



# MONO LAKE

*Simple Simulation Tool*

**PRESENTED BY:**

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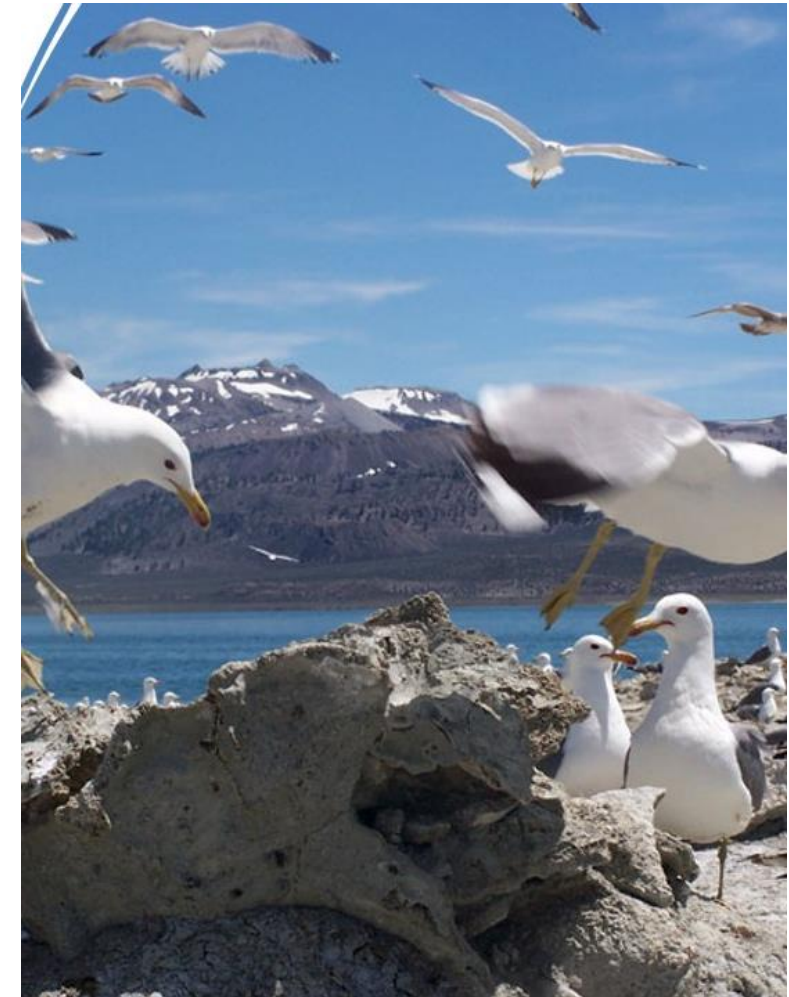
# Our Mission

To manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and their use and enjoyment by the public.

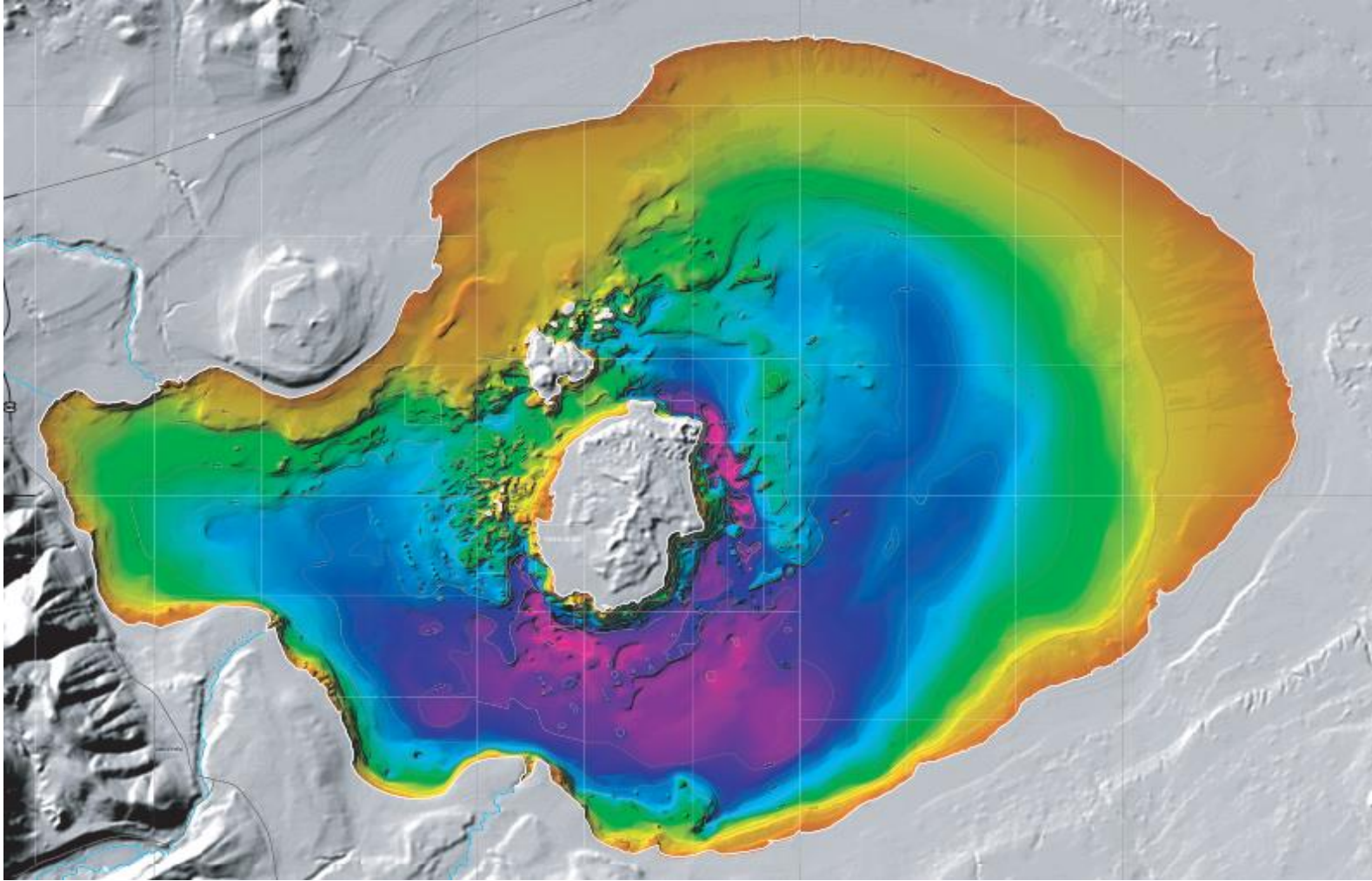


# Our Role

- CDFW is the trustee agency for the state's fish and wildlife resources.
- CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, and native plant species, and the habitat necessary to maintain biologically sustainable populations of these species.
- CDFW has a responsibility to protect public trust resources and uses, including fish and wildlife in the Mono Basin.
- CDFW participated in the 1993/1994 Water Right Hearing that amended water right licenses 10191 and 10192.
- CDFW provided evidence and testimony, including streamflow recommendations, to protect various public trust resources in the Mono Basin.
- CDFW is a party to the 2013 Mono Basin Settlement Agreement regarding stream restoration.
- CDFW is an active member of the Mono Basin Monitoring Administration Team.

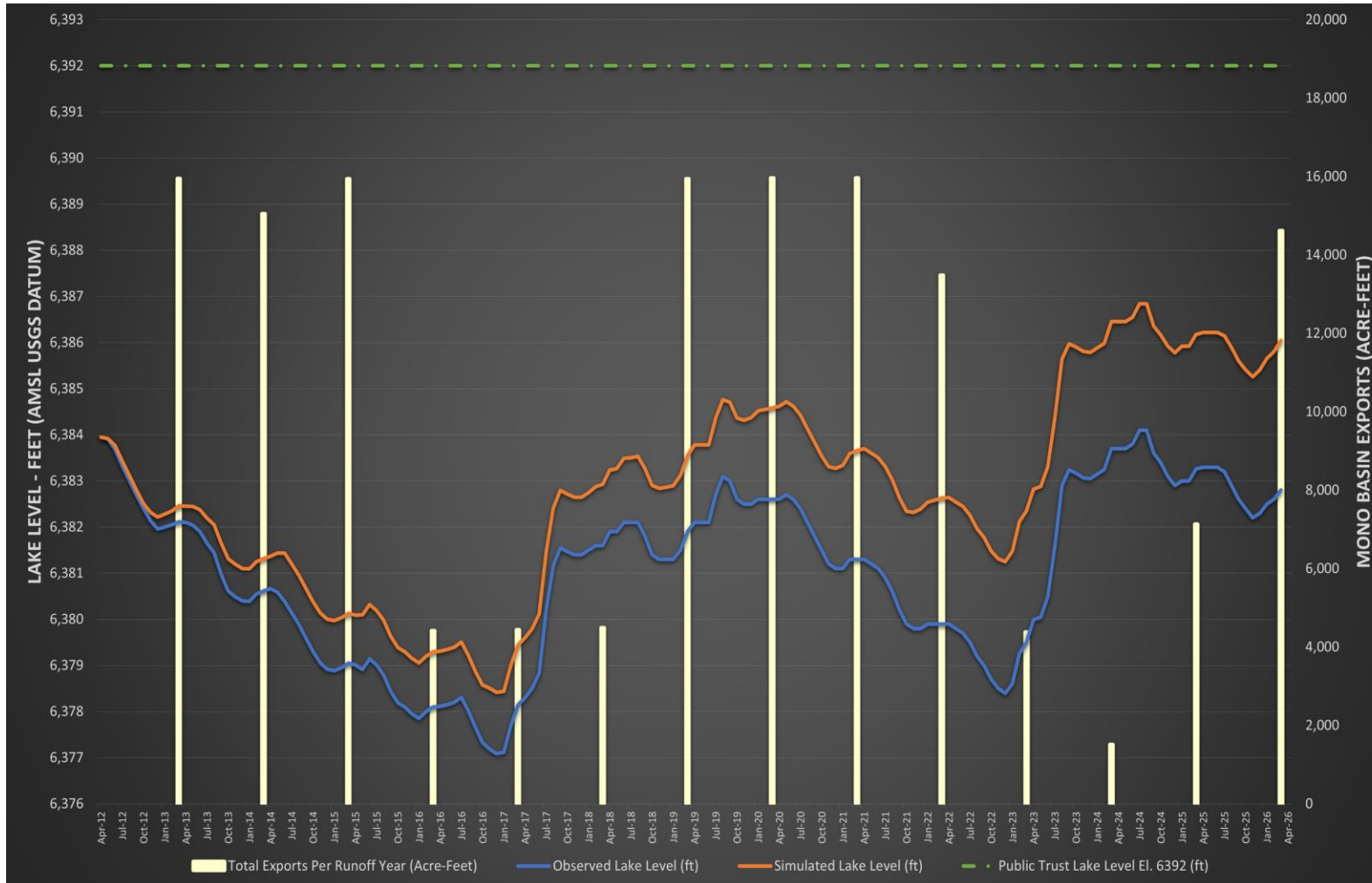


# Development of Simple Simulation Tool



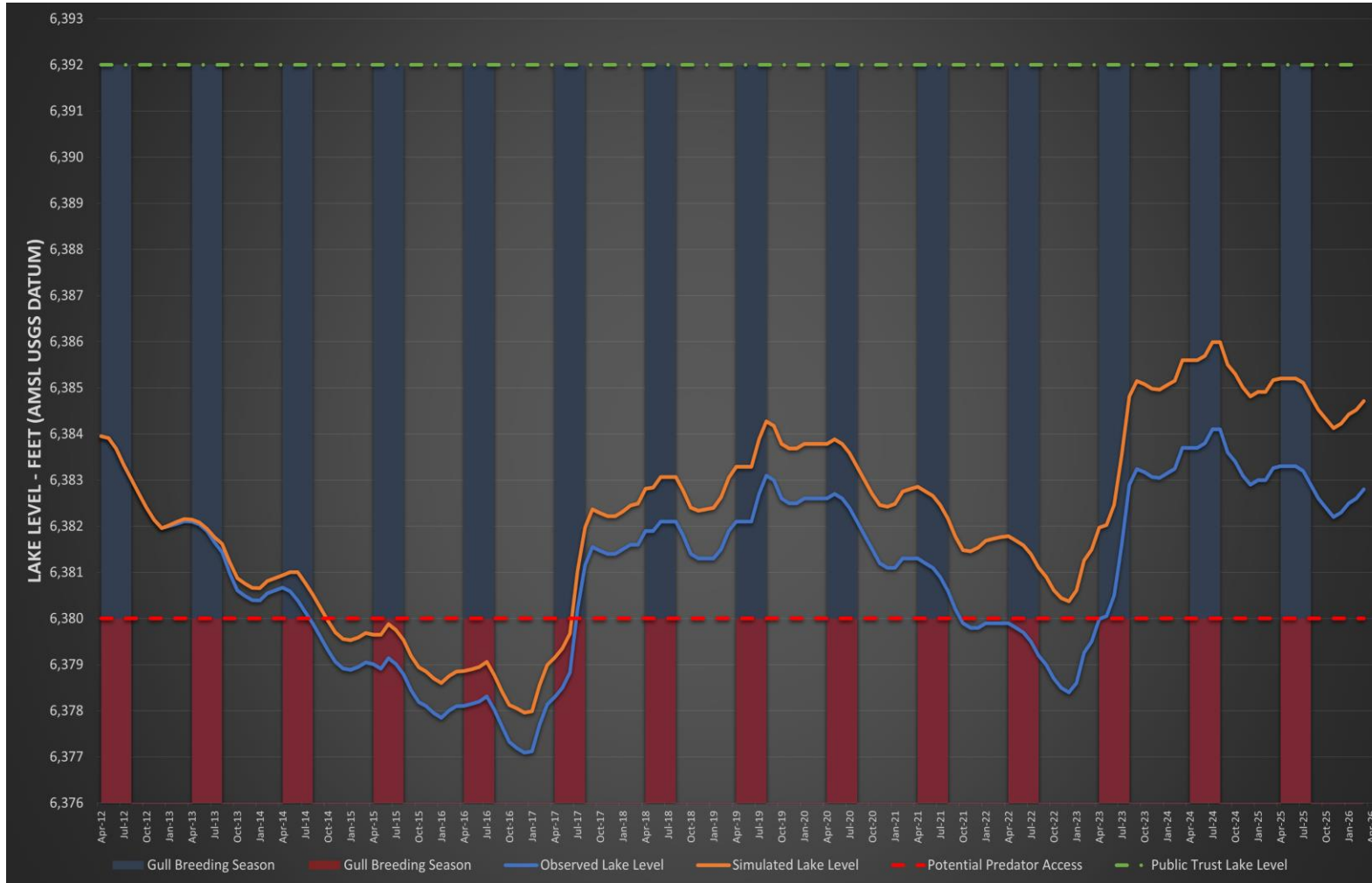
- Tool developed because CDFW previously lacked access to eStream.
- Developed using publicly available data, including:
  - Lake level readings;
  - Export volumes; and
  - Bathymetric data.

# CDFW Simple Simulation Tool



- Indicates how Mono Lake may respond to increased inflows associated with exports.
- Export volumes are returned to the lake, and a simulated lake level is calculated.
- Simulated lake level is determined using the Pelagos bathymetry.

# How CDFW Uses Simple Simulation Tool



- A lake level of 6,392 ft is protective of all public trust resources as the State Water Board concluded in D-1631.
- A lake level of 6,380 ft begins to expose land bridges that provide potential predator access to nesting gulls.
- Tool shows how lake levels respond by exploring a range of exports based on varying lake levels.

# Limitations of Simple Simulation Tool



- Does Not Account for:
  - Groundwater inflows or outflows;
  - Direct precipitation; or
  - Evaporation or other losses.
- Does not forecast
  - Indicates how Mono Lake levels could have responded to increased inflows associated with reduced exports.

# Comparisons to Mono Lake Models



- Developed for informational purposes when access to other models were not available.
- Does not include Global Climate Change models or Emission Trajectories.
- Does not forecast lake levels.
- Does show that Mono Basin exports do impact lake levels.
- Mono Lake Water Surface Variations from 2015 to 2026.
  - Video created using Sentinel-2 Imagery via Copernicus Browser.