

Owens Lake Update





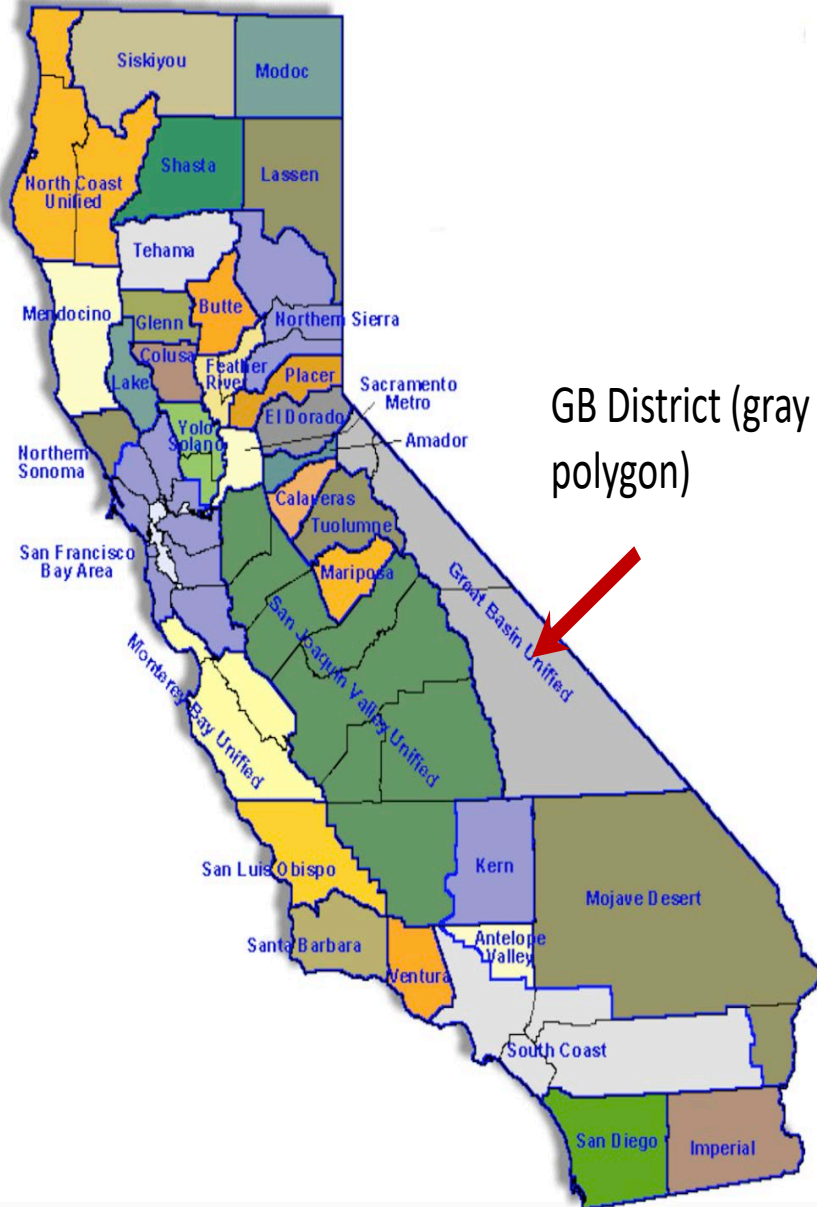
- **Brief History:** LADWP has demonstrated 20 years of successful dust control on Owens Lake.
- **Where We Are Now:** Current regulatory challenges.
- **Looking Ahead:** Seeking solution to move into attainment.



Brief History

Great Basin Unified Air Pollution Control District (Great Basin)

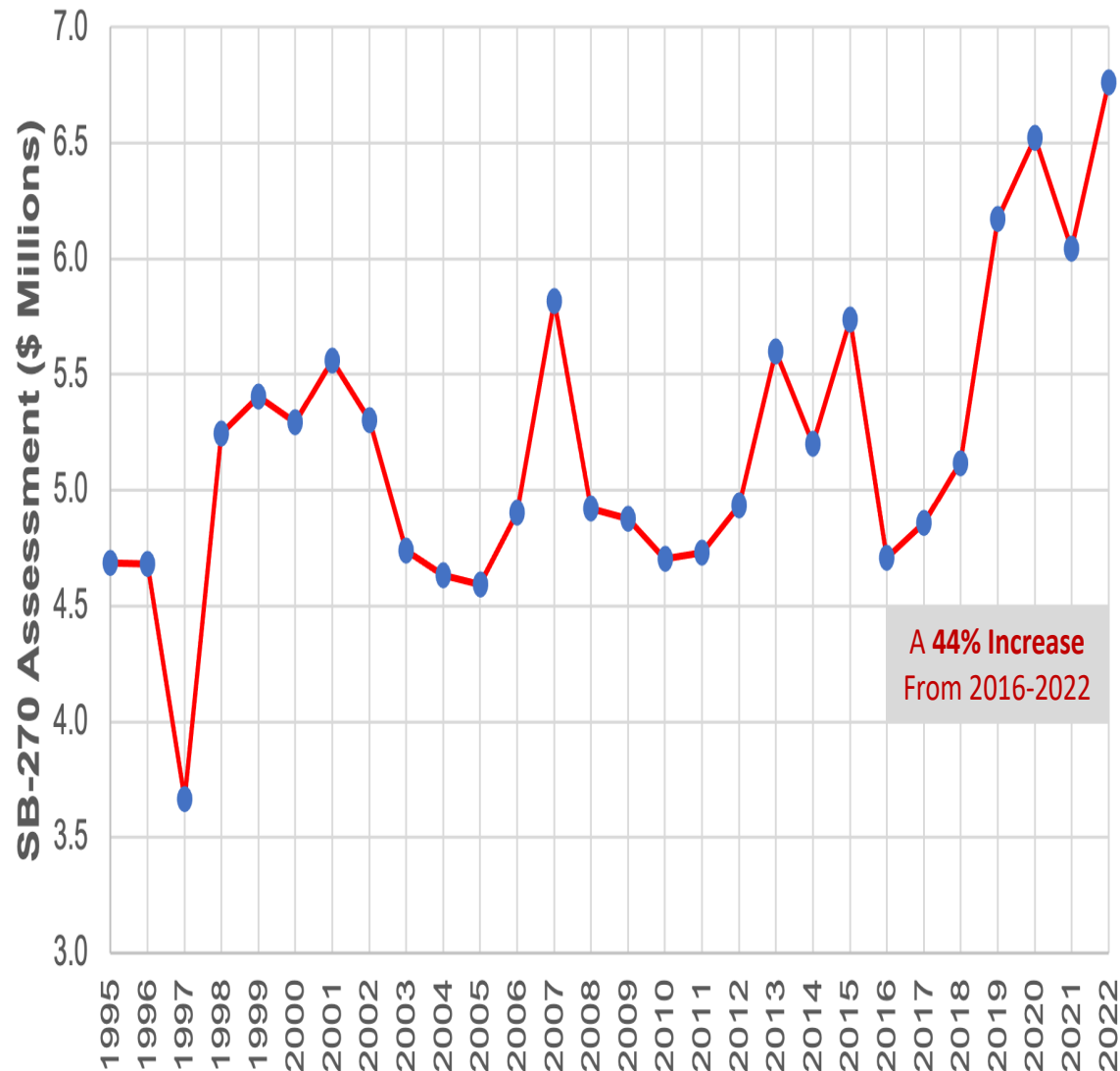
California Air Districts



- Local air quality regulatory agency headquartered in Bishop, CA.
- One of 35 air districts in CA.
- Approximately 25 employees.

Great Basin Funding

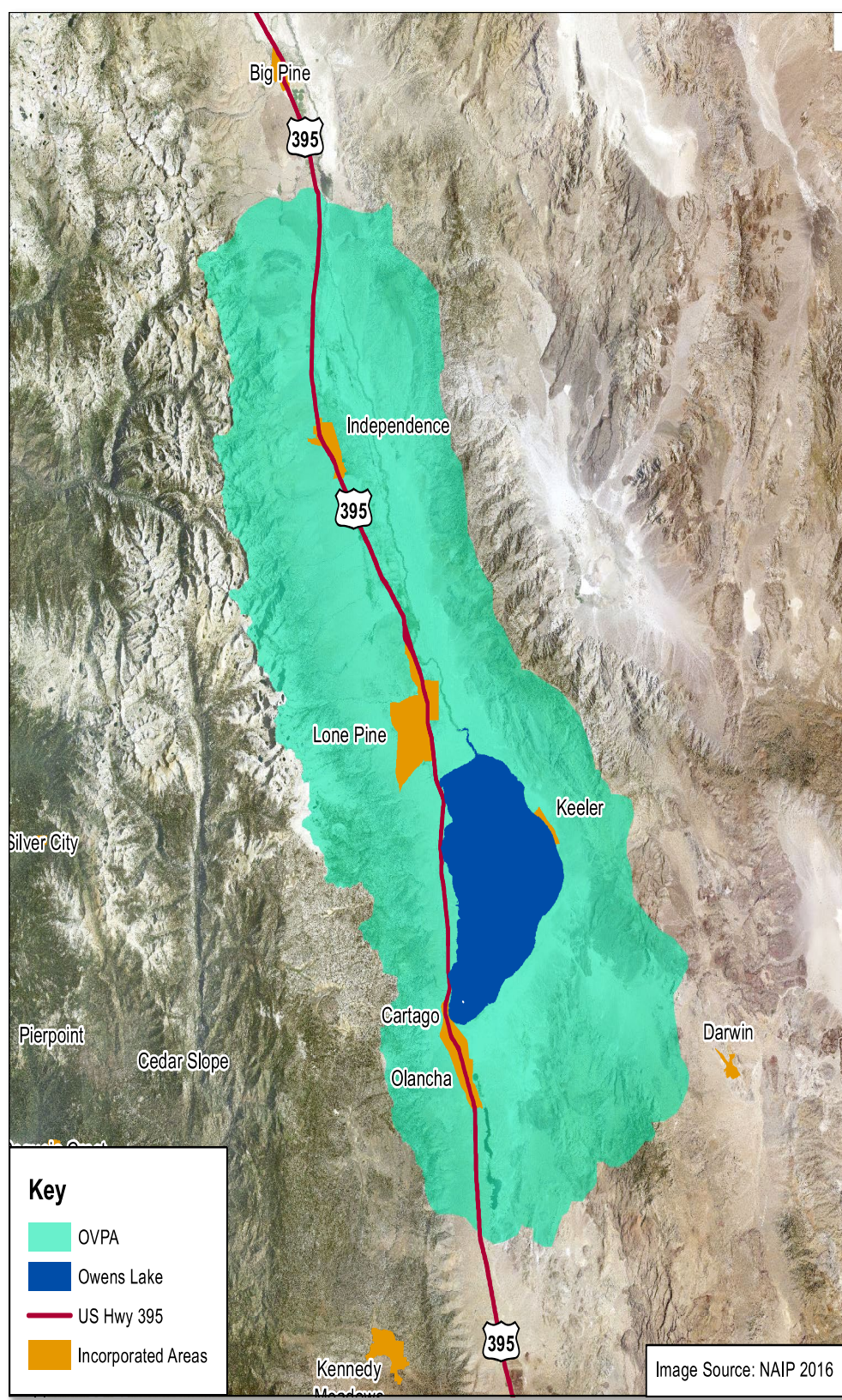
Historic SB 270 Fee Assessments



- **SB 270** is the main source of funding for Great Basin and is funded by LADWP ratepayers.
- **\$138 million** in total SB 270 funding over the last **25 years**.
- **80%** of employees funded by SB 270.
- Great Basin included monies in annual budget for **Mono Lake** in recent years.

Owens Valley Planning Area (OVPA)

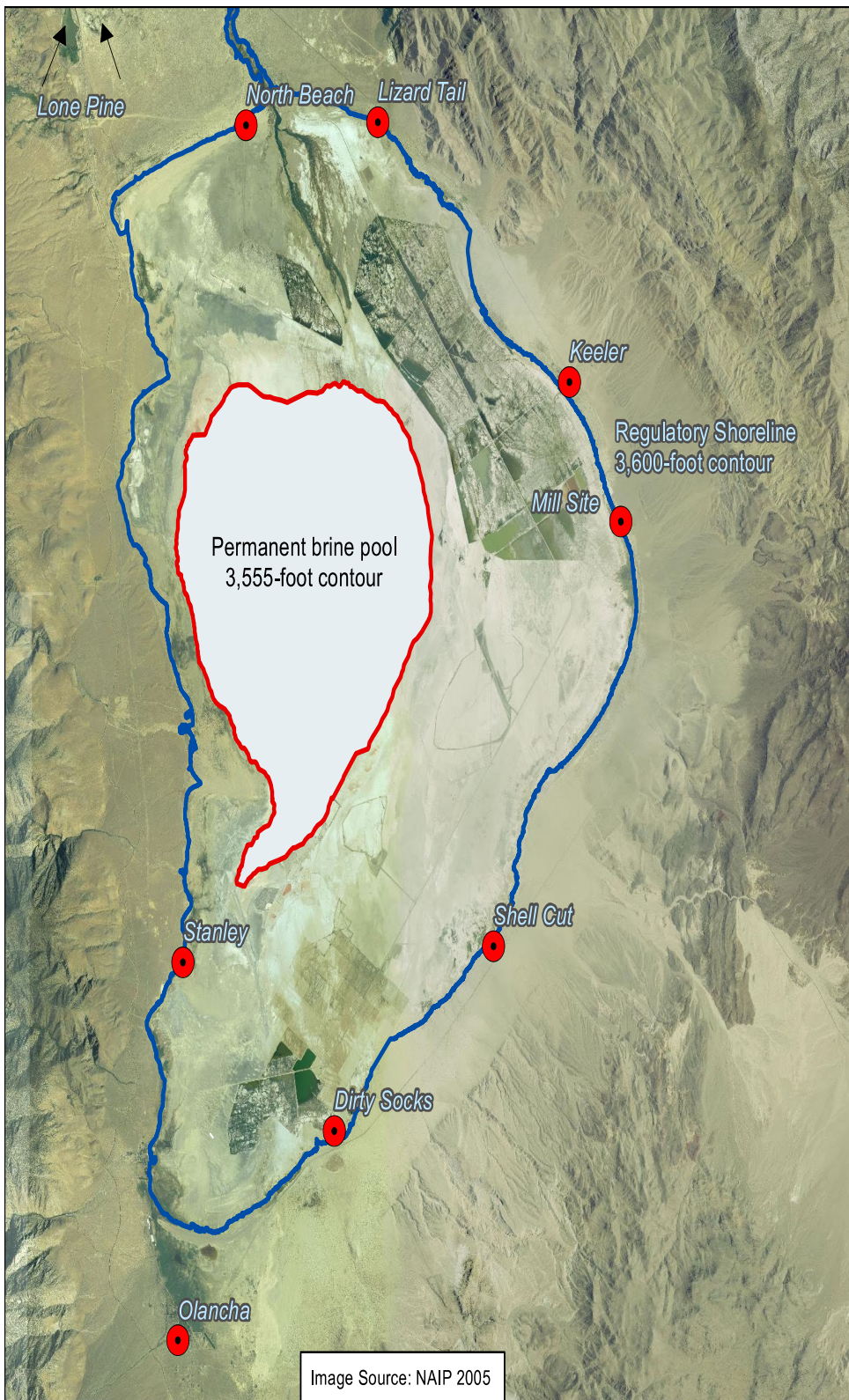
- 1,400-square mile area that includes Owens Lake.
- Main contaminant of concern is PM₁₀.
- Dust emissions are controlled via Best Available Control Measures (BACM) through dust control orders.



What are Best Available Control Measures (BACM)?



- Surface treatments used to reduce dust emissions by 99%.
- Established by a State Implementation Plan (SIP) that details a path for attaining air quality standards.
- Great Basin develops SIPs for submittal and approval from U.S. EPA.
- Great Basin then issues orders to LADWP for dust control.



Regulatory Boundaries on Owens Lake

- Two regulatory elevations:
 - 3,600-foot “Regulatory Shoreline.”
 - 3,555-foot “Permanent Brine Pool.”
- Nine official air quality monitoring stations.
- There have been 4 SIPs (1998, 2003, 2008, 2016) plus one amendment (2013)

2014 Stipulated Judgment: The Grand Bargain



Mayor Eric Garcetti shakes hands with then Owens Valley air pollution control representative, Ron Hames, in celebration of the 2014 Stipulated Judgment.



The two groups "buried the hatchet"

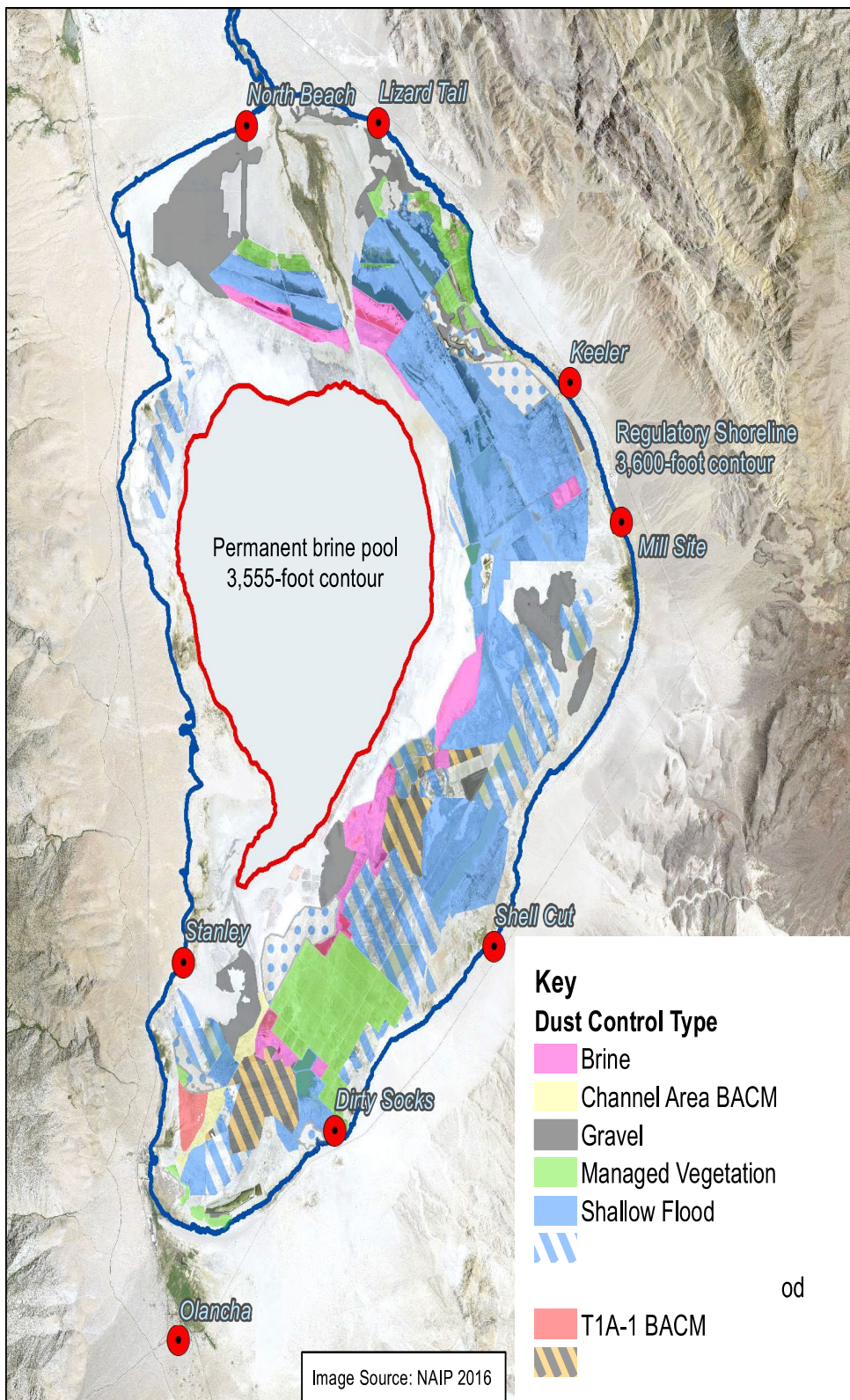
2016 State Implementation Plan

Conclusion

The proposed control strategy requires the City to continue to operate and maintain the 45.0 square miles of existing control measures on the Owens Lake bed. It also requires control of the Keeler Dunes and the placement of BACM on an additional 3.62 square miles of lake bed identified as the Phase 9/10 areas. Air quality modeling has shown that this strategy can reduce PM10 impacts at sites above the regulatory lake shore to below the federal 24-hr PM10 standard by the end of 2017.

Total Dust Control Measures at Owens Lake

- 48.6 square miles of dust control measures will be maintained in *perpetuity*.
- Achieved 99.4% reduction in emissions since 2000.
- Ratepayers have invested \$2.5 billion to date and counting.



Where We Are Now

Great Basin's Deviation from Terms of 2014 Stipulated Judgment and 2016 State Implementation Plan



1. Great Basin order 210701-06
2. Keeler Dunes
3. Water conservation
4. Off-lake sources

Board Order 210701-06

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
157 Short Street, Bishop, California 93514-3537 Tel: 760-872-8211 www.gbuapcd.org

NOTICE OF VIOLATION

I. General Information		No	1008
Owner or Operator Name: Los Angeles Department of Water & Power			
Premises or Operations Location: Sibi Patsiata-wae-tü Cultural Resource Area, Owens Lake, Inyo County, CA			
Contact: Martin Adams	Title: General Manager	Phone No: N/A	
Mailing Address: 111 N. Hope Street Los Angeles, California 90012			
Email: martin.adams@ladwp.com		GBUAPCD Permit #: CHSC 42316	
II. Violation			
YOU ARE HEREBY NOTIFIED THAT A VIOLATION OF STATE OR FEDERAL CODES, AND/OR OF GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT RULES AND REGULATIONS HAS OCCURRED.			
List of Code Sections, Rules or Regulations Violated: District Board Order 210701-06, 2014 Stipulated Judgment Paragraph 2.B, District Board Order 160413-01 Paragraph 2.B			
SUCH VIOLATION(S) MAY BE PUNISHED AS MISDEMEANORS PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 42400, OR CIVIL PENALTIES MAY BE IMPOSED PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 42402			
Description of Violation: Failure to implement dust controls in the Sibi Patsiata-wae-tü Cultural Resource Area, [REDACTED] Dust Control Area, as required per District Board Order 210701-06 under the provisions for 2014 Stipulated Judgment, District Board Order 160413-01, 2013 Stipulated Abatement Order No. 130819-0, and District Board Order 130916-01.			

- On July 1, 2021, the Great Basin Board issued an order for a project within an Eligible Cultural Resource (ECR) site that did not follow regulations set forth in the 2016 SIP:
 - Non-BACM (not EPA approved)**
 - Order has **NO DEADLINES** and **NO SUCCESS CRITERIA.**
 - Contingent on concurrence from 5 Tribal Nations. Two Tribal Nations support the project, one Tribal Nation formally opposes it.
- Project is in an ECR dense with artifacts and avoided for resource protection, per Cultural Resource Task Force (CRTF) recommendation from August 2017.
- NOV sent on Jan 7, 2022, based on arbitrary deadline. As of July 12, 2022, fees associated with the illegal order will be **\$1,125,791** (\$5,545.77/day).

Keeler Dunes

- Great Basin is exclusively responsible for controlling dust from the Keeler Dunes.
 - **Original SIP Goal:** Reduce emissions to 85%-95% control efficiency through the installation of straw bales and plants by **December 2017**.
- Great Basin successfully installed straw bales by Dec. 2015 to achieve 95% control, as modeled in 2016 SIP.
- 8 years later, Great Basin claims the project is not finished.
- Great Basin has unilaterally changed the definition of success which delays attainment.
 - **New SIP Goal:** Restoration of stable vegetated dunes to eliminate PM10 exceedances by **December 2024**.

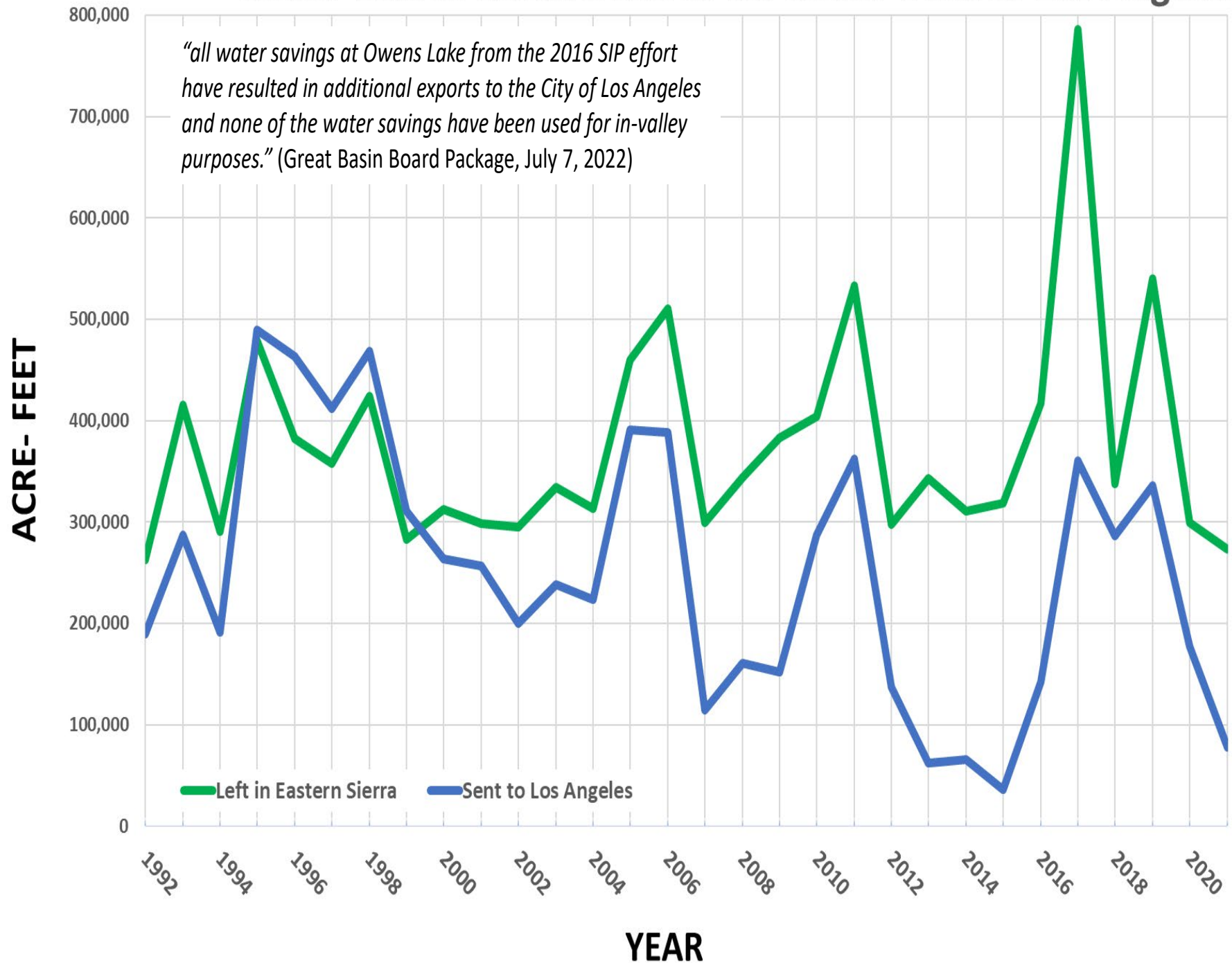


Water Conservation

- Water conservation was a cornerstone of the 2014 Stipulated Judgment and the 2016 State Implementation Plan.
- *"The District will not commit to further water savings..."* (Great Basin Letter - March 23, 2018)
- Max average water use at Owens Lake (2010-2013) was 74,500 acre-feet per year. Currently, the average water use from full build-out in 2017 to 2021 is around 62,000 acre-feet per year.
 - **This equates to an ACTUAL average reduction of 11,500 acre-feet/year.**
 - **Great Basin incorrectly claims an average reduction of 36,794 acre-feet/year.**
- Not allowed to test new BACM on Ordered areas of the Lake.
- Proposals to modify existing BACM standards have been revoked.
- Great Basin opposed LADWP proposed groundwater pumping test for dust control, despite using groundwater for their own Keeler Dunes dust control project.
- Issued reflood Orders in 2022 during record drought.

Water Left in Eastern Sierra vs. Water Sent to Los Angeles

"all water savings at Owens Lake from the 2016 SIP effort have resulted in additional exports to the City of Los Angeles and none of the water savings have been used for in-valley purposes." (Great Basin Board Package, July 7, 2022)



Off-Lake Sources

"Off-Lake PM10 emissions continue to pose the largest challenge for PM10 attainment demonstration within the OVPA." – Owens Valley Planning Area (OVPA) Reasonable Further Progress Report - April 2018

"Enforceable local off lake sources still need to be addressed" (GB Board Packet – July 7, 2022)

- The "Grand Bargain" detailed in the 2014 Stipulated Judgment limits LADWP's legal liability to 48.6 sq-mi of dust control, with 4.8 sq-mi of contingency, below the 3,600-ft elevation contour (a.k.a. regulatory shoreline).
- 2016 SIP stated that off-lake sources will decay with the completion of dust controls.
- Great Basin is now interested in investigating "off-lake" sources above the 3,600-foot shoreline, which contradicts the "Grand Bargain" and keeps us from attainment.
- Off-lake orders would expose LADWP ratepayers to billions in additional liability.

Looking Ahead

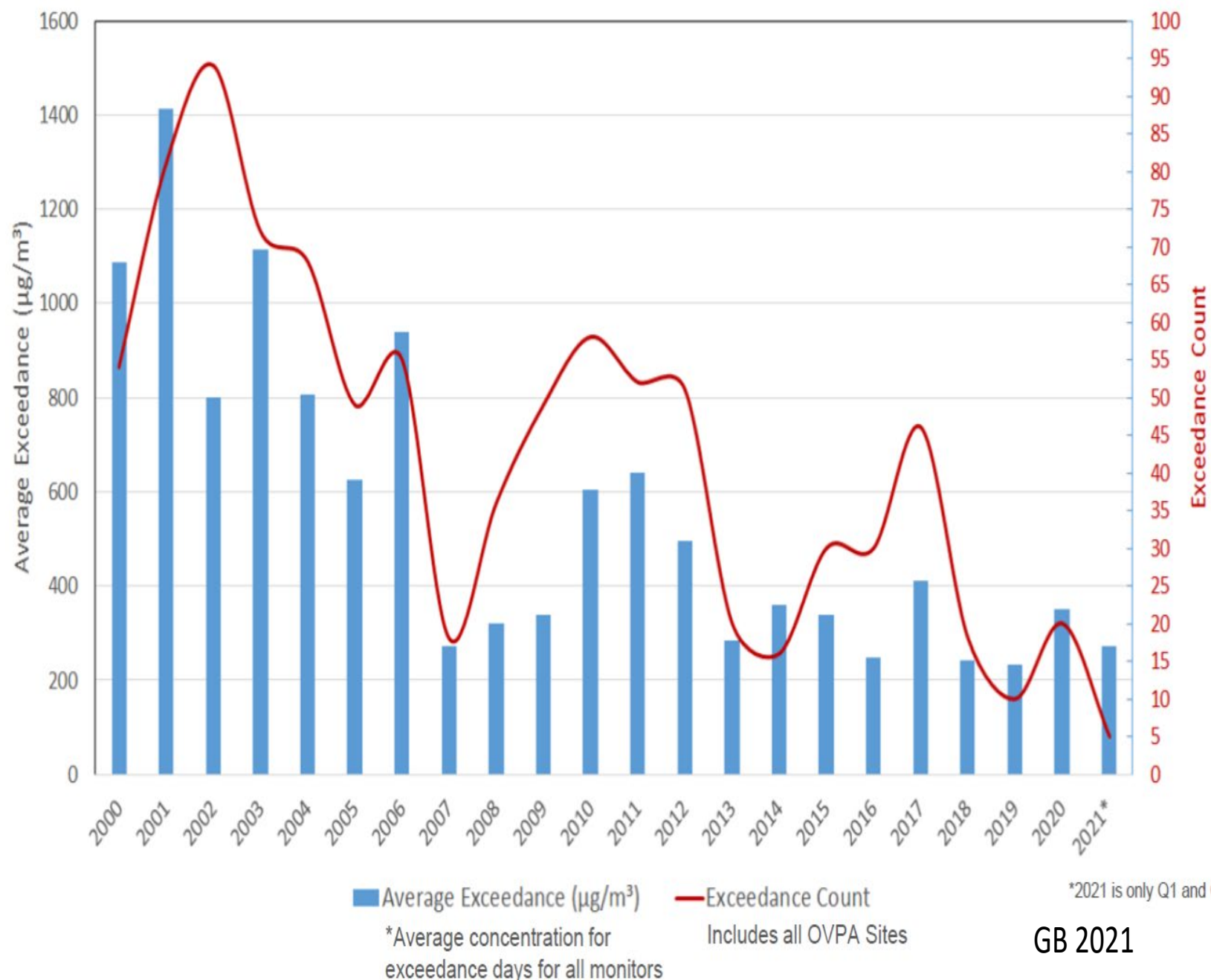
Attainment in the Owens Valley Planning Area



- Achieved 99.4% reduction of dust emissions since 2000.
- In order for an area to be in attainment, monitors must not have more than an average of 1 air quality exceedance per year over a 3-year period.
- Attainment does not mean there will not be future emissions.
- **Attainment means the OVPA could move into the maintenance mode.**

PROGRESS TOWARDS ATTAINMENT

OVPA PM10 NAAQS Exceedances at All Sites 2000-2021



The Exceptional Events Rule (EER)

- The Exceptional Events Rule (EER) is a tool intended to address the inherent uncertainties present in any State Implementation Plan.
- States may exclude exceedances caused by high wind events greater than 25 mph caused by windblown dust from natural or reasonably controlled anthropogenic sources.
 - Owens Lake is already a reasonably controlled anthropogenic source (99.4%).
- Exceedances excluded through EER are not used to evaluate attainment.
- **However, Great Basin is looking to develop a specific OVPA Exceptional Events Policy (from 9/23/21 workshop & 7/7/22 Board meeting).**

The Future Under Attainment

Benefits of Attainment:

- Provides the ratepayers of Los Angeles with some assurance that their liability on Owens Lake will not continue to increase, but rather level off.
- Allows Great Basin to halt its search for ever smaller, less frequent and more diffuse dust sources as the only way to push the airshed over the finish line into attainment.
- Contributes to water conservation by allowing for a 10% reduction in shallow flood wetness requirements.
- Increases flexibility for BACM tests.
- **Allows Great Basin to focus on a comprehensive Maintenance Plan designed to prevent the OVPA from slipping back into non-attainment.**

The Future Under Attainment



But Remember:

- Attainment does not mean “*no dust, ever.*” Dust will still occur.
- In this case, the Maintenance Plan will provide the procedures and authority for Great Basin to order controls when necessary.
- The EER will continue to be a vital tool, just as it is now in areas like the Coso Junction Maintenance Area.

Long History of Lake Fluctuations



Owens Lake from Mt. Whitney Trail.
Lone Pine, Calif. Frasers Foto-Pomona

(date unknown)

LADWP Staff at Owens Lake



LADWP in Action



LADWP in Action



Next Steps

- Determine additional course(s) of action after 7/15/22 Court Hearing on Order 210701-06.
- Continue dialogue with Great Basin on utilizing Exceptional Events Rule as a tool to reach attainment.
- Keep California Air Resources Control Board and U.S. Environmental Protection Agency up to date on progress with Great Basin on attainment.