

Mono Lake Modeling

Item No. 3
March 17, 2026



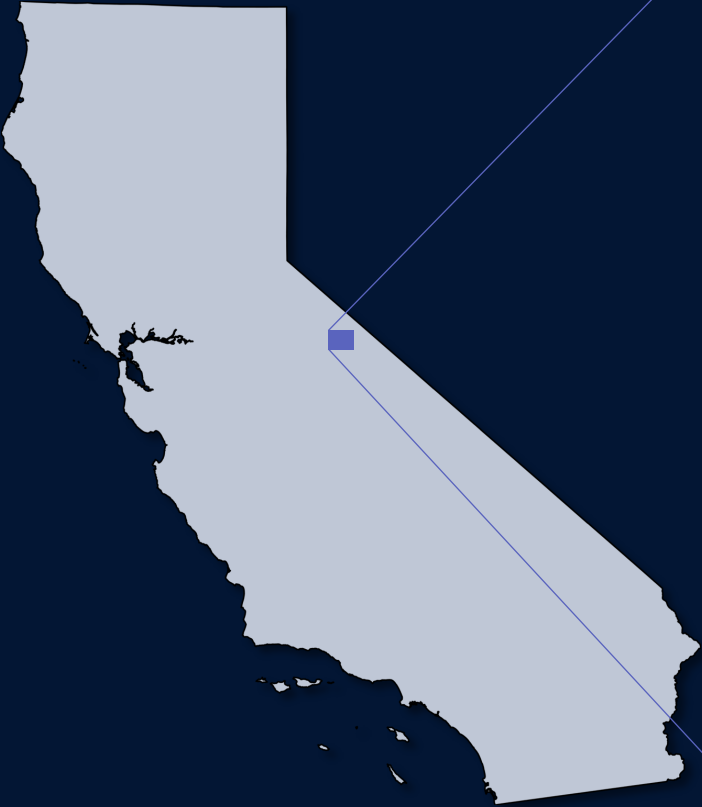
Division of Water Rights

Outline

- Mono Lake Background
- UCLA Center for Climate Science
Mono Lake Water Budget Model
- Other Mono Lake Modeling Efforts
 - Los Angeles Department of Water & Power (DWP)
 - Mono Lake Committee (MLC)
 - California Department of Fish & Wildlife (CDFW)
- Mono Lake Kootzaduka'a Tribe
- Public Comment



Mono Lake



Mono Lake

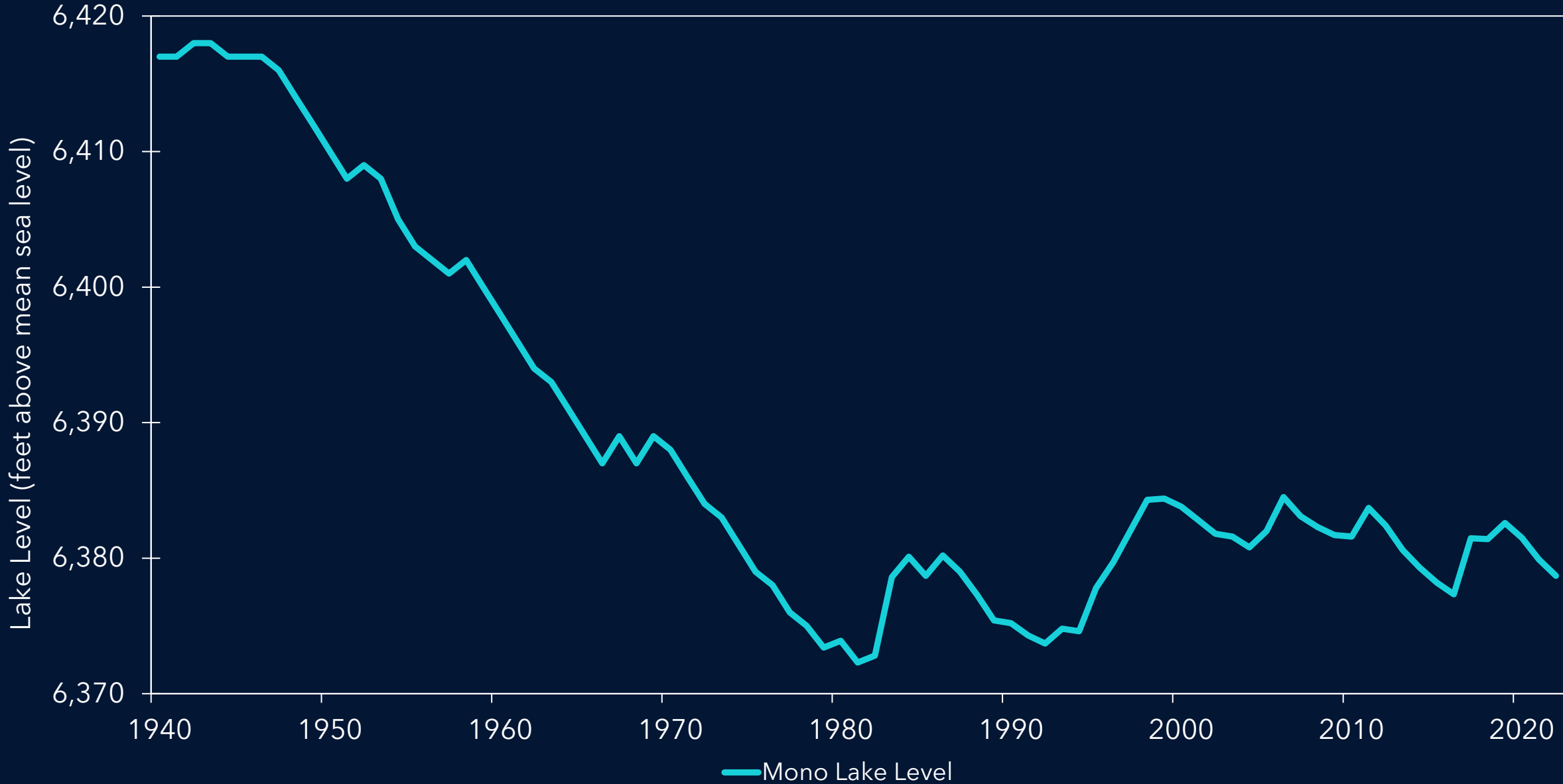


- Mono Lake Tufa State Natural Reserve (1981)
- Mono Basin National Forest Scenic Area (1984)
- Clean Water Act Outstanding Natural Resource Water (1994)

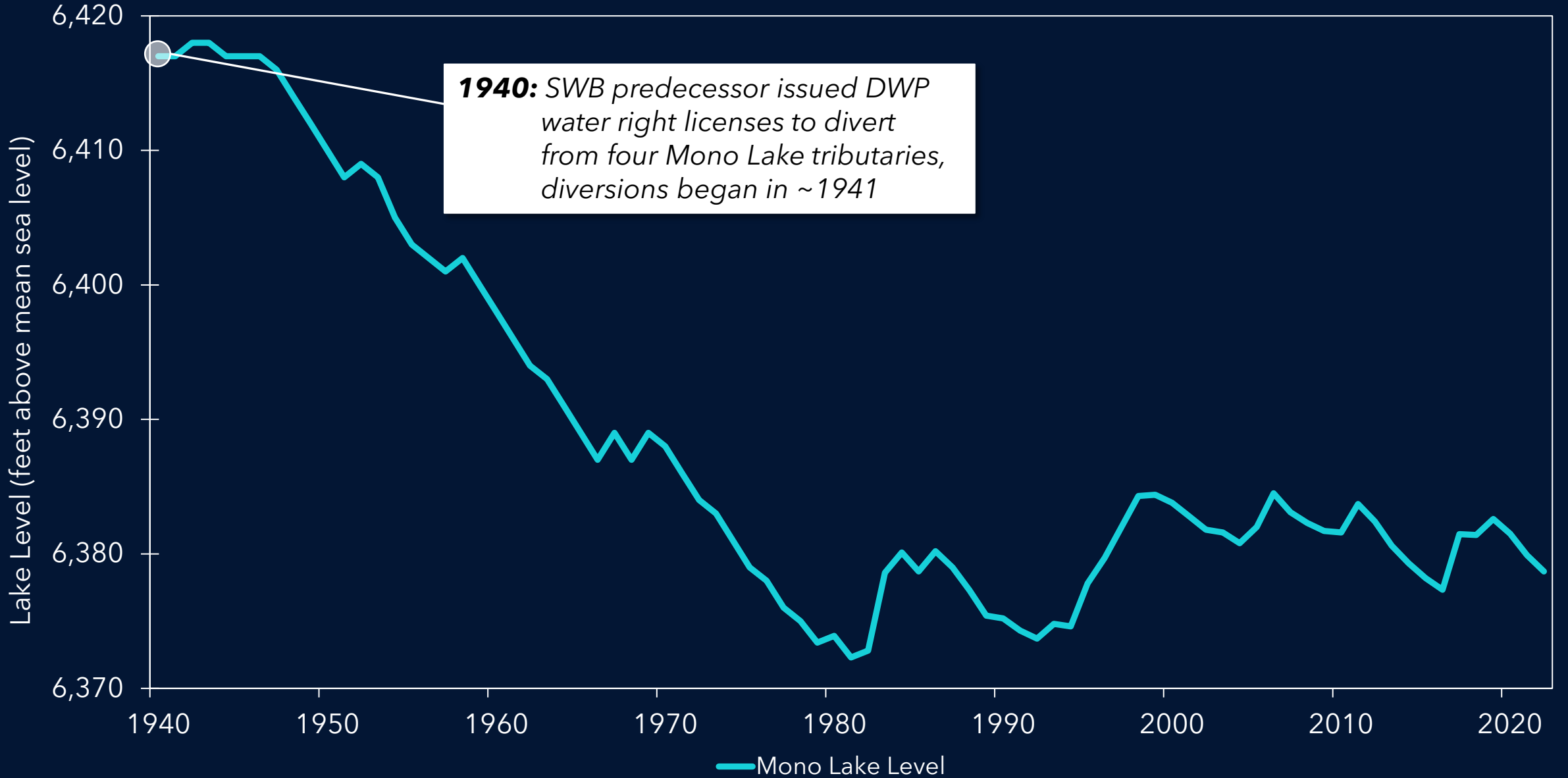
Essential Habitat



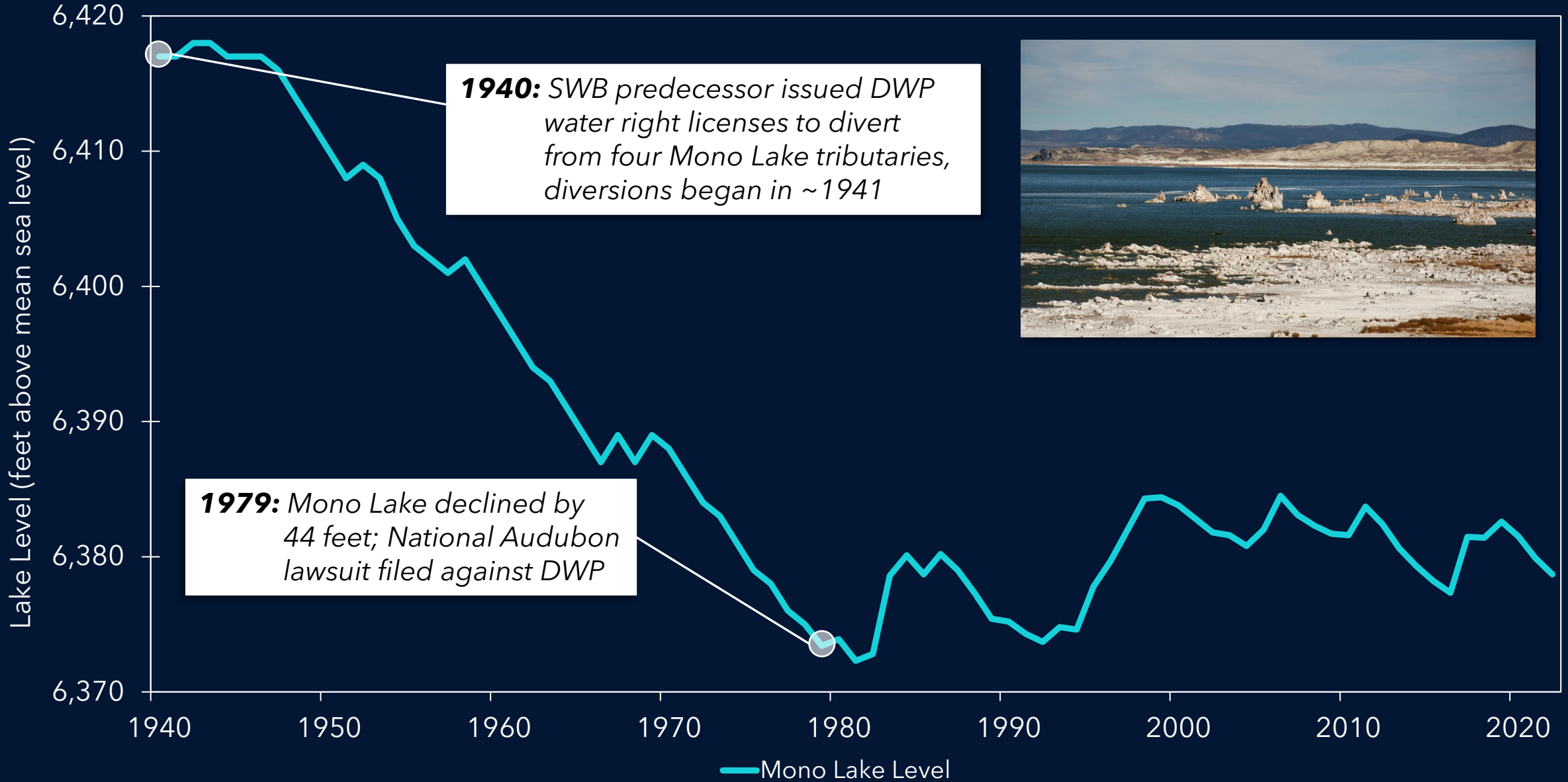
Mono Lake Levels



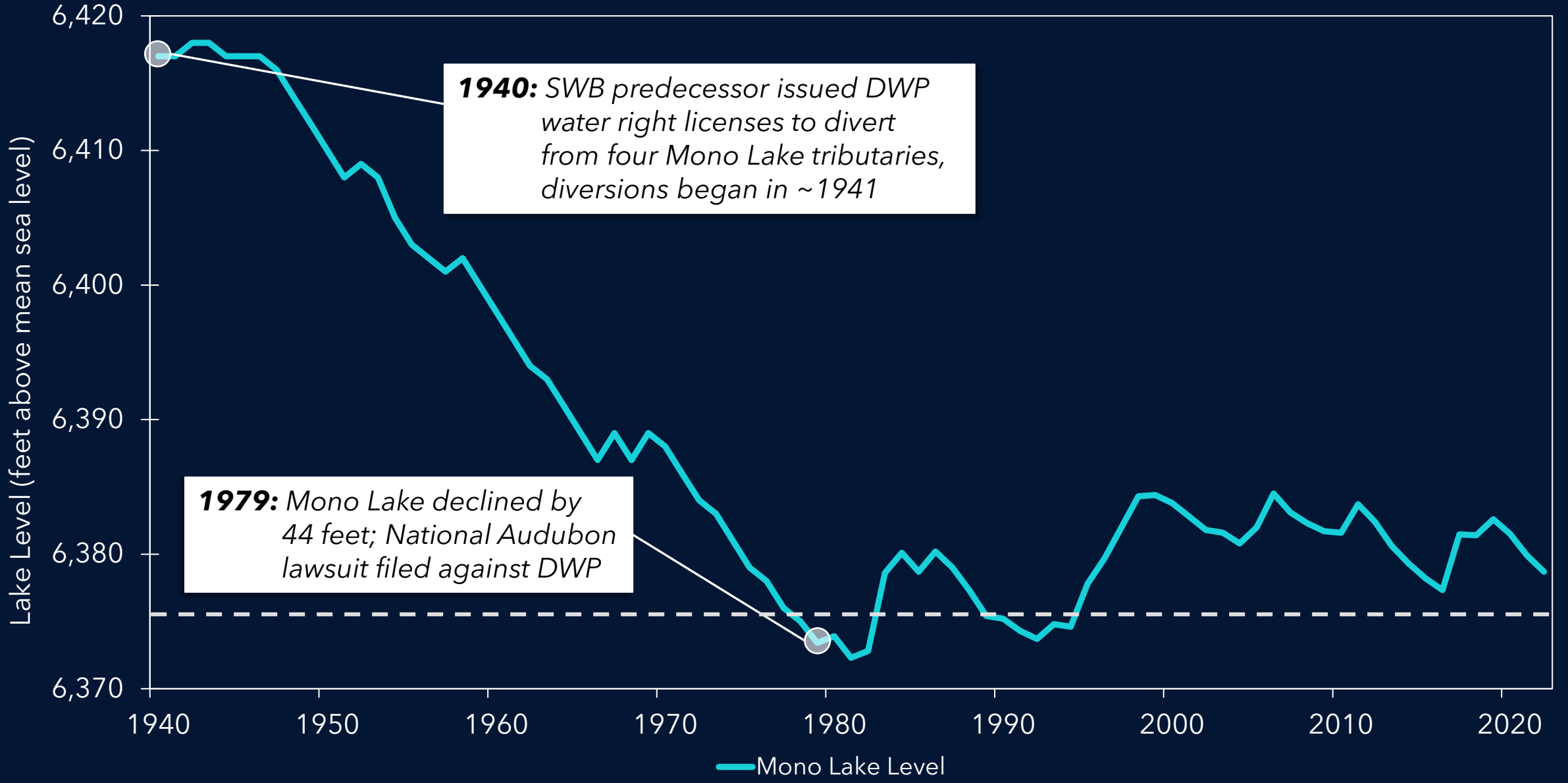
Mono Lake Levels



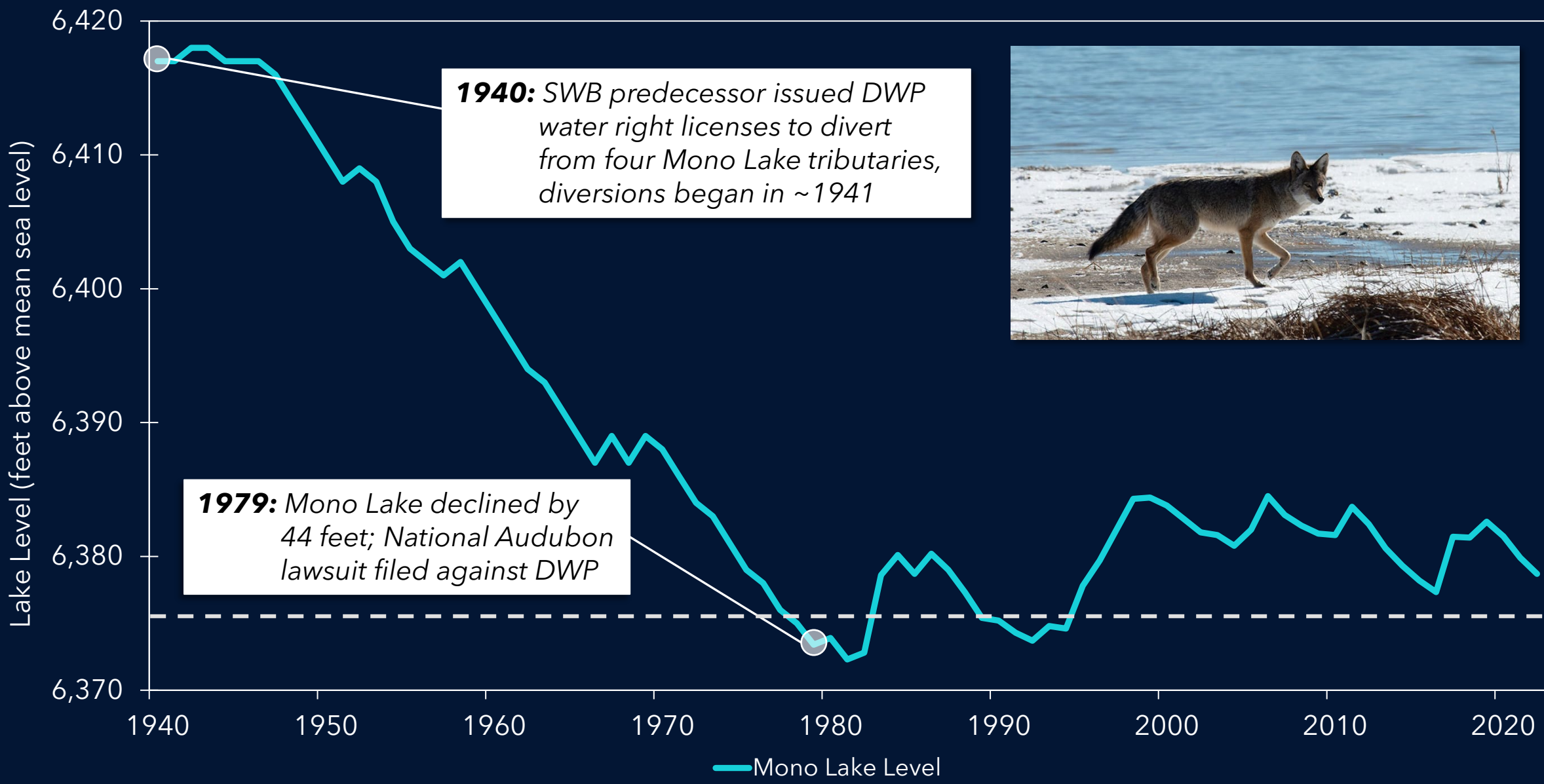
Mono Lake Levels



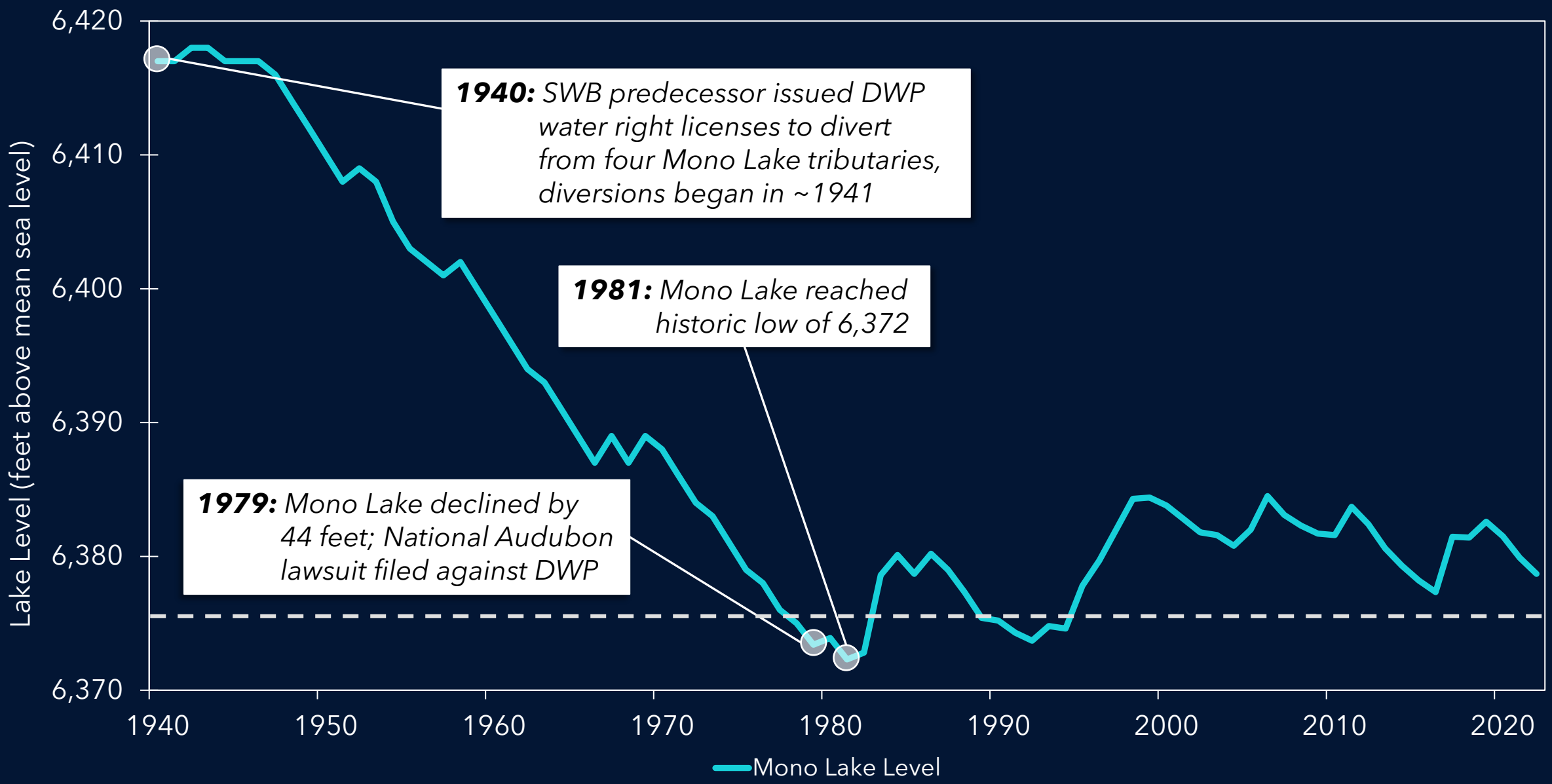
Mono Lake Levels



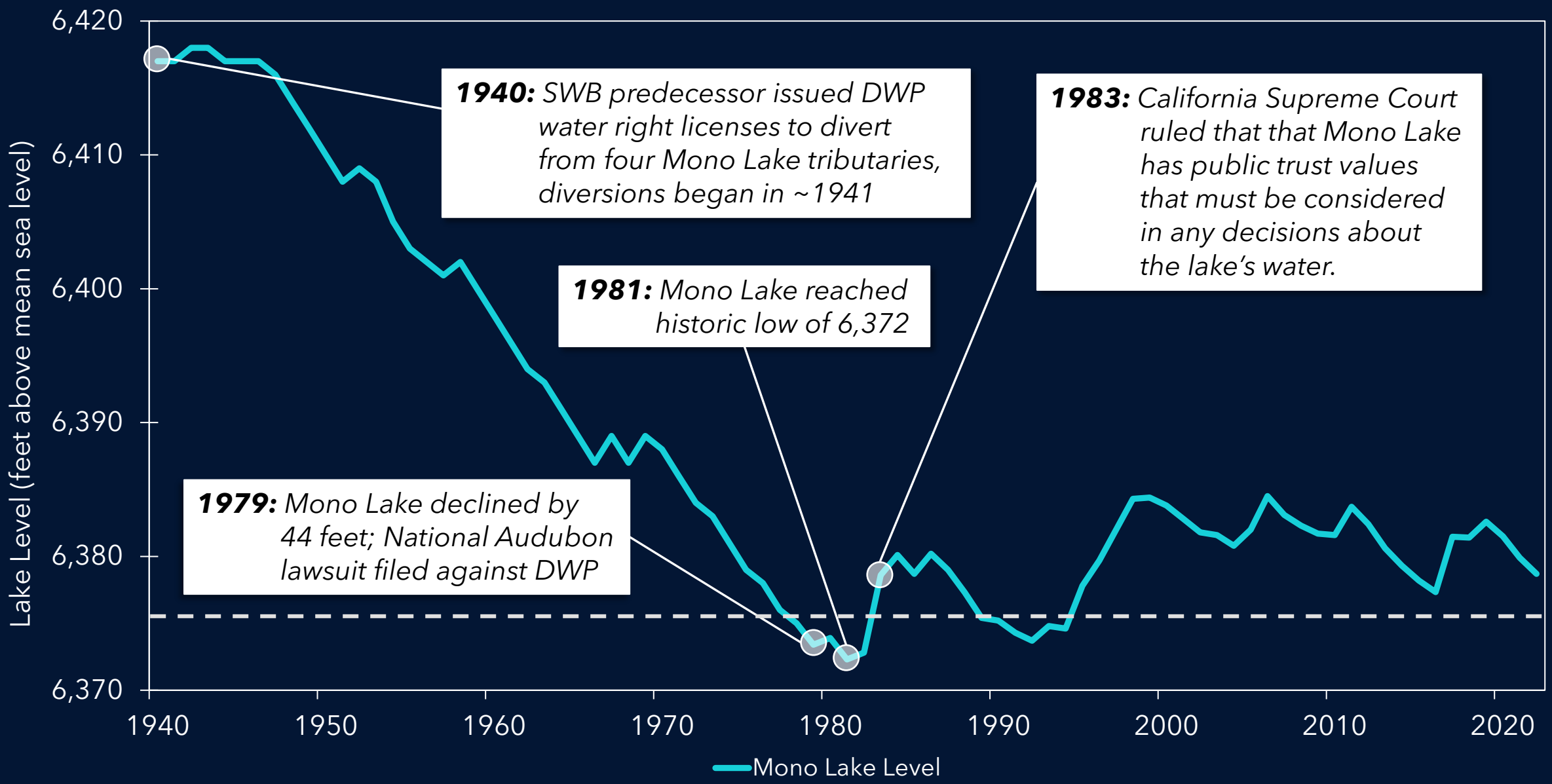
Mono Lake Levels



Mono Lake Levels



Mono Lake Levels



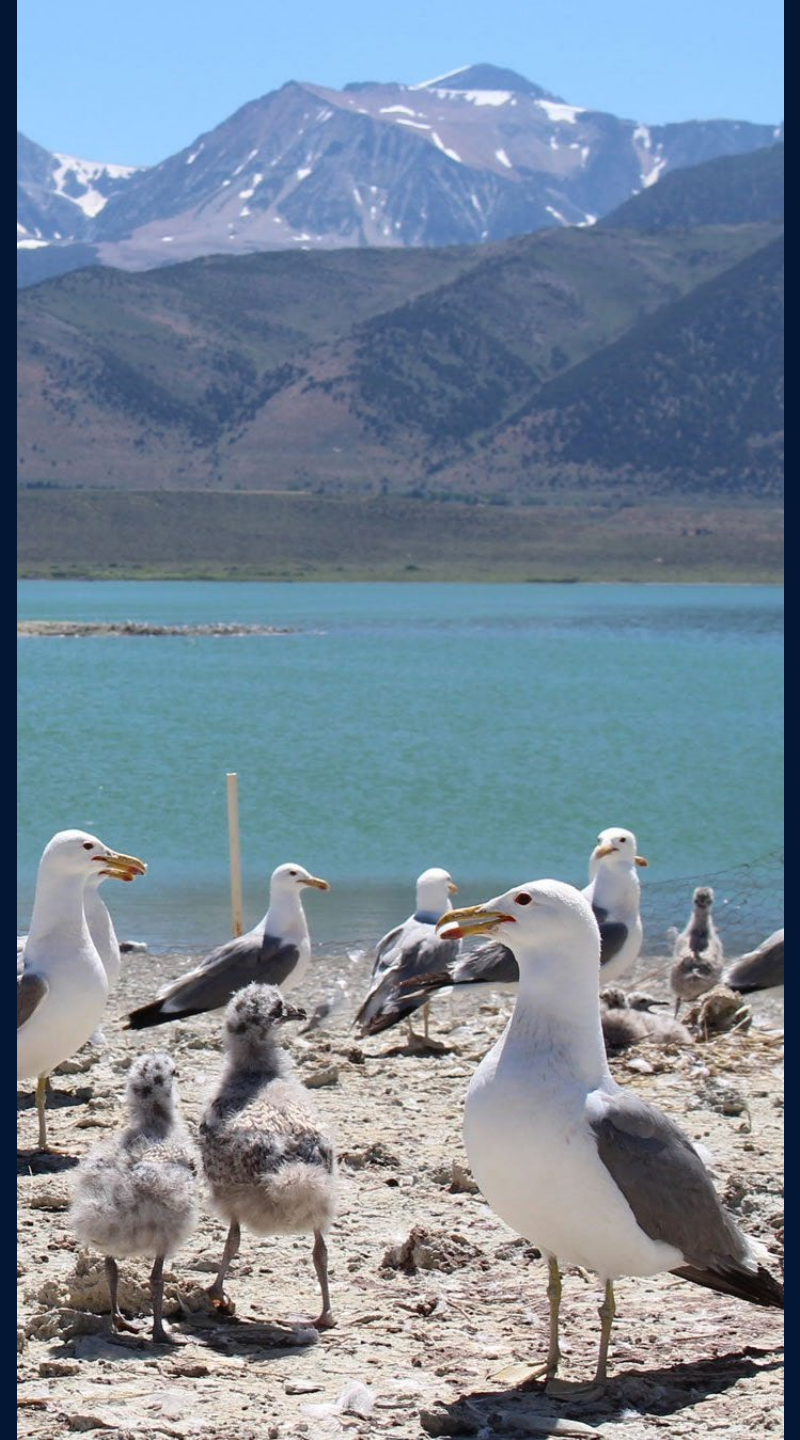
The Public Trust



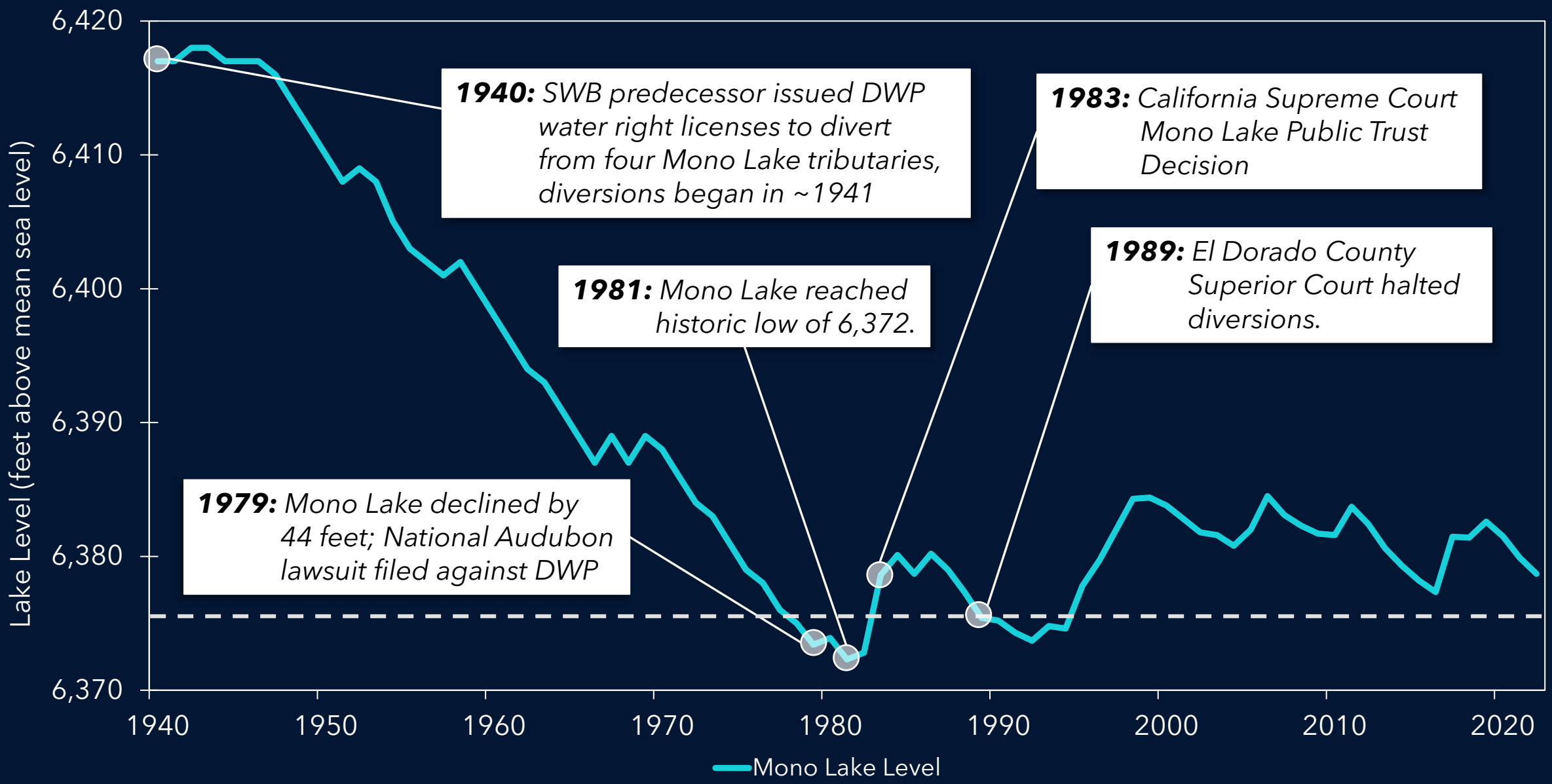
- Public right to certain natural resources, including navigable waterways.
- Requires the state to hold these resources in trust for the benefit of the people.

National Audubon Society v. Superior Court (1983)

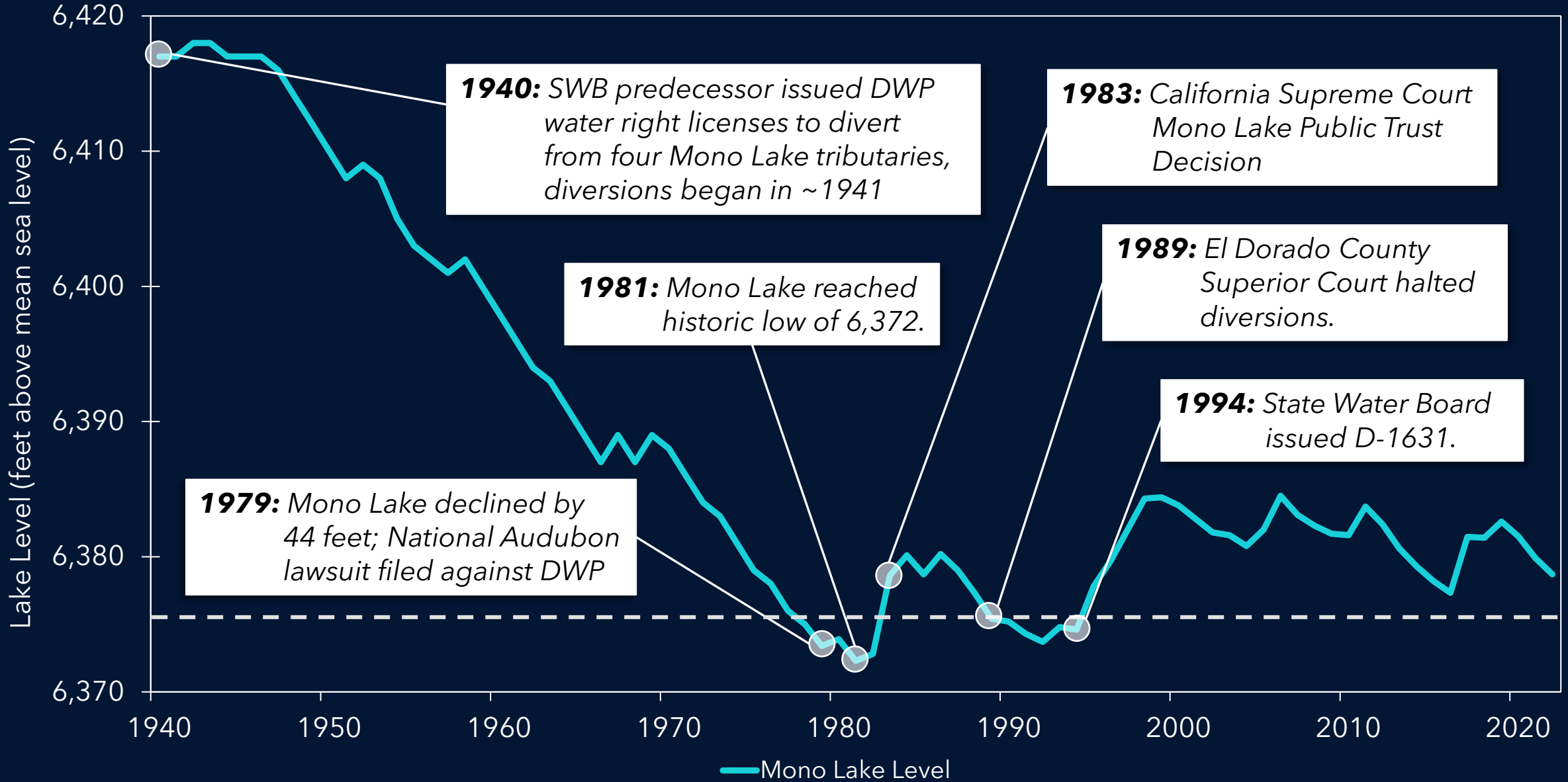
- The State Water Board is responsible for considering public trust resources & avoiding or minimizing harm (whenever feasible) when approving water diversions.
- The public trust was not considered when the State Water Board's predecessor issued DWP water rights in the Mono Basin.
- The State Water Board has continuing authority to revisit & modify water rights to protect public trust resources.



Mono Lake Levels



Mono Lake Levels





Mono Lake Hearing & Decision 1631 (1994)

- 43 days
- Expert witnesses
- Cross-examinations
- Tens of thousands of pages of evidence
- Environmental effects of diversions
- Alternative diversion amounts
- Different lake levels

Assess & balance public trust resources



Water Right

Stream Restoration

Photo credit: Mono Lake Committee



Decision 1631

Lake Level Recovery

Stream Restoration

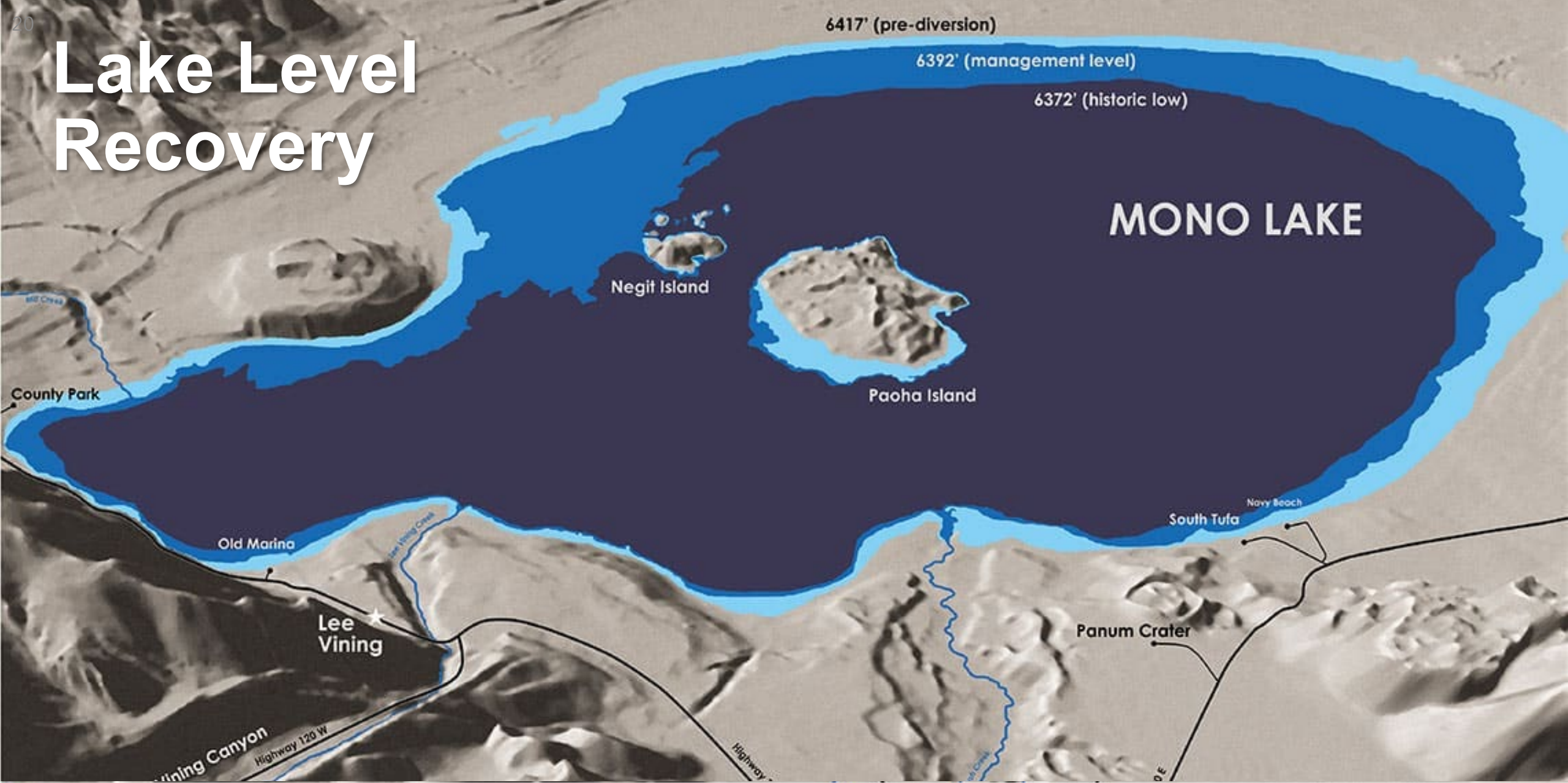


1994: Establish fishery protection flows in the four tributary creeks (D-1631)

1998: Clarified planning & monitoring requirements & a process for achieving restoration goals (Orders WR 98-05 & WR 98-07)

2021: Conditions that implement restoration activities (Order WR 2021-0086-EXEC)

Lake Level Recovery



Pre-diversion (6417')
 Management (6392')
 Historic low (6372')

Management Level: 6,392 feet

- *“In determining the most appropriate water level for protection of public trust resources at Mono Lake, the SWRCB recognizes that there is no single lake elevation that will maximize protection and accessibility to all public trust resources...”*
- Best available information & tools used to consider different management levels & diversion criteria.
- 6,392 feet would protect many important public trust resources:



Air
Quality



Recreational
Opportunities



Brine Shrimp
& Alkali Flies



Habitat
for Birds



Water
Quality



Scenic
Views

Diversion Limits



Photo credit: Mono Lake Committee

Transition Diversion Criteria Until the Lake reaches 6,391 feet

Lake Level	Diversion Volume in AF/YR
Below 6,377 ft	0
6,377 to 6,380 ft	4,500
6,380 to 6,391 ft	16,000

Long-Term Diversion Criteria To maintain long-term management at 6,392 feet

Lake Level	Diversion Volume in AF/YR
Below 6,388 ft	0
6,388 to 6,391 ft	10,000
Above 6,391 ft	All flows exceeding those needed for fishery protection, up to 167,800.

Recovery Timeline: 20 years

“In the event that the water level of Mono Lake has not reached 6,391 feet by September 28, 2014, the SWRCB will hold a hearing to consider the condition of Mono Lake and the surrounding area and will determine if further revisions to the licenses are appropriate.”

“If future conditions vary substantially from the conditions assumed in reaching this decision, the SWRCB could adjust the water diversion criteria in an appropriate manner under the exercise of its continuing authority over water rights.”

Emergency Concerns

- 2022 Drought Conditions
 - Low Lake Level
 - Request for Emergency Action
- 2023 Public Workshop
- Wet conditions
- Mono Lake had not yet reached the D-1631 transition level.



Photo by Maryphillips1952 circa 2016



Mono Lake as seen from space. (Credit: NASA Landsat 7 / NASA World Wind via Public Domain)

Collaborative Modeling Group

- DWP & MLC Joint Exploration
 - Range of Diversion Scenarios
- Findings presented in 2024
 - Division of Water Rights
 - LA Mayor's Office
 - Other interested parties
- 2024 Mono Lake Meeting

UCLA Center for Climate Science



Mono Lake on the eastern edge of the Sierra Nevada on May 20, 2023. Photo by Sierra Farquhar for CalMatters

Mono Lake Water Budget Model

- Why the lake has not reached the transition level
- Climate change and water diversion contributions
- How those factors could impact future lake levels

Experts in Climate & Water Resource Modeling

- Produce state-of-the-art climate projections
- Apply them to regional water systems
- Participated in the modeling group

UCLA Center for Climate Science

Alex Hall & Benjamin Bass

