

# 2023-2024 MITIGATION REPORT

## MOU Party Initiated Mitigation Review Process

On June 30, 2023, The Sierra Club (SC) and the Owens Valley Committee (OVC) formally requested a meeting with the signatories of the 1997 Memorandum of Understanding (MOU) out of concern about LADWP's lack of performance on agreed-upon mitigation measures. These measures, identified in the 1991 EIR, MOU, and subsequent environmental documents, aim to address environmental impacts caused by groundwater extraction in Owens Valley.

The 1997 MOU requires that parties engage in regular communication to prevent disputes and stipulates that any disagreements about compliance must be addressed through a formal meeting before legal actions are pursued.

Central to the stakeholders' concerns was the lack of Mitigation, Monitoring, and Reporting Plans (MMRPs) for the projects. These project plans, mandated under CEQA, establish clear goals, timelines, and performance measures for mitigation projects. Most projects outlined in the 1991 EIR lack comprehensive plans. They are only briefly described, with vague goals, no established monitoring methods, no timelines or benchmarks, minimal guidance on reporting requirements, and no clear criteria for determining when a project can be considered complete.

SC and OVC assert that LADWP has failed to provide adequate documentation or to demonstrate meaningful progress on these measures. Specific concerns include:

1. The absence of detailed MMRPs for each mitigation project.
2. Unclear or inadequate site descriptions, goals, and performance criteria in existing plans.
3. A lack of regular reporting and monitoring to assess project effectiveness.
4. Uncertainty about how current projects align with CEQA requirements, the Green Book guidelines, and the commitments outlined in the MOU.

These stakeholders allege that LADWP's mitigation efforts have lagged significantly, with no MOU party meetings held since 2008. Additionally, reporting has been inconsistent and lacked

information crucial to assess mitigation progress. They asked for a series of follow-up meetings to address unresolved issues and establish a path forward.

Further, SC and OVC asked for transparency and accountability from LADWP in fulfilling their mitigation responsibilities and to address decades-long challenges, restore trust, among stakeholders and ensure compliance with the promised environmental protections. LADWP agreed to the meetings and to engage in good faith.

## **Background and Context**

CEQA guidelines, as codified in Section 21081.6 of the California Public Resources Code, require agencies to adopt MMRPs that specify mitigation measures, assign implementation responsibilities, establish timelines, and define performance standards. However, the 1991 EIR often provided only vague descriptions of mitigation measures, many of which were labeled as "experimental." This lack of specificity has left critical projects incomplete or inadequately executed, undermining efforts to address environmental impacts.

## **Challenges in Mitigation Implementation**

One significant issue is the ambiguity surrounding the criteria for determining project completion. For example, the 1999 Revegetation Plan, developed under the 1997 MOU, aims to restore areas to sustainable vegetation conditions. However, it does not offer clear guidance on assessing sustainability over time. Projects are sometimes deemed complete based on short-term observations during favorable conditions, such as wet years, without considering long-term resilience under varying environmental conditions. Without clear standards for success and sustainability, such declarations are premature and undermine the credibility of mitigation efforts.

Communication and collaboration have also been persistent challenges. Stakeholders have expressed frustration with inconsistent updates from LADWP, which has limited transparency and hindered progress. This lack of information has made it difficult for stakeholders to assess the status of projects and provide meaningful input. For instance, the Type-E Transfer project—designed to restore 253 acres of native vegetation—was declared by LADWP to have achieved initial goals without notifying the County that irrigation was being discontinued or involving the County in measuring vegetation transects.

## **Stakeholder Recommendations**

To address these issues, stakeholders have called for a structured and transparent approach to completing mitigation projects. They recommend that LADWP prioritize the development of comprehensive action plans that include detailed project descriptions, monitoring procedures, measurable goals, explicit water allocations, and phased implementation timelines.

Plans should incorporate robust monitoring frameworks to ensure long-term sustainability. One possible approach for revegetation projects is the use of nearby control sites for comparison, allowing ecological conditions in undisturbed vegetation to serve as a baseline for evaluating mitigated areas. Success in revegetation can then be validated by demonstrating that vegetation in the mitigation site responds to environmental changes in a manner parallel to the control site.

Improved communication is another key priority. Stakeholders urge LADWP to establish regular meetings to provide status updates and ensure transparency in decision-making processes. Collaboration and consistent engagement will be essential for rebuilding trust and fostering a shared commitment to resolving delays.

The projects discussed so far include:

- The Laws Type E Transfer MND revegetation parcels. In its 20-year effort to revegetate these parcels, LADWP deviated at times from the governing 2003 CEQA mitigation plan, including planting species that were not identified in the plan. Irrigation was discontinued in 2022. LADWP is now working with the County to develop a plan amendment that includes stricter monitoring requirements and addressing and justifying the deviations from the original plan. The amendment will be presented to the MOU Parties and will be made available to the public at a Technical Group meeting.
- Blackrock 16E aims to create conditions that promote the development of meadow habitat. LADWP has stated that the project has met its goals and is complete. However, the parcel is dominated by shrub vegetation, which contradicts the vegetation plan and does not adequately mitigate the loss of meadow due to groundwater decline. LADWP has agreed to experiment with removing the shrub overstory to encourage the growth of grass, which has appeared as the water table rose following recent high runoff and local flooding. The experimental design to assess the effects of shrub removal has not yet been described.

- LADWP presented the revegetation projects at Independence 105 and 123 as examples of successful efforts. These parcels revegetated primarily on their own, with minimal management intervention, after being fenced and with reduced pumping in the area.

## **Homestead 1600-acre-foot Project**

This project, one of eight Ad Hoc initiatives, aims to develop an approximately one-acre pond. Initially, when water was first supplied to the project, a pond formed. However, changes in water patterns and a rising water table have led to the growth of emergent vegetation, and the pond has since been replaced by cattails and bullrush.

The County is collaborating with LADWP to investigate the loss of the water feature, which was intended to be a key element of the mitigation effort. Possible solutions include excavating a new pond on-site, but away from the riparian vegetation that has developed. A new channel would be created to supply water to the pond. This would require significant effort, as the pond would need to be dug to a depth of 2–3 meters to prevent the growth of emergent vegetation. Another option is to locate a new pond at a different site, away from the Homestead area. This would necessitate a plan revision and possibly a CEQA study.

## **Owens River Water Trail**

This recreational project, an offshoot of the Lower Owens River Project Recreational Use Plan, has been in development for nearly ten years. The draft EIR, funded by LADWP, has been circulated, and the final document has been prepared. Volunteer crews have worked in the river to test techniques for controlling tules, with some promising results. Over a thousand meters of open water have been created through these volunteer efforts.

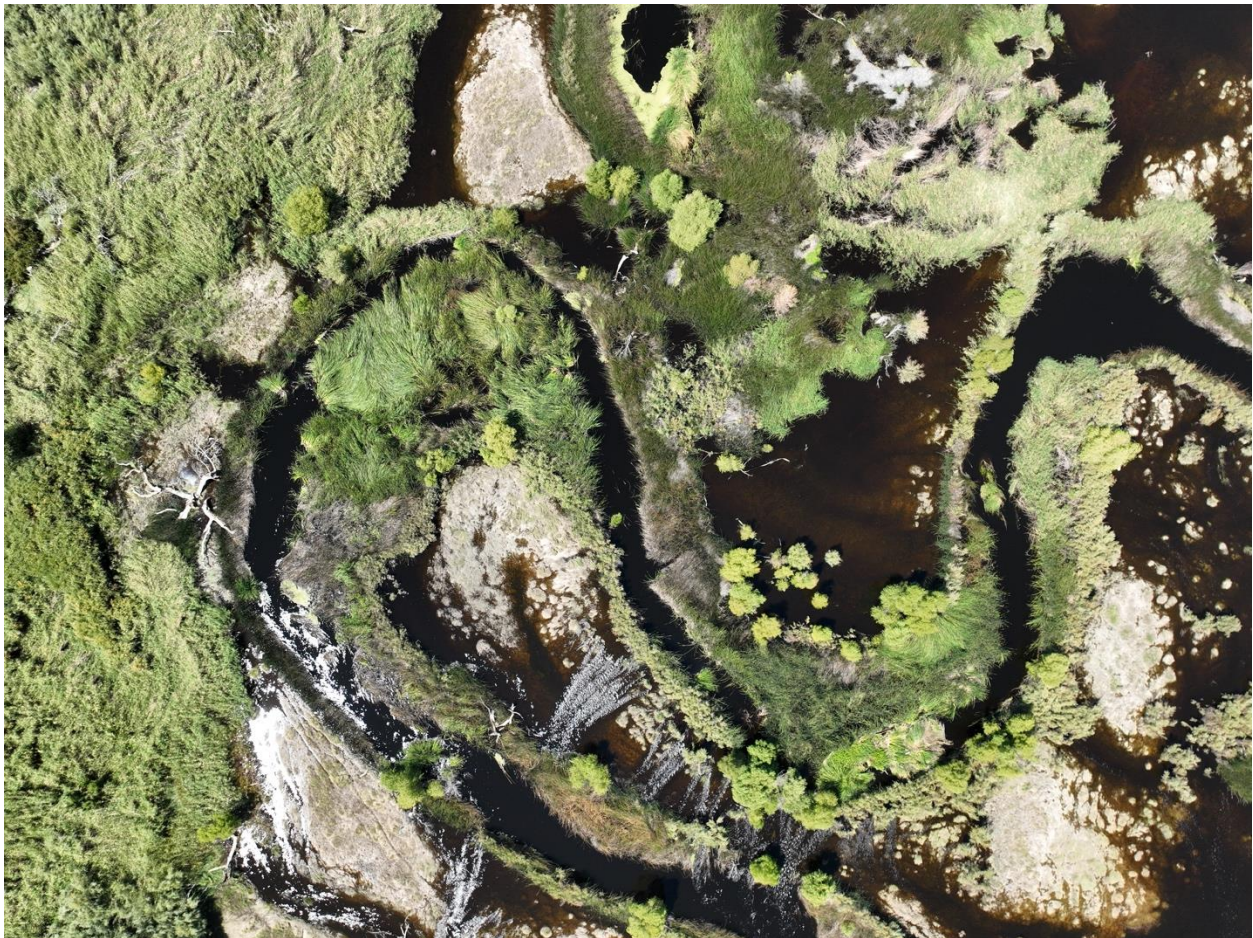
In 2017, the County secured \$610,000 in grant funding to design and implement the project. Unfortunately, the County and LADWP have not been able to reach an agreement on a lease. Without a lease in place, the County cannot access these funds. Delays have already caused the loss of a \$110,000 grant from the State of California Department of Boating and Waterways. The County must use its remaining funds by March 2026, or they will be lost as well.

## **Unmanned Aerial Vehicle Assisted Monitoring**

In 2023, the Water Department put into service an Unmanned Aerial Vehicle (UAV), or drone, to enhance monitoring and to help ensure compliance with mitigation measures. This addition

has greatly increased aerial imagery availability, offering quick deployment and efficient, high-resolution, real-time coverage of large areas. Two department employees became FAA-certified UAV pilots.

A key example of the UAV's effectiveness occurred after uncontrolled high flows surged through and flooded the Lower Owens River. The UAV was used to capture images of geomorphic changes, documenting disturbances like newly formed sand bars and barren sediment deposits. These high-resolution, georeferenced images (e.g., Figure 1) will enable LORP managers and scientists to accurately revisit and monitor these sites and simplify the process of tracking vegetation recovery and recruitment over time.



*Figure 1. Lower Owens River in Flood (8/29/2023)*





In another instance, as mentioned earlier, a UAV was used to survey the Homestead mitigation site, where a one-acre pond was planned to benefit fish, waterfowl, and invertebrates. From the ground, the presence of the pond could not be confirmed due to a dense wall of cattail and bulrush. However, the UAV provided an aerial view (Figure 2) showing no evidence of open water in the designated area (outlined in blue).



*Figure 2. Homestead project site looking toward the southeast (12/28/2023)*

The UAV captures high-resolution images with centimeter-level detail, offering far greater resolution than Sentinel imagery, which has a resolution of around 10 meters. This level of detail allows for more accurate tracking of subtle changes in vegetation, such as plant density, species composition, and canopy cover. The ability to zoom in on specific areas with such clarity provides real-time assessments, improving the management and monitoring of revegetation projects.

Aerial imagery is being tested to evaluate its effectiveness in monitoring vegetation conditions over time. Figure 3 shows the area covered by Transect #41 in LAWS094 of the Laws Type E

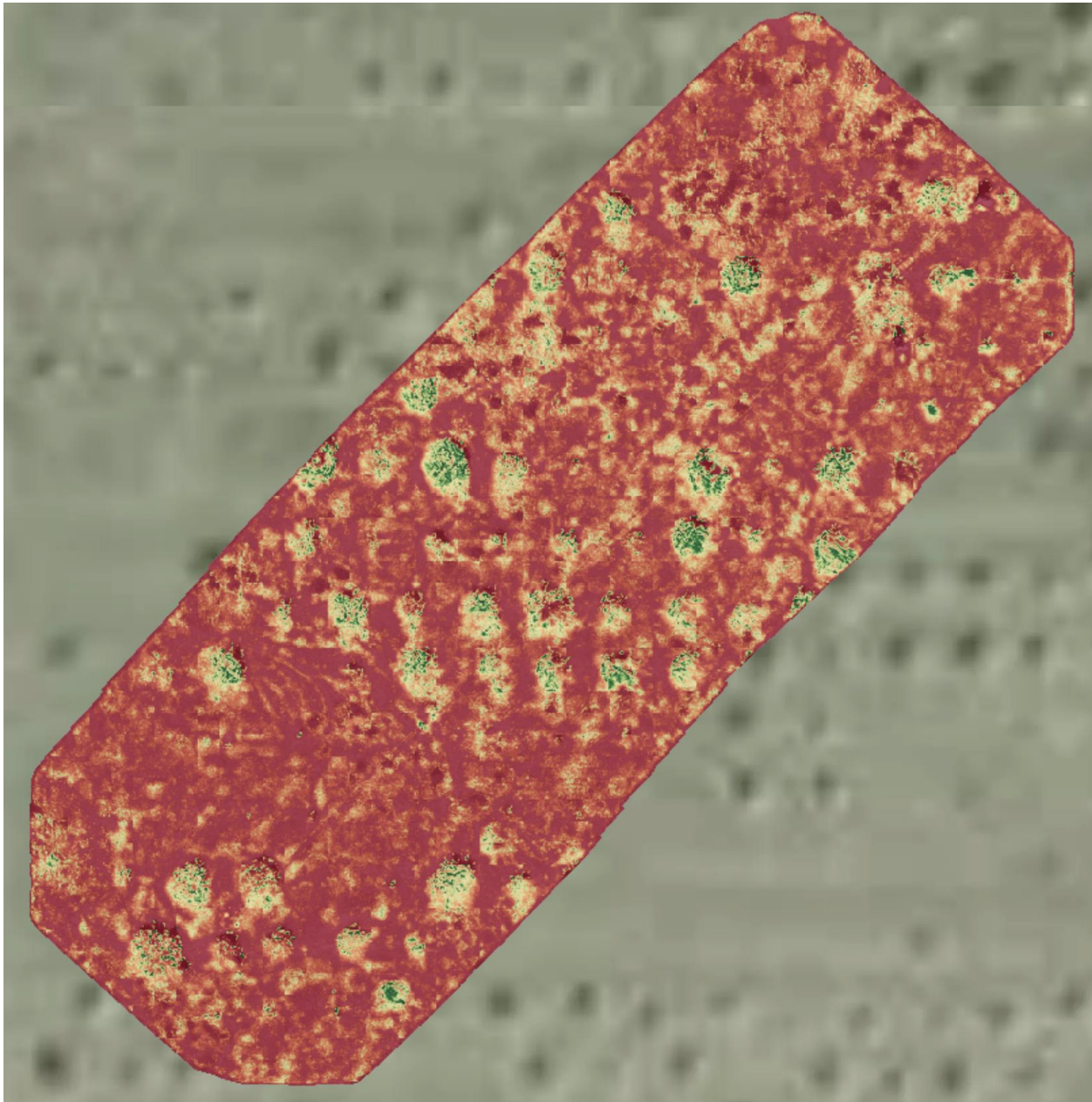


Transfer project. Such imagery could be repeated over time to allow for assessment of changes in vegetation.





In Figure 4, high-resolution NDVI (Normalized Difference Vegetation Index) data are extracted from color reflectance. This process allows us to differentiate between live vegetation and barren ground, providing critical insights into plant density and cover.



*Figure 4. Processed imagery of the Laws Type E Transfer, parcel 94, site (8/27/2024)*

## **Update on EIR Revegetation Efforts**

Last year’s report raised concerns about LADWP’s claims of success at several mitigation sites under the 1999 Revegetation Plan. While LADWP reported meeting cover and composition goals, the Plan explicitly requires evidence of natural recruitment, which has not been documented at these sites. The Water Department has consistently stressed that claims of success must be supported by evidence and comply with the Plan’s stipulations, including demonstrating that natural recruitment is occurring and is sustainable.

LADWP is currently working with a consultant to develop a method to accurately assess sustainability. ICWD will review the proposed method once developed and provide feedback to ensure it meets the Plan’s requirements and accurately

## Mitigation Map

Additional information about mitigation projects, including their locations, can be accessed through the Water Department’s online, interactive Mitigation Projects Map (Figure 5), which is available via the home page under Quick Links. This map offers a comprehensive overview of all mitigation obligations in the Owens Valley related to the Long-Term Water Agreement, associated Stipulations and Orders, and subsequent initiatives. It serves as a valuable complement to the status table, providing users with detailed project site photos, a search function, and customizable filters. These filters allow users to locate projects based on specific criteria such as project goals, legal origin, status, and water delivery, making the map an essential tool for both newcomers and experienced users alike.

