

Update on the 2025 Historical Benefits Analysis Update; Draft Interlake Tunnel and San Antonio Spillway Modification Assessment Engineer's Report; and publication of the Salinas Valley Hydrologic Models

Summary:

In February 2017, the Monterey County Water Resources Agency ("Agency") entered into grant agreement number 4600011748 ("Agreement") with the Department of Water Resources of the State of California ("State" or "DWR") to assist in financing the Interlake Tunnel and San Antonio Spillway Modification Project ("Interlake Tunnel Project"). Funding from the Agreement also supported the Historical Benefits Analysis Update, discussed below.

One of the deliverables in the Agreement is a Draft Engineer's Report for the Interlake Tunnel Project including a Project Description and Assessment Methodology. The Agency retained a consultant, Bartle Wells Associates, to prepare the *Draft Interlake Tunnel and San Antonio Spillway Modification Assessment Engineer's Report* ("Draft Engineer's Report").

The Draft Engineer's Report utilizes the same geographic extent as the Agency's Zone 2C and examines primarily the water supply and flood protection benefits that could accrue within that area from the Interlake Tunnel Project. The Interlake Tunnel Project also provides additional benefits, such as recreation and environmental benefits, that are discussed as General Benefits in the Draft Engineer's Report.

The Draft Engineer's Report presents three options for allocating Interlake Tunnel Project benefits across the geographic space. These options, which range from broad to more specific, are discussed in detail and are presented with the intention of providing a catalyst for discussion about future cost allocation approaches, whether for the Interlake Tunnel Project or other projects or activities. Were a final engineer's report to be produced for the Interlake Tunnel Project, it would identify a single assessment methodology.

Historical Benefits Analysis Update

Prior to completing the Draft Engineer's Report, the Agency needed to perform a quantitative evaluation of benefits of the Interlake Tunnel Project, distinct from those provided by other existing Agency projects such as construction and operation of the reservoirs, the Monterey County Water Recycling Projects, and the Salinas Valley Water Project. To identify and quantify the hydrologic, flood control, and economic benefits resulting from the existing suite of Agency projects and present-day operation of those projects, and the geographic distribution of those benefits, the Agency initiated work on an update to the 1998 Salinas Valley Historical Benefits Analysis ("HBA") Final Report, referred to as the HBA Update.

The Agency retained consultants from West Yost and One Water Econ, LLC to conduct analyses of the hydrologic and economic benefits, respectively, for the HBA Update. For both consultants, the scope of work included quantifying benefits resulting from the construction and operation of Nacimiento and San Antonio Dams, the Monterey County Water Recycling Projects (Castroville Seawater Intrusion Project and Salinas Valley Reclamation Plant), and the Salinas Valley Water Project for the study period of October 1968 through September 2018. The HBA

Update did not quantify benefits of each project separately or in a stepwise manner, rather, the analyses considered a scenario with no projects and compared that to conditions with all of the projects in operation.

The economic benefits analyzed in the HBA Update include those directly resulting from higher groundwater levels and increased groundwater storage, in addition to the value associated with recreation at the reservoirs, hydropower generation, and avoided damages to buildings and agricultural crops through flood risk reduction.

Overall, the HBA Update identified that construction and operation of the dams, Monterey County Water Recycling Projects, and Salinas Valley Water project have mitigated the degree and extent of groundwater level declines. Operation of the dams has provided substantial benefits, especially in areas where the Salinas River is directly connected to the underlying aquifers. In some areas, such as the northwest portion of the Salinas Valley Groundwater Basin, more substantial benefit to average groundwater levels is realized after water deliveries through the Castroville Seawater Intrusion Project began in 1998. In other areas, such as the northern portion of the Upper Valley subarea, the effects of the projects are distributed more evenly over time with the strongest impacts observed during period with dry climatic conditions. The complete reports are available on the Agency's website at <https://www.countyofmonterey.gov/government/government-links/water-resources-agency/news-announcements>.

Salinas Valley Hydrologic Models

The HBA Update was informed by modeling conducted using the Salinas Valley Hydrologic Models, a suite of groundwater-surface water modeling tools developed by the U.S. Geological Survey (USGS) in partnership between the Agency, County of Monterey, and Salinas Valley Basin Groundwater Sustainability Agency. In April 2025, the USGS published the model files and associated reports for the Salinas Valley Hydrologic Models, meaning that these modeling tools are available for use by the public. The model documentation is available at <https://www.usgs.gov/centers/california-water-science-center/news/new-data-salinas-valley-hydrology> and <https://eartharxiv.org/repository/view/8900/>.

Prepared by: Amy Woodrow, Senior Water Resources Hydrologist, (831) 755-4860
Approved by: Ara Azhderian, General Manager, (831) 755-4860