FLOODS, DROUGHTS, RISING SEAS, OH MY!
Challenges and Opportunities for Water Management in San Mateo County
MARCH 30, 2018

The Westside Basin Groundwater-Flow Model was initially developed in 2003 and has undergone continual improvement during the ensuing 15-years to reflect new data and information. The model has been an important consensus building tool between stakeholders and has improved data sharing, creative insights about basin characteristics, model use, and identification of model limitations.

Area Map
The Westside groundwater basin extends from the Bayside of San Mateo County in Burlingame to the Ocean-side of San Francisco City/County.

Timeline
2007-2009: The City of Daly City Tertiary recycled Water Project implementation provided increased water use by area golf courses and was used to improve estimated historical irrigation demand and groundwater use by large turf areas in the basin.
2009-2011: Newly installed monitoring well cluster sites refined modeled geology and basin geometry and provided discrete water level measurements with depth in the basin profile.
2011-2017: Routine water level measurements at the monitoring well cluster sites provide long term records that show seasonal increases and decreases in groundwater levels and improve the reliability of modeled water transmitting and storage properties.
2017-present: The model can estimate groundwater storage available for extraction as part of aquifer storage and recovery project operations.

Partners
City of Daly City, San Francisco Public Utilities Commission, California Water Service, and City of San Bruno

Funding
Total (2002-2017): $462,000 including funding from AB 303 Local Groundwater Assistance Grant ($51,000) and Local funds ($411,000).

Results
The model supported the Regional Groundwater Storage and Recovery Project and the San Francisco Groundwater Project planning efforts, and is a tool for estimating groundwater storage volumes available for extraction as part of aquifer storage and recovery project operations.

Each model update is reviewed and refined based on stakeholder review. Technical consensus and model transparency produce greater understanding of model strengths and limitations, which direct future data collection and model improvement efforts.