple-depth monitoring wells in coastal San Diego (8 within SWA's service area)

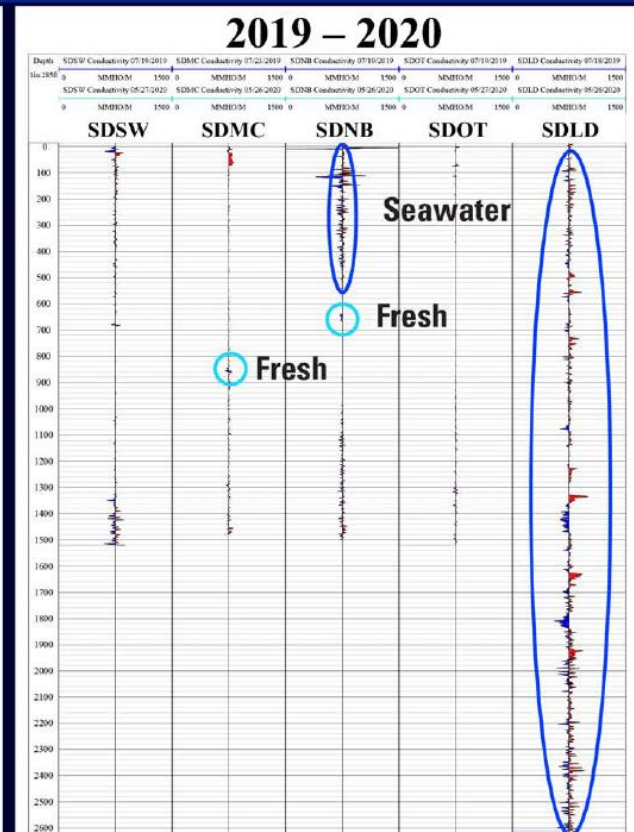
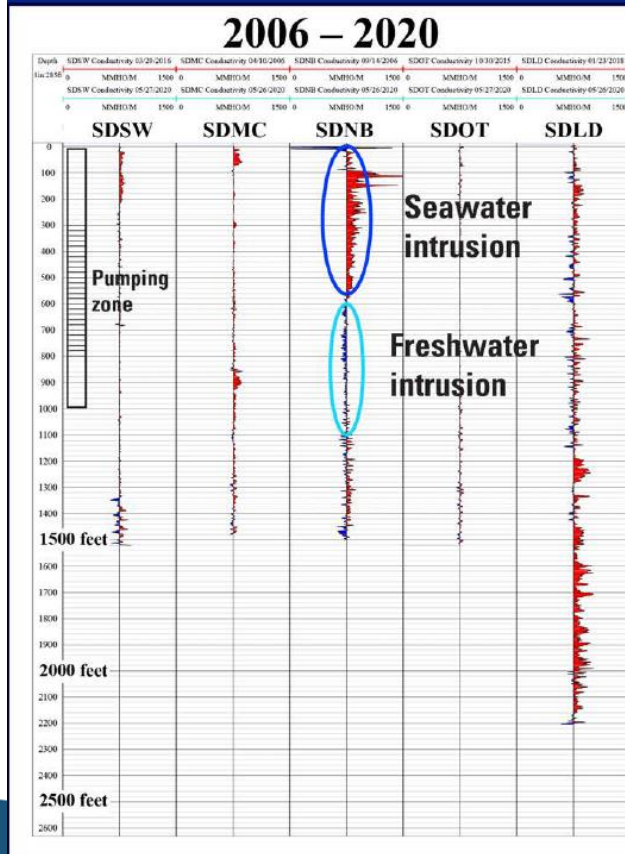


# Purpose & Need

- Investigation intends to expand understanding of how seawater intrusion and land deformation have progressed since 2017 and 2019
- Understanding seawater intrusion into the SDF and any land deformation resulting from pumping from the SDF are critical to:
  - Current operations of Reynolds Desalination Plant and National City Wells
  - Long-term sustainability of groundwater resources as part of the Authority's water portfolio

# Seawater Intrusion

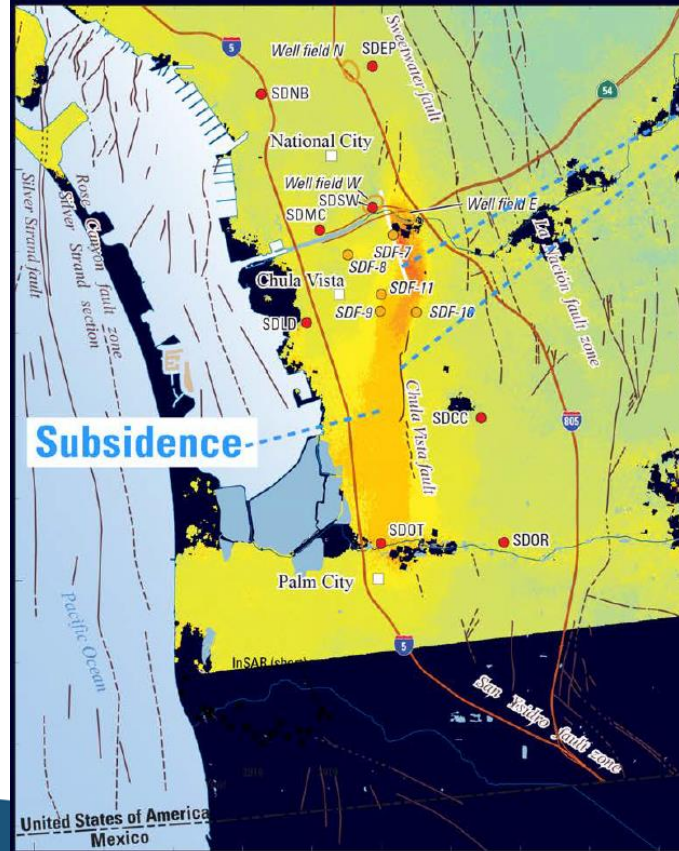
- Modest seawater intrusion observed during last investigation in 2019





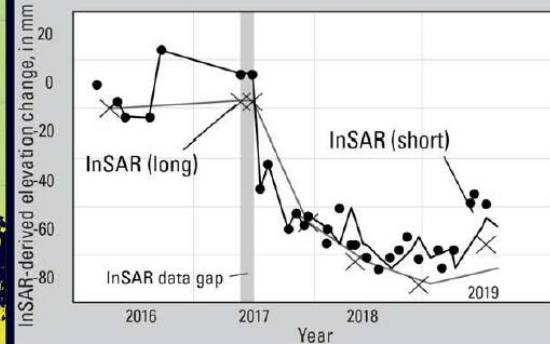
# Land Deformation

- Maximum ~2.4" subsidence has been observed in land area overlying the San Diego Formation



New faults found

2.4 inches of subsidence



Source: Danskin, USGS

# USGS Proposal

- Follow up on prior investigation findings with latest data to observe progression of seawater intrusion and land deformation

Task			Total
Investigate Seawater Intrusion	\$212,000	\$40,000	\$252,000
Investigate Land Deformation	\$24,000	\$8,000	\$32,000
Presentations & Technical Support	\$46,000	\$12,000	\$58,000
Total	\$282,000	\$60,000	\$342,000



# Fiscal Impact

- The overall cost of the USGS scope of work is \$342,000. USGS will contribute \$60,000 towards the effort, with the remaining \$282,000 to be funded by the Authority.
- The FY 2023-24 Budget includes \$300,000 for this proposed work, under account no. 10-40-400-5114.



# Alternatives and Staff's Recommendation

- 1. Authorize the General Manager to execute an agreement with the USGS, to perform an investigation of seawater intrusion and land deformation in accordance with their proposal dated May 23, 2023, for a total cost of \$342,000, of which the Authority would fund a not-to-exceed amount of \$282,000, with remaining funds to be contributed by USGS.**
- 2. Other direction as determined by the Governing Board**





# Questions?

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