GREAT BASIN UNIFIED
AIR POLLUTION CONTROL DISTRICT

HEARING BOARD MEETING INFORMATION

Meeting Date & Time
Friday, November 3, 2023, 10:00 a.m.

Meeting Location
City of Bishop Council Chambers
377 West Line Street
Bishop, California 93514

District Board
Peter Pumphrey, Mono County, Chairperson
Tom Sweeney, Alpine County, Vice Chairperson
Xiang Mei Zhang, Inyo County
Frances Hunt, Inyo County
Steve Crow, Alpine County
John Connolly, Alternate, Mono County

Phillip L. Kiddoo, Air Pollution Control Officer
157 Short Street, Bishop, California 93514
(760) 872-8211 E-mail: pkiddoo@gbuapcd.org

Phillip L. Kiddoo
Air Pollution Control Officer

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
760-872-8211 Fax: 760-872-6109

AGENDA

MEETING OF THE HEARING BOARD

FRIDAY, NOVEMBER 3, 2023, 10:00 AM
City of Bishop Council Chambers
377 West Line Street
Bishop, California 93514

Assistance for those with disabilities: If you have a disability and need accommodation to participate in the meeting, please call Tori DeHaven, Board Clerk, at (760) 872-8211 for assistance so the necessary arrangements can be made.

1. Call meeting to order and Pledge of Allegiance
2. Election of Chairperson and Vice-Chairperson for Two Years (Action)……..…1
3. Public Comment on Matters not on the Agenda (No-action)
4. VARIANCE HEARING (Action): Consideration of the granting of an interim variance (docket number GB23-01) requested by the City of Los Angeles Department of Water and Power (LADWP). The areas requested for a variance are located on the Owens Lake Dust Mitigation Project in Inyo County, California. The facility address is 111 Sulfate Road, Keeler, California 93530……..…2

   Hearing Procedures for the interim hearing.
   - Chairman will open the hearing
   - Swearing in of witnesses by Hearing Board Clerk
   - Statement and presentation by District staff
   - Statement and presentation by Petitioner
   - Questions from the Hearing Board
   - Call for general testimony
   - Rebuttal to previous testimony by Petitioner
   - The Hearing Board will deliberate and arrive at a decision
5. Adjournment

Phillip L. Kiddoo
Air Pollution Control Officer

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211

BOARD REPORT

Mtg. Date: November 3, 2023

To: District Governing Board

From: Tori DeHaven, Clerk of the Board

Subject: Election of Hearing Chairperson and Vice-Chairperson for Two Years

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Summary
The Hearing Board of the Great Basin Unified Air Pollution Control District meets on an as needed basis, often times going for many years without the need for a variance hearing. Staff recommends that the Hearing Board elect a Chairperson and Vice-Chairperson for a term of two years (expiring November 2025). It is important to do so as some types of variance hearings only require the Chairperson or one appointed regular member to hear a variance (not an alternate). It has been the practice that the Chairperson would act as the appointed member and the Vice-Chairperson would act in their place if the Chairperson were unavailable.

Any regular member may be elected to either position by a motion, second and vote by a quorum (at least three) of the Hearing Board. It may be helpful to note the names and dates of appointment to the Hearing Board as this may be the first time most of you are meeting. The current Hearing Board is as follows:

Pete Pumphrey, current Chairperson, appointed 2005
Tom Sweeney, appointed 2013
Xiang Mei Zhang, appointed 2021
Frances Hunt, appointed 2022
Steve Crow, appointed 2022

John Connolly, appointed 2020, cannot be appointed to Chairperson or Vice-Chairperson as he is an alternate.

Fiscal Impact
None.

Board Action:
Staff recommends that the Board nominate and elect a Chairperson and Vice-Chairperson for two years.

GB23-01 – Interim Variance
LADWP Petition

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

VARIANCE
PETITION FORM

This form is to submit a petition for a variance to the District Hearing Board. Filing instructions and additional information are included at the end of this form. If the form does not provide adequate space, include responses and/or supporting documents as attachment(s).

FACILITY INFORMATION

Facility Name: Owens Lake Dust Mitigation Program Date Submitted: October 13, 2023

Facility Address: 111 Sulfate Road, Keeler, CA 93530
(Location Of Equipment/Site Of Violation; Specify Business/Corporate Address, If Different, Under contact info, below)

FACILITY OWERNSHIP

Organization Type: ☐ INDIVIDUAL ☐ PARTNERSHIP ☐ CORPORTATION ■ GOVERNMENT ☐ OTHER

If Other, Please Describe: _____

Owner Name: City of Los Angeles, acting by and through its Department of Water and Power
If more than one, please provide an attachment with names, addresses and contact information for all owners, partners, and/or managing officers.

Mailing Address: 111 North Hope Street, Room 1468

Contact Email: adam.perez@ladwp.com Phone: 760-873-0226

VARIANCE INFORMATION

Type Of Variance Requested (More than one may be checked if applicable, please refer to instructions and District rules if needed)

☐ EMERGENCY ☐ SHORT ■ REGULAR ■ INTERIM

Dates Requested: Variance Start Date October 16, 2023 End Date June 30, 2025

PETITION INFORMATION

1. Facility Information: Provide a brief description of the facility including the type of business, processes, and/or equipment. Please include reference to any District permits or applications that are associated with the facility.

Please see attachment.

2. Non-Compliance: List the District rules, permit conditions, and/or other regulations that you are seeking variance relief. Briefly explain how you are or will be in violation.

Please see attachment.

3. Time Period: Please provide information regarding when the non-compliance started, when you first became aware of non-compliance, and how long you anticipate the non-compliance to last.

Please see attachment.

4. Reasonable Control: Explain why it is beyond reasonable control to comply with the rules and/or permit conditions. If requesting an emergency variance, please justify how the situation satisfies the emergency requirements.

Please see attachment.

5. Effort and Actions to Comply: List dates and actions taken to date to achieve compliance.

Please see attachment.

6. Impacts to Petitioner: What would be the harm to the petitioner if the variance were not granted?

Please see attachment.

7. Impacts to Public: Discuss the advantages and disadvantages to the public, including nearby residences, resulting from requiring compliance or from granting a variance. Please describe if operations under the variance, if granted, would constitute a nuisance.

Please see attachment.

8. Curtail Operations: Can the facility curtail operations in lieu of, or in addition to, obtaining a variance? Please explain.

Please see attachment.

9. Excess Emissions: Please provide information estimating excess emissions, if any, that will occur during the variance period. If the variance will result in no excess emissions, please explain why there will be no excess emissions. Please provide attachments with the calculations used to estimate emissions. If you are unable to quantify emissions, you may provide a written description.

Please see attachment.

10. Mitigation and Monitoring: Describe the plan to mitigate excess emissions during the variance period to the maximum extent feasible, or why mitigations are not feasible. Please also include information on if it is possible to monitor or quantify emission levels from the equipment or activities during the variance period, and to make such records available to the District.

Please see attachment.

11. Compliance Plan and Timeline: Include a detailed description of the plan to achieve compliance. Please specify steps and associated dates or time increments needed to achieve compliance.

Please see attachment.

12. Additional Outstanding Non-Compliance: Beyond non-compliance associated with this variance request, list any additional existing violations by the Petitioner of District rules, orders, permit conditions, and/or other regulations.

Please see attachment.

13. Good Cause: Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances)

Please see attachment.

CERTIFICATION. By signing I certify the following the above petition, including attachments, is true and correct, and I am authorized on behalf of the facility to submit this petition.

Signature

Adam Perez
Print Name

Title: Manager of the Aqueduct

Date: 10/13/2023

Variance Petition
INSTRUCTIONS AND SUPPLEMENTAL INFORMATION

Variance Overview

California Health & Safety Code Sections §42350 through 42364 and District Regulation VI, Procedures Before the Hearing Board (District Rules 600-617), provide detailed information regarding variances and hearing procedures. District Rules are available at https://www.gbuapcd.org/rules.

The District Hearing Board is an independent quasi-judicial body created by California State law that is authorized to issue variances. A variance is an administrative order granting temporary relief from air quality rules or regulations that allows the facility to operate while taking steps to come into compliance. Variance hearings are formal proceedings.

Per HSC §42352, to grant a variance, the Hearing Board must make the following findings:

- That the petitioner is, or will be, in violation of any rule, regulation or order of the District.
- That due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in an arbitrary or unreasonable taking of property, the closing of a lawful business, or would impose an unreasonable burden upon an essential public service.
- That closing the facility would be without a corresponding benefit in reducing air contaminants.
- That the applicant has considered curtailing operations in lieu of obtaining a variance.
- That during the variance period, the applicant will reduce excess emissions to the maximum extent feasible.
- That during the period the variance is in effect, that the applicant will monitor or otherwise quantify emission levels, and if requested will report these emission levels to the District.

Filing and Fees

- Variance petition should be submitted to:
  Hearing Board Clerk - Great Basin Unified Air Pollution Control District
  157 Short Street, Bishop, CA 93514
  Petitions may be submitted via mail or electronically to permits@gbuapcd.org.
- The Hearing Board filing fee is $173.00 per petition (fee as of 2023). Emergency variances are exempt from filing fees per District Rule 601. Additional fees may apply to a hearing in accordance with District Rule 306.
- The Hearing Board Clerk will contact you regarding the scheduling of your hearing. If you require accommodations for a disability to participate in the hearing, contact the Hearing Board Clerk as soon as possible but at least five (5) calendar days prior to the hearing.
- The District offers small businesses assistance in filling out the form and developing compliance schedule.
- Please feel free to contact the District in advance to discuss the situation with staff prior to submitting a petition.
- Questions regarding this form should be directed to GBUAPCD at (760) 872-8211 or permits@gbuapcd.org

Type of Variances and Public Noticing

Emergency: If non-compliance is the result of an unforeseen emergency. Only granted for good cause without public hearing. An emergency variance should only be for as long as necessary to repair or remedy a breakdown condition (see District Rule 403 for breakdown definition and information), but in no event after an interim or regular variance hearing has been held, or 15 days from the date of occurrence, whichever is sooner.

Short: If compliance can be achieved in 90 days or less. A 10 day public notice is required for variance requests less than 90 days.

Regular: If compliance will take more than 90 days. If the variance request extends beyond one year, you must include a specific detailed schedule of increments of progress under which you come into final compliance. The Hearing Board is required by law to give 30 days of public notice for hearing of variances requesting relief for over 90 days.

Interim: If you require immediate relief (other than for emergencies) to cover the time until a short or regular variance hearing can be held, request an interim variance. If you request an interim variance, you must also request a short or a regular variance on the same petition. Cannot be granted for more than 90 days.

1. **Facility Information: Provide a brief description of the facility including the type of business, processes, and/or equipment. Please include reference to any District permits or applications that are associated with the facility.**

   The City of Los Angeles, acting by and through its Department of Water and Power (LADWP), operates the Owens Lake Dust Mitigation Program (OLDMP) on 48.6 square miles of the Owens Lakebed. The OLDMP includes the operation and maintenance of various Best Available Control Measures (BACM) approved by the United States Environmental Protection Agency (USEPA) to achieve national ambient air quality standards for particulate matter of 10 microns in aerodynamic diameter (PM-10). The OLDMP is a resounding success in mitigating dust emissions due to the significant investment and commitment by LADWP, as well as ongoing collaboration with Great Basin Unified Air Pollution Control District (GBUACPD). Since 2000, LADWP has invested significant funds and, as described throughout this variance request, remains committed to the success of the OLDMP.

   The OLDMP is regulated by the GBUAPCD Board Order 160413-01 and GBUAPCD Rule 433. These authorities require LADWP to implement BACM and achieve performance criteria in designated Dust Control Areas (DCAs) during the dust season, which occurs annually from October 16 through June 30.

2. **Non-Compliance: List the District rules, permit conditions, and/or other regulations that you are seeking variance relief. Briefly explain how you are or will be in violation**.

   The 2022/2023 dust season was an exceptionally challenging one. In less than 12 months, LADWP was confronted with three extreme climatic events. Precipitation in Inyo and Mono counties from January through April 2023 exceeded any amount since LADWP began keeping records, and the resulting snowpack ultimately reached 305% of the long-term April 1st average. LADWP anticipated that the runoff from the record setting snowpack would exceed the capacity of the Los Angeles Aqueduct (LAA), downstream reservoirs, and spreading basins, and eventually flow into the terminus, Owens Lake. As a result, since March 2023, LADWP has worked tirelessly to maximize aqueduct flows and water spreading throughout the Owens Valley, to strategically manage reservoir levels, to perform expeditious repairs of the aqueduct, and to implement protective measures at Owens Lake, all while performing day-to-day water operations for water transmission and dam safety, prioritizing human health and safety, and maintaining all environmental mitigation responsibilities. In addition to LADWP crews working around the clock, an emergency contract was implemented specifically to assist with Owens Lake protection measures at a cost of up to $42,000,000. Notably, LADWP emergency runoff efforts were successful and this variance is not related to damage associated with 2023 runoff emergency.

   Rather, on August 20 and 21, 2023, record amounts of precipitation associated with Tropical Storm Hilary caused widespread flooding and mud and debris flow throughout Inyo County. In some areas, the storm resulted in over five inches of rain over approximately 24 hours, which is equivalent to a ~100 -year storm event (Exhibit 2).

   The damage from Tropical Storm Hilary occurred while LADWP was still addressing impacts from Tropical Storm Kay (2022) and unprecedented snowpack runoff during the 2022/2023 water year.

As a result of Tropical Storm Kay in September 2022, T13-1 was damaged and slated for long-term repairs, including over 17,000 linear feet of new water control berms. Prior to Tropical Storm Hilary, LADWP completed over 6,500 linear feet of berm construction, which is now severely damaged as a result of Tropical Storm Hilary.

LADWP thus requests an interim and regular variance from enforcement of California Health and Safety Code Section 42316, GBUAPCD Board Order 160413-01, GBUAPCD Rule 433, and Notice to Comply No. 2002, due to the significant damage caused by Tropical Storm Hilary on August 20 and 21, 2023, as well as from completion of long-term repairs on T13-1 planned under Variance GB22-01 that were not yet completed prior to the damage from Tropical Storm Hilary. Multiple DCAs are included in this variance request, as detailed in Exhibit 1. Specifically, portions of the 2003 and 2006 DCAs are included. These areas are referred to as the "Variance Areas" and comprise a total of 1,246 acres (~2 square miles) or approximately 4% of the total OLDMP dust mitigation area. Notably, Tropical Storm Hilary damaged over 8,797 acres. Due to LADWP's aggressive repair schedule, LADWP has been able to reduce the extent of areas included in this variance request by 6,613 acres. A detailed summary of the damages and repairs completed to date is provided in Exhibit 3.

As a result of damage from Tropical Storm Hilary, the Variance Areas may be out of compliance with the performance criteria, performance requirements, and monitoring requirements for BACM and Dynamic Water Management at the start of the 2023-2024 dust season (Exhibit 1). The duration each DCA is anticipated to be out of compliance is described in the Answer to Question 3 as well as Exhibit 3, Table 4.

3. Time Period: Please provide information regarding when the non-compliance started, when you first became aware of non-compliance, and how long you anticipate the non-compliance to last.

LADWP's response and planning for assessment and repair of damaged facilitates has been swift, significant, and comprehensive. Beginning on August 21, 2023, LADWP conducted numerous field assessments, data collection efforts, and field reconnaissance events to assess damage and develop repair plans, including the use of on the ground surveys, drones, helicopter patrols, and satellite imagery. Repairs on damaged DCAs began immediately, including repairing berm erosion and breaches, repairing and realigning laterals and whiplines, installing riser extensions, cleaning and flushing sprinklers, and cleaning out culverts. To date, LADWP has repaired 6,613 acres of damage from Tropical Storm Hilary. Significant progress is underway to bring areas into compliance as expeditiously as possible.

LADWP anticipates non-compliance for the variance areas to begin October 16, 2023. For the vast majority of the Variance Areas, LADWP is requesting a variance of one dust season or less to allow adequate time for repairs. Due to extensive damage in two Variance Areas, T13-1 and T5-3 Addition, LADWP is requesting a two-dust season variance (October 16, 2023, through June 30, 2025). For these DCAs, LADWP has developed a schedule of increments of progress. This schedule is consistent with the requirements in Rule 603 – Petitions for Variances and as defined by Rule 106. This information is provided in Exhibit 3, Table 5. Additional information regarding LADWP's extensive efforts to assess the damage and develop short-term and long-term repair plans is

documented in Exhibit 3. The final date for compliance for each DCA included in this variance request is shown in Exhibit 1.

Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP may need to seek additional relief in collaboration with GBUAPCD.

4. **Reasonable Control: Explain why it is beyond reasonable control to comply with the rules and/or permit conditions. If requesting an emergency variance, please justify how the situation satisfies the emergency requirements.**

   On August 20 and 21, 2023, record amounts of precipitation caused widespread flooding and mud and debris flow throughout Inyo County as a result of Tropical Storm Hilary. With respect to Owens Lake, the storm resulted in up to four inches of rainfall (25-to-50-year precipitation event) falling directly on the Owens Lake Dust Mitigation Facilities. In addition, the watersheds surrounding Owens Lake also received over five inches of rain (50-to-100-year precipitation event) resulting in wide-spread flash flooding, runoff, and debris flow (sediment and debris) onto Owens Lake. The combination of these two factors caused direct, major damage to 8,797 acres of dust mitigation facilities.

   This was an unprecedented event beyond the reasonable control of LADWP. Damage includes, but is not limited to, water conveyance, irrigation systems, and berms critical to OLDMP operations. In addition, large amounts of channelization and sediment deposits have fundamentally changed the landscape in several DCAs, creating a hurdle to meeting Shallow Flood BACM compliance. The amount of damage to the infrastructure and dust mitigation measures themselves occurred less than 60 days from the start of the 2023-2024 dust season. LADWP has worked to repair the damage as quickly as possible, maximizing available resources and increasing crew work hours to 12 hours per day, six days a week. As a result, LADWP was able to complete repairs and reduce the extent of areas included in this variance request by 6,613 acres. However, due to the widespread nature of the damage, it has not been possible to assess the entire damage, design short-term and long-term repairs, source needed materials, execute contracts, and implement all repairs necessary to ensure compliance by October 16, 2023.

5. **Effort and Actions to Comply: List dates and actions taken to date to achieve compliance.**

   LADWP's response and planning for assessment and repair of damaged facilitates has been swift, significant, and comprehensive. Beginning on August 21, 2023, LADWP conducted numerous field assessments, data collection efforts, and field reconnaissance events to assess damage and develop repair plans, including the use of on the ground surveys, drones, helicopter patrols, and satellite imagery. Low level flights were completed to capture high resolution pictures and to view specific infrastructure components. In addition, topographic data from a Light Detection and Ranging (LiDAR) system was acquired and is being processed. This data will be used to inform repair design by providing new high resolution topographic data after damage from Tropical Storm Hilary.

Low level flight data collected during numerous field reconnaissance efforts were analyzed by LADWP staff, operations employees, and consultants. The results of the initial analysis were discussed during a field tour with GBUAPCD on August 31, 2023. Potential issues were previewed, and LADWP discussed with GBUAPCD that this event had profound impacts on the OLDMP and would impact LADWP's ability to meet compliance in specific DCAs during the upcoming dust season. During the following weeks, LADWP and their consultants completed multiple additional reconnaissance efforts to investigate the flood damage. In total, damage was observed on 8,797 acres. Damage includes, but is not limited to, sedimentation; channeling; berm breaches; and buried and displaced laterals, whiplines, and risers. Repairs on damaged DCAs began immediately, including repairing minor berm erosion and breaches, repairing and realigning laterals and whiplines, installing riser extensions, cleaning and flushing sprinklers, and cleaning out culverts. To date, LADWP has repaired 6,613 acres of damage from Tropical Storm Hilary. Significant progress is underway to bring areas into compliance as expeditiously as possible. For the remaining areas, it is not possible to complete repairs prior to the start of the dust season. A detailed summary of the actions LADWP has taken to date is provided in Exhibit 3.

6. **Impacts to Petitioner: What would be the harm to the petitioner if the variance were not granted?**

   Without the requested variance, LADWP will be non-compliant as the result of an unprecedented storm that was outside the control of LADWP. LADWP is expending significant amounts of labor, effort, and funds towards these unanticipated repairs, and the variance will allow LADWP to complete the repairs necessary for the efficient running of the OLDMP.

   With or without the variance, the scope of work and schedule needed to address impacts from this natural disaster does not change. However, if the variance is not granted, LADWP could be subject to penalties for noncompliance, which would adversely impact its ratepayers for an event LADWP could neither anticipate nor prevent. Given the extraordinary flooding conditions that were beyond the reasonable control of LADWP, such penalties would be unfair and an unreasonable burden on LADWP ratepayers. LADWP is seeking to comply with all applicable regulations governing the Variance Areas as quickly as possible, and is committed to the expeditious repair of the facilities. Many of the costly repairs have already begun and the repair schedule would not be further accelerated through penalties (see additional details in Exhibit 3 describing the actions completed to date by LADWP).

7. **Impacts to Public: Discuss the advantages and disadvantages to the public, including nearby residences, resulting from requiring compliance or from granting a variance. Please describe if operations under the variance, if granted, would constitute a nuisance.**

   The entire area experienced a natural disaster in the form of an unprecedented flood event. The event created a scenario that could cause emissions from within and outside of the dust control areas. LADWP is working to mitigate the impacts to affected communities as quickly as possible. By performing the required repairs cooperatively with GBUAPCD through this variance, LADWP will be able to restore the damaged DCAs as quickly and efficiently as possible. Additionally, through monitoring of the Variance Areas (within the DCAs) and regular progress updates

throughout the variance period, a variance would also provide increased transparency to all residents about LADWP's repair efforts. During this time, the public will have limited access to the areas most damaged. LADWP intends to monitor emissions within DCAs included in this variance, pending feedback from GBUAPCD and the hearing board.

8. **Curtail Operations: Can the facility curtail operations in lieu of, or in addition to, obtaining a variance? Please explain**.

   The source of the pollutant emissions is windblown particulates. Operation of the OLDMP mitigates the emissions of windblown particulates. In this particular instance, the curtailment of operations would result in greater pollutant emissions and potential risk to public health. LADWP is obligated by GBUAPCD to operate the DCAs. The variance request does not include ceasing to mitigate windblown fugitive dust as much as reasonably possible. The variance request is for relief from any enforcement and penalties while the emergency repair work is completed.

9. **Excess Emissions: Please provide information estimating excess emissions, if any, that will occur during the variance period. If the variance will result in no excess emissions, please explain why there will be no excess emissions. Please provide attachments with the calculations used to estimate emissions. If you are unable to quantify emissions, you may provide a written description.**

   LADWP is committed to working with GBUAPCD staff to meet BACM compliance criteria and minimize emissions in the Variance Areas to the maximum extent feasible during the variance period. Throughout the variance period, LADWP will mitigate excess emissions to the extent feasible by minimizing the size of the areas requested in the variance, maintaining operations (where feasible), restoring operations as expeditiously as possible, and maintaining existing vegetation cover where possible. For the Shallow Flood DCAs, while the variance boundaries are reduced to the extent possible, the ponded portion of the DCA just outside of the requested variance area, will continue to be operated as shallow flood. LADWP will continue to make repairs while operating the DCAs to extent feasible. In addition, over 1,500 acres of other (T9, T10-1, T10-1a, T17-1, and T17-2S) dust control areas nearby that typically are not required to be in operation until later in the dust season, as part of Dynamic Water Management, are being operated early to help address potential excess emissions.

   LADWP evaluated the installation of temporary dust control measures to reduce excess emissions. However, temporary measures (e.g., sand fence and tillage) require significant time for permitting, lease agreements, and evaluation for impacts to habitat and cultural resources. Therefore, given the repair and discussion above regarding LADWP's measures to avoid excess emissions, these measures were not considered feasible for this variance petition.

10. **Mitigation and Monitoring: Describe the plan to mitigate excess emissions during the variance period to the maximum extent feasible, or why mitigations are not feasible. Please also include information on if it is possible to monitor or quantify emission levels from the equipment or activities during the variance period, and to make such records available to the District.**

    LADWP is committed to meeting BACM compliance criteria in the Variance Areas as expeditiously as possible, and during the period the variance is in effect, LADWP will mitigate excess emissions

to the extent feasible. This will include maintaining operations of Shallow Flood to the extent feasible and maintaining existing vegetation debris cover, which acts as a mulch layer that is firmly embedded into the soil surface, to protect portions of the DCAs from excess emissions. LADWP will also minimize disturbance to the DCAs during repairs to the Variance Areas to the extent feasible. For example, LADWP will traverse the DCAs on marked pathways and not disturb more surface than necessary to implement the needed repairs. Areas will be accessed from the nearest existing roadway where it is safe to travel. Bucket drop heights will be minimized when digging to uncover buried laterals. Material will be carefully placed as horizontally as possible to minimize the height of potential stockpiles and ultimately backfilled into the excavation and compacted to minimize erodible material/spoil piles on the surface.

LADWP plans to monitor the natural runoff sediment deposits in the affected areas. As a condition of the variance, LADWP intends to employ the following monitoring techniques: sand flux monitoring (SFM), meteorological monitoring, and visual monitoring. The SFM will be accomplished according to EPA Other Test Method 30. The number of SFM temporary locations will be determined per DCA and based on the total acreage requested in this variance (in collaboration with the GBUAPCD). Monitoring equipment will be removed and decommissioned when compliance is met.

11. Compliance Plan and Timeline: Include a detailed description of the plan to achieve compliance. Please specify steps and associated dates or time increments needed to achieve compliance.

Tropical Storm Hilary resulted in severe, widespread impacts to the OLDMP infrastructure and dust mitigation measures themselves. Repairs on damaged DCAs began immediately, including repairing minor berm erosion and breaches, repairing and realigning laterals and whiplines, installing riser extensions, cleaning and flushing sprinklers, and cleaning out culverts. Importantly, after initial repairs, interim operations will continue while long-term repairs occur. The repair and compliance schedules reflect the best available assumptions for completion of initial repairs.

A summary of the actions LADWP has taken to date and the compliance schedule is provided in Exhibit 3, Table 4. The final date for compliance for each DCA included in this variance request is shown in Exhibit 3. For the two variance areas (T13-1 and T5-3 Addition) where the final compliance date is one year or more after the anticipated date of the hearing, LADWP has developed a schedule of increments of progress, provided in Exhibit 3, Table 5. This schedule is consistent with the requirements in Rule 603 – Petitions for Variances and as defined by Rule 106. Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP may need to seek additional relief in collaboration with GBUAPCD.

12. Additional Outstanding Non-Compliance: Beyond non-compliance associated with this variance request, list any additional existing violations by the Petitioner of District rules, orders, permit conditions, and/or other regulations.

The standard governing the issuance of a variance—as set forth in California Health and Safety Code Section 42352 and District Rule 603—does not include whether the Petitioner is in non-compliance with any District rules, orders, permit conditions or other regulations that are not the subject of this variance petition. Section 42352, District Rule 603, and GBUAPCD's Variance Petition Form indicate that a variance must be granted if the following six specific conditions are met:

(1) That the petitioner for a variance is, or will be, in violation of any rule, regulation, or order of the GBUAPCD.

(2) That, due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in an arbitrary or unreasonable taking of property, the closing of a lawful business, or would impose an unreasonable burden upon an essential public service.

(3) That closing the facility would be without a corresponding benefit in reducing air contaminants.

(4) That the applicant has considered curtailing operations in lieu of obtaining a variance.

(5) That during the variance period, the applicant will reduce excess emissions to the maximum extent feasible.

(6) That during the period the variance is in effect, the applicant will monitor or otherwise quantify emission levels, and if requested will report these emission levels to GBUAPCD.

Each of these conditions is satisfied here, as set forth herein. To the extent GBUAPCD seeks this information as background, LADWP states that there is currently litigation pending between LADWP and GBUAPCD regarding the legality of Order 210701-06 that GBUAPCD issued in 2021, and the associated Notice to Comply No. 2001 and Notice of Violation No. 1008. LADWP contends that the Order is invalid and unenforceable because it purports to compel LADWP to construct a vegetation enhancement project in an area containing significant tribal cultural resources not only without the consent of affected Native American Tribes, but also using a method that has not been approved by USEPA as a BACM for PM_{10}.

13. Good Cause: Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances).

Tropical Storm Hilary occurred on August 20 and 21, 2023, less than 60 days prior to the start of the dust season and required compliance on October 16, 2023. LADWP immediately began assessing the damage, developing short-term and long-term repair plans, and facilitating those repair efforts. Since then, LADWP and GBUAPCD have maintained open and collaborative communication. LADWP provides regular updates to GBUAPCD regarding the damage assessment and repair progress. In coordination with GBUAPCD, the target date for submittal of this variance request was determined to be as close to the start of the dust season as possible. This allowed

LADWP time to complete repairs and reduce the extent of areas included in this variance request by 6,613 acres.

EXHIBIT 1. PORTIONS OF DUST CONTROL AREAS REQUESTED IN THIS VARIANCE

As described in the responses on the variance form, multiple Dust Control Areas (DCAs) may be out of compliance with the performance criteria, performance requirements, and monitoring requirements for BACM and Dynamic Water Management at the start of the dust season (Table1). Specifically portions of the 2003 and 2006 DCAs identified in Rule 433 are included in this variance request. The portions of these DCAs included in this variance request comprise a total of 1,246 acres (~2 square miles) or approximately 4% of the total OLDMP dust control area (Figure 1 and Figure 2). Notably, Tropical Storm Hilary damaged over 8,797 acres. Due to LADWP's aggressive repair schedule, LADWP was able to reduce the extent of areas included in this variance request by 6,613 acres. A detailed summary of the damages and repairs completed to date is provided in Exhibit 3.

For the vast majority of the Variance Areas, LADWP is requesting a variance for one dust season (October 16, 2023, through June 30, 2024) or less to allow adequate time for repairs. Due to extensive damage in T5-3 Addition and T13-1, LADWP is requesting a variance for two dust seasons (October 16, 2023, through June 30, 2024, and October 16, 2024, through June 30, 2025). The requested variance periods are shown in Table 1. Information on the repair status, anticipated repair schedule and compliance dates are provided in Exhibit 3, Table 4. For the two variance areas where the final compliance date is one year or more after the anticipated date of the hearing, Exhibit 3, Table 5 includes a schedule of increments of progress consistent with the requirements in Rule 603 (Petitions for Variances) and as defined by Rule 106. Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP may need to seek additional relief in collaboration with GBUAPCD.

Table 1. Summary of Dust Control Areas Included in this Variance Request

DCA Area & Subarea	BACM	Variance Acreage	Requested Variance Period [1]
2003 Dust Control Area			
T05[2]	Managed Vegetation	7	October 16, 2023, through June 30, 2024
T06[2]	Managed Vegetation	60	October 16, 2023, through June 30, 2024
T07[2]	Managed Vegetation	121	October 16, 2023, through June 30, 2024
T08[2]	Managed Vegetation	127	October 16, 2023, through June 30, 2024
T05-2	Shallow Flood	15	October 16, 2023, through February 1, 2024
T05-3	Shallow Flood	125	October 16, 2023, through February 1, 2024
T13-1	Shallow Flood	457	October 16, 2023, through June 30, 2024 & October 16, 2024, through June 30, 2025
2006 Dust Control Area			
T5-3 Addition	Shallow Flood	78	October 16, 2023, through June 30, 2024 & October 16, 2024, through June 30, 2025
T17-1	Shallow Flood	255	October 16, 2023, through December 31, 2023
Total		**1,246**	

[1] If challenges outside the control of LADWP impact the ability of LADWP to re-establish compliance within the variance periods in this table, LADWP will seek additional relief in collaboration with GBUAPCD.
[2] Acreage based on information available at the time of application submission. The variance boundary within the Managed Vegetation areas will be refined as additional information becomes available.

Figure 1. Current Status Map of DCAs Damaged by Tropical Storm Hilary

This figure provides a summary status map of the Variance Areas, TwB2 maintenance areas, and DCAs that have been repaired and are operable.

Damaged: Repaired and Operable	Acres: 6613
T03NE: Brine	84
T03SE ADDITION	77
T03SE: Brine	38
T04	481
T09	285
T10-1	445
T10-1a	37
T13-1	356
T17-1	404
T17-2N	324
T17-2S	274
T23E	597
T24	1,085
T25	1,056
T27	1,069
Damaged: TWB2 Maintenance (re-till, berm maintenance)	**Acres: 938**
T03NE : TWB2	55
T03SE: TWB2	276
T03SW: TWB2	383
T16: TWB2	225
Damaged: Variance Requested	**Acres: 1246**
T05: Veg	7
T06: Veg	60
T07: Veg	121
T08: Veg	127
T05-2	15
T05-3	125
T05-3 ADDITION	78
T13-1	457
T17-1	255

Summary Statistics	Acres
At Time of Variance Submittal:	
Total Acres of OLDMP Dust Control	30,103
Total Acres Damaged	8,797
Total Acres Repaired and Operational	6,613
Total Acres Variance Requested	1,246
Percent of Damaged Area (variance / damaged)	14%
Percent of All Dust Control (variance / total)	4%

*Acreage based on information available at the time of application submission. The variance boundary within the Managed Vegetation areas will be refined as additional information becomes available.

Legend

Damaged Dust Control Areas (Status)

- Damaged: Repaired and Operable
- Damaged: TWB2 Maintenance
- Damaged: Variance Requested
- Dust Control Areas

0 0.75 1.5 3 Miles

N

Owens Lake Dust Mitigation Program

Hurricane Hilary - Damage Dust Control Areas and Status

LA DWP Los Angeles Department of Water & Power

FORMATION ENVIRONMENTAL

Figure 2. Portions of Dust Control Areas (DCAs) Requested in this Variance

This figure provides a summary map of the Variance Areas.

EXHIBIT 2. SUMMARY OF STORM EVENT AND RESPONSES BY OTHER PUBLIC AGENCIES

SUMMARY OF STORM EVENT MAGNITUDE

The watersheds affected by Tropical Storm Hilary are displayed in Figure 3. The magnitude of Tropical Storm Hilary was evaluated using precipitation frequency analysis and peak flow analysis. Each is described below.

Precipitation Frequency Classification/Storm Analysis: Multiple precipitation data sources were utilized to characterize Tropical Storm Hilary. All of these data sources demonstrate that Tropical Storm Hilary was a multi-day, widespread, large magnitude precipitation event with 24-hour precipitation totals between 50 to 100-year return intervals (using NOAA Atlas 14 [https://hdsc.nws.noaa.gov/pfds/]). Specific data sources analyzed, and corresponding results include:

- **Measurements**: Measured precipitation was analyzed from 12 nearby weather stations in the region: California Irrigation Management Information System (CIMIS), Great Basin Unified Air Pollution Control District (GBUAPCD), and Remote Automatic Weather Stations (RAWS). Precipitation estimates from these stations were then compared to the National Weather Service (NWS) and NOAA authoritative precipitation frequency analysis products (NOAA Atlas 14 data tables) to estimate the recurrence interval for the storm.

  The 24-hour precipitation total from the 12 weather stations around Owens Lake range from 2.25 to 5.39 inches (Table 2). Using the 24-hour duration precipitation event tables for each location, Tropical Storm Hilary was estimated to be a 50 to 100-year recurrence interval storm event. As shown in Table 2, the 24-hour precipitation totals had a 50 to 100-year recurrence interval for most stations around Owens Lake. Likewise, a RAWS station at Hunter Mountain, which is located about 25 miles east of Owens Lake, recorded 5.39 inches of 24-hour precipitation total which is equivalent to 100 to 200-year return interval precipitation magnitude for the site. In other words, a precipitation event of this magnitude has only a 1% chance of occurring in any given year.

Table 2. Measured Precipitation Around Owens Lake For Tropical Storm Hilary

Station	Network	Event Total (in)	24hrs Total (in)	Return Period 24 hrs (years)	Latitude	Longitude
OL North	CIMIS	3.16	2.25	10 to 25	36.49	-117.92
OL South	CIMIS	3.73	3.69	50 to 100	36.36	-117.94
Keeler	GBUAPCD	4.73	4.19	50 to 100	36.49	-117.88
Lone Pine	GBUAPCD	3.81	3.28	25 to 50	36.61	-118.05
Mill	GBUAPCD	4.82	4.48	50 to 100	36.46	-117.85
Shell Cut	GBUAPCD	4.38	4.29	50 to 100	36.37	-117.90
Stanley	GBUAPCD	4.47	4.45	50 to 100	36.36	-118.01
Bear Peak	RAWS	5.16	4.93	10 to 25	35.88	-118.05
Blackrock	RAWS	3	2.97	25 to 50	36.09	-118.26
Five Mile	RAWS	3.63	3.44	25 to 50	35.87	-117.92
Hunter Mountain	RAWS	5.89	5.39	100 to 200	36.56	-117.47
Oak Creek	RAWS	3.56	2.78	5 to 10	36.84	-118.27

- **Measured and Modeled:** Estimated precipitation from the Weather Research and Forecasting Model (WRF) was developed for the region. This model was bias corrected using measured precipitation totals from the stations discussed above. WRF precipitation totals were then compared to the National Weather Service (NWS) and NOAA authoritative precipitation frequency analysis products (NOAA Atlas 14 data tables) to estimate the recurrence interval for the storm.

  Consistent with the precipitation measurement results, WRF 24-hour estimated precipitation totals demonstrated that significant precipitation fell directly on the DCAs (3 to 4 inches) and in the adjacent watersheds around Owens Lake (5+ inches) (Figure 3). This means that a 25 to 50-year recurrence interval precipitation event occurred directly on the DCAs, while a 50 to 100-year recurrence interval event occurred on several watersheds east of the Owens Lakebed (which drain to the lake) (Figure 4).

Peak Storm Flow Analysis: None of the alluvial fan washes that drain into Owens Lake are gaged. As a result, no actual records of the flow magnitude and duration exist. Therefore, to characterize peak flow two methods were used:

- **Measurement of channel and high-water marks in the field combined with hydraulic modeling:** Terrestrial LiDAR topographic data was collected along with field indicators of high-water marks in the Centennial Wash on 08/24/2023 (Figure 5). A 2D hydraulic model was developed to estimate the discharge corresponding to the field observed high water marks. This method results in peak flow discharge estimates ranging from 8,000 to 11,000 cfs. These estimates are within the 50-year (6,990 cfs) to 100-year (11,900 cfs) design events based on the CalTrans Desert Hydrology Regional Regression Equation (Mojave Desert Region).

- **WRF-Hydro hydrologic model**: The Weather Research and Forecasting Hydrological Model (WRF-Hydro), an open-source community supported model developed by the National Center for Atmospheric Research (NCAR), was used to estimate the peak flow based on WRF simulated and bias corrected weather forcing datasets. WRF-Hydro is used for a wide range of applications, including flash flood prediction, regional hydroclimate impacts assessment, seasonal forecasting of water resources, and land-atmosphere coupling studies (NCAR, 2023). WRF-HYDRO was adopted by the NWS in 2016 as the operational NOAA National Water Model (NWM) which continuously forecasts hydrologic risks across the Continental United States (NOAA, 2023).

  WRF-hydro provides a storm hydrograph covering the whole event. In addition, it also provides flow estimates for other sub-basins as shown in Figure 5. For larger sub-basins in the region, WRF-Hydro simulates peak flows within the 50 to 100-year return period events based on the CalTrans Regional Regression equation. Results from the WRF-HYDRO modeling shows a peak flow of 11,270 cfs, comparable to the estimates based on field measurements and hydraulic modeling (Figure 5).

  Note that during Tropical Storm Kay (Sept 13, 2022), WRF hydro simulated a flash flood with peak flow of 6,800 cfs in response to a high-intensity rainfall that occurred for only few hours. The flow peaked and receded faster compared to the longer duration flows that occurred during the Tropical

Storm Hillary event. This also means a significantly larger amount of water flowed into the dust control areas during the Tropical Storm Hillary event compared to the Tropical Storm Kay event (Figure 6).

All analyses for this storm clearly demonstrate the unprecedented nature and magnitude of Tropical Storm Hilary. When compared to Tropical Storm Kay from 2022, Tropical Storm Hilary was a much larger, multi-day, widespread event, impacting the DCAs directly at Owens Lake (e.g., direct rainfall) as well as the 27 watersheds around Owens Lake and bringing mud and debris into multiple DCAs. In comparison, Tropical Storm Kay in 2022 produced a 2-hour event, impacting one watershed and causing damage in a few DCAs. The magnitude of the Tropical Storm Hilary event is well beyond the reasonable control of the LADWP.

OTHER PUBLIC AGENCY RESPONSE TO THE STORM EVENT

Given the widespread damage caused by Tropical Storm Hilary, many other public agencies responded to educate the public regarding safety from flash flooding and damaged infrastructure. The following is a brief recap of responses from the State of California, Inyo County, Caltrans, and the National Park Service. In addition, a summary of LADWP response to damage outside of the OLDMP is provided. Attachment 1 provides additional supporting information.

- **State of California**. The Governor of California declared an emergency in 12 counties impacted by Tropical Storm Hilary, including Inyo County, to support the storm response and recovery efforts.[1]
- **Inyo County.** Inyo County published a series of press releases warning the public of the imminent flash flood threat and urged residents to take precautions to protect themselves and their property.[2] As described in the August 18, 2023, press release, the National Weather Service (NWS) categorized Inyo County's risk level as "extreme," noting the NWS cannot recall ever having an "extreme" flash flooding level before. A local emergency was declared on August 21, 2023. Inyo County opened an evacuation center and made sandbags available to residents. After the storm, Inyo County noted the destruction was considerable in scale and unprecedented in the County's history (August 25, 2023, press release). Inyo County is continuing to collect damage assessments from residents to assess the availability of assistance from state and federal management agencies.
- **Caltrans**. Caltrans issued numerous traffic advisories for road closures, including State Route 190 and State Route 136 (Figure 7), due to damage from debris and flooding, severe undercutting, rockslides, and washouts. Five state highways and more than two dozen county roads sustained significant damage in the storm and remain closed. Maintenance crews are actively working to reopen the highways in both Inyo and Kern counties. State Route 190 from Olancha to State Route 136 is still closed and will remain closed beyond October 15 due to extensive damage in this area.
- **Death Valley National Park**. Death Valley National Park also published a series of press releases warning of major flooding and anticipated damage to roadways that would make it impossible to enter or exit the park, ultimately closing the park after receiving a year's worth of precipitation in one

[1] https://www.gov.ca.gov/wp-content/uploads/2023/08/8.19.23-Emergency-Proclamation.pdf
[2] https://ready.inyocounty.us/pages/hurricane-hilary

day.[3] The park itself remains closed and may start to reopen October 15. The closure is primarily due to road damage, including debris, undercutting, and shoulder loss.

- **LADWP**. In addition to the significant resources engaged to address damage at OLDMP, LADWP utilized available resources to address damage caused by extreme flooding and mud flow into creeks, canals, and the Los Angeles Aqueduct (LAA). High flows in creeks, already swollen from unprecedented snowpack runoff, destroyed or damaged most of LADWP diversion and flow measurement structures between the towns of Big Pine and Olancha. LADWP personnel are continuing to clear obstructions from local waterways, including the Los Angeles Aqueduct (LAA), and redirect water back to proper channels.

[3] https://www.nps.gov/deva/learn/nature/hilary.htm

Figure 3. Precipitation Estimates

As shown, Tropical Storm Hilary was a widespread, high intensity, multi-day precipitation event.

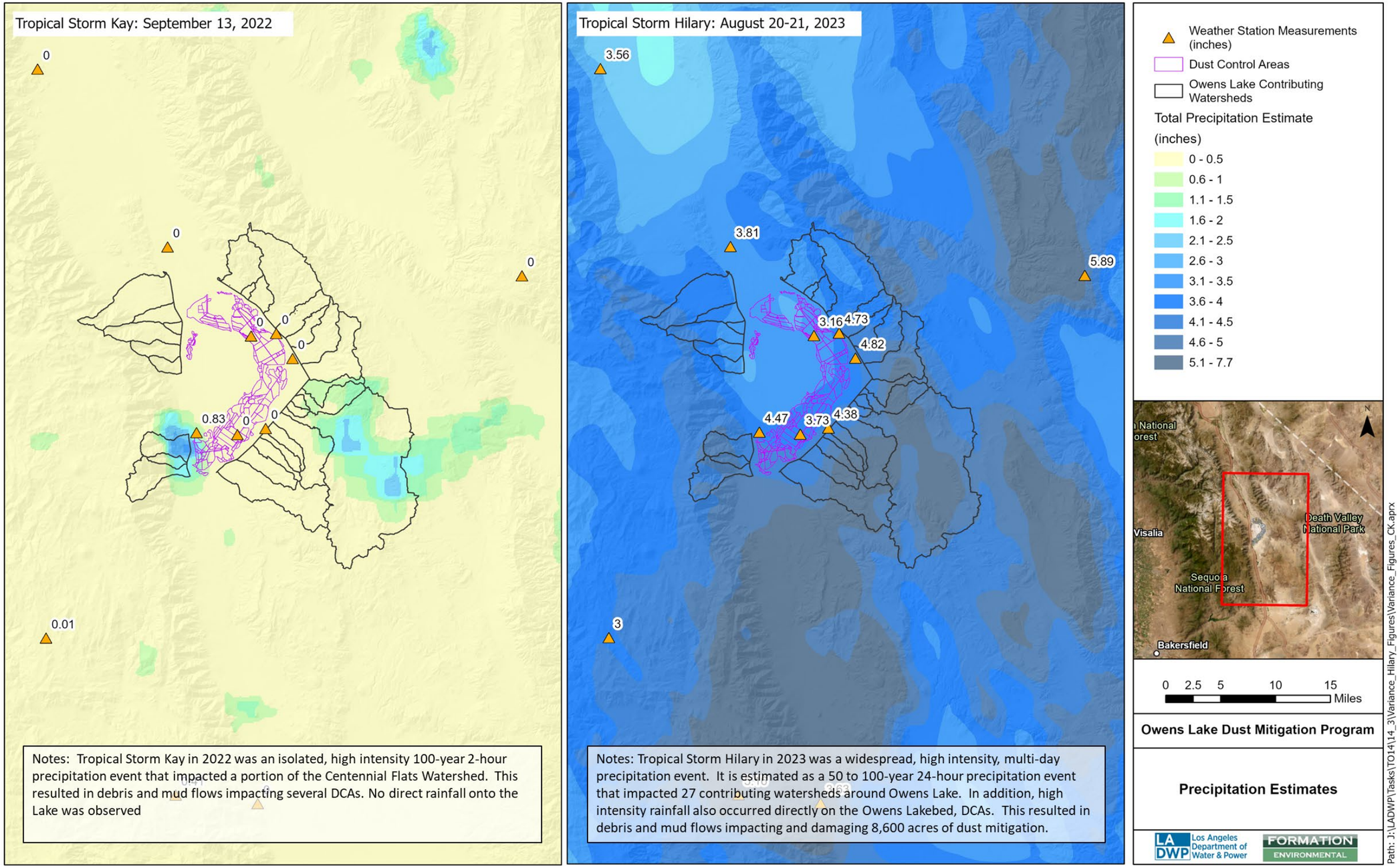


Figure 4. Precipitation and Flow Recurrence Intervals

WRF estimated precipitation and simulated flows resulted in several watersheds experiencing 50 to 100 year events along the eastern side of Owens Lake.

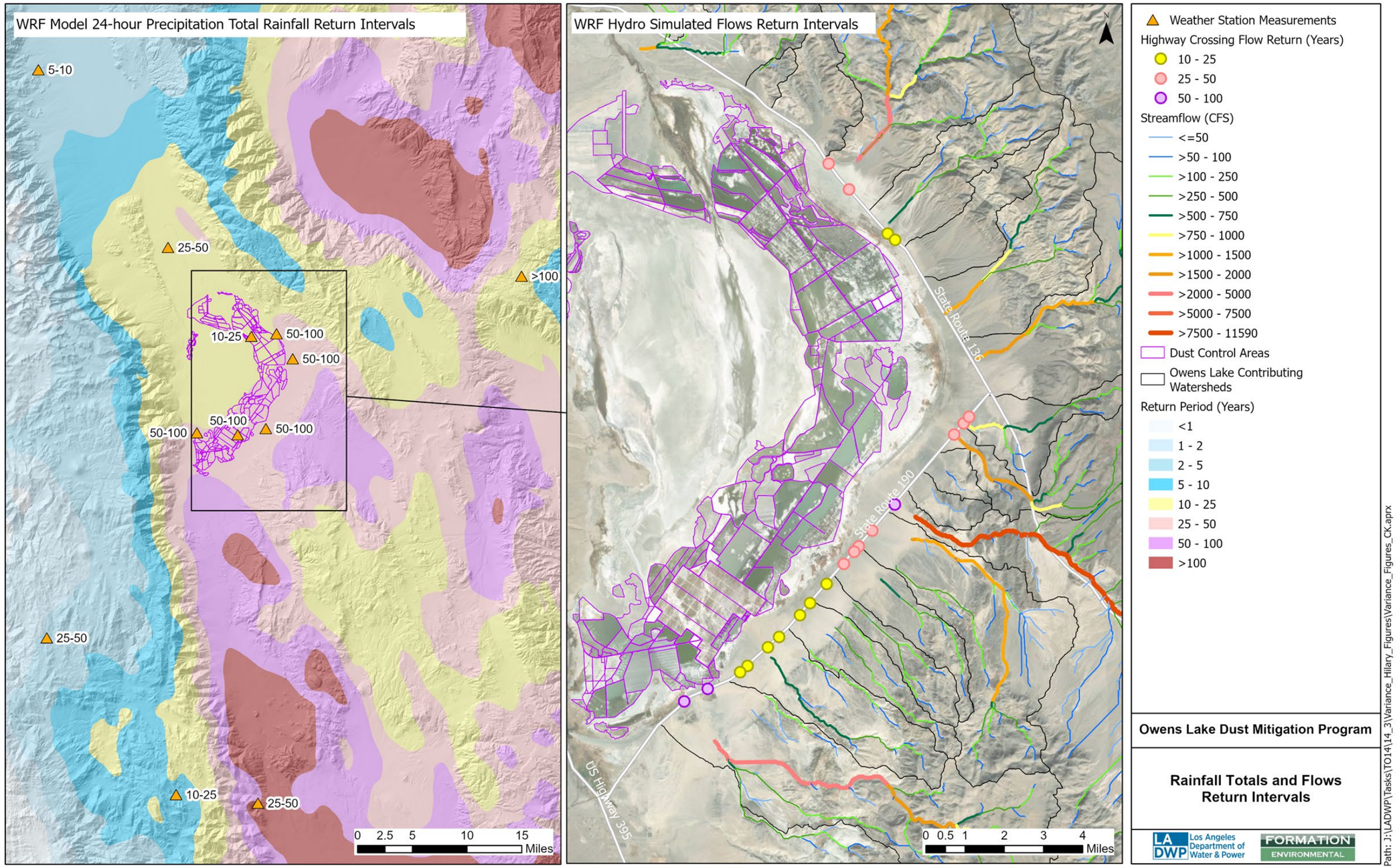
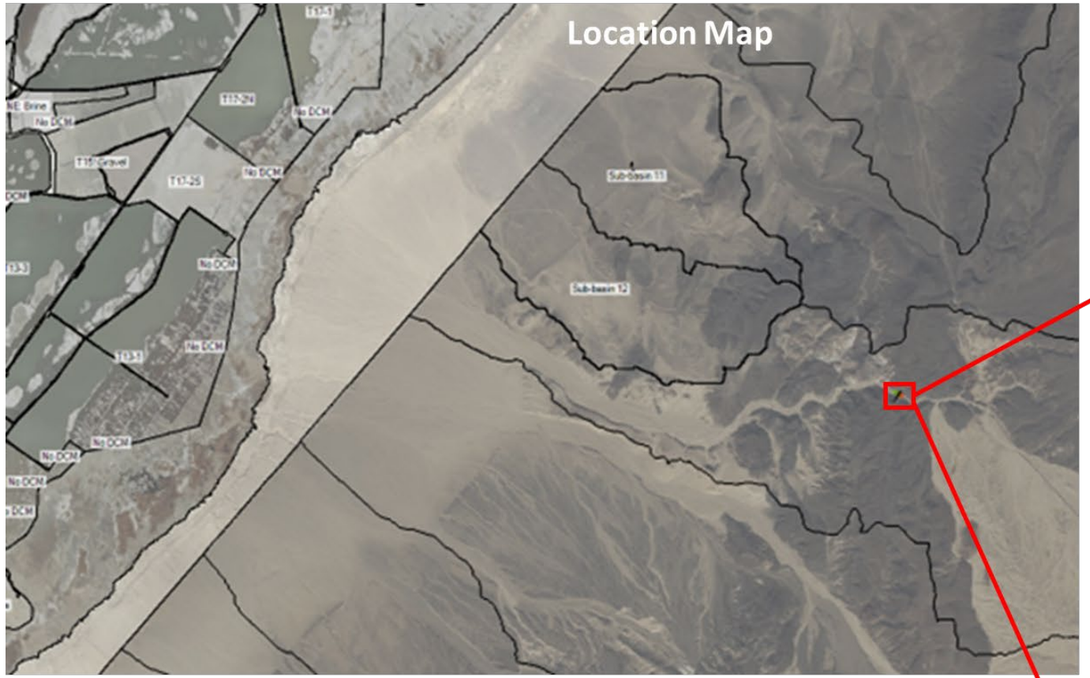
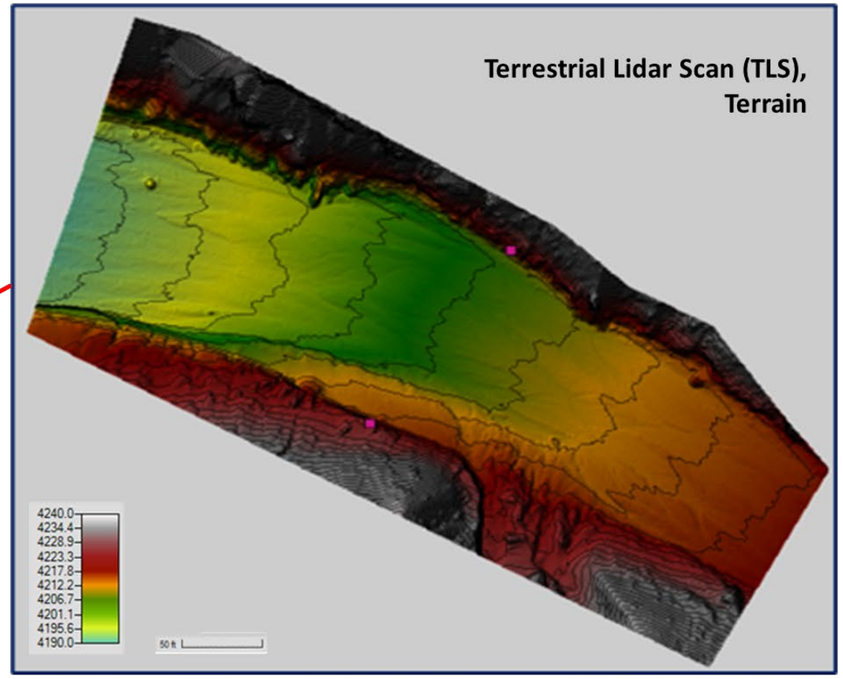
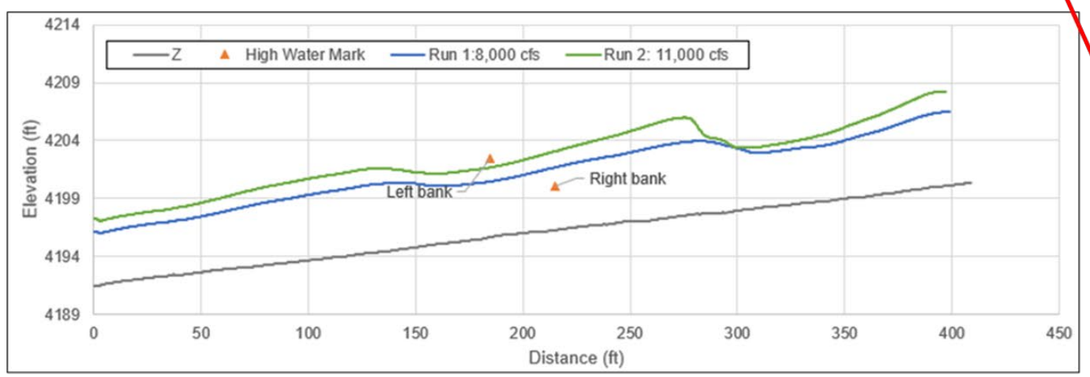


Figure 5. Peak Discharge Estimate from Terrestrial LiDAR Scan For Centennial Flat Watershed

Terrestrial lidar topographic data was collected along with field indicators of high water in the location below. A 2D hydraulic model was developed to estimate the discharge corresponding to high water marks. Model output ranged from 8,000 to 11,000 CFS.







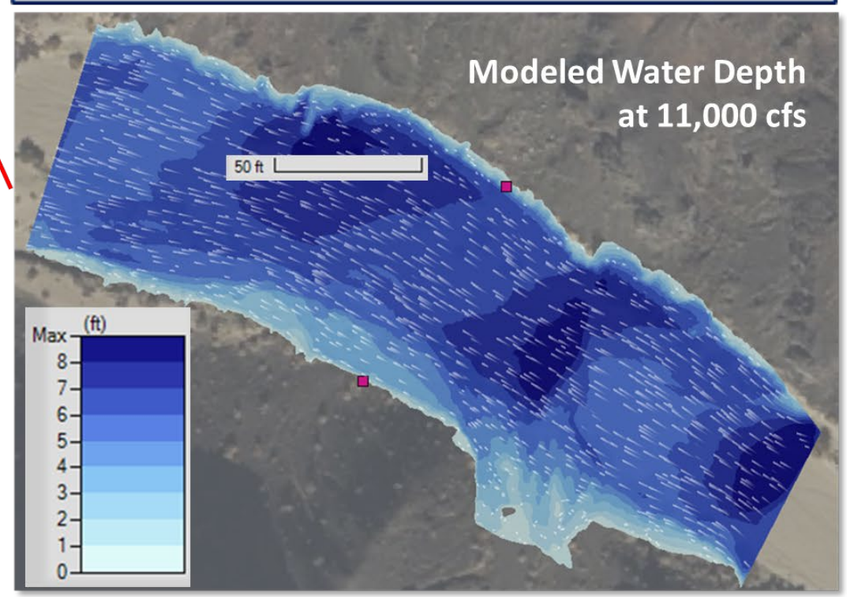


Figure 6. Hydrographs of Storm Events on September 13, 2022 (Tropical Storm Kay) and August 20/21, 2023 (Tropical Storm Hilary)

The peak flow from Tropical Storm Hilary was over 11,000 cfs, whereas the peak flow from Tropical Storm Kay was less than 7,000 cfs. Streamflow from Tropical Storm Hilary peaked longer and for more watersheds compared to Tropical Storm Kay, resulting in larger flows into the OLDMP.

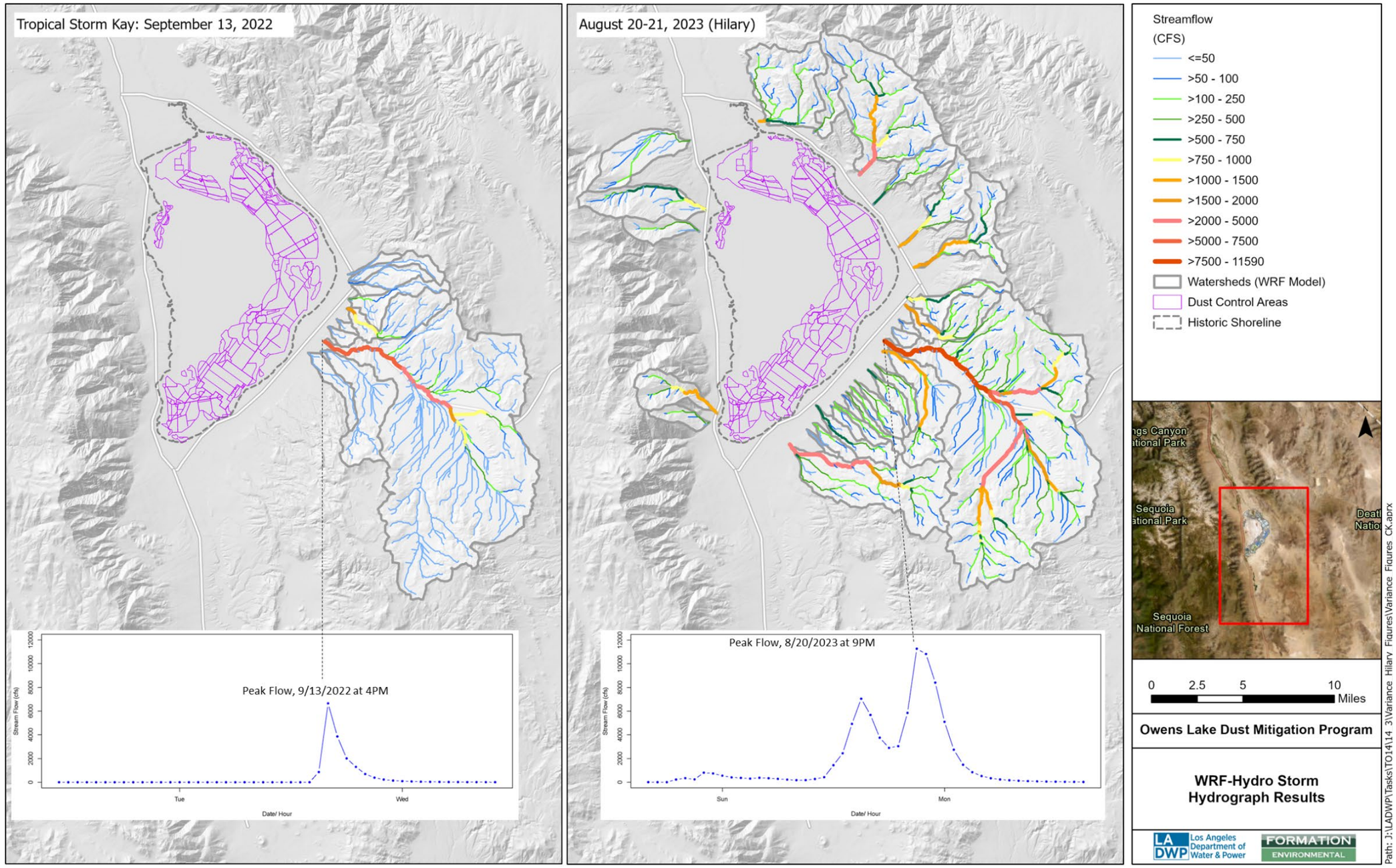


Figure 7. Damage to Highway 136

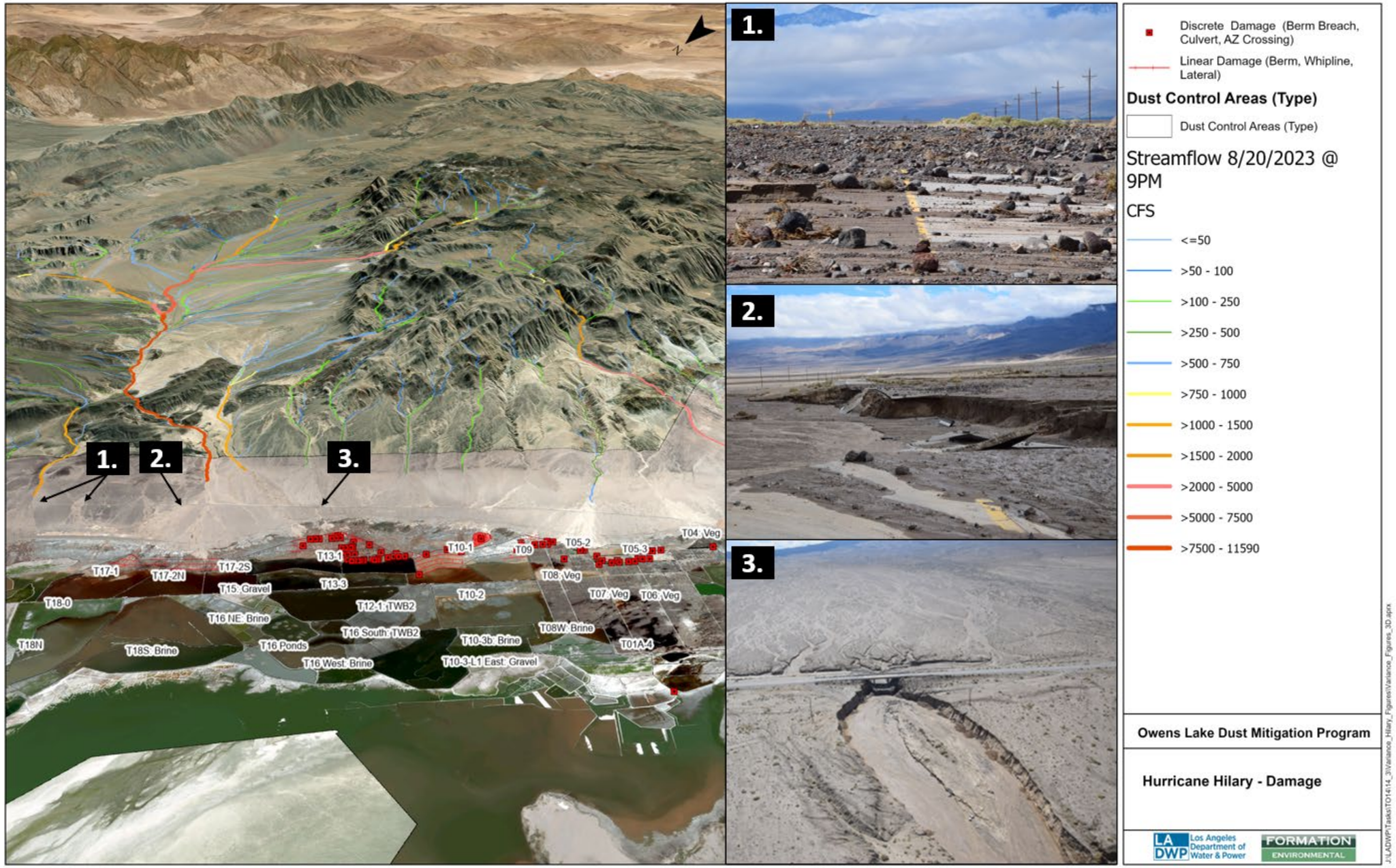


EXHIBIT 3. SUMMARY OF DAMAGE ASSESSMENT, REPAIR PLANS, AND COMPLIANCE SCHEDULES

ACTIVITIES COMPLETED TO ADDRESS DAMAGE FROM TROPICAL STORM KAY AND PREPARE FOR 2022/2023 EMERGENCY HIGH RUNOFF

Over the last 12 months, LADWP has been responding to emergency conditions from three unprecedented (~100 year) storm events: 1.) Tropical Storm Kay (2022); 2.) Emergency Runoff Measures from the 305% of normal runoff during the 2022/2023 water year; and 3.) Tropical Storm Hilary. A brief summary of the aggressive and proactive responses to address storm impacts prior to Tropical Storm Hilary are described below:

Tropical Storm Kay – 2022 Activities: As a result of Tropical Storm Kay in September 2022, T13-1 was damaged and slated for long-term repairs. Specifically, the T13-1N Project will install 17,685 linear feet (LF) of new water control berms to address the erosion effects from flood damage on shallow flood water distribution. The purpose is to maintain shallow ponded water impounded behind the berms to counteract water channeling and improve wetted coverage for dust control. The berms are being constructed of imported fill material compacted in-place. Prior to Tropical Storm Hilary, crews had completed approximately 6,643 LF of new berm construction. Figure illustrates the completed work prior to the storm.

Figure 8. Example of Work Completed at T13-1 Prior to Tropical Storm Hilary

2022/2023 Emergency Runoff Measures:

Precipitation in Inyo and Mono counties during January through April 2023, exceeded any amount since LADWP began keeping records, and the resulting snowpack reached 305% of the long-term April 1st average. Multiple atmospheric river systems that inundated California established conditions that would result in catastrophic flooding and place the safety of the public, property, infrastructure, and the environment in extreme peril. The compounding effects of the storm systems damaged State, County, and City infrastructure and necessitated proclaiming a local emergency at the Federal, State, and Local levels.

It was anticipated the runoff from the record setting snowpack would exceed the capacity of the Los Angeles Aqueduct (LAA), downstream reservoirs, spreading basins, and eventually flow into the terminus Owens Lake. It was forecasted that up to 200,000 acre-feet of excess runoff would make its way onto the Owens Lake Brine Pool. It was projected that the Owens Lake water surface elevation would rise by up to 7 feet and inundate approximately 10 to 20 square miles of the existing dust mitigation measures at Owens Lake.

Since March of 2023, LADWP has worked tirelessly to maximize aqueduct flows and water spreading throughout the Owens Valley, strategically manage reservoir levels, perform expeditious repairs of the aqueduct, and implement protective measures for dust control areas at Owens Lake, all while performing day to day water operations for water transmission, dam safety, prioritizing human health & safety, and maintaining its environmental mitigation responsibilities. Impacts to the overall aqueduct system and Owens Lake were minimal. Due to these relentless efforts, only 145,000 acre-feet (of the projected 200,000 acre-feet) of runoff made its way to the Owens Lake brine pool (as of October 2, 2023), resulting in a water surface elevation of 3,556.7 ft above sea level, a 3.7 ft increase since March.

Although the peak of the run-off season occurred in July and August, excess runoff continues to threaten portions of LADWP's dust mitigation infrastructure. In addition, as evaporation rates decrease with cooling temperatures, the Owens Lake brine pool will enter this winter and the following spring run-off season at a historic high. Additional storm events and run-off will continue to pose a threat next year. If these threats materialize and impact LADWP’s ability to meet its repair and compliance schedules, LADWP will seek additional remedies, in collaboration with GBUAPCD.

Across the Owens Valley, LADWP took the following steps to minimize impacts from these unprecedented flows:

- Diverting creek and water conveyance flows as necessary to prevent damage.
- Cleaning, repairing, and rebuilding water delivery and conveyance facilities as needed, including cleaning ditches that receive runoff.
- Repairing diversion structures damaged during heavy rainfall earlier this year to ready spreading grounds to receive the runoff.
- Rebuilding spreading grounds to capture overflow.

- Constructing protective measures at and near Owens Lake, as well as along the Aqueduct to manage the flow of water into Owens Lake.

- Armoring facilities, including the Lower Owens River pumpback station, berm roads, pipes, and ancillary facilities.

- Repairing, replacing, and remediating damage to the LAA and dust control facilities in a strategic and expedited manner that incorporates permanent flood resilience components in order to maintain compliance with air quality regulations in the Owens Valley Planning Area. Critical dust control infrastructure with the highest risk of being impacted by flood water were prioritized.

- Repairing and restoring damaged patrol and access roads and associated drainage infrastructure.

- Detailed daily monitoring of the Owens Lake brine pool.

LADWP has aggressively implemented extensive measures specifically at Owens Lake to protect dust control measures and associated infrastructure at a cost of up to $42,000,000. A brief description of these activities is provided below:

- **Armoring of Existing Berms:** Existing exterior berms facing Owens Lake were armored with Class 1 riprap to protect against the erosion and damage associated with rising water levels and wave action in the Owens Lake brine pool. This work consisted of installing nonwoven geotextile on existing berm slopes and then placing a 16-inch-thick layer of Class 1 riprap on top of the geotextile. Riprap armoring covered the full berm slope lengths and extended an additional 2.5 feet into the playa to provide added protection of the berm toe. This included approximately 79,200 ft (15 miles) of berms in: T11, T16, T18S, T23-5, T25S, T25N, T27S, T27addition, T36-2, T36-3, T37-2a, T37-2b, T37-2c, T37-2d, T1A-4, T1A-4 addition. An example of berm armoring activities is shown in Figure 9. This effort required approximately 150,000 tons of rip rap to be delivered and installed. This required approximately 10,000 haul truck trips.

- **Raising of Existing Berms:** Four existing exterior berms (T27S, T27 Addition, T37-2a, and T1A-4) along the edge of the Owens Lake brine pool were raised to project brine pool water surface elevation in order to improve flood protection of the DCAs and associated infrastructure. Berms were raised to specific targets based on the hydrologic modeling and site-specific constraints. This work consisted of placing woven geotextile or geogrid on existing berm surfaces, placing fill material and compacting it to raise the elevation of the existing berms, and placing riprap armoring on newly constructed berm slopes.

- **Bridges and Road Repair:** To facilitate berm repairs, some of the roads planned to be used for haul routes needed repair work. LADWP worked to optimize haul routes and identify needed repairs; road repairs requiring fabric were completed before armoring the adjacent berms. Additionally, three permanent bridge crossings were installed on Mainline Road over the fiberglass mainline pipe to protect it from the weight of loaded haul trucks.

- **Construction of New Berms:** New berms were constructed at the T27 pump station and at T1A-4 Addition to protect existing infrastructure and to comply with dust control regulations in anticipation of raising water levels in Owens Lake. New T1A-4 Addition berms currently have brine pool water against them. This work required import of approximately 50,000 tons of road fill material.

- **Berm Culverts:** Several new sets of culverts were installed at T27S, T29-4, T36-2, T36-3, T36-3 Addition, and T37 Access Road. These culverts provide the option of equalizing hydrostatic pressure caused by the brine pool on both sides of the affected berms.

- **Submain Protection**: LADWP protected three 18-inch HDPE submain pipes along an 825-ft stretch in T37-2a where the pipes are exposed to the elements, and are at risk of being washed away. The pipes were protected with plastic liner and sandbags. This work required 2,000 sandbags and 25,000 sq-ft of plastic liner.

- **Power Line Access Road Repair and Extension**: Portions of the powerline access road near the Owens River delta were washed away during peak runoff. LADWP expeditiously performed repairs and extended the berm to prevent flows from heading west toward the Phase 8 gravel.

- **T37-2 Access Road Repair:** Excessive runoff flows from Carrol Creek washed away portions of the T37-2 access road which required immediate repair.

- **Asset Protection:** Critical assets vulnerable to high runoff and brine pool conditions were identified by LADWP through the use of LiDAR. Critical assets included pump stations, control valves, and other mechanical infrastructure (assets) associated with the DCAs located around the lake (Figure 10). It was determined that 12 assets were below projected brine pool elevation and therefore vulnerable to potential flooding. For those locations, LADWP implemented temporary flood barricades with portable pumps. Depending on the projected depth of flooding, these locations were barricaded with concrete k-rails (lower flood elevations) or sand-filled super sacks (higher flood elevations), which were covered with a waterproof liner that was secured in place with small sandbags and adhesive at liner joints. This effort required approximately 15,000 sandbags, 100 k-rails, and 35,000 square feet of plastic liner.

Outside of these activities, LADWP continues to actively monitor and manage high flows and high brine pools levels. This is expected to continue through the 2023/2024 water year.

Figure 9. Example of Work Activities at T11 Berm Road Armoring

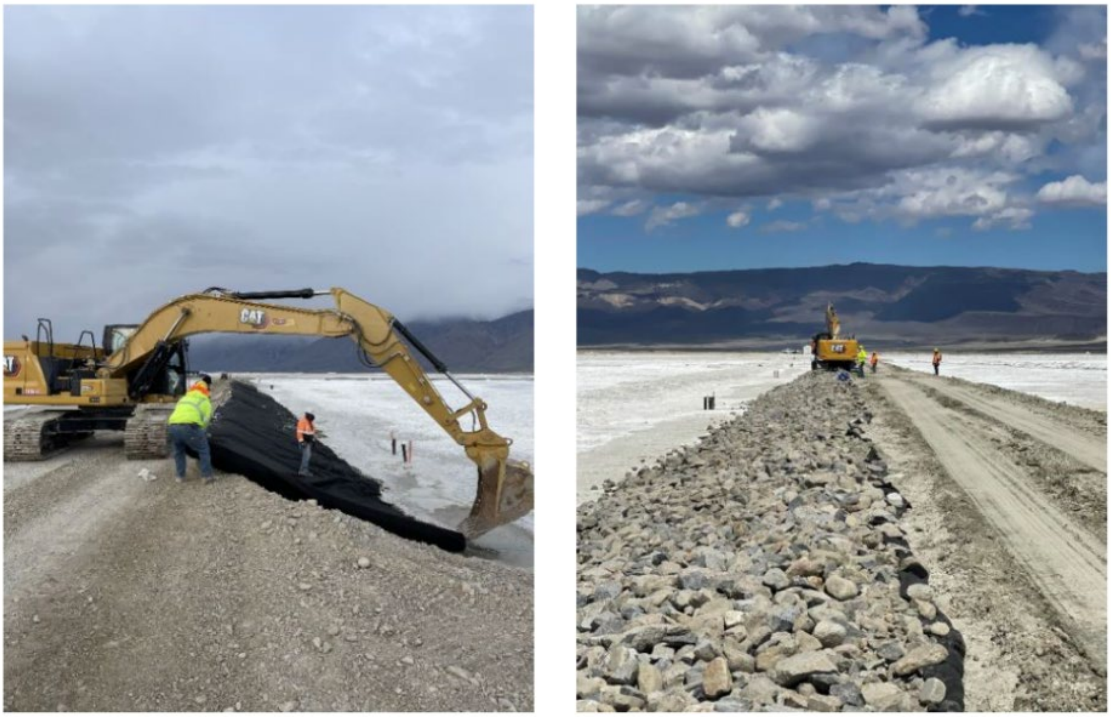


Figure 10. Example of Asset Protection (DMU) at T1A-4

ACTIVITIES COMPLETED TO ASSESS DAMAGE FROM TROPICAL STORM HILARY

As described in the responses on the variance form, LADWP's response and planning for assessment and repair of damaged facilitates has been swift, significant, and comprehensive. Beginning on August 21, 2023, LADWP conducted numerous field assessments, data collection efforts, and field reconnaissance events to assess damage and develop repair plans, including the use of on the ground surveys, drones, helicopter patrols, and satellite imagery. Low level flights were completed to capture high resolution pictures and to view specific infrastructure components. In addition, topographic data from a Light Detection and Ranging (LiDAR) system was acquired and is being processed.

These data will be used to inform repair design by providing new high resolution topographic data after damage from Tropical Storm Hilary. Low level flight data collected during numerous field reconnaissance efforts were analyzed by LADWP staff, operations employees, and consultants. The results of the initial analysis were discussed during a field tour with GBUAPCD on August 31, 2023. Potential issues were previewed, and LADWP discussed with GBUAPCD that this event had profound impacts on the OLDMP and would impact LADWP's ability to meet compliance in specific DCAs during the upcoming dust season. During the following weeks, LADWP and their consultants completed multiple additional reconnaissance efforts to investigate the flood damage. LADWP is continuing to develop repair plans, including work planning for prioritization, resource scheduling, implementation of initial repairs, design of long-term repairs, permitting, and landowner approvals. An overall summary of the actions LADWP has taken to-date is provided in Figure 11.

DAMAGE TO DUST CONTROL FACILITIES, REPAIR PLANS, AND COMPLIANCE SCHEDULES

Tropical Storm Hilary resulted in severe, widespread impacts to the OLDMP infrastructure and dust mitigation measures themselves. In Managed Vegetation areas, damage is primarily due to flooding and sedimentation. The full extent of the damage to these areas will not be known until the spring growing season. These areas may experience a prolonged time period to reach compliance as the vegetation was significantly damaged and more than one growing season may be required to meet compliance. In Shallow Flood areas, damage is primarily due to berm breaches; buried/displaced whiplines, laterals, and risers; new channeling and deposition; and plugged tailwater pump intakes. In addition, large amounts of channelization and sediment deposits have fundamentally changed the landscape in several DCAs, creating a hurdle to meeting Shallow Flood BACM compliance. Damage to each DCA is illustrated in Figure 12 through Figure 19.

Repairs on damaged DCAs began immediately, including repairing minor berm erosion and breaches, repairing and realigning laterals and whiplines, installing riser extensions, cleaning and flushing sprinklers, and cleaning out culverts. To date, LADWP has repaired 6,613 acres of damage. For the remaining areas, LADWP is continuing to plan for and implement repairs. Table 3 provides a detailed summary of the damage assessment and initial repairs for DCAs already repaired by LADWP (i.e., not included in this variance request). For the DCAs included in this variance request, Table 4 provides a description of the damage, initial repairs, initial repair schedule, long-term repairs, compliance date, and proposed mitigation measures to address concerns regarding potential dust emissions. A general overview of the damage is provided below:

Shallow Flood: In Shallow Flood areas, the general damage and repair plans include:

- **Berm Breaches and Berm/Road Repairs:** Over 250+ berm breaches occurred because of Tropical Storm Hilary (Figure 12 through Figure 19). In several places, berms were not completely breached, but were eroded to the point of near failure and require repair. In other instances, pushup berms will need to be improved in order to reach breaches within the middle of DCAs. Berm and road repairs generally include the following:

    - Raise Existing Roads: In two areas, it is anticipated that existing roads will need to be raised, including roughly 4,370 linear feet raised by up to 1 foot.

    - New Roads / Berms: It is anticipated that up to 8,200 linear feet of new roads / berms will need to be built, replacing existing features damaged by Tropical Storm Hilary.

    - New Water Control Berm: Several areas are anticipated to need new water control berms to achieve compliance. LADWP will also seek approval to complete long-term repairs, including construction of new partitions and/or grading where channeling and/or deposition have altered the slope and therefore the ability to meet the desired wetness. It is estimated that approximately 5,800 linear feet of new water control berms may be needed.

    - Improve Existing Water Control Berms: Several DCAs had damage to existing water control berms. It is anticipated that approximately 16,700 linear feet of existing water control berms will need to be improved.

    - New Arizona Crossings: Repairs to existing Arizona crossings as well as new Arizona crossings may be needed in several DCAs.

- **Damaged Laterals:** In several areas, above ground laterals were damaged in Shallow Flood DCAs. Repairs will include pulling the above-ground lateral segments back into the correct alignments, repairing damaged segments of lateral piping, reconnecting and/or repairing the whiplines (where damaged), redeploying the whiplines to the correct alignments, and flushing the laterals and whiplines to remove debris.

- **Damaged / Buried Irrigation:** In several DCAs, irrigation risers and sprinkler whiplines were damaged. Repairs include excavating buried irrigation risers, extending the risers above ground, and installing whiplines (if needed) to improve distribution of water across the newly deposited sediment. Whiplines may be specified in areas of significant new channeling and deposition. In several DCAs, a feasibility assessment is being completed to determine if Shallow Flood partition berms will improve compliance given the channeling that occurred during the flood.

Soil conditions are very challenging for construction and repair within portions of these DCAs with extremely soft soils of low bearing capacity. It is assumed that excavators on mats will be required for several activities, which could slow the pace at which repairs can be completed. Upon completion of

repairs, the laterals (or portions of the DCA that are operable) will be operated while the permitting and approvals for longer term repairs (for each DCA) are in progress. Given the very challenging soil conditions, it is estimated that construction outside of the dust season may be needed to allow for drying and construction. Given the nature and extent of the widespread damage across the OLDMP, additional improvements may be needed given the change in grade/slope caused by the sedimentation (e.g., partition berms or other features).

Managed Vegetation: Portions (~315 acres) of the Managed Vegetation (T5-T8 Farm Area) were inundated with flood water and sediment (Figure 13). In some areas, sedimentation was several inches thick. It is anticipated that vegetation (next spring) will grow through the sediment and overcome any issues with inundation. The full extent of the damage (or needed repairs) to these areas will not be known until the spring growing season. These areas may experience a prolonged time period to reach compliance, potentially requiring a full growing season to meet compliance. LADWP will monitor vegetation growth during this period to see if additional actions are necessary. In addition, LADWP is in the process of evaluating the damaged areas within the Managed Vegetation and will provide an updated / refined polygon delineation of the variance areas prior to the Hearing for the Regular Variance.

Repair and Compliance Schedule

Table 4 and Figure 20 provide detailed timelines and schedules for each DCA included in this variance request. Specifically, Table 4 includes a description of the damage, initial repairs, initial repair schedule, long-term repairs, compliance date, and proposed mitigation measures to address concerns regarding potential dust emissions. The repair and compliance schedules reflect the best available assumptions for completion of repair activities. Importantly, upon completion of the initial repairs, the infrastructure will be operated to achieve wetness toward compliance to the extent possible. Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP will seek additional remedies in collaboration with GBUAPCD.

For the vast majority of the Variance Areas, LADWP is requesting a variance for up to one dust season (October 16, 2023, through June 30, 2024) to allow adequate time for repairs. Due to extensive damage in T5-3 Addition and T13-1, LADWP is requesting a variance for two dust seasons (October 16, 2023, through June 30, 2024 and October 16, 2024, through June 30, 2025). For the two variance areas where the final compliance date is one year or more after the anticipated date of the hearing (T13-1 and T5-3 Addition), LADWP has developed a schedule of increments of progress (Table 5). This schedule is consistent with the requirements in Rule 603 (Petitions for Variances) and as defined by Rule 106.

Figure 11. Timeline of Activities to Facilitate Repair due to Tropical Storm Hilary

LADWP's response and planning for assessment and repair of the OLDMP facilitates has been swift, significant, and comprehensive. The timeline lays out the activities LADWP has completed to-date.

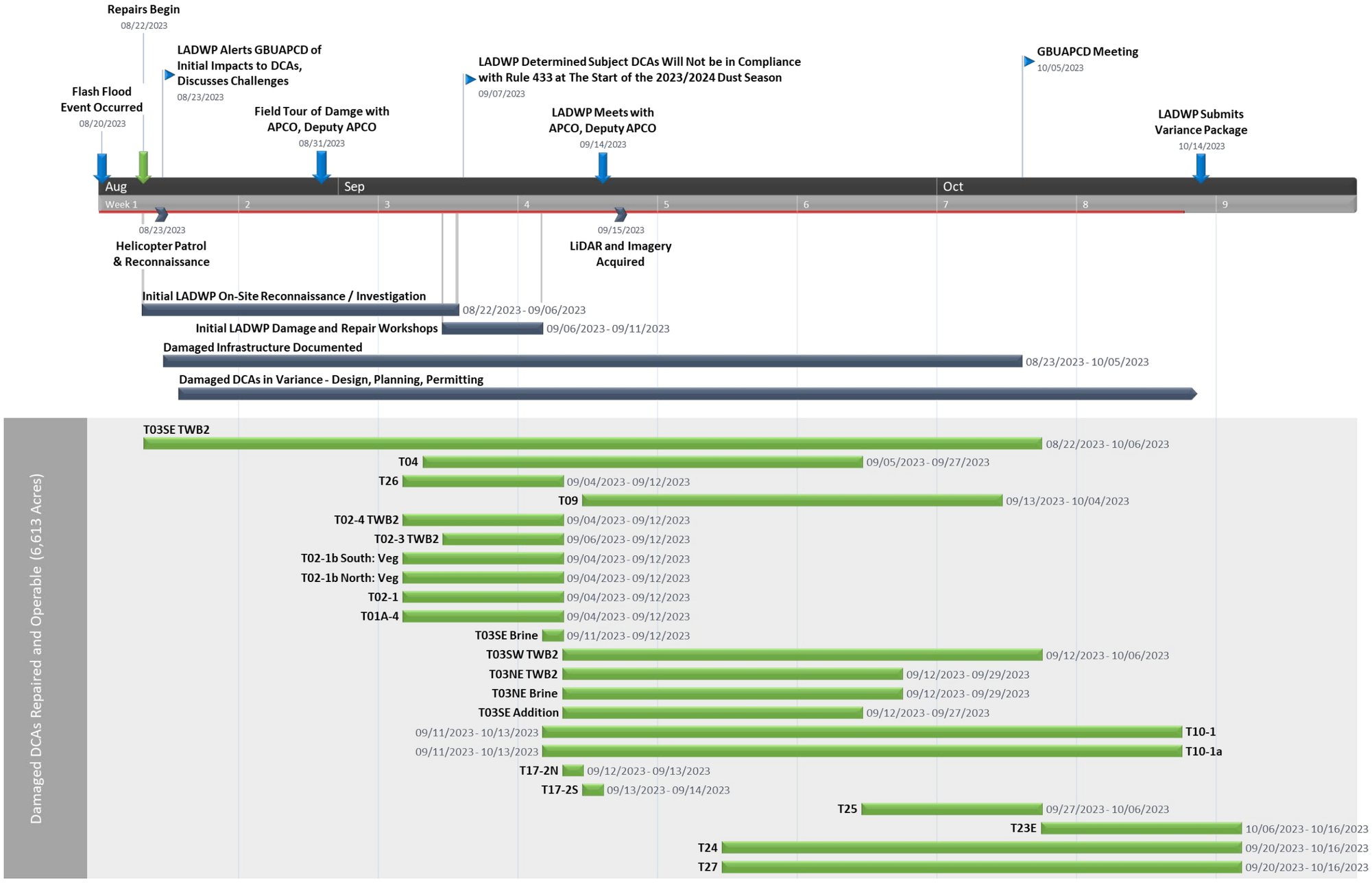


Figure 12. Damage Documentation Examples for T03 through T04

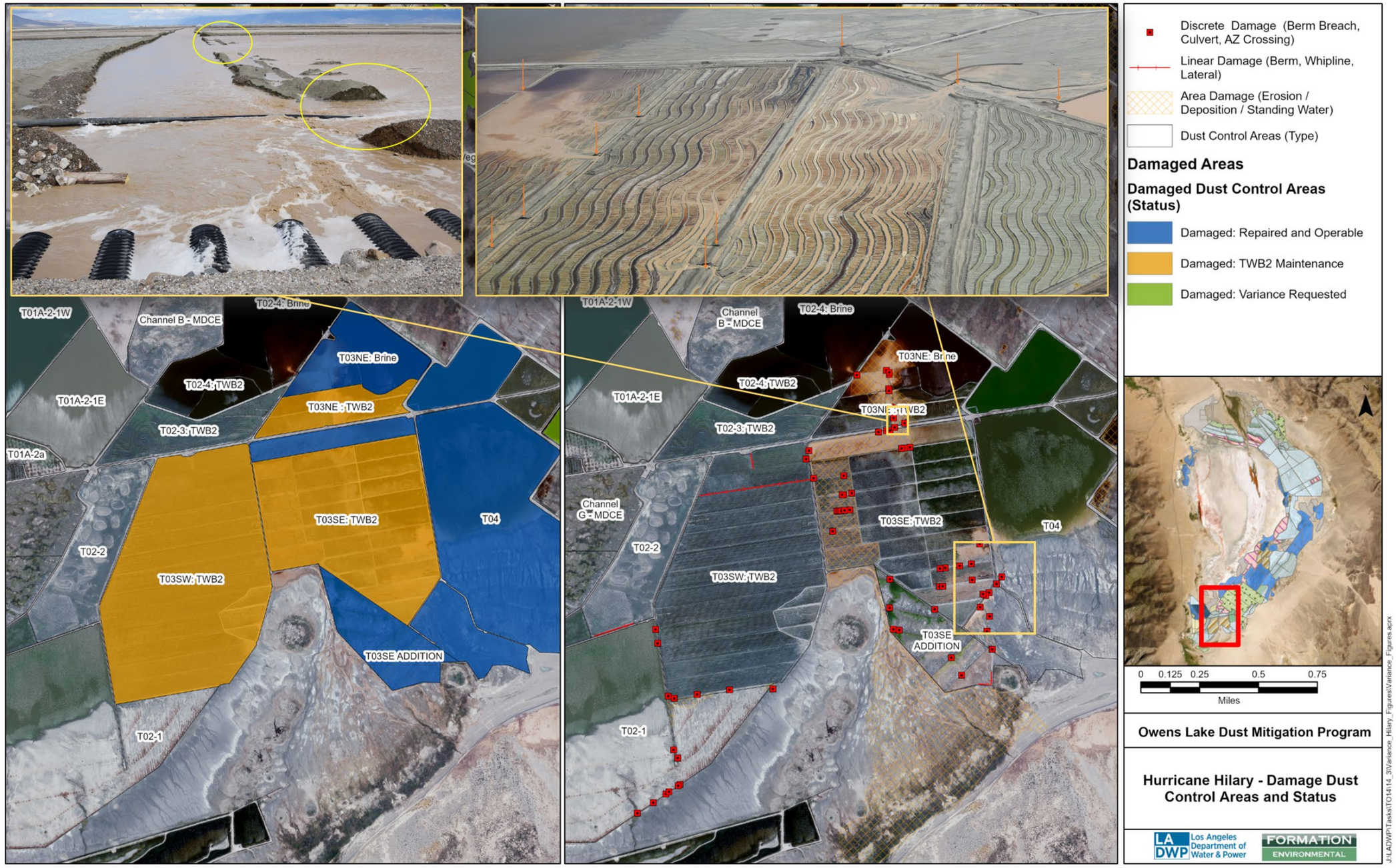


Figure 13. Damage Documentation Examples for T05 through T08

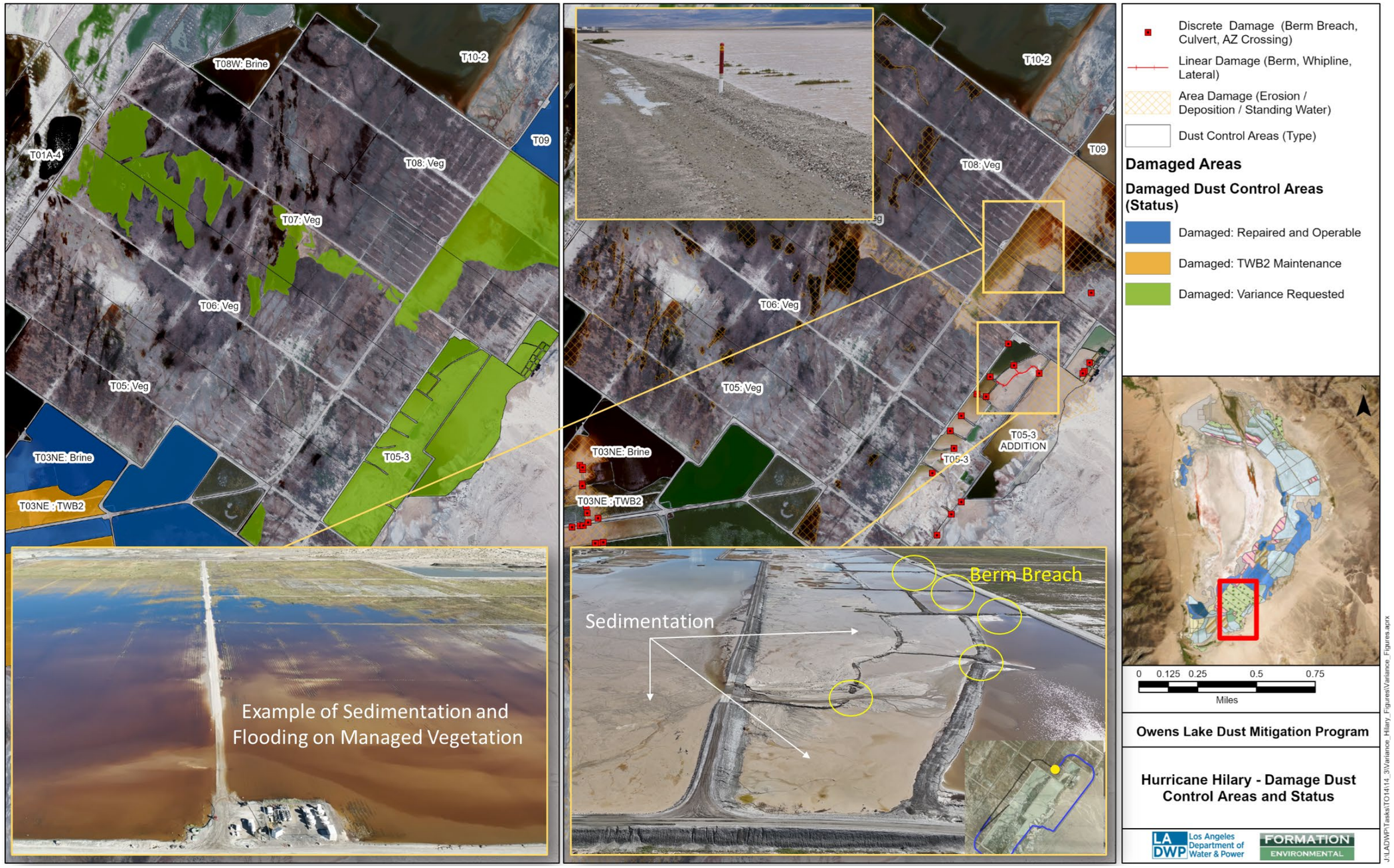


Figure 14. Damage Documentation Examples for T09 through T10

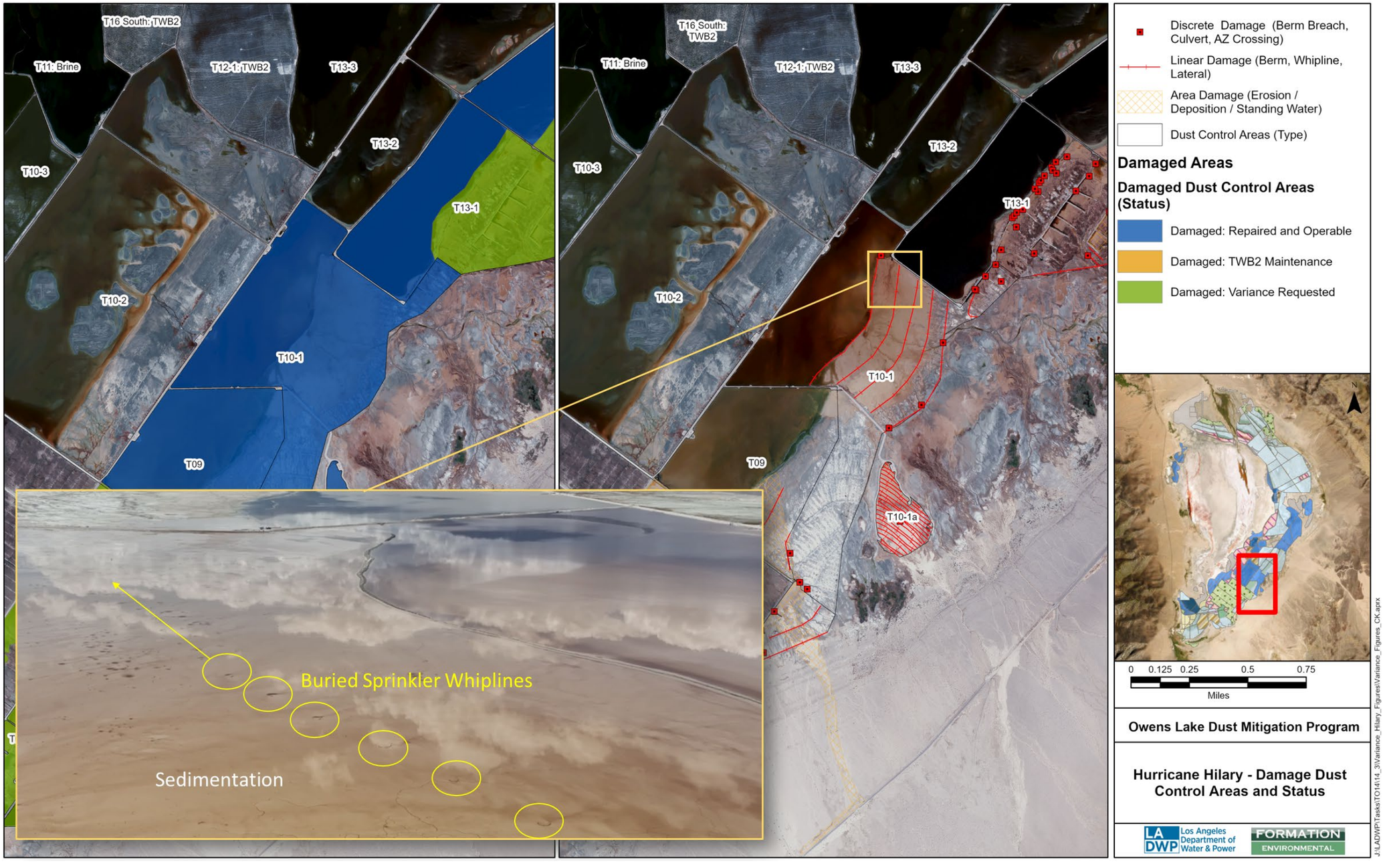


Figure 15. Damage Documentation Examples for T13 through T16

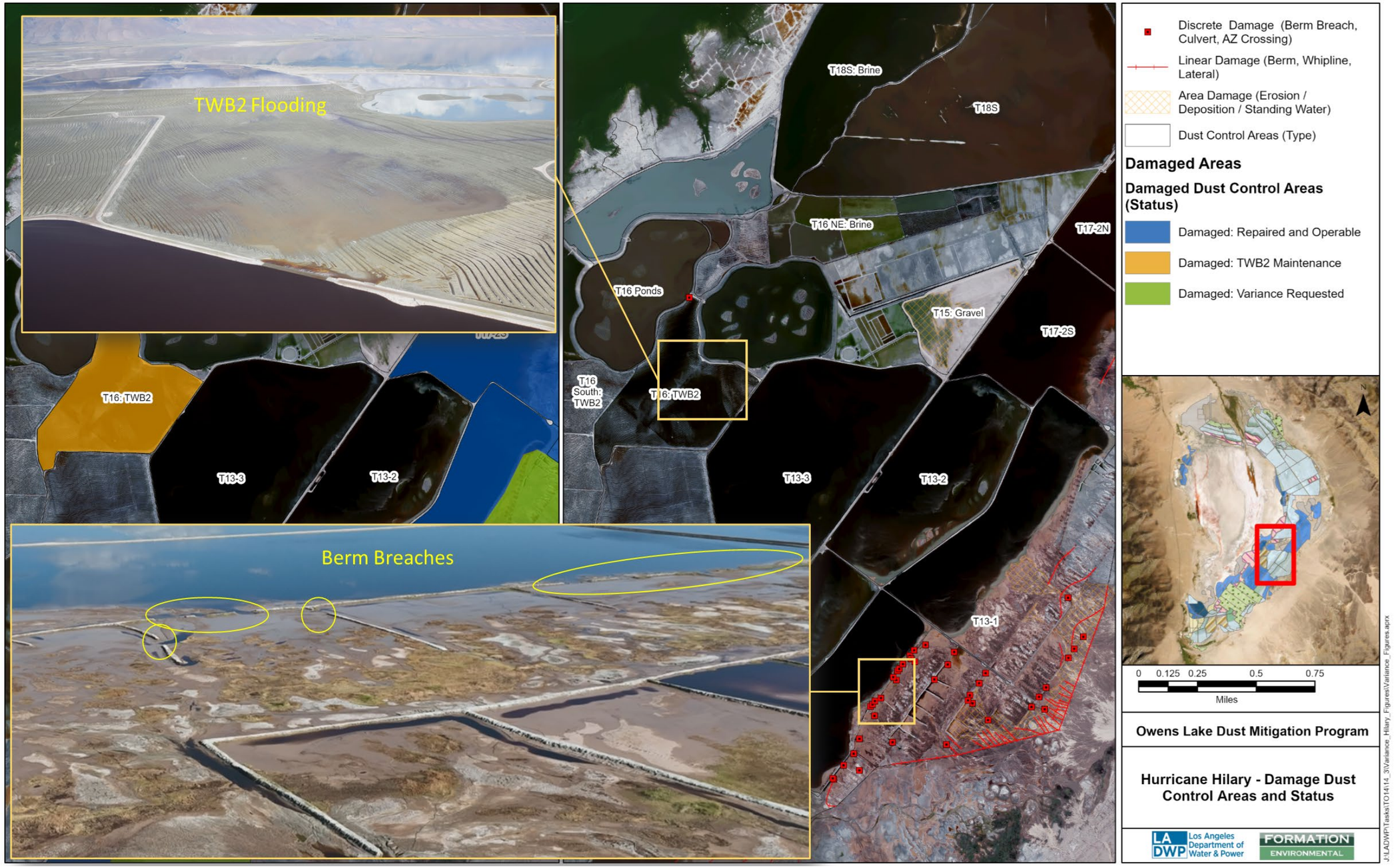


Figure 16. Damage Documentation Examples for T17-2

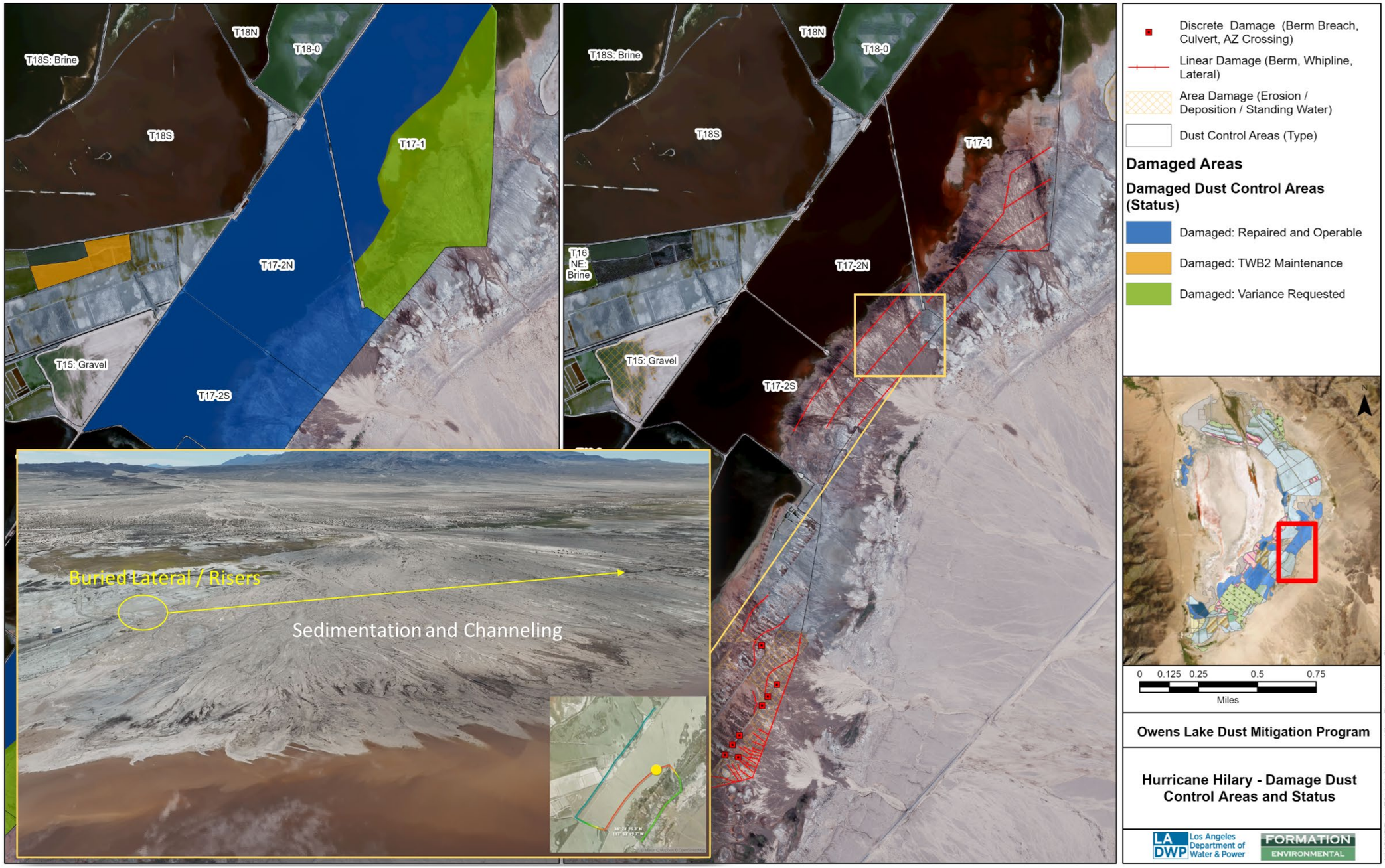


Figure 17. Damage Documentation Examples for T17-1

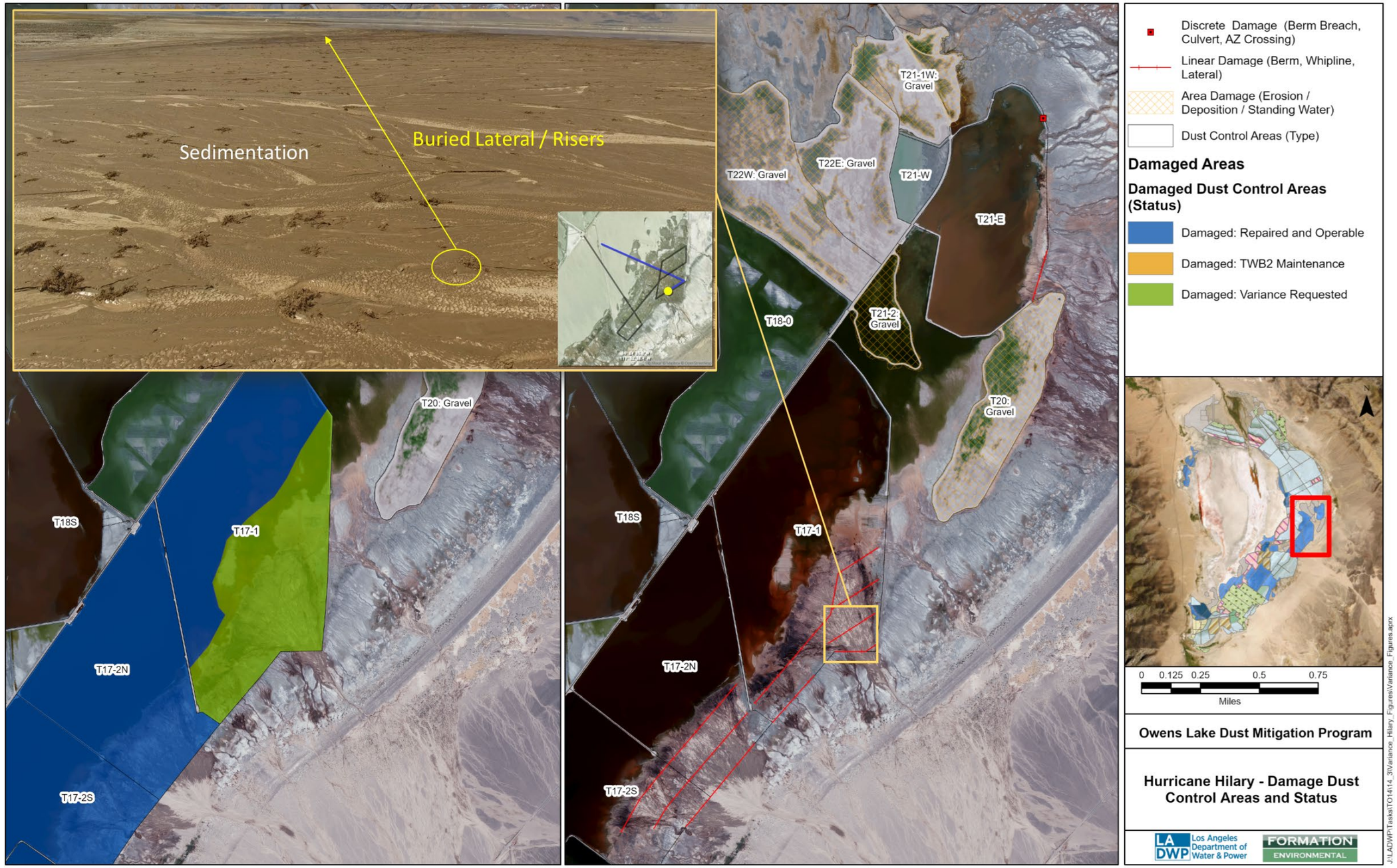


Figure 18. Damage Documentation Examples for T24

Figure 19. Damage Documentation Examples for T27

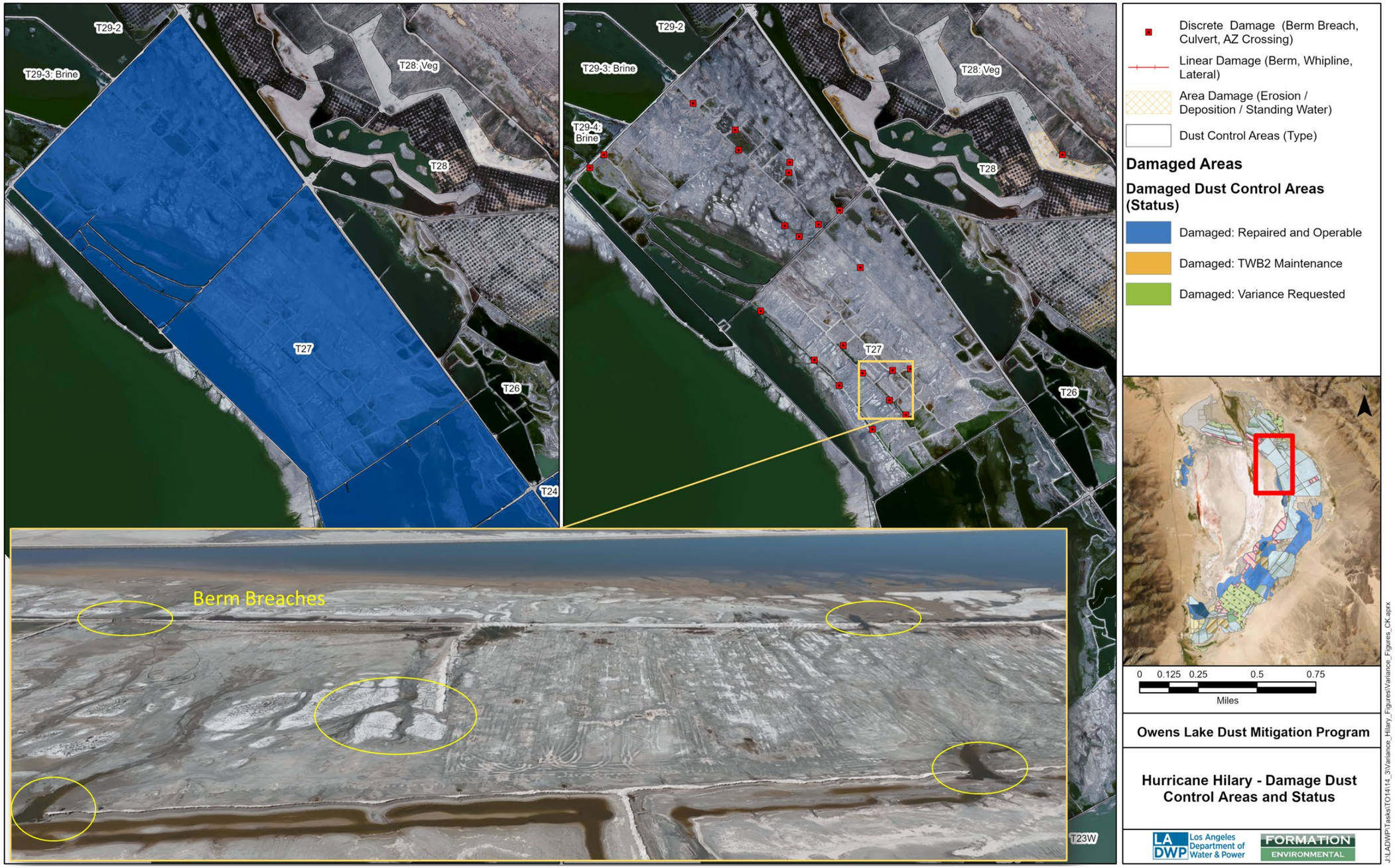


Table 3. Summary of Damage and Repairs Completed by LADWP Prior to this Variance Request (Dust Control Areas are Operable and are Not Included in this Variance Request)

DCA Area & Subarea	Acreage	BACM	Observed Damage	Completed Repair
Damaged: Repaired and Operable (6,613 acres)				
T03NE: Brine	84	Brine	Sedimentation in perimeter ditch and berm damage.	Clean perimeter ditch and repair berm.
T03SE Addition	77	Shallow Flood	Whipline damage, berm breach, minor sedimentation around culvert inlets.	Repair whiplines in top lateral area, repair berm breach between T3SE Addition and T4 Shallow Flood, repair V-ditch to allow drainage out of DCA, clean out culver inlets to allow drainage between laterals.
T03SE: Brine	38	Brine	Culvert under mainline damaged from flotation of all the culvert inlets above water levels.	Repair inlets on culverts under mainline road draining this DCA.
TO4	481	Shallow Flood	Numerous berm breaches, sedimentation and channeling which alter the topography and grade within the DCA. Irrigation whipline displacement.	Whipline repairs / realignment in lateral 3, install new flashboard riser on culverts at LCV turnout for control of ponding in lateral 3 service area, fix breached berms, extend existing water control berms.
TO9	285	Shallow Flood	Major channeling and sedimentation. Numerous berm breaches. Irrigation infrastructure (whiplines) displaced.	Realign whiplines in laterals 1, 2, and 3 where flood flows washed through and deposited sediment. Repair berms in lateral 3 service area. Repair berms to fix breaches and extend berms to cut off newly formed channeling. Extend Shallow Flood risers.
T10-1	445	Shallow Flood	New channeling and significant sedimentation. Numerous berm breaches, lateral / risers buried. Whipline sprinklers buried and potentially displaced. Potential mechanical issues with sprinklers.	Repair buried or damaged whiplines and sprinklers starting from lowest lateral first, putting back into service as each lateral is completed. Clean and flush sprinklers to be put back into service. Laterals 1 through 4 can be operated after T9 laterals are repaired. Repair berm breach between lateral Shallow Flood and pond. Run sprinkler system to determine if coverage meets goals given new soil material.
T10-1A	37	Shallow Flood	New channeling and significant sedimentation. Numerous berm breaches, lateral / risers buried. Whipline sprinklers buried and potentially displaced. Potential mechanical issues with sprinklers.	Repair buried or damaged whiplines and sprinklers, and repair culverts. Clean and flush sprinklers to be put back into service. Run sprinkler system to determine if coverage meets goals given new soil material.
T13-1 (pond area)	356	Shallow Flood	Lower portions of the Shallow Flood pond in T13-1 were not damaged and will be kept in service.	Lower portions of the pond in T13-1 were not damaged and will be kept in service.
T17-1 (pond area)	263	Shallow Flood	Lower portions of the Shallow Flood pond have a new/ different topography on the eastern side due to significant deposition, potentially requiring infrastructure changes to meet target elevation.	Continue to operate pond for dust control while repairs are being conducted. New sediment deposition may restrict the wetted coverage of the pond.
T17-2N	324	Shallow Flood	Channeling and deposition around the upper three laterals. Risers and whiplines are intact (where extended last year).	Repair / realign damage to risers and whiplines. Extend risers as needed.
T17-2S	274	Shallow Flood	Channeling and deposition around the upper three laterals. Risers and whiplines are intact (where extended last year).	Repair / realign damage to risers and whiplines. Extend risers as needed.
T23E	597	Shallow Flood	Berm breaches in interior.	Repair berm breaches in interior, repair push-up berms.
T24		Shallow Flood	Channeling and push-up water containment berm breaches - Some PVC SF lateral irrigation risers broken and in need of repair.	Repair push-up water control berm and Shallow Flood risers.
T25	1,056	Shallow Flood	Significant amount of water containment berm breaches. Channeling, creating new topography within the dust control area.	Repair berm breaches on interior, repair push-up berms.
T27		Shallow Flood	Significant amount of water containment berm breaches. Channeling, creating new topography within the dust control area.	Repair berm breaches, repair water control push-up berms, and realign and repair whiplines.

Damaged: TWB2 Maintenance (938 acres)				
T03NE: TWB2	55	Tillage with BACM Back-up	Numerous berm breaches, sedimentation. Requires building new berm/road to get out to fix berm breaches further into DCA.	Clean perimeter ditch and repair berms. Assess whether re-tilling is necessary.
T03SE: TWB2	276	Tillage with BACM Back-up	Numerous berm breaches that require new road / berm to get fill material to fix breach.	Repair berm breaches. Repair culverts that drain area out under mainline road. Assess whether re-tilling is necessary.
T03SW: TWB2	383	Tillage with BACM Back-up	Numerous berm breaches require new road / berm to get fill material to fix breach. Damage to the V-Ditch along the periphery of the DCA.	Fix berm breach and V ditch between T3SW and T3SE. Assess whether re-tilling is necessary.
T16: TWB2	225	Tillage with BACM Back-up	Significant standing water due to precipitation across the entire DCA, melting the dust control features. Berm breach into T16 ponds.	Repair berm breaches.

Table 4. Summary of Damage, Repair and Completion Dates, and Dust Mitigation Measures

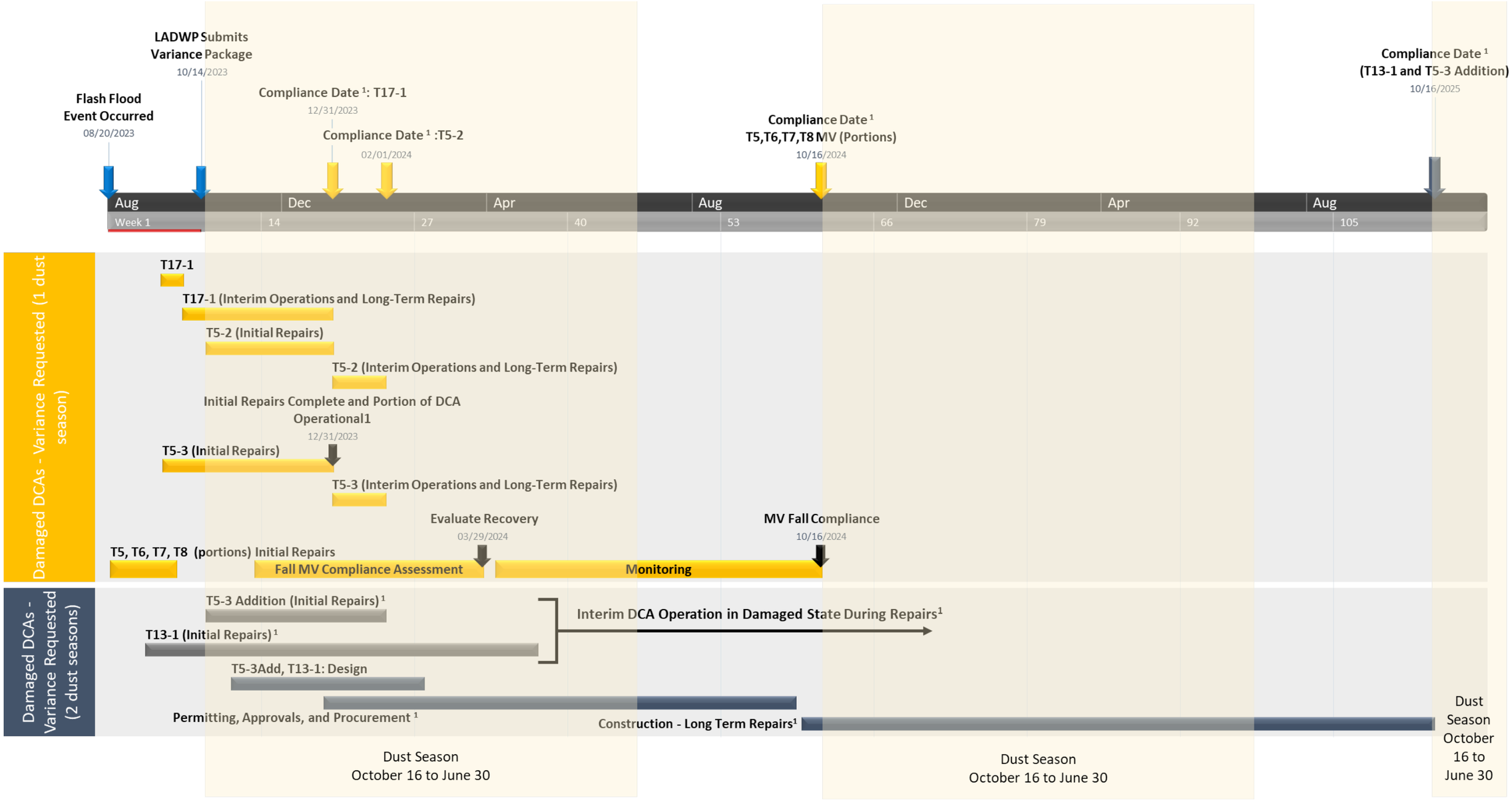
DCA	BACM (Variance Acres)	Observed Damage	Anticipated Repair Plans				Mitigation During Variance Period
			Initial Repairs[1]	Initial Repair Complete and Portion of DCA Operational	Operations & Long-Term Repairs	Compliance Date[1]	
T05[2]	MV (7 ac)	Portions (~315 acres) of the Managed Vegetation (T5-T8 Farm Area) were inundated with flood water and sediment. In some areas, sedimentation was several inches thick. It is anticipated that vegetation (next spring) will grow through the sediment and overcome any issues with inundation. The full extent of the damage (or needed repairs) to these areas will not be known until the spring growing season. However, some areas may experience a prolonged time period to reach compliance, potentially requiring a full growing season to meet compliance.	Maximize DMU pump operations as necessary. Use portable pumps to remove surface water.	10/1/2023	LADWP anticipates that the vegetation will recover during the variance period. LADWP will continue to refine (through monitoring) the areas within the MV farm that have significant sedimentation. Prior to the variance hearing, LADWP will provide a refined delineation and acreage for these variance areas and will monitor vegetation growth throughout the variance period to see if additional actions are necessary.	10/16/2024	As vegetation cover improves, there will be a reduction in the potential for dust emissions. In several areas, vegetation is already breaking through the recently deposited sediment. LADWP will continue to monitor vegetation growth throughout the variance period to see if additional actions are necessary to increase growth.
T06[2]	MV (60 ac)						
T07[2]	MV (121 ac)						
T08[2]	MV (127 ac)						
T17-1	SF (255 ac)	This portion of the lakebed experienced significant inflows from the upper watersheds. This resulted in channeling and deposition around the upper laterals. Numerous irrigation risers are buried (partial and sometimes complete). A significant amount of new sediment (deposition) and channeling in the upper laterals has changed the grade in the DCA and therefore the extent of the ponded area.	Excavate buried risers and install / extend risers to the surface.	10/3/2023	Operation of the DCA has begun. Although the ponded portion of the DCA is outside of the requested variance area, it will continue to be operated as Shallow Flood. The DCA is currently operational, but there is concern that channelization within the new deposits may impact the compliance cover throughout the dust season. For channeled areas, LADWP will build small berms by hand to try and minimize channeling and improve spatial coverage of irrigation water. If wetness doesn't improve and channeling persists, then LADWP will install whiplines to improve coverage.	12/31/2023	LADWP plans to minimize potential dust emissions by continuing to operate the DCA (both pond and laterals) for dust control while both initial and long-term repairs are being completed. For example, the entire DCA was 77.9% wet on the 10/10/2023 SF wetness overpass date.
T05-2	SF (15 ac)	This portion of the lakebed experienced significant damage from flash flood and sediment deposition. Specifically, significant sedimentation and flooding damage, resulting in several berm breaches impacting water control / retention in the DCA. Sedimentation in the upper portion of the lateral area (eastern side of the DAC) has changed the grade, influencing water spreading.	Initial repairs will address issues with the SF lateral portion of the DCA. This includes installing a new water control berm on the east side of the lateral.	12/31/2023	The DCA will be operated while the remaining berm breaches are repaired.	2/1/2024	LADWP plans to operate the entire DCA once the new berm along the lateral is complete. This will increase wetness (reducing any potential emissions) in the entire DCA while the remaining breaches are repaired.

DCA	BACM (Variance Acres)	Observed Damage	Anticipated Repair Plans				Mitigation During Variance Period
			Initial Repairs[1]	Initial Repair Complete and Portion of DCA Operational	Operations & Long-Term Repairs	Compliance Date[1]	
T05-3	SF (125 ac)	Similar to T05-2, this area received significant flooding and deposition from the upper watersheds. This resulted in numerous water control berm breaches and channeling / sedimentation impacting water spreading. In addition, the tailwater pump intakes are plugged with sediment, significantly impacting the operation of the DCA.	Initial repairs include unplugging the tailwater pump station and installing a coffer dam to clean out the tailbay of the DCA.	12/31/2023	Interim operations have already begun. The DCA is operational, however, until the tailwater pump station is repaired, it requires delicate operation to minimize influence (discharge) into the adjacent managed vegetation. The DCA will be operated while the remaining berm breaches are repaired. Whiplines that were damaged will be replaced / repaired / realigned (mostly in northern area of DCA). Additional new berms may be installed if necessary.	2/1/2024	LADWP is currently operating the DCA. Once the tailwater pump station repairs are complete, SF wetness should increase. The DCA will continue to be operated while long-term repairs on the berms are being completed. Current operation of the DCA is resulting in a percent wet of 62.7% on the 10/10/2023 overpass date.
T5-3 Addition	SF (78 ac)	Similar to T05-2 and T05-3, this DCA was significantly impacted by flash flooding and sedimentation from the upper watersheds. Significant sediment was deposited in northern half of shallow flood cell. These new deposits have filled the lower portion of the pond to the height of the Arizona crossing. This significantly impacts the ability of LADWP to hold water within the pond. Sedimentation in this portion of the DCA is so significant an additional water control berm is likely required.	LADWP is determining the level of sedimentation/infilling and changes to ground surface elevation and slope/grade using LiDAR. From this analysis, LADWP will determine the remaining capacity of the pond using historic target water surface elevations (limited by existing berm top and Arizona Crossing elevations). Initial repairs will include filling in the remaining portions of the Arizona crossing (to raise the level of the pond). This will allow for the DCA to be operational (at a reduced level) while analysis, design, permitting, approvals, and procurement are obtained for longer-term repairs (i.e. new berm).	2/1/2024	Interim operations will commence once the Arizona crossing is filled in. This can't be done until repairs in T05-3 are complete. The berm and Arizona crossing are the only way to deliver material critical to fixing berm breaches in T05-3. Long-term repairs include either: 1) Raise existing berm and Arizona crossing; or 2) Construct a new upgradient berm and Arizona crossing subdividing the DCA. Installation of new culverts with flashboard risers will also be evaluated to include in existing and/or new berms to provide controlled ponding upgradient of the berms.	10/16/2025	LADWP will operate the DCA once the repairs are complete in T05-3 and the Arizona crossing in T5-3 Addition is filled. Filling the Arizona crossing will allow the DCA to operate at reduce pond coverage. It is important to note that this action is anticipated to wet much of the newly deposited sediments, reducing the potential for dust emissions. It is anticipated that long-term repairs of building new berms will be completed while the DCA is being operated.
T13-1	SF (457 ac)	This DCA was significantly impacted by sedimentation and flooding. Specifically, in the northern portion of T13-1 – LADWP recently constructed approximately 6,000 linear feet of new berms following Tropical Storm Kay in 2022. Significant impacts in those areas from Tropical Storm Hilary require extensive repairs to the recently constructed berms. In addition, above-ground portions of laterals that were displaced in 2022 (and repaired), were displaced again in 2023. In the southern portion of T13-1, over 10,000 linear feet of berm were damaged, with numerous berm breaches severely influencing the ability to hold water. In both portions of the DCAs,	Initial activities include repairing the displaced laterals by dragging them back into place and making repairs (e.g. welding). Given the fact that these laterals have been damaged twice (Tropical Storm Kay and now Tropical Storm Hilary), LADWP is actively investigating the possibility of burying the above ground portions of these laterals. This was not completed previously due to trafficability challenges and the time required for burial. Laterals will need to remain off during the excavation and burial process.	5/1/2024	For the Southern portion of T13-1, the dust control area saw unprecedented impacts in areas that traditionally have uniform wetness coverage. To address the new site conditions after Tropical Storm Hilary, LADWP plans to install approximately ~10,000 linear feet of additional berms to further shallow flood compliance. The new berms will mitigate berm washouts and increase SF water surface coverage over heavily channeled areas. On the Northern portion of T13-1, the recently constructed 6,000 linear feet of new berms following Tropical Storm Kay in 2022 require extensive repairs (from Tropical Storm Hilary). In addition, LADWP will evaluate the need to raise those berms due to upgradient	10/16/2025	Although the ponded portion of the DCA is outside of the requested variance area, it will continue to be operated as shallow flood. LADWP will also operate additional portions of the DCA once the SF laterals are repaired. Importantly, portions of the DCA have significant vegetation cover that aids in reducing potential emissions during the variance period.

DCA	BACM (Variance Acres)	Observed Damage	Anticipated Repair Plans				Mitigation During Variance Period
			Initial Repairs[1]	Initial Repair Complete and Portion of DCA Operational	Operations & Long-Term Repairs	Compliance Date[1]	
		shallow flood risers and whiplines were buried and displaced.			sedimentation/infilling. LADWP will use LiDAR to reassess berm design and adjust elevations. LADWP plans to construct an additional ~11,000 linear feet of berms through heavily eroded/channeled areas to allow compliance SF ponded water coverage.		

[1] Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP will seek additional remedies in collaboration with GBUAPCD.
[2] Acreage based on information available at the time of application submission. The variance boundary within the Managed Vegetation areas will be refined as additional information becomes available.

Figure 20. Anticipated Compliance and Repair Schedule[1]



[1] Challenges potentially affecting the repair schedules include permitting requirements, future precipitation events, access and trafficability due to soil conditions, procurement of materials due to disruptions to the global supply chain, complications to permitting, as well as the Russia-Ukraine war (e.g., fertilizer and raw material procurement). If such challenges occur, LADWP will seek additional remedies in collaboration with GBUAPCD.

Table 5. Proposed Increments of Progress

Repair Plan Milestones	T13-1 Anticipated Date[1]	T5-3 Addition Anticipated Date[1]
Initiate Interim Repairs	10/16/2023	01/15/2024
Complete Interim Repairs	05/01/2024	02/01/2024
Anticipated Construction Contract Notice-To-Proceed	10/01/2024	10/01/2024
Long-Term Construction Complete	10/01/2025	10/01/2025
Compliance Date	10/16/2025	10/16/2025

[1] LADWP shall not be deemed in violation of the increments of progress described (Table 5) in this variance petition if LADWP is acting in good faith to comply with this schedule, but is impeded in its ability to comply with the repair plan described in this variance petition due to one or more of the following circumstances:

a. Delays caused by any local, state, or federal agency, except LADWP, in processing LADWP's application for any permits or approvals necessary to implement the repair plan.

b. Denial by any local, state, or federal agency, except LADWP, of any permits or approvals necessary to allow LADWP to implement the repair plan.

c. A condition of Force Majeure, which is defined to mean extraordinary event or circumstance beyond the control of LADWP, such as a war, labor actions, riot, crime, a legally imposed judicial injunction or restraining order (provided that LADWP takes all necessary actions to challenge such order), discovery of cultural resources eligible for inclusion in the California Register of Historical Resources and/or National Register of Historic Places, disruption of utilities or acts of God (such as adverse weather, earthquake, volcanic eruption or other natural disaster). Adverse weather is any weather condition, including but not limited to flooding and dust storms, that forces LADWP to suspend all construction and implementation activities on the site or prevents LADWP from proceeding with 50 percent or more of the normal labor force and of the equipment engaged on critical path work.

d. Any other act, omission, event, or incident beyond LADWP's control.

REFERENCES

National Center for Atmospheric Research (NCAR). 2023. Developing an Improved Flood Prediction System. WRF-Hydro System. https://ral.ucar.edu/solutions/benefits/developing-an-improved-flood-prediction-system. Accessed October 5, 2023.

National Oceanic and Atmospheric Administration (NOAA). 2023. The National Weather Model. https://water.noaa.gov/about/nwm. Accessed October 5, 2023.

ATTACHMENT 1. EMERGENCY DECLARATIONS AND EXAMPLES OF MEDIA COVERAGE

Statement from President Joe Biden on Tropical Storm Hilary

AUGUST 20, 2023

Statement from President Joe Biden on Tropical Storm Hilary

As soon as Tropical Storm Hilary's path became clear, my Administration took immediate action to prepare. At my direction, FEMA deployed to California federal personnel and supplies that can be surged to impacted communities. The U.S. Coast Guard pre-positioned aircraft to allow for rapid response and search-and-rescue efforts. My Administration also deployed federal personnel to Nevada to ensure the state has additional support, and we will continue to coordinate with California, Nevada, and Arizona on any resources they might need.

This afternoon I spoke to California Governor Gavin Newsom about the emergency preparedness measures in place, and the initial response to Tropical Storm Hilary. I continue to be briefed on our preparedness efforts, and the storm's potential impact – including flooding. My Administration stands ready to provide additional assistance as requested. I urge people to take this storm seriously, and listen to state and local officials.

We are also closely monitoring the earthquake that occurred in Southern California, and any resulting impacts.

###

State of California Proclamation of a State of Emergency

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS on August 18, 2023, Hurricane Hilary began bringing heavy rain, flooding, lightning, and gusty winds to Southern California, necessitating the prepositioning of significant resources, including swift water rescue teams and the California National Guard, to protect health and safety and preserve the lives and property of the people of the State of California; and

WHEREAS the National Weather Service issued a Tropical Storm Warning on August 18, 2023, for portions of the Southern California coast, which are forecast to experience increased swells and life-threatening surf and rip current conditions; and

WHEREAS the National Weather Service issued a series of Flood Watches on August 18, 2023, warning of potential significant flooding between August 19, 2023, and August 22, 2023, in Alpine, Fresno, Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Tulare, and Ventura Counties; and

WHEREAS the National Weather Service issued a series of Flash Flood Warnings on August 18, 2023, for San Bernardino County, and on August 19, 2023, for Kern County; and

WHEREAS threats of lightning and significant wind impacts with gusts up to or exceeding 70 miles per hour are anticipated in mountainous areas throughout Southern California and are likely to exacerbate fire conditions; and

WHEREAS the National Weather Service has warned that Hurricane Hilary may bring the potential for isolated tornadoes across portions of Southern California; and

WHEREAS the Los Angeles County Emergency Management Department advised residents and visitors evacuate Catalina Island as of 12:00 a.m. on August 19, 2023; and

WHEREAS numerous wildfires over the last several years have caused massive burn scars, exacerbating the potential for precipitation to cause dangerous and potentially catastrophic flooding and debris flows, and Hurricane Hilary is forecast to bring 3 to 6 inches of rain within a short period of time in Southern California, including over the Apple and El Dorado burn scars in Riverside and San Bernardino Counties, the Fairview and Bonny burn scars in Riverside County, and the Bobcat, Bond, Lake, and Fish burn scars in Los Angeles County; and

WHEREAS Hurricane Hilary is expected to prompt widespread evacuations and shelter-in-place orders; to threaten, damage, or destroy homes and critical infrastructure, including power and water lines, businesses, and roads; and to necessitate the deployment of search and rescue teams in areas impacted by significant debris flow; and

WHEREAS Hurricane Hilary, including associated debris flows, is expected to damage or destroy roads in Southern California; and

WHEREAS under the provisions of Government Code section 8558(b), I find that conditions of extreme peril to the safety of persons and property exist due to Hurricane Hilary in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties; and

WHEREAS under the provisions of Government Code section 8558(b), I find that the conditions caused by Hurricane Hilary, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the magnitude of the extreme peril posed by Hurricane Hilary; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of Hurricane Hilary.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties.

IT IS HEREBY ORDERED THAT:

1. All agencies of the state government shall utilize and employ state personnel, equipment, and facilities for the performance of any and all activities consistent with the direction of the Office of Emergency Services and the State Emergency Plan. Also, all individuals are to obey the direction of emergency officials with regard to this emergency in order to protect their safety.

2. The Office of Emergency Services shall provide assistance to local governments, if appropriate, under the authority of the California Disaster Assistance Act, Government Code section 8680 et seq., and California Code of Regulations, Title 19, section 2900 et seq.

3. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly assist with the response to and recovery from the impacts of Hurricane Hilary. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of Hurricane Hilary.

4. Any fairgrounds the Office of Emergency Services determines suitable to assist individuals impacted by Hurricane Hilary shall be made available to the Office of Emergency Services pursuant to the Emergency Services Act, Government Code section 8589. The Office of Emergency Services shall notify the fairgrounds of the intended use and may immediately utilize the fairgrounds without the fairground board of directors' approval.

5. The California National Guard may be mobilized under Military and Veterans Code section 146 to support disaster response and relief efforts, as directed by the Office of Emergency Services, and to coordinate with all relevant state agencies and state and local emergency responders and law enforcement within the impacted areas. Sections 147 and 188 of the Military and Veterans Code are applicable during the period of participation in this mission, exempting the California Military Department from applicable procurement rules for specified emergency purchases, and those rules are hereby suspended.

6. Any state-owned properties the Office of Emergency Services determines are suitable to address the impacts of Hurricane Hilary shall be made available to the Office of Emergency Services for this purpose in accordance with Government Code section 8570.

7. The provisions of Unemployment Insurance Code section 1253 imposing a one-week waiting period for unemployment insurance applicants are suspended as to all applicants who are unemployed as a direct result of Hurricane Hilary and apply for unemployment insurance benefits during the time period beginning August 19, 2023, and ending on the close of business on February 20, 2024, in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties, and who are otherwise eligible for unemployment insurance benefits.

8. Vehicle Code sections 9265(a), 9867, 14901, 14902, and 15255.2, requiring the imposition of fees, are suspended with regard to any request for replacement of an identification card, driver's license card, vehicle registration certificate, certificate of title, or registration stickers, by any individual who loses such records as a result of Hurricane Hilary in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties. Such records shall be replaced without charge.

9. The provisions of Vehicle Code sections 4602 and 5902, requiring the timely registration or transfer of title, are suspended with regard to any registration or transfer of title by any individual who is unable to comply with those requirements as a result of Hurricane Hilary in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties. The time covered by this suspension shall not be included in calculating any late penalty pursuant to Vehicle Code section 9554.

10. Health and Safety Code sections 103525.5 and 103625, and Penal Code section 14251, requiring the imposition of fees, are suspended with regard to any request for copies of certificates of birth, death, marriage, and dissolution of marriage records, by any individual who loses such records as a result of Hurricane Hilary in Fresno, Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Tulare, and Ventura Counties. Such copies shall be provided without charge.

11. The California Department of Transportation shall formally request immediate assistance through the Federal Highway Administration's Emergency Relief Program, United States Code, Title 23, section 125, in order to obtain federal assistance for any local road and highway repairs or reconstruction that are needed due to Hurricane Hilary.

12. Drivers may exceed the hours-of-service limits specified in California Vehicle Code section 34501.2 and California Code of Regulations, Title 13, section 1212.5 while operating a vehicle engaged in fuel transportation in support of Hurricane Hilary emergency relief efforts, subject to the following conditions:

    a. Motor carriers or drivers currently subject to an out-of-service order are eligible for the exemption once the out-of-service order expires or when they have met the conditions for its rescission.

    b. In accordance with Section 1214, Title 13, California Code of Regulations, no motor carrier operating under the terms of this Proclamation will require or allow an ill or fatigued driver to operate a motor vehicle. A driver who notifies a motor vehicle carrier that they need immediate rest shall be given at least ten consecutive hours off-duty before being required to return to service.

    c. Drivers shall maintain a driver's record of duty status, regardless of number of hours worked each day. These records shall be prepared, submitted, and maintained as required by Section 1213, Title 13, California Code of Regulations.

13. Consistent with Parts 390 and 395, Title 49, Code of Federal Regulations, drivers may exceed the hours-of-service limits specified while operating a vehicle engaged in fuel transportation in support of Hurricane Hilary emergency relief efforts. These waivers shall be in effect for the duration of the driver's direct assistance in providing emergency relief, or thirty (30) days from the date of this Proclamation, whichever is less.

14. In order to allow out-of-state contractors and other utilities driving their own vehicles to provide mutual aid assistance for the restoration of electrical power within the counties impacted by Hurricane Hilary, applicable provisions of the Vehicle Code including, but not limited to, Vehicle Code section 34620 requiring a motor carrier permit [licensing] and imposition of certain fees, are suspended for motor carriers providing such assistance. Also, the requirements for motor carriers and drivers in Vehicle Code sections 1808.1 [pull-notice program that checks for driver's license violations], 27900 [display name on vehicle], 27901 [size and color of display name on vehicle], 34505.5 [requirement to have been inspected within 90 days], and 34501.12 [requirement to set up home base in California] are suspended while providing mutual aid assistance for the emergency restoration of services.

I FURTHER DIRECT that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 19th day of August 2023.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, Ph.D.
Secretary of State

City of Los Angeles Declaration of Local Emergency

KAREN BASS
MAYOR

DECLARATION OF LOCAL EMERGENCY

By virtue of the authority vested in me, as Mayor of the City of Los Angeles, pursuant to the provisions of Los Angeles Administrative Code Section 8.27, I hereby find that:

WHEREAS, On August 18, 2023, a tropical storm intensified into a Category 4 hurricane known as Hurricane Hilary off the southwestern coast of Mexico, with 145 mph sustained winds and stronger gusts as it approached Mexico's Baja California Peninsula through August 19, 2023; and

WHEREAS, On August 18, 2023, the National Weather Service issued an unprecedented Tropical Storm Warning for the Southern California Region, including all of Los Angeles County; and

WHEREAS, the National Weather Service issued an advisory that now Tropical Storm Hilary will potentially bring heavy rain, thunderstorms, strong winds and hazardous seas to the Southern California region, including Los Angeles County; and

WHEREAS, the National Weather Service issued a series of Flood Watches on August 18, 2023, warning of potential significant flooding between August19, 2023, and August 22, 2023, in the Southern California region, including Los Angeles County; and

WHEREAS, the National Weather Service issued a series of Flash Flood Warnings on August 18, 2023, for several Southern California counties; and

WHEREAS, threats of lightning and significant wind impacts with gusts up to or exceeding 70 miles per hour are anticipated in mountainous areas throughout Southern California, including Los Angeles County, and are likely to exacerbate fire conditions; and

WHEREAS, the National Weather Service has warned that Tropical Storm Hilary may bring the potential for isolated tornadoes across portions of Southern California; and

WHEREAS, on August 19, 2023, Governor Gavin Newsom proclaimed a state of emergency for much of Southern California, including Los Angeles County, to support Tropical Storm Hilary response and recovery efforts as the state continues mobilizing and coordinating resources ahead of the storm's forecasted impacts; and

WHEREAS, as early as August 20, 2023, the City of Los Angeles is predicted to experience significant impacts as a result of high winds and heavy rain brought on by the impacts of this tropical storm system; and

WHEREAS, Tropical Storm Hilary is predicted to cause extreme conditions such as power outages, damage to power poles, fallen trees, slope failures, numerous locations with substantial mud and debris flows and flooding, and red and yellow tagged structures; and

WHEREAS, the City of Los Angeles is predicted to experience multiple road closures and related water damage, impacting significant transportation arteries requiring long-term repairs and threatening the integrity of the City's infrastructure; and

WHEREAS, Tropical Storm Hilary is expected to prompt widespread evacuations and shelter-in-place orders; to threaten, damage, or destroy homes and critical infrastructure, including power and water lines, businesses, and roads; and to necessitate the deployment of search and rescue teams; and

WHEREAS, based upon the above events, and the need to put City resources and personnel in place prior to the arrival of the storm to protect the health and safety of the City's residents, there exists the potential that said incidents are likely to become beyond the control of the normal services, personnel, equipment and facilities of the regularly constituted branches and departments of the City Government:

NOW, THEREFORE, I HEREBY DECLARE the existence of a Local Emergency throughout the City of Los Angeles.

IT IS HEREBY ORDERED that the Emergency Operations Organization (EOO) be immediately activated to take such steps that are necessary for the protection of life and property.

I FURTHER ORDER that all City Departments impacted by this event, and its ongoing effects, continue to conduct damage assessments and collect cost estimates for the purpose of seeking State and Federal disaster assistance.

I FURTHER ORDER that widespread publicity and notice be given of such Declaration through the most feasible and adequate means of disseminating such notice throughout the City.

I HEREBY REQUEST that the Governor waive regulations that may hinder response and recovery efforts; that recovery assistance be made available under the California Disaster Assistance Act; and that the State expedite access to State and Federal resources and any other appropriate Federal; disaster relief programs.

KAREN BASS
Mayor

Dated at Los Angeles, California

Date: August 19, 2023

Time: 10:50 p.m.

Filed with the City Clerk

Date: August 19, 2023

Time: 11:04 pm

By: Signed with ClerkSign Aug 19, 2023 11:04PM

Emergency Services Director of Inyo, State Of California, Proclaiming Existence of A Local Emergency

EMERGENCY SERVICES DIRECTOR OF INYO, STATE OF CALIFORNIA
PROCLAIMING EXISTENCE OF A LOCAL EMERGENCY

WHEREAS, on August 18, 2023, Hurricane Hilary initiated a series of severe weather events, including heavy rain, flooding, lightning, and strong gusty winds, affecting Southern California, particularly Inyo County;

WHEREAS, in response to the developing situation, the National Weather Service issued a sequence of Flood Watches on August 18, 2023, forewarning of the potential for major to historic flooding within Inyo County, spanning the period from August 19, 2023, through August 22, 2023;

WHEREAS, this formidable storm system engendered widespread flooding, necessitating the closure of vital roadways. Notably, a full closure of Highway 395, a critical artery connecting the County with southern California. Furthermore, a full closure of Highway 190 left both inhabitants and visitors within Death Valley National Park stranded. The ramifications extended to essential infrastructure and public transportation systems, compelling the issuance of evacuation advisories and orders;

WHEREAS, the ongoing assessment of the damage incurred by County roads and highways confronts challenges posed by compromised accessibility. Impassable conditions due to washouts and persisting floods have impeded the expeditious evaluation of the extent of destruction;

WHEREAS, Hurricane Hilary's impact, coupled with the consequent debris flow, continues to pose imminent threats to vital infrastructure, both public and private properties, as well as the safety and well-being of the populace residing within the County;

WHEREAS, the Director of Emergency Services finds that these emergency conditions will require additional resources, services, personnel, equipment, and any other assistance, including the combined forces of the mutual aid region to mitigate the effects of the local emergency. These resources are necessary to address immediate threats and to assist in recovery efforts; and,

WHEREAS, Government Code Section 8630, and Inyo County Code Section 2.56.060 empowers the Director of Emergency Services to proclaim the existence of a local emergency when the County Board of Supervisors is not in session and Inyo County is threatened or likely to be threatened by the conditions of disaster or of extreme peril to the safety of persons and property that are or are likely to be beyond the control of the services, personnel, equipment and facilities of this County; and

WHEREAS, the Inyo County Board of Supervisors is not currently in session and cannot immediately be called into session; and

WHEREAS, the Inyo County Board of Supervisors shall take action to ratify this Proclamation within seven days thereafter or the Proclamation shall have no further force or

effect.

NOW, THEREFORE, BE IT RESOLVED AND PROCLAIMED by the Director of Emergency Services for the County of Inyo that, for the reasons set forth herein, a local emergency now exists throughout Inyo County; and,

BE IT FURTHER RESOLVED, PROCLAIMED AND ORDERED that during the existence of this local emergency the powers, functions, and duties of the emergency organization of this County shall be those prescribed by State law, by ordinances, and resolutions, and that this emergency shall be deemed to continue to exist until either the Governor of the State of California, or the Board of Supervisors of the County of Inyo, State of California, proclaims its termination, or if the Board of Supervisors of the County of Inyo does not ratify this proclamation within seven days of its issuance. Further, it is directed that this emergency proclamation be forwarded to the Director of the Governor's Office of Emergency Services and the Governor of the State of California, with a request for additional resources, services, personnel, and equipment.

APPROVED AND ADOPTED on this 21st day of August, 2023, by the Inyo County Director of Emergency Services.

Nate Greenberg,
County Administrative Officer
Director of Emergency Services
County of Inyo, State of California

RESOLUTION NO. 2023-24

**A RESOLUTION OF THE
BOARD OF SUPERVISORS, COUNTY OF INYO, STATE OF CALIFORNIA,
PROCLAIMING THE EXISTENCE OF A LOCAL EMERGENCY RESULTING
FROM HURRICANE HILARY**

WHEREAS, on August 18, 2023, Hurricane Hilary initiated a series of severe weather events, including heavy rain, flooding, lightning, and strong gusty winds, affecting Southern California, particularly Inyo County;

WHEREAS, in response to the developing situation, the National Weather Service issued a sequence of Flood Watches on August 18, 2023, forewarning of the potential for major to historic flooding within Inyo County, spanning the period from August 19, 2023, through August 22, 2023;

WHEREAS, this formidable storm system engendered widespread flooding, necessitating the closure of vital roadways. Notably, a full closure of Highway 395, a critical artery connecting the County with southern California. Furthermore, a full closure of Highway 190 left both inhabitants and visitors within Death Valley National Park stranded. The ramifications extended to essential infrastructure and public transportation systems, compelling the issuance of evacuation advisories and orders;

WHEREAS, the ongoing assessment of the damage incurred by County roads and highways confronts challenges posed by compromised accessibility. Impassable conditions due to washouts and persisting floods have impeded the expeditious evaluation of the extent of destruction;

WHEREAS, Hurricane Hilary's impact, coupled with the consequent debris flow, continues to pose imminent threats to vital infrastructure, both public and private properties, as well as the safety and well-being of the populace residing within the County;

WHEREAS, the Director of Emergency Services finds that these emergency conditions will require additional resources, services, personnel, equipment, and any other assistance, including the combined forces of the mutual aid region to mitigate the effects of the local emergency. These resources are necessary to address immediate threats and to assist in recovery efforts; and,

WHEREAS, the Director of Emergency Services did proclaim the existence of a local emergency within the county on August 21, 2023, a copy of which is attached to this Resolution as Attachment A.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED as follows

Section 1: The Inyo County Board of Supervisors does hereby ratify the declaration of the Director of Emergency Services and proclaims the existence of a Local Emergency in Inyo County as a result of the reasons set forth herein; and,

Section 2: The Inyo County Board of Supervisors request that this emergency proclamation be forwarded to the Director of the Governor's Office of Emergency Services and the Governor of the State of California, with a request for assistance to recover from the threats and effects of Hurricane Hilary to the safety of property and persons in Inyo County including threats to private, Tribal, and public property and infrastructure, public health, environmental health, and the County's economy described but not limited herein, including additional resources, services, personnel, and equipment.

Section 3: The Inyo County Board of Supervisors will review the need for continuing the Local Emergency at least every 30 days and, if appropriate, take action to terminate the local emergency as of the earliest possible date that conditions warrant, pursuant to California Government Code Section 8630(c),

APPROVED AND ADOPTED on this 25th day of August, 2023, by the Inyo County Board of Supervisors, County of Inyo:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Chair, Board of Supervisors
County of Inyo

Attest: Nate Greenberg
Clerk of the Board

By: _____
Assistant Clerk of the Board

Press Releases from County of Inyo, Administrator's Office/Office of Emergency Services/Sheriff's Office

COUNTY OF INYO

ADMINISTRATOR'S OFFICE/OFFICE OF
EMERGENCY SERVICES/SHERIFF'S OFFICE

NATE GREENBERG
COUNTY ADMINISTRATIVE OFFICER

STEPHANIE RENNIE
SHERIFF

MIKAELA TORRES
EMERGENCY SERVICES MANAGER

JOINT PRESS RELEASE

FOR IMMEDIATE RELEASE
August 17, 2023

FOR MORE INFORMATION, CONTACT:
Public Relations Liaison Darcy Ellis, (760) 878-0373
CAO/Emergency Services Director Nate Greenberg, (760) 878-0292
Emergency Services Manager Mikaela Torres, (760) 878-0120

HEAVY RAINS FORECAST FOR INYO
FLASH-FLOODING A POSSIBILITY

The National Weather Service expects a major weather event to hit Death Valley and the Eastern Sierra with heavy rains over the next several days as Hurricane Hilary approaches the Pacific Coast. A Flood Watch will be in effect Saturday evening through late Monday night, when the biggest impacts are expected.

According to the NWS, areas of Inyo County can expect several rounds of rain occurring over 4-5 days, with intermittent breaks, lasting as late as Wednesday. Unlike typical monsoon patterns, rain may persist overnight. Death Valley, in particular, may see 50-100 percent of its annual rainfall during this storm. The amount of rainfall predicted continues to increase, however, as the forecast is constantly updated based on the hurricane's activity. (The hurricane is expected to be downgraded to a tropical storm by the time it reaches the West Coast.)

Local first responders are on alert – with Inyo County Road Crews on standby – and will be particularly focused on vulnerable areas. Local creeks and streams are already running high due to this season's historic runoff and could flood with more heavy rain. Burn scars, dry washes, slot canyons, and any areas downstream of steep, hilly, or mountainous (rocky) terrain are also at risk for flash floods.

Residents and visitors are warned that there will be heightened potential for flash flooding during this storm event, and they should take precautions to protect themselves and their property. Sandbags are available at Inyo County fire stations (Sandbag Locations - March 9 2023.pdf (dropbox.com)).

According to the NWS, more deaths occur every year due to floods than from any other thunderstorm related hazard. Most of those deaths result from driving through flood waters and the second-most deaths are attributable to walking in or near a flooded area. A mere 6 inches of fast-moving water can knock over an adult. It takes just 12 inches of rushing water to carry away most cars, and two feet to sweep away SUVs and trucks. Don't underestimate the power and force of water. It is NEVER safe to walk or drive in flood waters.

Other safety tips include:

- **Stay Informed:** Listen to radio and television, including NOAA Weather Radio if possible, and check trusted internet and social media sources.
- **Get to Higher Ground:** If you live in a flood-prone area or are camping in a low-lying area, get to higher ground immediately.
- **Obey Evacuation Orders:** If told to evacuate, do so immediately. Lock your home when you leave and if you have time, disconnect utilities and appliances.
- **Practice Electrical Safety:** Don't go into a basement, or any room, if water covers the electrical outlets or if cords are submerged. If you see sparks or hear buzzing, crackling, snapping, or popping noises – get out! Stay out of water that may have electricity in it!

The NWS urges residents and visitors to take action should the Flood Watch be upgraded to Flash Flood Warnings. Even after Tropical Storm Hilary moves away, lingering residual moisture could necessitate ongoing vigilance.

RESOURCES AND ALERTS

Current information as well as links to key resources can be found at the Office of Emergency Service's website, https://ready.inyocounty.us.

Individuals who do not have access to the internet and ability to use the Ready Inyo website are encouraged to call 2-1-1. This non-emergency phone service will provide information similar to what is maintained on the Ready Inyo website, as well as the ability to access other County resources via phone. Anyone seeking more information about the storm and storm response is urged to call this number – NOT 9-1-1, which is intended for life safety issues only.

Residents not currently signed up for CodeRED may do so at any time. It is the number one mechanism for informing residents during a local emergency or disaster. CodeRED is an opt-in, high-speed notification solution that quickly delivers emergency messages to targeted areas or the entire county. Because the notifications are geographically based, a street address is required to ensure emergency notification calls are received by the proper individuals in a given situation. If your cell phone number has changed, or you have moved, or if you are new to the area please register at: https://public.coderedweb.com/CNE/en-US/DAD807D480BF.

IPAWS is FEMA's national system for local alerting that provides authenticated emergency and life-saving information to the public through mobile phones using Wireless Emergency Alerts, to radio and television via the Emergency Alert System, and on the National Oceanic and Atmospheric Administration's Weather Radio.

You will receive a CodeRED/IPAWS if the Sheriff's Office determines that there is an imminent threat to life or safety. You will not receive a notification for non-emergent issues.

XXXXXX

COUNTY OF INYO

ADMINISTRATOR'S OFFICE/OFFICE OF
EMERGENCY SERVICES/SHERIFF'S OFFICE

NATE GREENBERG
COUNTY ADMINISTRATIVE OFFICER

STEPHANIE RENNIE
SHERIFF

MIKAELA TORRES
EMERGENCY SERVICES MANAGER

JOINT PRESS RELEASE

FOR IMMEDIATE RELEASE
August 18, 2023

FOR MORE INFORMATION, CONTACT:
Public Relations Liaison Darcy Ellis, (760) 878-0373
CAO/Emergency Services Director Nate Greenberg, (760) 878-0292
Emergency Services Manager Mikaela Torres, (760) 878-0120

FLASH FLOOD THREAT
UPGRADED TO 'EXTREME' 'FOR INYO COUNTY

The National Weather Service-Las Vegas announced this morning it has "high confidence" in flash flooding for Inyo County over the next several days, and has upgraded Inyo County's risk level to "extreme."

With Hurricane Hilary moving closer to the West Coast, the rainfall forecast has increased since yesterday, with 50-100 % of yearly annual rainfall anticipated over the next 5 days. Some locations, like Death Valley, may see that much rainfall in 24 hours.

Major to historic levels of flooding are forecast, especially in Death Valley. Bishop is at a major risk level. For context, the NWS for this region cannot recall ever having an "extreme" flash flooding level before, and even categorizing a risk level "major" is not very common.

Rainfall will be intermittent, with rounds of moderate to heavy rainfall, and is likely to persist overnight. Most impacts are expected Saturday through Tuesday.

The NWS and local first responders cannot stress enough the importance of STORM PREPARDNESS. Once the rainfall starts, it is unlikely to improve until Hilary moves away.

Local first responders are on alert – with Inyo County Road Crews on standby – and will be particularly focused on vulnerable areas. Local creeks and streams are already running high due to this season's historic runoff and could flood with more heavy rain. Burn scars, dry washes, slot canyons, and any areas downstream of steep, hilly, or mountainous (rocky) terrain are also at risk for flash floods.

Residents and visitors are warned that there will be heightened potential for flash flooding during this storm event, and they should take precautions to protect themselves and their property. Sandbags are available at Inyo County fire stations (Sandbag Locations - March 9 2023.pdf (dropbox.com)).

According to the NWS, more deaths occur every year due to floods than from any other thunderstorm related hazard. Most of those deaths result from driving through flood waters and the second-most deaths are attributable to walking in or near a flooded area. A mere 6 inches of fast-moving water can knock over an adult. It takes just 12 inches of rushing water to carry away most cars, and two feet to sweep away SUVs and trucks. Don't underestimate the power and force of water. It is NEVER safe to walk or drive in flood waters.

Other safety tips include:

- **Stay Informed:** Listen to radio and television, including NOAA Weather Radio if possible, and check trusted internet and social media sources.
- **Get to Higher Ground:** If you live in a flood-prone area or are camping in a low-lying area, get to higher ground immediately.
- **Obey Evacuation Orders:** If told to evacuate, do so immediately. Lock your home when you leave and if you have time, disconnect utilities and appliances.
- **Practice Electrical Safety:** Don't go into a basement, or any room, if water covers the electrical outlets or if cords are submerged. If you see sparks or hear buzzing, crackling, snapping, or popping noises – get out! Stay out of water that may have electricity in it!

The NWS urges residents and visitors to take action should the Flood Watch be upgraded to Flash Flood Warnings. Even after Tropical Storm Hilary moves away, lingering residual moisture could necessitate ongoing vigilance.

RESOURCES AND ALERTS

Current information as well as links to key resources can be found at the Office of Emergency Service's website, https://ready.inyocounty.us.

Current weather updates can be found at: https://forecast.weather.gov/MapClick.php...

Individuals who do not have access to the internet and ability to use the Ready Inyo website are encouraged to call 2-1-1. This non-emergency phone service will provide information similar to what is maintained on the Ready Inyo website, as well as the ability to access other County resources via phone. Anyone seeking more information about the storm and storm response is urged to call this number – NOT 9-1-1, which is intended for life safety issues only.

Residents not currently signed up for CodeRED may do so at any time. It is the number one mechanism for informing residents during a local emergency or disaster. CodeRED is an opt-in, high-speed notification solution that quickly delivers emergency messages to targeted areas or the entire county. Because the notifications are geographically based, a street address is required to ensure emergency notification calls are received by the proper individuals in a given situation. If your cell phone number has changed, or you have moved, or if you are new to the area please register at: https://public.coderedweb.com/CNE/en-US/DAD807D480BF.

IPAWS is FEMA's national system for local alerting that provides authenticated emergency and life-saving information to the public through mobile phones using Wireless Emergency Alerts, to radio and television via the Emergency Alert System, and on the National Oceanic and Atmospheric Administration's Weather Radio.

You will receive a CodeRED/IPAWS if the Sheriff's Office determines that there is an imminent threat to life or safety. You will not receive a notification for non-emergent issues.

XXXXXX

COUNTY OF INYO

ADMINISTRATOR'S OFFICE/OFFICE OF
EMERGENCY SERVICES/SHERIFF'S OFFICE

NATE GREENBERG
COUNTY ADMINISTRATIVE OFFICER

STEPHANIE RENNIE
SHERIFF

MIKAELA TORRES
EMERGENCY SERVICES MANAGER

JOINT PRESS RELEASE

FOR IMMEDIATE RELEASE
August 22, 2023

FOR MORE INFORMATION, CONTACT:
Public Relations Liaison Darcy Ellis, (760) 878-0373
CAO/Emergency Services Director Nate Greenberg, (760) 878-0292
Emergency Services Manager Mikaela Torres, (760) 878-0120

EVACUATION ORDER ISSUED

An Evacuation Order has been issued for residences on the north side of Whitney Portal Road, west of Horseshoe Meadows Road for flooding/damage to structures. Please avoid the area for your safety.

An Evacuation Center is located at Health & Human Services, 310 North Jackson St. in Lone Pine.

As a reminder, an Evacuation Order is a lawful order to leave now. The area is lawfully closed to public access due to the immediate threat to life.

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COUNTY OF INYO

ADMINISTRATOR'S OFFICE/OFFICE OF
EMERGENCY SERVICES/SHERIFF'S OFFICE

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Public Information Officer Jessica Johnson: owensvalleycommunity@ladwp.com

DAMAGE BEING ASSESSED, FLOODING CONTINUES

Inyo County, the Los Angeles Department of Water and Power, and allied agencies continue to take stock of the widespread damage caused by the remnants of Tropical Storm Hilary moving through the region Sunday and Monday.

Inyo County Administrator Nate Greenberg declared a local emergency on Monday, while agencies' personnel continue to work countywide to actively survey and evaluate the damage and respond to emerging threats from ongoing flooding.

High waters from Lone Pine Creek flooded Whitney Portal Road earlier in the day today and necessitated an Evacuation Order from the Inyo County Sheriff's Office for the area on the north side of Whitney Portal Road, west of Horseshoe Meadows Road. Inyo County Health & Human Services opened an Evacuation Center at its Lone Pine offices, 310 N. Jackson St. Six structures – all unoccupied – were threatened. Lubken Canyon Road is being used as a detour for Whitney Portal, which was heavily damaged on top of impacts received during the spring and summer runoff.

An earlier Evacuation Order was issued when Oak Creek outside of Independence also overran its banks, flooding U.S. 395. The highway has been reduced to a single lane while maintenance crews work to clear the path.

Both orders remain in effect. An Evacuation Order is a lawful order to leave now, issued due to the immediate threat to life. The area under order is lawfully closed to public access. By contrast, an Evacuation Warning is issued in response to potential threat to life/property and gives advance warning to those who may need extra time to prepare for evacuation.

Local waters – already swollen with unprecedented amounts of runoff – were inundated Sunday and Monday by record amounts of rainfall over a period of less than 12 hours, resulting in extreme flooding and mud flow into creeks, canals, and the Los Angeles Aqueduct (LAA). The high flows in creeks destroyed or damaged most of LADWP diversion and flow measurement structures between the towns of Big Pine and Olancha. Five state highways and more than two dozen county roads sustained significant damage in the storm and remain closed, including State Route 190 in Death Valley National Park. The park itself remains closed.

Damage to S.R. 190 is extensive. State Route 136 is also closed in both directions as a result of water crossing the highway. Motorists are urged not to attempt driving on these roads. Residents in the communities of Keeler, Darwin, and Panamint Valley who need assistance – or any individuals impacted by flooding – may call the non-emergency 2-1-1 phone line.

Caltrans maintenance crews are actively working to reopen the highways in both Inyo and Kern counties. Updates on all Caltrans' road closures are being posted to its social media platforms. County Road crews are likewise busy assessing damage and working to reopen various routes. Updates can be found on the Inyo County Sheriff's Office's Facebook and Instagram pages.

LADWP is utilizing all of its resources, including the request from Los Angeles to support its Operations in Inyo County to help excavate and bail out sand and sediment buildup in the LAA and surrounding waterways. The main work area is the Lone Pine sand trap, where crews are attempting to keep up with sand and debris flow and retain LAA operation. Added resources and equipment have been mobilized. The biggest issue crews are facing is that the creek and sediment are currently too high, making it hard to catch up with sand/debris flow.

Jurisdictions to the north of Inyo County appear to have fared better. "The Town of Mammoth Lakes and Police Department experienced heavy rainfall from Tropical Storm Hilary but fortunately, had no major incidents," a Town spokesperson said. "On Sunday afternoon, a large boulder slid down on to John Muir Road. Crews were able to move it before it caused any traffic collisions. Several visitors were delayed in their closures and to stay away from the river and creeks. Banks have been overrun with water and there is a large departure or took alternate routes due to the closure of Highway 395 on Monday. The Town extends our wishes to our neighboring counties who experienced far more disruption."

The story was similar for the County of Mono. "While the county was fully prepared, the impacts of Tropical Storm Hilary were minimal in Mono County. We have received no reports of flooding or damage to local roads or highways. We are grateful for the pre-positioning of resources and equipment throughout the county from the Mono County Fire Districts, and appreciate the MWTC Fire Department for having their swift water rescue team available," a spokesperson said.

LADWP, the Sheriff's Office, and Inyo County Office of Emergency Services urge the public to obey all road closures and to stay away from the Owens and River and local creeks. Banks have been overrun with water and there is a large amount of mud and debris in many areas.

RESOURCES

Sandbags are still available at Inyo County fire stations (Sandbag Locations - March 9 2023.pdf (dropbox.com)).

Road closure updates as well as links to key resources can be found at the Office of Emergency Service's website, https://ready.inyocounty.us.

Current weather updates can be found at: https://forecast.weather.gov/MapClick.php...

Individuals who do not have access to the internet and ability to use the Ready Inyo website are encouraged to call 2-1-1. This non-emergency phone service will provide information similar to what is maintained on the Ready Inyo website, as well as the ability to access other County resources via phone. Anyone seeking more information about the storm and storm response is urged to call this number – NOT 9-1-1, which is intended for life safety issues only.

Residents not currently signed up for CodeRED may do so at any time. It is the number one mechanism for informing residents during a local emergency or disaster. CodeRED is an opt-in, high-speed notification solution that quickly delivers emergency messages to targeted areas or the entire county. Because the notifications are geographically based, a street address is required to ensure emergency notification calls are received by the proper individuals in a given situation. If your cell phone number has changed, or you have moved, or if you are new to the area please register at: https://public.coderedweb.com/CNE/en-US/DAD807D480BF.

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JOINT PRESS RELEASE

FOR IMMEDIATE RELEASE
August 24, 2023

FOR MORE INFORMATION, CONTACT:
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Emergency Services Manager Mikaela Torres, (760) 878-0120
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WORK CONTINUES TO ASSESS DAMAGE, MAKE REPAIRS

Inyo County and the Los Angeles Department of Water and Power are making progress surveying the damage wrought by Hurricane Hilary and repairing critical infrastructure taken offline by the rainfall and flash flooding.

Yesterday and today, Inyo County Road Crews were able to reopen four of the 22 roads damaged by the storm as it blew through the area on Sunday and Monday, dropping record amounts of precipitation in less than 12 hours. The reopened routes include Horseshoe Meadows, Tuttle Creek, Tecopa Hot Springs, and State Line roads.

Additionally, Caltrans crews have been working around the clock to restore access to the communities of Darwin, Keeler, and Homewood Canyon. The County remains in communication with the residents regarding needed services. State Route 190 in Death Valley National Park sustained major damage and the park remains closed to the public. S.R. 190 and S.R. 136 outside of the park are also closed to the public.

The County and LADWP thank the public for its cooperation and ask for continued patience as they assess damages, which are severe and widespread. Estimated timeframes for reopening certain roads are not available and are dependent on numerous factors. The situation is also ever-changing, as LADWP works to redirect waters to their channels.

"Our aqueduct crews continue to make progress on local waterways, working to relieve any blockages to water flows," LADWP Aqueduct Manager Adam Perez said. "There are several active work sites in multiple locations in the Owens Valley and we urge the public to please cooperate with closure and warning signs and give the crews the space needed to conduct this very important work. Conditions are still dangerous in many areas with high flows and mud and debris buildup."

Frequent updates on the status of Inyo County roads are posted daily on the Sheriff's Office's Facebook and Instagram, and can be found here along with links to Caltrans' road updates: https://ready.inyocounty.us/pages/road-closures.

Evacuation Orders are still in effect for the Oak Creek community outside of Independence and the area on the north side of Whitney Portal Road, west of Horseshoe Meadows Road. The Sheriff's Office continues to closely monitor the situations in Oak and Lone Pine creeks.

Local waters – already swollen with unprecedented amounts of runoff – were inundated by Sunday and Monday's rainfall, resulting in extreme flooding and mud flow into creeks, canals, and the Los Angeles Aqueduct (LAA). The high flows in creeks destroyed or damaged most of LADWP diversion and flow measurement structures between the towns of Big Pine and Olancha. Five state highways and more than two dozen county roads sustained significant damage in the storm.

LADWP, the Sheriff's Office, and Inyo County Office of Emergency Services urge the public to obey all road closures and to stay away from the Owens and River and local creeks. Banks have been overrun with water and there is a large amount of mud and debris in many areas.

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JOINT PRESS RELEASE

FOR IMMEDIATE RELEASE
August 25, 2023

FOR MORE INFORMATION, CONTACT:
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CAO/Emergency Services Director Nate Greenberg, (760) 878-0292
Emergency Services Manager Mikaela Torres, (760) 878-0120
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STORM RECOVERY EFFORTS CONTINUE

Inyo County and the Los Angeles Department of Water and Power ask for the public's continued cooperation while the agencies push on with damage assessment and repair throughout Inyo County.

Remnants of Hurricane Hilary passing through the region Sunday and Monday dumped record amounts of rain – up to 5 inches in some places – over about 12 hours' time, leading to widespread flooding and mud and debris flows. Twenty-four County roads were impacted; 22 remain closed to the public due to extensive damage that includes severe undercutting, rockslides, and washouts. Whitney Portal Road is among the most severely hit.

State Route 190 in and out of Death Valley National Park sustained heavy damage along with State Route 136 outside of Olancha. Both highways remain closed, though Caltrans crews and contractors are working around the clock to repair the routes and restore access to and from the communities of Keeler, Darwin, and Panamint Valley.

The high flows in creeks destroyed or damaged most of LADWP diversion and flow measurement structures between the towns of Big Pine and Olancha. LADWP personnel continue working to clear obstructions from local waterways, including the Los Angeles Aqueduct (LAA), and redirect water back to its proper channels. The work should aid in road repairs in various locations.

Damage assessments have really only just begun. That, and numerous other variables, make it difficult for agencies to provide estimated times for reopening.

So considerable is the storm's destruction, that its scale is almost unprecedented for Inyo County. Supervisor Matt Kingsley noted Friday that at one point, every road in the Fifth District's 8,000-plus square miles – including U.S. 395 – was closed. Supervisor Kingsley and the rest of the Board met

for a special meeting Friday morning to hear damage reports and updates and ratify the local emergency proclamation made Monday by CAO/Director of Emergency Services Nate Greenberg.

County Deputy Public Works Director Shannon Platt told the Board that this week's storm has caused more destruction than he has seen in the last 30 years working with the Road Department combined. Death Valley National Park Interpretation Operations Supervisor Jennette Jurado reported that the damage to S.R. 190 is so extensive, there are areas where 75-100 percent of the roadway is simply gone. She said it will take "at least weeks" before the park is able to be reopened to the public, noting that personnel hasn't been able to assess everything yet because there are many areas they cannot access.

County and other officials are urging motorists to please obey all road closures and to stay out of Death Valley National Park – not just to keep themselves out of danger, but to keep emergency resources focused on the critical tasks requiring attention and prevent additional roadway damage.

Frequent updates on the status of Inyo County roads are posted daily on the Sheriff's Office's Facebook and Instagram, and can be found here along with links to Caltrans' road updates: https://ready.inyocounty.us/pages/road-closures.

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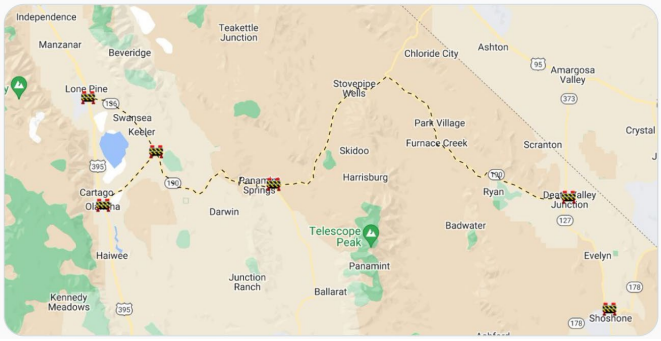
CalTrans Social Media Posts

Caltrans District 9 @Caltrans9 · Aug 20

REMINDER: 3 Inyo County highways are closed due to flooding:
SR 190 from Olancha to Death Valley Junction
SR 178 into @DeathValleyNPS
SR 136 from Lone Pine to the junction of SR 190
@Caltrans9 crews are working through the weekend to reopen these roads.
quickmap.dot.ca.gov



Caltrans District 9 @Caltrans9 · Aug 20

ATTN DRIVERS: State Route 190 remains closed due to flooding. Here is a look at the flood waters at Lower Centennial between Olancha and State Route 136.

Caltrans District 9 @Caltrans9 · Aug 23

As part of the emergency contract, temporary roads will be built for residents needing to reach vital services in Lone Pine and elsewhere along U.S. 395. 2/

Courtesy of LADWP.

Caltrans District 9 @Caltrans9 · Aug 23

ATTN DRIVERS: An emergency work order has been issued for repairs to State Route 190 and State Route 136 following Tropical Storm Hilary. Fisher Sand & Gravel has been contracted for the first phase of repairs, which covers both highways between Olancha and Panamint Springs. 1/🧵

Caltrans District 9 @Caltrans9 · Aug 25

DO NOT GO AROUND BARRIERS FOR CLOSED ROADS! Google maps is NOT updating Inyo county closures following Tropical Storm Hilary.
YOU PUT YOURSELF AND OTHERS AT RISK BY DOING SO. Allow crews to do their jobs SAFELY within closures by staying out of construction sites.

Caltrans District 9 @Caltrans9 · Sep 5

ATTN DRIVERS: State Route 190 remains closed between Olancha and Death Valley Junction. @Caltrans9 has issued 2 emergency contracts to repair the damage caused by Tropical Storm Hilary. These pictures illustrate just some of the repairs that will need to be made before reopening.

GB23-01 – Interim Variance
GBUAPCD Staff Report

INTERIM VARIANCE REQUEST BEFORE THE HEARING BOARD

OF THE GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

Petitioner: City of Los Angeles
Department of Water & Power
111 North Hope Street, Room 1050
Los Angeles, California 90012

Request Received: October 13, 2023

Facility: Owens Lake Dust Mitigation Project
111 Sulfate Road, Keeler, CA 93530

Docket Number: GB23-01

Hearing Date: November 3, 2023

STAFF REPORT AND RECOMMENDATION FOR DENIAL OF INTERIM VARIANCE PETITION FOR OWENS LAKE

SUMMARY

The City of Los Angeles Department of Water and Power (LADWP) filed an interim and regular variance petition on October 13, 2023 (Petition), requesting relief from the requirements of Great Basin Unified Air Pollution Control District (District) Governing Board Order 160413-01, District Rule 433, District Notice to Comply 2002, and California Health and Safety Code 42316 for portions of the Owens Lake Dust Mitigation Project that were subject to damage of Tropical Storm Hilary on August 20 and 21, 2023. The resulting flooding, debris flow, sediment deposition, and erosion damaged dust control areas on the south and east portions of Owens Lake. The deposition of material from these events has the potential to be emissive and these emissions, from both within and outside the ordered dust control areas, may impact public health as well as cause exceedances of federal and state air quality standards. The Petition includes a request for relief for 1,246 acres (~2 square miles) and includes portions of Managed Vegetation BACM areas (T5, T6, T7, T8) as well as partial or full Shallow Flood BACM areas (T5-2, T5-3, T13-1, T5-3 Addition, T17-1). The specific areas and acreage of each request area are detailed in Exhibit 1. The regulatory documents that LADWP seeks relief from are included in this staff report as Exhibits 2-4.

The Petition presents the Hearing Board with two unprecedented and conflicting actions. First, it is undisputed that Tropical Storm Hilary was a severe weather event that caused significant damage. Second, however, it is also undisputed that the LADWP is currently in intentional violation of District rules, orders, a prior Stipulated Order of Abatement, the 2014 Stipulated Judgment against LADWP and Health & Safety Code Section 42316. Because LADWP has defects in its Petition and is currently in intentional violation of the law, it cannot provide sufficient evidence for the Hearing Board to make the required findings under California Health and Safety Code Section 42352, including a finding that during the period the variance is in effect, the applicant will reduce excess emissions to the maximum extent feasible.

Under these unusual circumstances, where excess emissions are currently caused solely by LADWP's intentional actions that are fully within its control, District Staff recommends this Petition for an *interim* variance be denied. The matter should be considered at a *regular* variance hearing after proper public notice to allow a meaningful opportunity for the public for participation in this matter. This will also provide an opportunity for LADWP to rectify these deficiencies in its Petition.

BACKGROUND

LADWP is required by law to control particulate matter emissions from the Owens Lake bed caused by its diversion of water from the Owens River and other tributaries to the Los Angeles Aqueduct. To control these emissions, District Board Order 160413-01 and District Rule 433 require LADWP to implement approved Best Available Control Measures (BACM) in areas where the District has ordered dust controls. There are several approved BACMs including Shallow Flooding and Managed Vegetation. Each BACM has specific performance requirements that must be met from October 16 through June 30 of each year.

The variance petition presents evidence that Tropical Storm Hilary resulted in flooding, sediment deposition, and erosion that damaged BACM Shallow Flooding and Managed Vegetation dust control areas and associated infrastructure in portions of the Owens Lake Dust Mitigation Project to the extent that LADWP has indicated the areas are, or will be, noncompliant with District BACM requirements as required under District Board Order 160413-01 and District Rule 433 until LADWP can complete repairs and additional work in the areas. Additionally, T13-1, an area included in this variance request was subject to District Notice to Comply 2002, issued April 28, 2022, regarding failure of the area to meet BACM Shallow Flooding requirements. LADWP provided a corrective action plan but has been unable to complete the work due to flash flooding that occurred last year and the impacts of Tropical Storm Hilary.

The flash flooding rainfall events that occurred in August and September 2022 near Owens Lake resulted in damage to dust control areas and LADWP seeking variance relief. The Hearing Board granted interim variance as requested by LADWP on November 2, 2022, for portions of T13-1, T13-1 Addition, and T17-2 South. LADWP was able to complete repairs between the hearings, such that the variance area was reduced prior to the regular hearing. The regular variance was granted on November 16, 2022, for T13-1 and T13-1 Addition as requested by LADWP.

The variance petition also presents facts that LADWP is intentionally in violation of District Board Order 160413-01 and District Rule 433. See Petition Item No. 12. LADWP knowingly and deliberately is in current violation of District Order District Governing Board Order 210701-06 issued under Health & Safety Code Section 42316 requiring it to implement a vegetation enhancement project to control excess dust emissions. The controls were recommended by a task force consisting of tribal stakeholders, state resource agencies, and LADWP itself. While LADWP has reversed course and now asserts this District Order is illegal, it failed to appeal that Order to the California Air

Resources Board and has waived any objections to that Order. Instead, it has filed a lawsuit against the District seeking to avoid the Order, which is currently pending in Orange County Superior Court.

REQUIRED FINDINGS

A variance is a request by a party that is required to comply with a District rule, regulation or order that seeks an administrative exception to a law. A variance allows a party to operate for a limited period of time in violation of those legal requirements without penalty, **on the condition** that it takes appropriate steps to meet the air pollution control requirements and returns to full compliance as quickly as possible. The party seeking a variance must act in good faith and make a factual and technical demonstration of its intention and ability to comply with the air pollution requirements.

A variance can be granted only by the Hearing Board. An interim variance is a request to be excused without penalty until a regular variance hearing can be held. It does not require notice to the public and is not required to be heard by the full Hearing Board. A regular variance requires public notice to allow an opportunity for their meaningful participation.

For purposes of this Staff Report, the only matter before the Hearing Board at the November 3, 2023 interim hearing is whether or not to grant an interim variance.

California Health and Safety Code Section 42352, requires that no variance shall be granted unless the petitioner has presented sufficient evidence that the Hearing Board can make the required findings. The six required findings are summarized below:

1. That the petitioner is, or will be, in violation of any District rule, regulation, or order.
2. Due to conditions beyond the reasonable control of the petitioner, requiring immediate compliance would impose an arbitrary or unreasonable taking of property, or the practical

closing and elimination of a lawful business, considering whether or not requiring immediate compliance would impose an unreasonable burden upon an essential public service.

3. That the closing would be without a corresponding benefit in reducing air contaminants.
4. That the applicant for the variance has considered curtailing operations of the source in lieu of obtaining a variance.
5. During the period the variance is in effect, the applicant will reduce excess emissions to the maximum extent feasible.
6. During the period the variance is in effect, the applicant will monitor or otherwise quantify emission levels from the source if requested to do so by the district, and report these emission levels to the district pursuant to a schedule established by the district.

DISCUSSION

The Petition contains several significant deficiencies and errors. First, the Petition incorrectly defines the "facility," "operation" and "business" for which variance relief is sought as the Owens Lake Dust Mitigation Program. Under Health & Safety Code § 42352, the correct application of the statutory term "facility" is the Owens Dry Lake bed. The correct application of the statutory terms "operation" and "business" is the LADWP's operation and business to divert water from the Owens River to the Los Angeles Aqueduct, that causes the Owens Lake bed to become emissive with the release of dangerous particulate air emissions to the air and surrounding communities. In its Petition and attempt to provide sufficient evidence to make the required findings for interim variance relief, the LADWP's fails to provide facts regarding the proper facility, operation and business as addressed in more detail below in the discussion of those required findings.

Second, in Petition Item No. 2, LADWP incorrectly seeks variance relief from Health & Safety Code Section 42316. The Hearing Board may not grant variance relief from state law. LADWP does not explain the factual bases for this portion of its request for variance relief.

In light of these facts and the analysis below, District staff finds that LADWP has not presented sufficient evidence required to grant a variance. A discussion of each of the findings required to be made by California Health and Safety Code § 42352 to be made are presented below.

1. That the petitioner is, or will be, in violation of any District rule, regulation, or order.

LADWP has presented a list of the regulations it seeks relief from regarding the impacts from Tropical Storm Hilary. However, LADWP is also in deliberate and ongoing violation of District Governing Board Order 210701-06 at its facility. In 2021, the District Governing Board issued Board Order 210701-06 to LADWP to implement reasonable controls, a vegetation enhancement project, in a portion of Owens Lake. This area has previously been ordered for controls by the District, but implementation of those controls was deferred due to the presence of sensitive resources. The District worked with the Pastiata (Owens Lake) Cultural Resources Task Force to develop alternative controls, the group recommended the vegetation enhancement project to the District Governing Board, prior to the Board's adoption of the Order. Since 2021, LADWP has refused to implement the project. The District has taken enforcement action, including writing a Notice of Violation. The District and LADWP are currently litigating over the Order and LADWP's refusal to implement reasonable controls in the area. The Hearing Board should find that LADWP is, or will be, in violation of any District rule, regulation, or order both from Tropical Storm Hilary, and by its own decisions to intentionally violate those same rules, regulations and orders.

2. *Due to conditions beyond the reasonable control of the petitioner, requiring immediate compliance would impose an arbitrary or unreasonable taking of property, or the practical closing and elimination of a lawful business, considering whether or not requiring immediate compliance would impose an unreasonable burden upon an essential public service.*

There are two considerations. First, due to the extent of damage for Tropical Storm Hiliary, there is evidence that immediate compliance is beyond the reasonable control of petitioner in certain areas identified in the variance request, and as such LADWP argues that requiring immediate compliance would be an unreasonable burden to a public utility. Second, however, LADWP has failed to present evidence that its compliance with Governing Board Order 210701-06 at its facility is beyond its reasonable control, or that requiring immediate compliance would impose an unreasonable burden upon an essential public service. To the contrary, the control measures are reasonable, were proposed by a task force with LADWP's participation, and were not appealed to the California Air Resources Board within 30 days as required by Health & Safety Code Section 42316. The Hearing Board should accordingly find there is insufficient evidence to make this Finding No. 2.

3. *That the closing would be without a corresponding benefit in reducing air contaminants.*

Under Health & Safety Code Section 42316, the City's right to divert water is balanced by the requirement that it comply with law and with District Orders for implementation of reasonable measures and the payment of reasonable fees. Cessation of water diversions would have a corresponding benefit in reducing air contaminants from the dried Owens Lake bed. However given the statutory scheme, the Owens Lake Dust Mitigation Project is designed to allow the City to comply with reasonable air pollution control measures in lieu of a shutdown of its operations. The dust controls require repairs to return to their full performance to mitigate dust, and require LADWP's actions to comply with all District rules, requirements and orders. In the current situation of

LADWP's intentional refusal to comply with District Orders to implement control measures, the Hearing Board should find the Petition contains insufficient evidence to make this Finding No. 3.

4. *That the applicant for the variance has considered curtailing operations of the source in lieu of obtaining a variance.*

LADWP presents insufficient evidence that it considered curtailing its water diversion operations. LADWP offers no evidence that its considered curtailing its facility operations. It limits the scope of its evidence to its assertion that it considered curtaining its dust mitigation program. See Petition Item No. 8. The Hearing Board should find the Petition contains insufficient evidence to make this Finding No. 4.

5. *During the period the variance is in effect, the applicant will reduce excess emissions to the maximum extent feasible.*

LADWP is not reducing excess emissions at its facility to the maximum extent feasible. LADWP's refusal to implement reasonable controls in a potentially emissive area of Owens Lake is an ongoing and intentional violation of District Governing Board Order 210701-06. The Hearing Board should make a finding that LADWP has presented insufficient evidence to make this Finding No. 5.

6. *During the period the variance is in effect, the applicant will monitor or otherwise quantify emission levels from the source if requested to do so by the District, and report these emission levels to the district pursuant to a schedule established by the District.*

LADWP has indicated in its application that they plan to monitor and report to the District in the event a variance is granted.

As presented above, District staff finds the LADWP has submitted insufficient evidence to establish the required findings to grant an interim variance due to deficiencies in the Petition and

LADWP's ongoing violation of District Governing Board Order 210701-06. District staff supported both the 2022 interim and regular variance petitions because at that time District staff believed there was resolution on the implementation of the vegetation enhancement project as required by District Governing Board Order 210701-06 and thought LADWP was making progress toward compliance. Since that time, LADWP has filed additional litigation against the District and has continued to refuse to implement reasonable controls in the area. LADWP intentionally and knowingly has taken these actions in violation of Health & Safety Code Section 42316 and the 2014 Stipulated Judgment entered against it by the Superior Court of the State of California. For purposes of this interim variance hearing, the Hearing Board does not need to decide the issues raised in the LADWP's lawsuit or the pending litigations. Rather, the Hearing Board should find LADWP has not presented sufficient evidence to make the necessary findings under California Health and Safety Code § 42352. California Health and Safety Code § 42352

STAFF RECOMMENDATION

District staff recommends the Hearing Board deny the interim variance request. District staff find that the Petition has several deficiencies and errors, and that LADWP's ongoing and intentional violation of District Governing Board Order 210701-06 to implement a vegetation enhancement project prevents granting of a variance. In sum:

1.) LADWP has not, and cannot, present sufficient facts to make the required findings to grant a variance, and

2.) LADWP continues to fail to make a good faith attempt to comply with the District air pollution requirements, specifically District Governing Board Order 210701-06. A petitioner cannot request variance relief when there is knowing and intentional violations of a District Order.

District staff recommends that in addition to denying the interim variance request, the Hearing Board should notice and hold the regular variance hearing. The petitioner may submit updated information to the Hearing Board and District staff prior to the regular hearing.

Alternatively, if the Hearing Board determines it can make the required findings under California Health and Safety Code § 42352 and decides to grant an interim variance, Exhibit 5 contains a list of District staff recommended interim variance conditions.

Phillip L. Kiddoo
Air Pollution Control Officer

20231030
Date

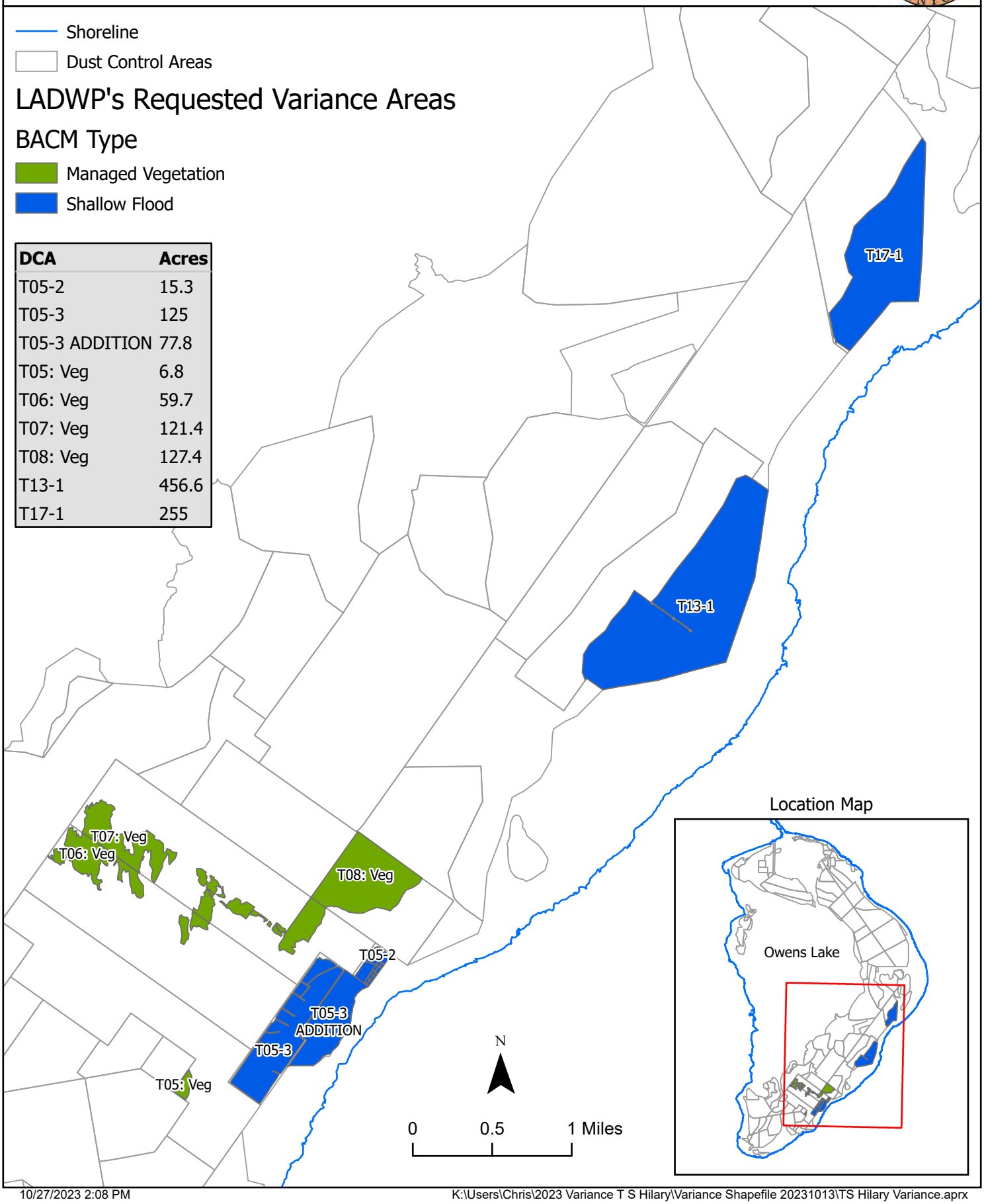
DISTRICT EXHIBITS

EXHIBIT 1 – Map and Table of Requested Variance Areas
EXHIBIT 2 – District Board Order 160413-01
EXHIBIT 3 – District Rule 433
EXHIBIT 4 – Notice to Comply 2002
EXHIBIT 5 – Variance Conditions

GB23-01 – Interim Variance
GBUAPCD Staff Report – Exhibit 1

Map and Table of Requested Variance Areas

Requested Variance Areas



DCA	Acres
T05-2	15.3
T05-3	125
T05-3 ADDITION	77.8
T05: Veg	6.8
T06: Veg	59.7
T07: Veg	121.4
T08: Veg	127.4
T13-1	456.6
T17-1	255

10/27/2023 2:08 PM

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GB23-01 – Interim Variance
GBUAPCD Staff Report – Exhibit 2

District Board Order 160413-01

BOARD ORDER #160413-01
REQUIRING THE CITY OF LOS ANGELES TO UNDERTAKE MEASURES TO CONTROL PM_{10} EMISSIONS FROM THE DRIED BED OF OWENS LAKE

To comply with the federal Clean Air Act and state law for the control of particulate matter 10 microns in size or less (PM_{10}) emitted from the dried bed of Owens Lake, the Governing Board of the Great Basin Unified Air Pollution Control District (District) orders the City of Los Angeles (City) as follows:

PREAMBLE

A. WHEREAS the federal Clean Air Act, state law and orders duly adopted by the District, the 1998 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (1998 SIP) dated November 16, 1998, the 2003 Revision to the Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (2003 SIP) dated November 13, 2003, the 2008 Revision to the Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (2008 SIP), 2013 Amendment to the Owens Valley PM10 SIP dated September 16, 2013 (2013 SIP Amendment) require the City to implement a series of measures and actions to reduce particulate emissions from the Owens Lake bed by a minimum of five percent per year such that the Owens Valley Planning Area (OVPA) will attain and maintain the federal 24-hour National Ambient Air Quality Standards (NAAQS) for PM_{10} by the statutory deadlines, and to achieve compliance with the California Ambient Air Quality Standard (CAAQS) for PM_{10};

B. WHEREAS, the District is required by law to maintain its discretion to protect the environment, public health and safety, this Order is intended to fulfill those duties without improperly constraining that lawful exercise of discretion;

C. WHEREAS, in 2008, the District adopted Governing Board Order (Board Order) #080128-01 and submitted the Board Order to the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) as part of the 2008 SIP (2008 SIP Order); and CARB approved the 2008 SIP and Order and submitted them to the EPA for approval, which is pending before EPA; and in addition, the provisions of the 2008 SIP Order were approved by

EPA as part of the Coso Junction Maintenance Plan in 2010 (75 Fed. Reg. 54031 [September 3, 2010]);

D. WHEREAS, in 2013, the District amended the 2008 SIP Order by adopting Board Order #130916-01 (2013 SIP Amendment) to extend certain deadlines and incorporate provisions for the modification of PM_{10} control projects known as the "Phase 7 Project" and the "Keeler Dunes Project" as discussed in the 2016 OVPA SIP Chapter 6 that are necessary to meet the air quality standards, and submitted this amendment to CARB and EPA for approval, which is pending;

E. WHEREAS, through modeling and monitoring requirements set forth in adopted SIPs and SIP amendments, the District has determined that additional measures and actions will be required to continue to reduce PM_{10} emissions in the OVPA such that the OVPA will attain and maintain the federal 24-hour NAAQS for PM_{10} by the statutory deadlines, and to meet the CAAQS at residences within communities zoned for residential use in the Inyo County General Plan Use Diagrams in accordance with District Rule 401.D (State Standard);

F. WHEREAS, in 2011 a dispute arose between the District and the City regarding the District's requirements for the City to control dust from additional areas at Owens Lake beyond those areas identified in the 2008 SIP, followed by a series of appeals to the California Air Resources Board under Health & Safety Code Section 42316;

G. WHEREAS, those disputes were fully and finally resolved by a Stipulated Judgment entered in favor of the District on December 30, 2014 in the case entitled *City of Los Angeles, et al. v California Air Resources Board,* Sacramento Superior Court, Case No. 34-2013-80001451-CU-WM-GDS (Stipulated Judgment). Under the Stipulated Judgment, the City agreed in part to operate and maintain existing dust control measures, and implement additional dust control measures by December 31, 2017, and the District agreed, in part, to revise the 2008 SIP as provided in the Stipulated Judgment;

H. WHEREAS, the purpose and intention of this Board Order is to revise and supersede the 2008 SIP Order with the applicable provisions of Board Order #080128-01 and Board Order #130916-01 (2013 SIP Amendment). This Board Order (2016 SIP Order) will be

enforceable upon adoption by the District as state law, and will be submitted to the CARB and EPA for their review and approval as a proposed revision to the Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (2016 SIP);

I. WHEREAS, in consideration of the District's continuing duties under federal and state law, including but not limited to the Clean Air Act and California Health and Safety Code, to control PM_{10} emissions from the Owens Lake bed without interruption, the District intends, if this Order is stayed or disapproved, that Board Orders #080128-01 and #130916-01, and the Stipulated Judgment shall continue to be in effect, so that at all times there will be continuous control of these emissions;

J. WHEREAS, the District thereby intends that if this Order is stayed due to a legal challenge, including but not limited to a challenge to this Order under Health & Safety Code Section 42316, to the 2016 SIP, or to the Environmental Impact Report for this SIP, or if this Order is disapproved by CARB, the District will revert to enforce the terms of Board Orders #080128-01 and #130916-01, and the Stipulated Judgment which shall continue to be in effect and shall remain in full force for the duration of any stay or, in the case of disapproval, unless and until another Order is issued by this Board; and

K. WHEREAS, pursuant to Section 172(e) of the Clean Air Act, to prevent the deterioration of air quality due to dismantling or "backsliding" on control measures that have already been implemented before any such stay or disapproval, the District intends that the City shall continue to operate and maintain all control measures that are operational or implemented, or were in the process of transitioning to a different control measure at the time of any such stay or disapproval without interruption, unless and until a further Order of the District allows for such interruption;

THEREFORE, IT IS HEREBY ORDERED AS FOLLOWS:

ORDER

OWENS LAKE BED PM_{10} CONTROL MEASURE AREAS

1. Existing PM_{10} controls – At all times starting from January 1, 2016, the City shall continue to operate and maintain the 45.0 square miles of existing controls for PM_{10} as

described in this Paragraph in the areas on the Owens Lake bed within the Dust Control Areas (DCA) delineated in Exhibit 1:

A. On the 29.8 square miles ordered by Board Order #031113-01 (2003 SIP) within the 2003 DCA, the City shall continue to operate and maintain District-approved Best Available Control Measures (BACM) as described in Paragraphs 9 through 12.

B. On the 12.7 square miles ordered by Board Order #080128-01 (2008 SIP) within the 2006 DCA, the City shall continue to operate and maintain District-approved BACM as described in Paragraphs 9 through 12, except as follows:

i. On the T1A-1 area consisting of 0.39 square miles within the 12.7 mile 2006 DCA as shown in Exhibit 1, the City shall continue to operate and maintain sand fences in the natural occurring partially vegetated and seasonally wet T1A-1 area as required to comply with the minimum dust control efficiency (MDCE) performance standards set forth in the 2008 SIP Order and shown in Exhibit 2, and;

ii. For the "Phase 7a" area consisting of 3.1 square miles within the 12.7 mile 2006 DCA as shown in Exhibit 1, the City shall install and fully operate all BACM by December 31, 2015, except for any Managed Vegetation BACM within this area, for which the City shall install all infrastructure and plant materials by December 31, 2015, and achieve fully-compliant Managed Vegetation BACM as set forth in Paragraph 10 by December 31, 2017. This Paragraph is further subject to the exception for Phase 7b areas set forth in Paragraph 2.

C. On 0.5 square-miles on the south end of Owens Lake known as the "Channel Area," the City shall continue to operate and maintain dust controls using application of water to enhance existing vegetation coverage as required to comply with the MDCE performance standards set forth in the 2008 SIP Order and shown in Exhibit 2.

D. On the 2.0 square miles known as the Phase 8 area identified in Board Order #110317-01, the City shall continue to operate and maintain Gravel Blanket BACM as set forth in Paragraph 11.

2. Phase 7b Cultural Resource Areas

A. For the Phase 7a project area delineated in Exhibit 1, certain subareas contain cultural resources that qualify the subarea as an "Eligible Cultural Resource Areas" under the provision of the California Register of Historic Resources. These areas are designated as "Phase 7b" areas and were removed from the Phase 7a area for controls by Board Order #130916-01.

B. The District Board will decide at a later date whether PM_{10} controls are required in the Phase 7b areas in order to attain and maintain the NAAQS and State Standard after following the process described in Board Order #130916-01, and if necessary will issue a separate Board Order(s) for controls in those areas.

3. Phase 9/10 Project to Implement 2011 and 2012 Supplemental Control Requirement Determinations

A. In addition to the 45.0 square miles of controls set forth in Paragraph 1, by December 31, 2017, the City shall construct and permanently operate a PM_{10} control project by selecting and installing BACM on 3.62 square miles of lakebed areas identified in the 2011 Supplemental Control Requirements Determination (SCRD) and 2012 SCRD (collectively referred to as the "Phase 9/10" areas). With the exception of Eligible Cultural Resource Areas removed from the Phase 7a area under the provisions set forth in Paragraph 2, the Phase 9/10 areas shall bring the total area of the City's dust controls on the Owens Lake bed to 48.6 square miles. The construction deadline set forth in this paragraph is subject to the Force Majeure and Stipulated Penalties provisions set forth in Paragraphs 16 and 17.

B. The City may submit an application to the District's Air Pollution Control Officer (APCO) to approve modifications to the City's proposed Phase 9/10 project or measures on certain areas that are determined to contain significant cultural

resources. The District shall consider and decide the City's application under the procedures contained in the 2013 Stipulated Abatement Order #130819-01.

C. The Phase 9/10 project will use dust control measures that are waterless or "water neutral" by offsetting any new or increased water use with water savings elsewhere on the lakebed.

4. Minor adjustments to PM_{10} control area boundaries – Upon written request by the City to the District and written approval by the District's APCO, minor adjustments may be made to the interior and exterior boundaries of the Phase 9/10 project area to avoid impacts to existing resources or features, or for constructability reasons, which approval shall not be unreasonably withheld. The City shall demonstrate by District-approved modeling that such adjustments do not have an impact on the ability of the Phase 9/10 area to meet the PM_{10} control performance requirements.

PM_{10} CONTROL MEASURES

5. The City shall implement BACM PM_{10} control measures as set forth in this Order and as described below in Paragraphs 9 through 11, or where allowed by the District, the MDCE BACM PM_{10} control measures described in Paragraph 12.

6. All PM_{10} control measures within the 12.7 square mile 2006 Supplemental DCA identified in Paragraph 1.B shall be designed, constructed, installed, operated and maintained by the City to achieve at least the initial target shown in Exhibit 2. MDCEs are the actual dust control measures control efficiencies required to meet the PM_{10} NAAQS, based on data collected during the four-year period between July 2002 and June 2006.

7. To complete implementation of a specified control measure by a date as required by this Order means that the control measure shall be constructed, installed, operated and maintained without interruption, so as to comply with the performance standards for the specified control measure no later than 5:00 p.m. on the required date.

CONTINGENCY PM_{10} CONTROL MEASURES

8. Additional BACM Contingency Measures to meet National Ambient Air Quality Standards (Clean Air Act Section 172(c)(9), 42 U.S.C. § 7502(c)(9).)

A. To provide the emission reductions necessary to meet the NAAQS and State Standard in the OVPA, the APCO may order the City on or any time after January 1, 2016 to implement BACM PM_{10} control measures on additional areas on the dried Owens Lake bed from those implemented under Paragraphs 1-3 of this order (BACM Contingency Measures). The City may be ordered to implement BACM Contingency Measures such that the total area where the City shall implement BACM PM_{10} controls is up to 53.4 square miles, and the City shall comply with those orders without appeal. These control areas need not be contiguous.

B. The District will not order the City to implement mitigation measures on additional areas on the lakebed beyond the total area of 53.4 square miles under Health & Safety Code Section 42316 or any other law, to control windblown dust emissions (including PM_{10}, $PM_{2.5}$ or any speciated components or products of PM). The provisions in this paragraph do not apply to fee orders issued to the City under Health & Safety Code Section 42316, or any orders for areas that are not on the dried Owens Lake bed.

C. At least once in every calendar year, the APCO will make a determination as to whether BACM Contingency Measures are to be ordered. Any BACM Contingency Measure orders shall be based on evidence presented to the APCO that the area considered for such order has caused or contributed to an exceedance of the NAAQS or State Standard, as described in Attachment B, the "2016 Owens Valley Planning Area Additional BACM Contingency Measures Determination Procedure."

D. Source areas that cause or contribute to a monitored or modeled exceedance of the NAAQS or State Standard may be new source areas, or may be areas with existing dust controls. For emissions from areas with existing dust controls, the City will have the choice of increasing the controls in the existing dust control areas or controlling other contributing sources that will result in lowering the monitored impact below the NAAQS or State Standard, if such areas exist. If the City

chooses to increase the controls in existing areas, it shall prepare and submit a written application to the APCO that contains District-approved modeling which demonstrates that the monitored impact can be reduced below the NAAQS by increasing the controls in existing dust control areas. The APCO has sole discretion whether to approve or disapprove the application.

E. The BACM Contingency Measures shall be limited to the Owens Lake bed below the Regulatory Shoreline elevation of 3,600.00 feet above mean sea level (amsl) and above the natural brine pool ordinary high water elevation of 3,553.55 feet amsl.

F. The BACM Contingency Measures areas will be controlled with waterless or water-neutral dust control measures by offsetting any new or increased water use with water savings elsewhere on the lakebed. The City is solely responsible for securing all permissions and authorizations necessary for those water savings. Failure or inability to secure such permissions and authorizations shall not relieve the City from its obligation to timely install and operate the ordered Contingency Measures. This paragraph is subject to the provisions of Paragraph 16 if they are applicable.

G. The implementation of BACM Contingency Measures will be considered contingency measures under Section 172(c)(9) of the federal Clean Air Act. Although the City may provide comment on a proposed BACM Contingency Measures order by the APCO, the City shall not appeal or contest the APCO's order for dust controls included in the combined 53.4 square miles now or in the future in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

H. All BACM Contingency Measures shall be installed by the City and be operational within three years of the date that the APCO orders the City to implement them, except that if the City selects the use of BACM Managed Vegetation in Paragraph 10 for any of the areas ordered for BACM Contingency Measures, the City shall

have all infrastructure and plants in place within three years, but will be allowed an additional two years to achieve full vegetation-cover compliance as set forth in Paragraph 10. The implementation deadline set forth in this paragraph is subject to the Force Majeure and Stipulated Penalties provisions set forth in Paragraphs 16 and 17. The City shall be solely responsible for all CEQA compliance, and to the extent joint documents are prepared under CEQA and NEPA, for CEQA/NEPA compliance, and other lease/permit requirements associated with any Contingency Measure projects.

I. Within 60 days of the date that the APCO orders the City to implement the BACM Contingency Measures, the City shall prepare and submit for the APCO's consideration and written approval, which approval shall not be unreasonably withheld, a Remedial Action Plan (RAP) that specifies the type and location of BACM to be installed and provides for the full and timely completion of those measures. The plan shall contain intermediate milestones specifying the completion dates for CEQA/NEPA compliance, construction bid award and control measure compliance.

J. Cultural and biological resource protection and mitigation shall be incorporated to the extent feasible as required by law into the design of Contingency Measure control areas.

PM_{10} CONTROL MEASURES

9. BACM Shallow Flooding

A. The "Shallow Flooding" PM_{10} control measure will apply water to the surface of those areas of the lake bed where Shallow Flooding is used as a PM_{10} control measure. Water shall be applied in amounts and by means sufficient to achieve the performance standards set forth in Paragraphs 9.B through 9.G below. The dates by which Shallow Flooding areas are to comply with these performance standards may be modified by the Dynamic Water Management provisions set forth in Paragraph 9.F.

B. For all Shallow Flooding areas except those within the 2006 DCA as referenced in Paragraph 1.B:

i. At least 75 percent of each square mile designated as BACM Shallow Flooding areas shall continuously consist of standing water or surface-saturated soil, substantially evenly distributed for the period commencing on October 16 of each year, and ending on May 15 of the next year. For these Shallow Flood dust control areas, 75 percent of each entire contiguous area shall consist of substantially evenly distributed standing water or surface-saturated soil.

ii. Beginning May 16 and through May 31 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 70 percent.

iii. Beginning June 1 and through June 15 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 65 percent.

iv. Beginning June 16 and through June 30 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 60 percent.

v. If for any Shallow Flooding area, the percent of areal wetness cover in the periods specified in Paragraphs 9.B.ii, iii, and iv, above, is below the minimum percentages specified for each BACM Shallow Flood area based on satellite imagery, and there were no monitored or modeled exceedances of the NAAQS at or above elevation 3,600 feet above mean sea level (Regulatory Shoreline), that area will be deemed to be in compliance, if the City demonstrates in writing and the APCO reasonably determines in writing that maximum water delivery flows were maintained throughout the applicable period.

C. For Shallow Flooding areas within the 12.7 square-mile 2006 DCA referenced in in Paragraph 1.B:

i. The percentage of each area that must have substantially evenly distributed standing water or surface-saturated soil shall be based on the Shallow

Flood Control Efficiency Curve (SFCE Curve) attached as Exhibit 3 to achieve the control efficiency levels in the MDCE Map (Exhibit 2).

ii. For only those Shallow Flooding areas with control efficiencies of 99 percent or more:

a. Beginning May 16 and through May 31 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 70 percent.

b. Beginning June 1 and through June 15 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 65 percent.

c. Beginning June 16 and through June 30 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 60 percent.

d. If for any Shallow Flooding area, the percent of areal wetness cover in the periods specified in Paragraph 9.B.ii, iii and iv, above, is below the minimum percentages specified for each shallow flood area based on the air quality model for the analysis period, and there were no monitored or modeled exceedances of the NAAQS at or above the Regulatory Shoreline, that area will be deemed to be in compliance if the City demonstrates in writing and the APCO reasonably determines in writing that maximum water delivery flows were maintained throughout the applicable period.

D. Tillage With Shallow Flood BACM-Backup

i. The City may implement or transition BACM Shallow Flood areas to "Tillage with Shallow Flood BACM Back-up (TWB^2)," which shall consist of (1) soil tilling within all or portions of Shallow Flood BACM PM_{10} control areas (TWB^2 Areas), and (2) the installation of all necessary shallow flood infrastructure so that the TWB^2 Areas can be shallow-

flooded if ordered by the APCO as provided in Paragraph 9.D.v below. The City shall at all times operate and maintain all TWB^2 areas so that they do not cause or contribute to exceedances of the NAAQS or State Standard.

ii. The City shall have the sole responsibility to obtain all required approvals and permits required by law for TWB^2. The District will support the City's efforts to obtain these approvals and permits in compliance with the law.

iii. The City's selection and implementation of TWB^2 shall comply with the procedures in Attachment A, Stipulated Judgment Attachment B, "Protocol for Operation and Maintenance of Owens Lake Tillage with BACM Backup" (TWB^2 Operations Protocol). The TWB^2 Operations Protocol shall address site selection, site dry-down, and measures to prevent untilled drying surfaces from becoming emissive during dry-down, tilling, maintenance and rewetting. The City shall have sole discretion to modify the TWB^2 Operations Protocol as necessary to ensure efficient operation of TWB^2.

iv. The District's monitoring and enforcement of TWB^2 Areas will comply with Attachment A, Stipulated Judgment Attachment C, the "Protocol for Monitoring and Enforcing Owens Lake Tillage with BACM Backup" (TWB^2 Monitoring Protocol). The TWB^2 Monitoring Protocol describes the data to be collected and methods of analysis to determine if TWB^2 areas on the Owens Lake bed need maintenance and/or reflooding in order to maintain or reestablish control efficiency for compliance with the NAAQS or State Standard. Based on data and after consulting with the City, the APCO shall have sole discretion to modify the TWB^2 Monitoring Protocol in writing as necessary to ensure air quality protection.

v. The APCO may order, and the City is required to reflood a TWB^2 area as provided in the TWB^2 Monitoring Protocol. Within 37 days of written order by the APCO that a TWB^2 area must be reflooded, the City shall

complete reflooding of that area in accordance with approved Shallow Flooding BACM requirements.

vi. The City shall not appeal or contest the TWB^2 Protocol, any revisions to that protocol that comply with this Paragraph 9.D, or the APCO's order to reflood a TWB^2 area now or in the future in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316, except the City may contest an APCO order to reflood a TWB^2 area on the sole basis that the APCO did not follow the TWB^2 Monitoring Protocol. Such a challenge shall be brought exclusively to Sacramento County Superior Court to enforce the 2014 Stipulated Judgment, and not by an appeal under Health & Safety Code Section 42316 or by any challenge in any other administrative or judicial forum. Any such appeal shall not relieve the City of the duty to reflood a TWB^2 area within 37 days of a written order from the APCO unless the City seeks and obtains an injunction from the Court before the expiration of the 37-day period to enjoin the reflooding.

vii. The District and City shall conduct periodic joint inspections of the TWB^2 Areas by the District and the City. The District will provide the City with at least 24-hour notification of the time and location of the District's TWB^2 field inspections and testing.

viii. The City may at its discretion file an application with the District to seek approval of tillage without shallow flooding backup as BACM by following the procedures in Paragraph 13.

E. Brine BACM. The City may use the "Brine BACM" as a Shallow Flooding BACM in areas that meet the definition for Brine BACM.

i. For an area to qualify for Brine BACM, it must satisfy all of the criteria in Attachment E, "2016 Brine BACM."

ii. The APCO will determine whether the criteria for Brine BACM at any location in a brine shallow flood area are satisfied and shall inform the City of the determination in writing.

iii. The APCO may order the City to shallow flood any Brine BACM area or any emissive portion thereof if any of the following criteria are met.

1) The APCO determines that emissive surface conditions exist in the area as determined by the Induced Particulate Erosion Test procedures in the TWB^2 Monitoring Protocol at Attachment A, SJ Attachment C; or

2) The APCO determines that sand flux greater than 5 g/cm2/day is measured in that area.

3) The APCO determines that the total surface cover of qualifying stable brine surfaces has been reduced to less than 60% of the areal extent of areas requiring 99% control or more than a 10% loss of control efficiency for areas requiring less than 99% control. The relationship between total surface cover and control efficiency shall be determined by the most current approved Shallow Flooding curve. In these cases of reduced surface coverage, there does not need to be emissive surface conditions as determined by the Induced Particulate Erosion Test or sand flux greater than 5 $g/cm^2/day$.

iv. If the APCO determines that Paragraph 9.E.iii.1, 9.E.iii.2 or 9.E.iii.3 are met, the APCO will give written notice to the City that the area must meet the Shallow Flood BACM requirements for that area within 37 days.

v. The City may comment upon the APCO's determination for Brine BACM areas or orders to shallow-flood an area, but shall not appeal or contest that determination in any administrative or judicial forum, under any law,

statute or legal theory whatsoever including Health & Safety Code Section 42316.

F. Dynamic Water Management. Dynamic Water Management (DWM) allows the APCO to delay the start dates and/or advance the end dates set forth in Paragraph 1.A and 1.B for shallow flooding on non-emissive years to save water if the modification can be shown to have no effect on performance standards or the dust control measure efficiencies required to meet the PM_{10} NAAQS.

i. For an area to qualify for DWM, it must satisfy all of the criteria in Attachment F, the "2016 Owens Lake Dynamic Water Management Plan."

ii. The APCO shall determine whether the criteria for DWM are satisfied and shall inform the City of the determination in writing. The City may comment upon the APCO's determination, but shall not appeal or contest that determination in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

iii. If an area is approved for DWM, the City shall comply with the following requirements:

1) Each year, the area must meet shallow flood wetness targets by or before the approved DWM start day, and may be shut off with no spring season ramping requirements after April 30.

2) Each year, areas irrigated with sprinklers must meet shallow flood wetness targets by or before two weeks before the approved DWM start day, and may be shut off with no spring ramping requirements after May 31.

3) The APCO may order and the City is required to implement BACM Shallow-Flooding on the DCM area or portion thereof if the APCO determines that emissive surface

conditions exist in that area as determined by the Induced Particulate Erosion Test procedures in the TWB[2] Monitoring Protocol. In this event, the APCO will give notice to the City that the area must meet the wetness target within 15 days if the area is less than or equal to 25 percent of the DWM area, 21 days if the area is greater than 25 percent of the DWM area. Sprinkler irrigated areas ordered by the APCO for BACM Shallow Flooding must meet the wetness target within 15 days regardless of the amount of area ordered.

4) The APCO may order and the City is required to implement BACM Shallow-Flooding on the DCM area or portion thereof if the APCO determines that sand flux greater than 5 g/cm2/day is measured in that area. In this event, the APCO will give notice to the City that the area must meet the wetness target within 15 days if the area is less than or equal to 25 percent of the DWM area, 21 days if the area is greater than 25 percent of the DWM area. Sprinkler irrigated areas ordered by the APCO for BACM Shallow Flooding must meet the wetness target within 15 days regardless of the amount of area ordered.

5) If any DWM area or portion thereof become emissive and is therefore issued a reflood order by the APCO more than once in a continuous six-year period, these areas will revert to the standard shallow flood period of October 16 through June 30 and will no longer be eligible for DWM.

6) If any DWM area or portion thereof becomes emissive and is therefore issued a reflood order by the APCO less than

once in a continuous six-year period, that reflood order shall only apply to the modified start or end period upon which the area was identified for re-flooding and not to the entire dust year.

G. If air quality modeling or monitoring data shows an exceedance or exceedances of the NAAQS or State Standard at or above the Regulatory Shoreline as a result of excessive dry areas within Shallow Flooding control areas during the dust control periods for each year and the APCO determines that existing PM_{10} control measures require a higher level of control efficiency, the City shall increase the control efficiency of those measures within one month of its receipt of a written determination by the APCO informing the City of this determination if more water application is needed to overcome evapotranspiration, or within 12 months of a written determination if land leveling or the installation of more laterals to the water delivery systems are needed, and maintain that higher control efficiency until the APCO determines that a reduced control efficiency is appropriate. The City may comment upon the APCO's determination, but shall not appeal or contest that determination in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

H. From July 1 through October 15 of each year, the District does not require the City to apply water to Shallow Flooding areas for dust control purposes. The City shall comply with all other permits, conditions and requirements.

I. Aerial photography, satellite imagery or other methods approved at the sole discretion of the APCO shall be used to confirm wetness coverage.

J. The following portions of the areas designated for control with Shallow Flooding are exempted from the requirement of dust control by means of a saturated surface:

i. Raised berms, roadways and their shoulders necessary to access, operate and maintain the control measure which are otherwise controlled and maintained to render them substantially non-emissive and

ii. Raised pads containing vaults, pumping equipment or control equipment necessary for the operation of Shallow Flooding infrastructure which are otherwise controlled and maintained to render them substantially non-emissive.

K. "Substantially non-emissive" shall mean that the surface is protected with gravel, durable pavement or other APCO-approved surface protections sufficient to meet the requirements of District Rules 400 and 401 (visible emissions and fugitive dust).

L. Excess surface water and shallow groundwater above the annual average water table that existed before site construction that reach the lower boundary of the DCM areas will be contained, collected and recirculated for reapplication to dust control areas or otherwise lawfully discharged. The DCM areas shall contain excess waters in the control areas and isolate the dust control measure areas from each other and from areas not controlled by the use of lateral boundary edge berms and/or drains or other equally effective measures. If drains are used, they shall be designed and constructed so that they may be regulated such that groundwater levels, surface water extent and wetlands in adjacent uncontrolled areas are not impacted. These requirements do not apply to Shallow Flood area T36-4 because of to its adjacency to the Lower Owens River Project (LORP) and the City's intention to integrate the design and operation of T36-4 into the LORP.

M. The City shall remove all exotic pest plants, including salt cedar (Tamarix ramosissima), that invade any of the areas designated for control by Shallow Flooding.

N. As necessary to protect human health, the City shall prevent, avoid and/or abate mosquito, other pest vector and biting nuisance insect breeding and swarming within and in the vicinity of the PM_{10} control areas where water is applied for dust control purposes, including within communities less than three miles from those areas, by effective means that minimize adverse effects upon adjacent wildlife.

10. BACM Managed Vegetation

A. For all areas controlled with the Managed Vegetation BACM, the areas shall be operated and maintained in accordance with the Managed Vegetation Operation and Management Plan approved by the District in Board Order #110718-04. This Order provides for a mix of minimum vegetation covers that mimic the cover distribution of existing non-emissive Managed Vegetation controls on the lakebed. Areas controlled with Managed Vegetation BACM shall maintain a minimum overall average vegetation cover of 37 percent for each contiguous Managed Vegetation area. The cover at any point within that area can vary from the average as set forth in Paragraph 10.B.

B. Areas controlled with the Managed Vegetation BACM will be considered compliant when the vegetative cover requirements in Table 10.1 are maintained on the area. Vegetative cover compliance is to be determined based on a satellite image of the area taken between September 21 and December 21 of each year. The image shall be ground-truthed, calibrated, and validated by reference to measurements made by point frame or by equivalent methods approved by the APCO. Vegetative cover provided by any approved locally adapted native plant species will count toward compliance in any Managed Vegetation area. Vegetative cover must average 37 percent. However, it is recognized that over-control in some portions of a control area can offset under-control in other areas, as long as under-controlled areas are not large enough to become emissive. Table 10.1 provides for a range of allowable covers across multi-sized grids to ensure coverage distributions are sufficient to prevent PM_{10} emissions.

TABLE 10.1 Managed Vegetation BACM Vegetative Cover Criteria

Grid Scale	Average	>5% cover	>10% cover	>20 % cover

(acres)	(minimum % cover)	(minimum % of DCM area)		
0.1	37	92	83	65
1	37	94	87	68
10	37	95	89	74
100	37	95	90	77

C. The vegetation planted for dust control shall consist only of locally-adapted native species approved by both the APCO and the California State Lands Commission (CSLC). As of January 1, 2016, a plant list of 48 native species has been approved. Other appropriate species may be approved only upon written request of the City and written approval of the APCO.

D. Vegetation coverage shall be measured by the point-frame method, by ground-truth remote sensing or by other methods approved at the sole discretion of the APCO.

E. The following portions of the areas designated for control with Managed Vegetation are exempted from the requirements set forth in Paragraphs 10.A. above:

i. Portions consistently inundated with water, such as reservoirs, ponds and canals;

ii. Roadways and equipment pads necessary to access, operate and maintain the control measure which are otherwise controlled and maintained to render them substantially non-emissive; and

iii. Portions used as floodwater diversion channels or desiltation/retention basins.

F. "Substantially non-emissive" shall be defined to mean that the surface is protected with gravel, durable pavement or other APCO-approved surface protections

sufficient to meet the requirements of District Rules 400 and 401 (visible emissions and fugitive dust).

G. Excess surface water and shallow groundwater above the root zone depths that reach the lower boundary of the dust control areas shall be collected and recirculated for reapplication to dust control areas or otherwise lawfully discharged. The DCM areas shall contain excess waters in the control areas and isolate the dust control measure areas from each other and from areas not controlled by the use of lateral boundary edge berms and/or drains or other equally effective measures. Drains shall be designed and constructed so that they may be regulated such that groundwater levels, surface water extent and wetlands in adjacent uncontrolled areas are not impacted.

H. To protect the Managed Vegetation control measure from flood damage and alluvial deposition, the City shall incorporate stormwater and siltation control facilities into and around Managed Vegetation areas adequate to maintain the dust mitigation function of Managed Vegetation. The Managed Vegetation protection facilities shall be designed to dissipate flood waters and capture the alluvial material carried by flood waters, so as to avoid greater than normal water flows and deposition of alluvial material into the Owens Lake brine pool.

I. The City shall remove all exotic pest plants, including salt cedar (Tamarix spp.), that invade any of the areas designated for control by Managed Vegetation.

J. As necessary to protect human health, the City shall prevent, avoid and/or abate mosquito, other pest vector and biting nuisance insect breeding and swarming within and in the vicinity of the PM_{10} control areas where water is applied for dust control purposes, including within communities less than three miles from those areas, by effective means that minimize adverse effects upon adjacent wildlife.

K. If air quality modeled or monitoring data shows an exceedance or exceedances of the PM_{10} NAAQS at or above the Regulatory Shoreline as a result of emissions from bare or vegetated areas and the APCO determines that existing PM_{10} control

measures require a higher level of control efficiency, the City shall increase the control efficiency of those measures upon written determination by the APCO informing the City of this determination within 36 months by enhancing, restoring or establishing necessary vegetation coverage or within1 to 6 months to stabilize areas by other means. The City may comment upon the APCO's determination, but shall not appeal or contest that determination in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

11. BACM Gravel Blanket

A. In areas where Gravel Blanket is used as a PM_{10} control measure, the City shall meet one of the following two performance standards:

i. The entire control area shall be covered with a layer of gravel at least four inches thick. All gravel material placed must be screened to a size greater than one-half inch (½ inch) in diameter. Where it is necessary to support the gravel blanket, it shall be placed over a permanent permeable geotextile fabric; or

ii. The entire control area shall be covered with a layer of gravel at least two inches thick underlain with a permanent permeable geotextile fabric. All gravel material placed must be screened to a size greater than one-half inch (½ inch) in diameter.

B. All gravel shall be durable have resistance to leaching and erosion. It shall be as durable and no more toxic than the gravel from the Keeler fan site analyzed by the District in the Final Environmental Report prepared for the 1997 SIP and comply with all other permits, conditions and requirements.

C. All geotextile fabric used under Gravel Blanket BACM shall be Class I woven or nonwoven geotextile fabric meeting the minimum specifications set forth in the National Standard Materials Specification "Material Specification 592—

Geotextile" (National Engineering Handbook, Chapter 3, Part 642), or equivalent as approved by the APCO.

D. To protect the Gravel Blanket control measure from flooding, the City shall incorporate drains and channels into and around the control measure areas adequate to maintain the dust mitigation function of the Gravel Blanket, and outlet flood waters into the Owens Lake brine pool, Shallow Flooding areas, or reservoirs. The drains and channels shall be designed to incorporate features such as desiltation or retention basins that are adequate to capture the alluvial material carried by the flood waters and to avoid greater than normal deposition of this material into the Owens Lake brine pool.

E. The gravel placement design and implementation shall adequately protect the graveled areas from the deposition of wind- and water-borne soil, settling of gravel into lakebed sediments or infiltration of sediments from below. All graveled areas will be visually monitored by the City at least annually to ensure that the Gravel Blanket is not filled with sand, dust or salt and that it has not been inundated or washed out from flooding. If any of these conditions are observed over areas larger than one acre, additional gravel will be transported by the City to the playa and applied to the playa surface such that the original performance standard is re-established within four months per square mile of gravel cover, or within thirty-six months per square mile of gravel cover if replaced by different BACM (such as shallow flooding or managed vegetation), of written notice from the APCO. The City may comment upon the APCO's determination, but shall not appeal or contest that determination in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

F. The City shall apply BACM for fugitive dust sources (see WRAP Fugitive Dust Handbook, Western Governors' Association, 2006) and New Source Performance Standard (NSPS) emission limits to its gravel mining and transportation activities

occurring within the District's geographic boundaries as required by the District in the City's District-issued Authority to Construct and Permit to Operate.

12. MDCE BACM Control Measures

A. As referenced in Paragraph 1, the T1A-1 sand fence (0.39 square miles) and Channel Area (0.5 square miles) PM_{10} control measures are currently dust control areas with MDCE BACM in operation. For these dust control areas only, MDCE BACM will continue to be operated to meet the required MDCE performance standards shown in Exhibit 2.

B. For areas of MDCE BACM that do not meet the MDCE performance standards or that cause or contribute to an exceedance of the federal 24-hour PM_{10} NAAQS or State Standard, as solely determined by the APCO using monitoring or an approved model, the City shall increase the control efficiency of those measures as directed by the APCO in writing to meet the performance standards of the approved BACM. The APCO's determination shall specify the increase in control efficiency required and the time allowed for such increase. The City may comment upon the APCO's determination, but shall not appeal or contest that determination in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

NEW BACM, ADJUSTMENTS TO EXISTING BACM, AND BACM TRANSITIONS.

13. Upon written request by the City, the District may approve new BACM, a modification or adjustment to the existing BACMs described in Paragraphs 9, 10, 11 and 12 of this Order, and/or the transition from one BACM to another provided that, at all times, the performance standards of one or the other BACM are continuously met during the transition to assure that the transition shall not prevent the OVPA from attaining or maintaining the NAAQS or State Standard for PM_{10}. The City's request shall contain a detailed description of the proposed alternative and a demonstration that the request satisfied all requirements of law and this Order.

A. The APCO shall have full discretion to consider any such application for a change in BACM, and to accept, reject or condition its approval of such application. Non-compliance with any such condition shall be enforceable as noncompliance with a District Order. Without limiting the District's discretion as provided herein, the procedures for transitions of implemented control measures or adjustments to BACM shall be those described in Attachment D, "2016 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area."

B. The District will review new or refined dust control measures proposed by the City, and will approve a measure as BACM if the District determines that the measure is consistent with the EPA's interpretation of the term Best Available Control Measure under the federal Clean Air Act and its implementation as required for the Owens Valley nonattainment area. In assessing whether a dust control measure (including a new measure or extension of a previously identified measure to a new area) is BACM, the District will consider the technological feasibility of the measure, as well as energy, environmental, and economic impacts and other costs.

C. If the City wishes to transition from one existing BACM to another BACM without meeting the performance standards of either BACM at all times, the Transition Area project size shall be limited to a maximum size of 3.0 square-miles at one time as provided for in Attachment D, "2016 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area." The 3.0 square mile Transition Area limit shall be in addition to the TWB^2 Areas implemented by the City.

D. The City shall control emissions during Transition Area project construction periods as provided in Attachment D, the "2016 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area" at Section 3.

E. The City shall only conduct construction of any Transition Area project between July 1 of year when on-site work on the project begins, through December 31 of the next year when all such work shall be completed and the new controls shall be fully installed and operational. The completion deadline set forth in this paragraph is subject to the Force Majeure and Stipulated Penalties provisions set forth in Paragraphs 16 and 17.

MONITORING

14. The District may locate PM_{10} air monitors on City-occupied or unoccupied property in communities located in the OVPA at the District's sole discretion. The City shall provide electric power to those monitors if such power source is under the City's control and shall not interfere with the operation of those monitors, cut off their power supply (except for planned or emergency system outages), or take any other action to evict or remove the monitors.

STORMWATER MANAGEMENT

15. The City shall design, install, continually operate and maintain flood and siltation control facilities to protect the all PM_{10} control measures installed on the lake bed at all times, and in a manner that groundwater levels, surface water extent, and wetlands in adjacent uncontrolled areas are not impacted by induced drainage.

A. Flood and siltation control facilities shall be integrated into the design and operation of the PM_{10} control measures. All flood and siltation control facilities and PM_{10} control measures damaged by stormwater runoff or flooding shall be promptly repaired and restored to their designed level of protection and effectiveness.

B. All flood and siltation control facilities shall be designed and operated in a manner to prevent any greater threat of alluvial material contamination to the existing trona mineral deposit lease area (State Lands Commission leases PRC 5464.1, PRC 3511 and PRC 2969.1) than would have occurred under natural conditions prior to the installation of PM_{10} control measures.

FORCE MAJEURE

16. Force Majeure

A. "*Force Majeure*" as used in the paragraphs above relating to the Phase 9/10 project (Paragraph 3.A), BACM Contingency Measure projects (Paragraph 8.H), and Transition Area projects (Paragraph 13.E), is defined as one of the following events that prevents the City's performance of the specified act by the deadline set forth in that Paragraph: (i) any act of God, war, fire, earthquake, windstorm, flood, severe drought that is declared as an official state of emergency by the Governor of the State of California, or natural catastrophe; (ii) unexpected and unintended accidents (excluding those caused by the City or the negligence of its agents or employees); civil disturbance, vandalism, sabotage or terrorism; (iii) restraint by court order or public authority or agency; (iv) action or non-action by, or inability to obtain the necessary authorizations or approvals from any governmental agency, provided that the City demonstrates it has made a timely and complete application to the agency and used its best efforts to obtain that approval, or (v) the inability to obtain private property owner access, provided that the City demonstrates it has made a timely and complete request to the owner, and used its best efforts to obtain that access. Force Majeure shall not include normal inclement weather, other asserted shortages of water, economic hardship or inability to pay.

B. The City's performance of its duties under Paragraph 16.A will be temporarily postponed only during the condition of Force Majeure, but not excused, and the City will continue to be responsible to recommence performance of its actions to comply with the deadlines at the end of the Force Majeure event. The deadlines for performance shall automatically be extended by the period of interruption caused by the Force Majeure event. The City shall exercise due diligence to resolve and

remove any Force Majeure event. Nothing in this paragraph shall be interpreted to relieve the City of its obligations and duties under all applicable laws.

C. Any party seeking to rely upon this paragraph to excuse or postpone performance under Paragraph 16.A shall have the burden of establishing each of these elements to the Sacramento Superior Court with jurisdiction over the 2014 Stipulated Judgment in the case captioned *City of Los Angeles v. California Air Resources Board et al.*, Case No. 34-2013-80001451-CU-WM-GDS, and that it could not reasonably have been expected to avoid the event or circumstance, and which by exercise of due diligence has been unable to overcome the failure of performance.

17. Stipulated Penalties

A. The City shall be subject to notices of violation from the APCO and stipulated daily penalties for failure to meet dust control measure construction completion deadlines set forth in this Stipulated Judgment for the Phase 9/10 project (Paragraph 3.A), BACM Contingency Measure projects (Paragraph 8.H), and Transition Area projects (Paragraph 13.E), except as excused by a condition of Force Majeure as defined in Paragraph 16.A. The amount of the daily penalty shall be determined by the following formula:

Stipulated daily penalty ($/day) = $10,000 – $4500 ($A_C/A_R$),

where

A_C = Dust control area required by the APCO that is completed and compliant (square miles), and

A_R = Total dust control area required by the APCO (square miles).

B. The City shall pay any stipulated daily penalties within 90 days of any notice of violation from the APCO for failure to meet these deadlines. The City shall not challenge or oppose its duty to pay the stipulated daily penalty in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316(b).

C. This Paragraph 17 applies only to the failure to meet dust control measure completion deadlines as set forth in Paragraph 16.A and does not apply to any other notice of violation or enforcement of laws by the District or its APCO.

PERFORMANCE MONITORING PLAN

18. The City, in consultation with the District, shall develop and provide to the District in writing a Performance Monitoring Plan (PMP) to aid in its operation of the Owens Lake dust mitigation program on the Owens Lake bed.

A. The PMP shall describe the measurements and methods used to verify the performance of the constructed dust control measures. The PMP shall also describe the measurements and methods used to maximize information on dust emissions from any areas of special interest. The PMP shall require the City to make an annual report to the District regarding the measurements and methods used to verify the performance of the constructed dust control measures.

B. The City shall implement the PMP, and will use the results as a guide for making operational decisions about the type, location, timing, and level of dust control measures needed to comply with this Order.

C. The PMP report for each calendar year shall be submitted to the APCO by March 31 of the following calendar year.

ADDITIONAL REQUIREMENTS

19. The District Board orders the City of Los Angeles to satisfy the following requirements related to all control measures:

A. The City's construction, operation and maintenance activities shall comply with all Mitigation Measures set forth in Final Environmental Impact Reports, EIR Addendums and Mitigated Negative Declarations associated with the areas on which dust controls are placed, and all subsequent environmental documents adopted by the District for implementation of the requirements of this SIP.

B. The City shall comply with any and all applicable requirements of the Mitigation Monitoring and Reporting Programs adopted by the District as a lead or

responsible agency and associated with the Final Environmental Impact Reports and Final Environmental Impact Report Addendums for this project, and with all subsequent environmental documents adopted by the District for implementation of the requirements of this SIP. All mitigation measures required in certified environmental documents associated with the implementation, operation and maintenance of PM_{10} control measures required by this order are hereby incorporated as requirements of this order and may be enforced as such.

C. The City shall apply BACM to control air emissions from its construction/implementation activities occurring in the District's geographic boundaries. This provision applies to any activities that may emit air pollution and are associated with dust control projects at Owens Lake such as gravel mining, cement and asphalt plants, or construction activities. These operations could take place outside of the Owens Valley Planning Area, *e.g.* in the City of Bishop. BACMs appropriate for these activities have and will continue to be included as conditions on District-issued permits to operate.

RETENTION OF LEGAL AUTHORITY

20. If there is a change in federal or state law that requires controls in addition to those provided in this Order, then the District shall maintain its authority under Health & Safety Code Section 42316 to adopt a new order to require the City to comply with these new legal requirements. The District shall also maintain its authority under Health & Safety Code Section 42316 to order the City to control additional sources of air pollution and/or to undertake additional reasonable measures necessary to mitigate the air pollution caused in the District by the City's water-gathering activities for other areas, sources or activities that are not specifically addressed in Paragraphs 1 through 8 of this Order, or that are located outside of the Keeler, Olancha and Swansea dune areas as specified in Board Order #130916-01.

RELATIONSHIP TO BOARD ORDER 080128-01 AND STIPULATED JUDGMENT

21. This Board Order consists of the 2008 SIP Order as modified by the 2013 SIP Amendment and the Stipulated Judgment. The Stipulated Judgment is attached hereto as Attachment A, and its terms are incorporated into this Board Order as if fully set forth herein.

A. The City shall support and not challenge the adoption of this 2016 SIP Order by the District Governing Board, CARB and EPA, except that the City may challenge any new term that the City has not agreed to in advance, and that is not contained in the 2008 SIP order as modified by the 2013 Amendment and the Stipulated Judgment.

B. Except as provided in Paragraph 21.A, the City shall not appeal or contest this Board Order now or in the future in any administrative or judicial forum, under any law, statute or legal theory whatsoever including CEQA or Health & Safety Code Section 42316, and has agreed that its terms are valid and reasonable under Health & Safety Code Section 42316.

22. The District hereby stays the force and effect of Board Order #080128-01 for all times that this Order is in full force and effect. In the event this Order, or any provision of this Order, is stayed due to a legal challenge, including but not limited to a challenge to this Order under Health & Safety Code Section 42316, or any other law, to the State Implementation Plan, or to the Environmental Impact Report for this Revised SIP, or in the event the Order is disapproved by the CARB, the following shall apply:

A. The City shall continue to construct, operate and maintain all control measures implemented under the Stipulated Judgment, including but not limited to those measures implemented or required for implementation on 48.6 square miles as specified in Paragraphs 1 through 5, and 9 of this Order, without interruption.

B. Board Order #080128-01 shall immediately be in effect and shall remain in full force for the duration of any stay or, in the case of disapproval, until another Order is issued by this Board. The Stipulated Judgment shall also remain in effect. The

City shall not challenge the provisions of this Board Order or the Stipulated Judgment now or in the future in any administrative or judicial forum, under any law, statute or legal theory whatsoever including Health & Safety Code Section 42316.

23. EFFECTIVE DATE

The effective date of this Board Order shall be April 13, 2016.

APPROVED, ADOPTED and ORDERED by Governing Board of the Great Basin Unified Air Pollution Control District this 13th day of April 2016 by the following vote:

Yes: Kingsley, Griffiths, Stump, Hames, Rawson

No: 0

Abstain: 0

Absent: Bacon, Johnston

Approved:

Matt Kingsley Chair of the Governing Board

Attest:

Tori DeHaven, Clerk of the Governing Board

/////

Exhibits

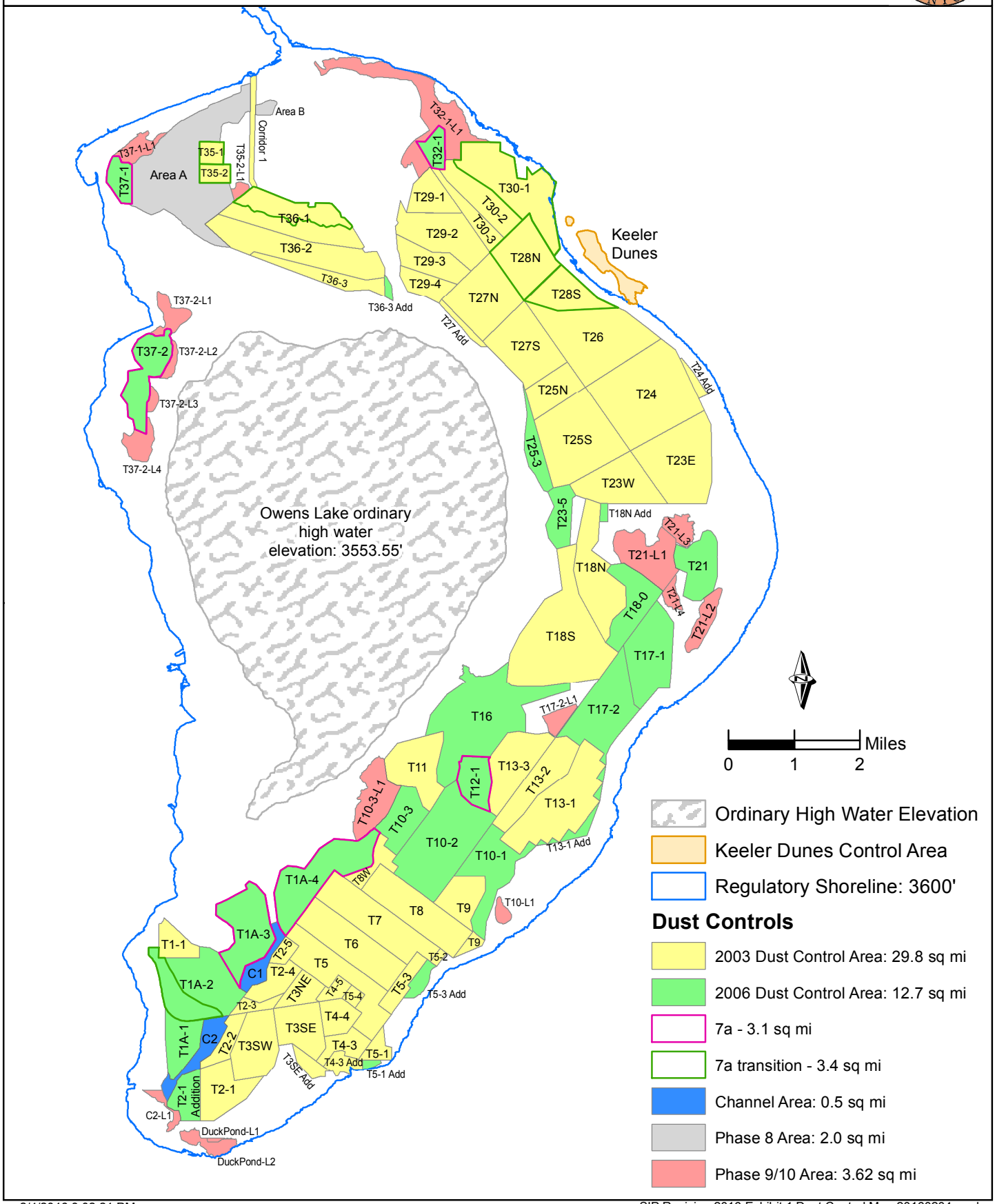
Exhibit 1	Map and Coordinates of PM_{10} Control Areas
Exhibit 2	Minimum Dust Control Efficiency Map
Exhibit 3	Shallow Flood Control Efficiency Curve
Exhibit 4	2016 Dynamic Water Management Areas

Attachments

Attachment A	Stipulated Judgment (SJ)
	SJ Attachment A – Court Final Ruling and Order
	SJ Attachment B – TwB2 Operations Protocol
	SJ Attachment C – TwB2 Monitoring Protocol.
Attachment B	2016 Owens Valley Planning Area Additional BACM Contingency Measures Determination Procedure
Attachment C	2016 Owens Lake Dust Source Identification Program Protocol
Attachment D	2016 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area
Attachment E	2016 Brine BACM
Attachment F	2016 Owens Lake Dynamic Water Management Plan

Highlighted Exhibits are included in the Exceprt. All other exhibits and attachments are not included but may be provided at the Hearing if needed.

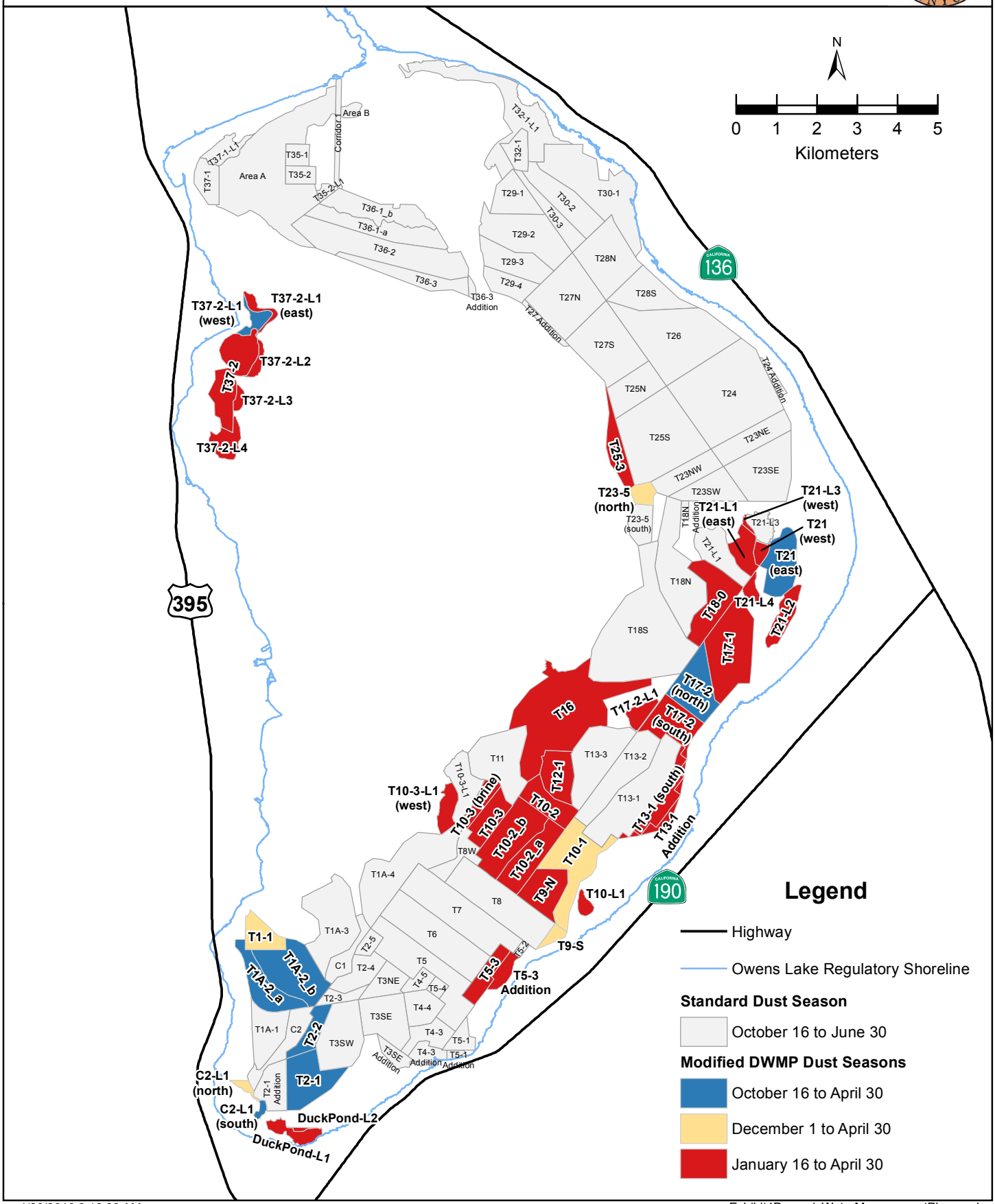
Exhibit 1 - PM10 Dust Control Areas



2/4/2016 3:02:21 PM

SIP Revision 2016 Exhibit 1 Dust Control Map 20160204.mxd

Exhibit 4 - Dynamic Water Management Dust Control Areas



1/26/2016 8:13:38 AM ExhibitDynamicWaterManagementPlan.mxd

GB23-01 – Interim Variance
GBUAPCD Staff Report – Exhibit 3

District Rule 433

RULE 433. CONTROL OF PARTICULATE EMISSIONS AT OWENS LAKE
Adopted: 04/13/2016

The purpose of this regulation is to effectuate a regulatory mechanism under the federal Clean Air Act to attain the National Ambient Air Quality Standards ("NAAQS") and to implement the Stipulated Judgment between the Great Basin Unified Air Pollution Control District ("District") and the City of Los Angeles ("City") dated December 30, 2014 and entered by the Superior Court of the State of California, County of Sacramento. This regulation does not alter or supersede any provision in the Stipulated Judgment, nor does it relieve any party from full compliance with the requirements of the Stipulated Judgment. This regulation sets the basic requirements for the Best Available Control Measures ("BACM") and defines the areal extent of these controls at Owens Lake, California required in order to meet the NAAQS. This regulation does not preclude the City or the District from implementing more stringent or additional mitigation pursuant to the Stipulated Judgment.

A. DEFINITIONS

1. "BACM PM_{10} Control Areas" are areas on the dried bed of Owens Lake at or below the Regulatory Shoreline elevation of 3,600 feet and at or above Owens Lake's ordinary high water elevation of 3,553.55 feet on which BACM PM_{10} Control Measures shall be implemented, and

   BACM PM_{10} Control Areas are:

   a. Areas, as shown on the map in Exhibit 1 – Dust Control Area Map, including:

      i. 29.8 square miles of the Owens Lake Bed with approved BACM PM_{10} Control Measures ("2003 Dust Control Area");

      ii. 13.2 square miles of the Owens Lake Bed with approved BACM PM_{10} Control Measures, except for Eligible Cultural Resource Areas where PM_{10} BACM selection and implementation dates will be deferred as set forth in Paragraph C.3. ("2006 Dust Control Area" and "Channel Area");

      iii. 2.0 square miles of the Owens Lake Bed with approved BACM PM_{10} Control Measures ("Phase 8 Area");

      iv. 3.62 square miles of the Owens Lake Bed with approved BACM PM_{10} Control Measures to be installed by December 31, 2017, except for Eligible Cultural Resource Areas, where PM_{10} BACM selection and implementation dates will be deferred as set forth in Paragraph C.3. ("Phase 9/10 Area"); and

   b. Additional areas as designated pursuant to Section C., "CONTINGENCY MEASURES" of this rule.

2. "BACM PM_{10} Control Measures" are best available control measures designed to reduce PM_{10} emissions to Control Efficiency ("CE") levels specified below through compliance with performance standards specified in Attachment A or in specific control measure definitions below. The following BACM PM_{10} Control Measures are approved to be used.

a. “BACM Shallow Flooding” means the application of water to the surface of the lake bed in accordance with the performance standards for shallow flooding in Attachment A, Section I - Performance Requirements for BACM Shallow Flooding. Water shall be applied in amounts and by means sufficient to meet a CE level of 99% or CE targets for Minimum Dust Control Efficiency Areas.

b. “Tillage with BACM (Shallow Flood) Backup or TWB²” means the roughening of a soil surface using mechanical methods in accordance with the specifications in Attachment A, Section IV – Performance Requirements for Tillage with BACM Back-up, and to utilize BACM shallow flooding as a back-up control method in order to prevent NAAQS violations. BACM Shallow Flooding must be implemented in TWB^2 areas if the erosion threshold as defined in Paragraph A.2.h is exceeded. Water shall be applied in amounts and by means sufficient to meet the CE level of 99% or CE targets for Minimum Dust Control Efficiency areas.

c. “Brine BACM” means the application of brine and the creation of wet and/or non-emissive salt deposits sufficient to meet the CE level of 99% as described in Attachment A, Section V – Performance Requirements for Brine BACM. BACM Shallow Flooding must be implemented in Brine BACM areas if the erosion threshold as defined in Paragraph A.2.h is exceeded.

d. “BACM Managed Vegetation” means planting surfaces of the BACM PM_{10} Control Areas with protective vegetation to meet the CE level of 99% by maintaining overall average vegetation cover of at least 37% for each contiguous Managed Vegetation area and an areal distribution based on vegetation cover thresholds and grid size.

e. “BACM Gravel Blanket” means the application of a layer of gravel sufficient to meet the CE level of 100% by covering the control area with
   - a layer of gravel at least four inches thick with gravel screened to a size greater than ½ inch in diameter, or
   - a layer of gravel at least two inches thick with gravel screened to ½ inch in diameter underlain with a permanent permeable geotextile fabric.

e. “Dynamic Water Management or DWM” is a BACM Shallow Flooding operational modification that allows delayed start dates and/or earlier end dates required for shallow flooding in specific areas that have historically had low PM_{10} emissions within the modified time periods. The truncated dust control periods allows for water savings while achieving the required CE level. Areas eligible for the DWM program and their modified start and/or end dates for shallow flooding are identified in Attachment A, Section VI – Performance Requirements for Dynamic Water Management. If any DWM area becomes susceptible to wind erosion outside of the modified dust control period the area will be required to be flooded to meet the required CE for that area. BACM Shallow Flooding must be implemented in DWM areas if the erosion threshold as defined in Paragraph A.2.h is exceeded.

g. “Minimum Dust Control Efficiency or MDCE” BACM is a dust control measure for which the control efficiency target is adjusted to match the required control level based on air quality modeling for the 2006 dust control areas as shown on the map in Exhibit 2 – Dust Control Efficiency Requirements. The control efficiency targets may be less than 99%, but the level of control in all areas is intended to prevent exceedances of the NAAQS. MDCE BACM includes:

i. Shallow flood areas where the wetness cover is adjusted following the curve in Exhibit 3 - Shallow Flood Control Efficiency and Wetness Cover Curve,

ii. Channel Area - a state-regulated wetland area as shown in Exhibits 1 and 2 where vegetation cover is enhanced by irrigation and seeding with native plants in a manner sufficient to prevent windblown dust from causing exceedances of the NAAQS, and

iii. Sand Fence Area – an area as shown in Exhibits 1 and 2 located in area T1A-1 where sand fences, vegetation and natural water runoff combine to provide sufficient protection to prevent windblown dust from causing exceedances of the NAAQS.

h. "Erosion Threshold" is applicable to TWB^2, DWM, and Brine BACM to trigger BACM Shallow Flooding which must be implemented to comply with the shallow flood CE target for that area. The erosion threshold is determined from sand flux measurements or the Induced Particulate Erosion Test (IPET) test method as described in Attachment A, Paragraphs IV.C.2 and IV.C.4. BACM Shallow Flooding must be implemented in TWB^2, DWM or Brine BACM areas if any of the following thresholds are exceeded as determined using the methods described in Attachment A:

i. Sand flux measured at 15 cm above the surface exceeds 5.0 grams per square centimeter per day on DWM or Brine BACM areas or 1.0 gram per square centimeter per day on TWB^2 areas, or

ii. Induced Particulate Erosion Test method shows visible dust emissions when operated at the reference test height.

i. "Approved BACM" includes the control measures specified above and other measures approved by the APCO and the US Environmental Protection Agency as equivalent to these methods.

3. "Eligible Cultural Resource Area or ECR Area" is an area or areas where dust control measures will be implemented on a deferred schedule due to the presence of significant cultural resources that make the areas eligible for listing under the California Register of Historic Resources.

B. REQUIREMENTS

1. For the 2003 Dust Control Area the City shall continuously operate and maintain any mix of approved BACM PM_{10} Control Measures as defined above in Section A to meet the 99% efficient CE level. Selection of the type and location of BACM PM_{10} Control Measures within the area is solely the responsibility of the City.

2. For the 2006 Dust Control Area the City shall continuously operate and maintain approved BACM PM_{10} Control Measures defined above in Section A to meet the CE target specified in Exhibit 2, except for ECR Areas where BACM PM_{10} Control Measure selection and implementation dates will be deferred as set forth in Paragraph C.3., and any areas of BACM Managed Vegetation, for which the City shall comply with the

minimum 37% average vegetation cover target and areal distribution requirements by December 31, 2017.

3. For the Phase 8 Area consisting of 2.0 square miles the City shall continue to operate and maintain BACM Gravel Blanket.

4. For the Phase 9/10 Project Area consisting of 3.62 square miles the City shall select and install BACM PM_{10} Control Measures by December 31, 2017, except for ECR Areas, where PM_{10} BACM selection and implementation dates will be deferred as set forth in Paragraph C.3.

5. In areas containing infrastructure capable of achieving and maintaining compliant BACM Shallow Flooding the City may implement TWB^2, Brine Shallow Flooding or Dynamic Water Management as alternatives to BACM Shallow Flooding or MDCE BACM shallow flooding.

C. CONTINGENCY MEASURES

1. At least once each calendar year, the District shall determine whether additional areas of the lake bed require BACM PM_{10} Control Measures in order to attain or maintain the PM_{10} NAAQS.

2. If the District has not demonstrated attainment with the PM_{10} NAAQS on or before December 31, 2017, or has not met reasonable further progress milestones, the District shall order the City to apply one or more BACM PM_{10} Control Measures as set forth in Paragraphs A.2 and C.4 on those areas of the Owens Lake bed that cause or contribute to exceedances of the PM_{10} NAAQS.

3. If monitoring and/or modeling demonstrates BACM PM_{10} Control Measures are needed in an ECR Area(s) to attain or maintain the PM_{10} NAAQS after BACM PM_{10} Control Measures are implemented in adjacent areas, the District shall order the City to select and implement BACM PM_{10} Control Measures set forth in Paragraph A.2.

4. The District may order the City to implement, operate and maintain a total of up to 53.4 square miles of waterless or water-neutral BACM PM_{10} Control Measures on the Owens Lake bed below the Regulatory Shoreline (elev. 3,600 feet) and above the ordinary high water level of Owens Lake (elev. 3,553.55 feet).

5. As expeditiously as practicable and not more than three years after any such order for additional BACM PM_{10} Control Measures, the City shall install, operate and maintain BACM PM_{10} Control Measures that achieve a control efficiency of 99%. If BACM Managed Vegetation is chosen up to two additional years for vegetation growth is allowed to achieve the 37% vegetation cover requirement.

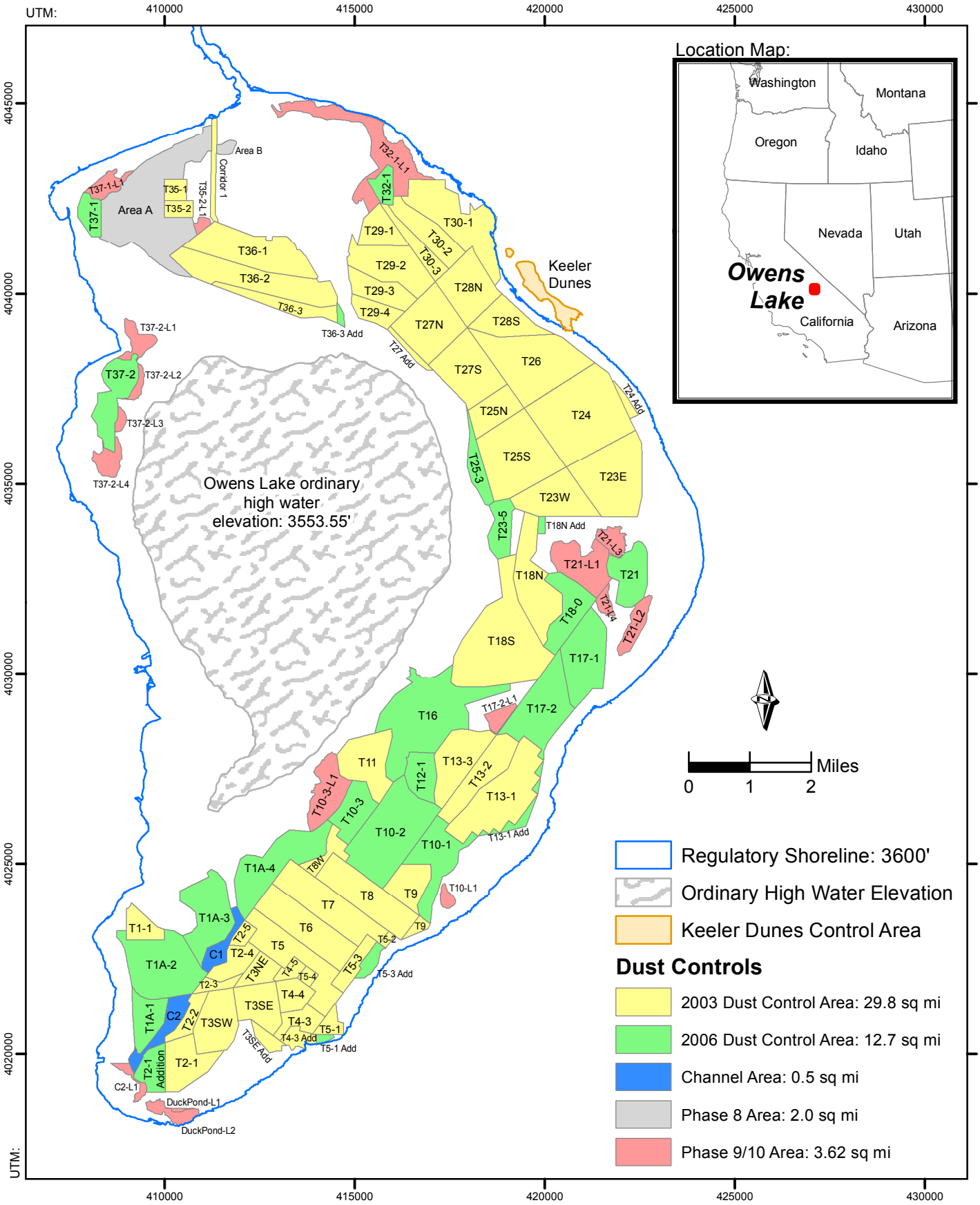
EXHIBIT 1 – Dust Control Area Map

EXHIBIT 2 – Dust Control Efficiency Requirements

EXHIBIT 3 – Shallow Flood Control Efficiency and Wetness Cover Curve

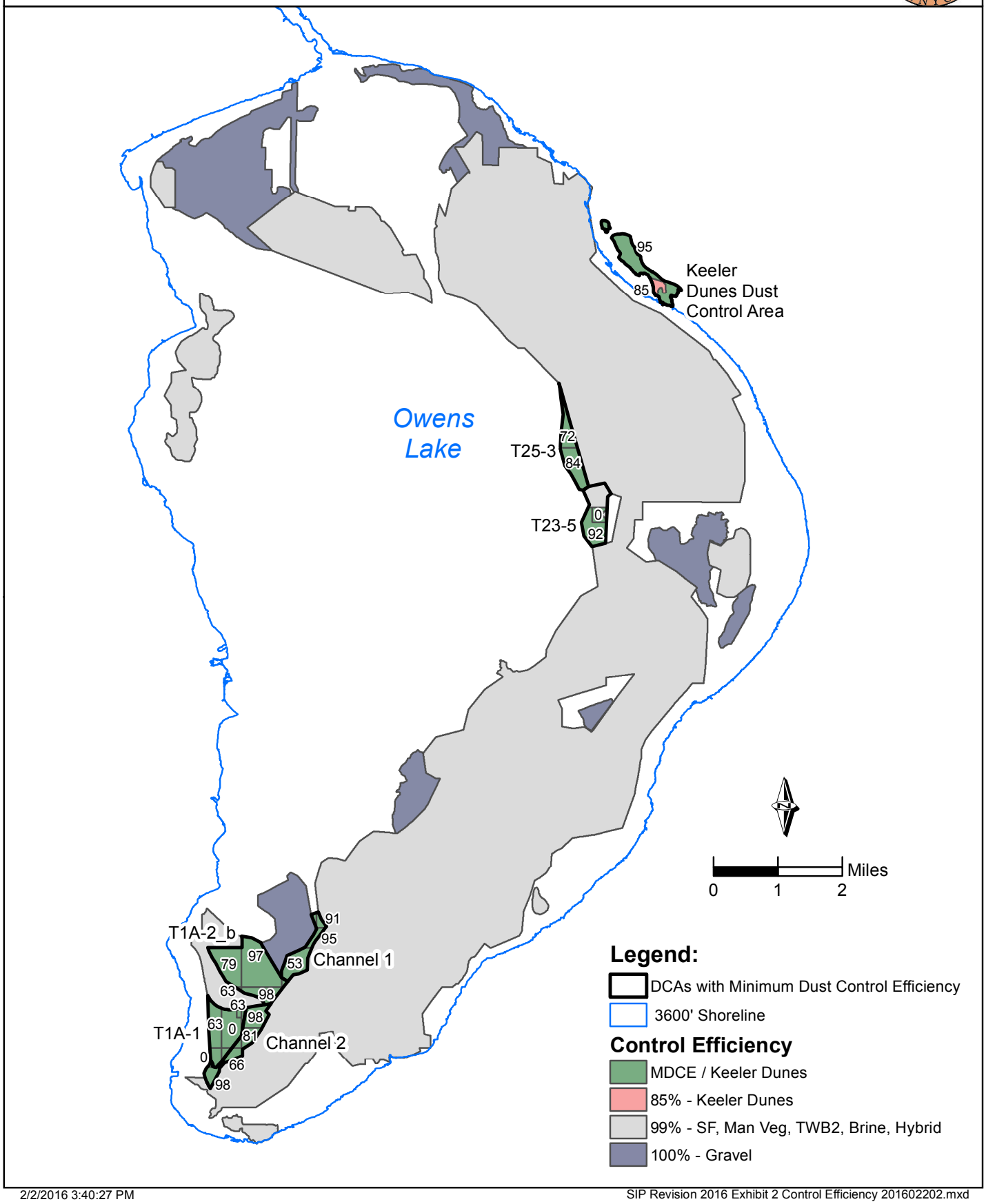
ATTACHMENT A – Performance Requirements for BACM

Exhibit 1 - PM10 Dust Control Areas



3/9/2016 1:08:16 PM SIP Revision 2016 Exhibit 1 Dust Control Map 20160309 rule 433.mxd

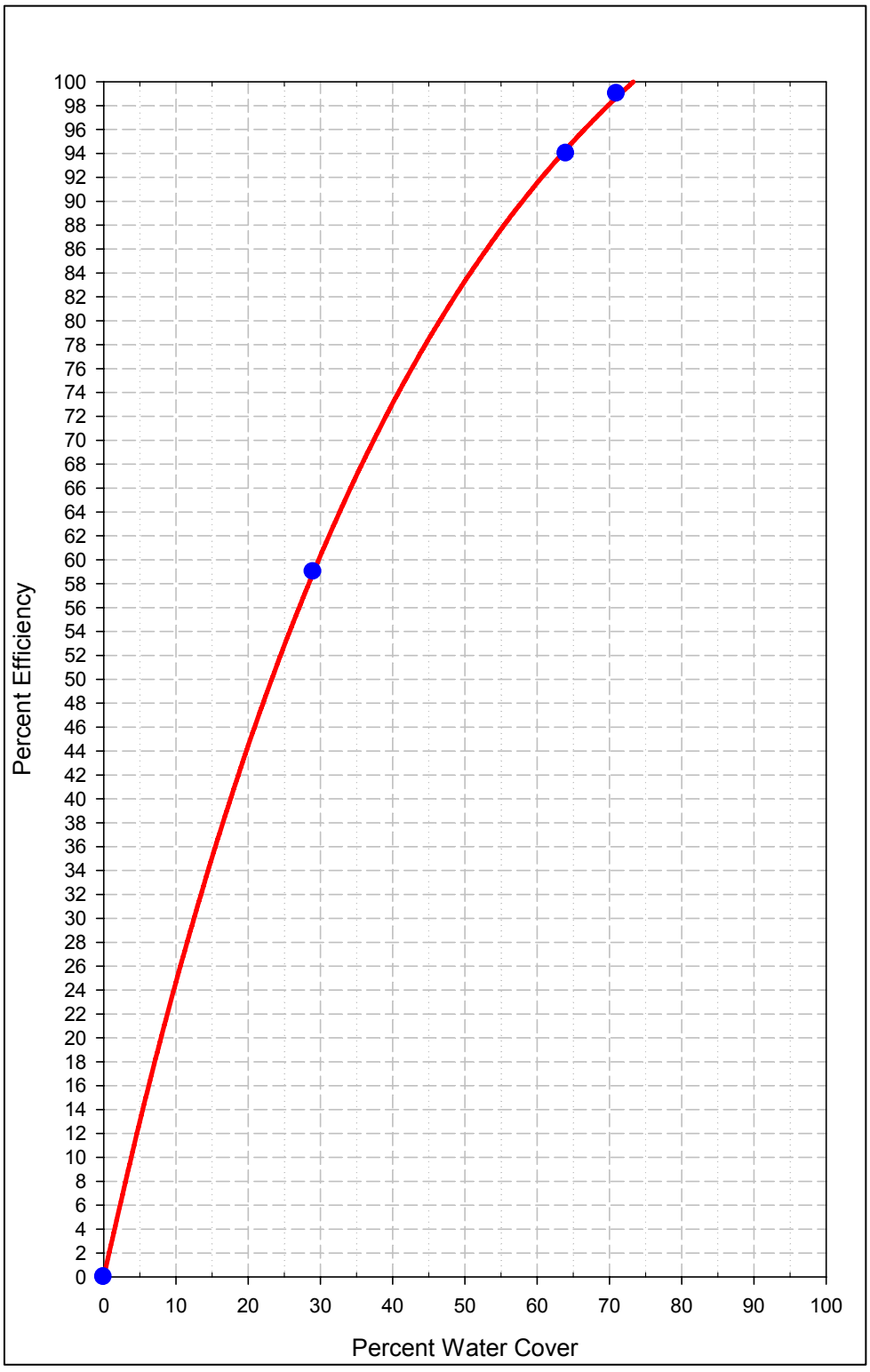
Exhibit 2 - Dust Control Efficiency Map



2/2/2016 3:40:27 PM

SIP Revision 2016 Exhibit 2 Control Efficiency 201602202.mxd

Exhibit 3 - Shallow Flood control efficiency curve



Rule 433 – Attachment A
Performance Requirements for BACM

I. BACM Shallow Flooding

A. The "BACM Shallow Flooding" PM_{10} control measure will apply water to the surface of those areas of the lake bed where shallow flooding is used as a PM_{10} control measure. Water shall be applied in amounts and by means sufficient to achieve the performance standards set forth in Paragraphs I.B and I.C of this attachment. The dates by which BACM Shallow Flooding areas are to comply with these performance standards may be modified by the Dynamic Water Management provisions set forth in Rule 433.A.2.f and Paragraph VI.B.

B. For all BACM Shallow Flooding areas except those within the 2006 DCA:

1. At least 75 percent of each square mile designated as BACM Shallow Flooding areas shall continuously consist of standing water or surface-saturated soil, substantially evenly distributed for the period commencing on October 16 of each year, and ending on May 15 of the next year. For these BACM Shallow Flood dust control areas, 75 percent of each entire contiguous area shall consist of substantially evenly distributed standing water or surface- saturated soil.
2. Beginning May 16 and through May 31 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 70 percent.
3. Beginning June 1 and through June 15 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 65 percent.
4. Beginning June 16 and through June 30 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 60 percent.

C. For BACM Shallow Flooding areas within the 12.7 square-mile 2006 DCA:

1. The percentage of each area that must have substantially evenly distributed standing water or surface-saturated soil shall be based on the Shallow Flood Control Efficiency Curve (Exhibit 3) to achieve the control efficiency levels in the Minimum Dust Control Efficiency (MDCE) Map (Exhibit 2).
2. For only those BACM Shallow Flooding areas with control efficiencies of 99 percent or more:
    a. Beginning May 16 and through May 31 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 70 percent.

b. Beginning June 1 and through June 15 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 65 percent.
c. Beginning June 16 and through June 30 of every year, shallow flooding areal wetness cover may be reduced to a minimum of 60 percent.

II. BACM Managed Vegetation

The "BACM Managed Vegetation" PM_{10} control measure requires planting surfaces of the BACM PM_{10} control areas with protective vegetation to meet the control efficiency level of 99% by maintaining an overall average vegetation cover of 37% for each contiguous managed vegetation area.

III. BACM Gravel Blanket

The BACM Gravel Blanket" PM_{10} control measure requires the application of a layer of gravel sufficient to meet the control efficiency level of 100% by one of the following means:

- covering 100% of the control area with a layer of gravel at least four inches thick with gravel screened to a size greater than ½ inch in diameter, or
- covering 100% of the control area with a layer of gravel at least two inches thick with gravel screened to ½ inch in diameter underlain with a permanent permeable geotextile fabric.

IV. Tillage with BACM (Shallow Flood) Backup (or TWB^2)

A. The City of Los Angeles ("City") may implement or transition BACM Shallow Flood areas to "Tillage with BACM (Shallow Flood) Back-up (TWB^2)," which shall consist of (1) soil tilling within all or portions of BACM Shallow Flood PM_{10} control areas (TWB^2 Areas), and (2) the installation of all necessary shallow flood infrastructure so that the TWB^2 Areas can be shallow-flooded if the erosion threshold is exceeded or the performance criteria are not met.

B. Construction of TWB^2 Areas

1. Tillage shall create rows and furrows in roughly east to west directions in order to create maximum surface roughness for winds from the north and south. Additional roughness to protect surfaces from west winds shall be created in tilled areas

sufficient to prevent emissions from east and west winds.

2. The tilled surfaces will also be armored with soil clods of 1/2 inch diameter or larger covering 60 percent or more of the tilled surface.
3. TWB^2 areas shall be constructed with ridge heights (RH) averaged on 40-acre blocks at or above 1.25 feet (furrow depth to ridge top difference at least 2.5 feet) and row spacing (RS) sufficient to provide a ratio of the row spacing to ridge height (RS/RH) below 10, e.g. distance between rows is 12.5 feet with average ridge height greater than 1.25 feet.

C. Monitoring and Maintenance

1. Surface Roughness
   a. Lidar, aerial photography or other field measurement methods with equivalent accuracies will be used by the City to measure RS/RH ratio and ridge height. Roughness measurements will be made in the north-to-south direction --- the direction of the primary dust producing winds. Roughness measurements may also be made in other directions. Roughness measurements will be reported to the APCO within 30 days of measurement.
   b. The RS/RH ratio and ridge height measurements will be made at 6 month, or more frequent, intervals. Inverse roughness and ridge height for a TwB^2 Area will be tracked and plotted as a function of time. Where feasible, field measurements may also be taken to confirm Lidar or other remotely sensed results. The City will conduct roughness measurements at least once every 6 months and report the measurements within 30 days to the APCO. The District reserves the right to conduct its own roughness measurements at any time.
   c. Assuming that degradation of the tilled ridges may occur over time, tillage maintenance will be performed by the City if the average RS/RH roughness ratio is between 10.1 and 12.0 or if the average ridge height is less than 1.1 feet in a tilled area.
   d. The City shall re-flood a TWB^2 area to comply with the required BACM Shallow Flood control efficiency for the area if the RS/RH ratio is greater than 12.0 (12/1) or the ridge height falls below 1.0 feet for any defined 40-acre averaging area.
   e. The City shall measure clod coverage using the point-intercept method (U.S. Bureau of Land Management, Sampling Vegetation Attributes, Method G,

Technical Reference BLM/RS/ST-96/002+1730) or other field measurement methods with equivalent accuracy. Clod cover will be measured concurrently with surface roughness at least once every 6 months and reported to the APCO within 30 days of measurement.

2. Sand Flux
   a. The City shall monitor each TWB^2 area with at least four Sensits and Cox sand catchers (CSCs) with inlets set at 15 cm above untilled surfaces (circular pads with 3 m radius) in the general northern, southern, eastern and western portions of a tillage. In TWB^2 areas greater than 320 acres the City shall install one Sensit and CSC pair per 80 acres.
   b. The City will pair CSCs with Sensits, radio equipment and dataloggers programmed to record 5-minute sand motion data. All Sensit data will be reported daily to the District. Sand motion data from the CSCs and Sensits will be processed to track sand flux at each site.
   c. All sand flux monitoring equipment will be installed prior to the start of tillage activities.
   d. High sand flux values recorded during maintenance activities or from non-tillage sand flux sources shall be excluded from the sand flux data. Maintenance activities and non-tillage sand flux sources may include, but are not limited to, rain-splatters, bugs, adjacent grading and road construction activities, as well as vehicle traffic. Sensits should be placed so as to minimize impacts from non-tillage sand flux sources.
   e. When (other than during maintenance activities taking place in the "tillage area" which is defined as the tilled portion of the TWB^2 area) the sand flux exceeds 0.50 $g/cm^2/day$, the City will perform maintenance in the tillage area, which may include surface wetting, re-establishment of the surface roughness, or full or partial reflooding of a TWB^2.

3. PM_{10} Monitoring
   a. Each TWB^2 area will be assigned upwind and downwind PM_{10} monitors (not necessarily at the TwB^2 Area boundary) to monitor PM_{10} emissions from the tillage area. For a given wind direction, the downwind monitors shall be within

22 degrees (±11.5°) of the upwind monitors. Upwind/downwind monitor assignments will be requested by the City and approved by the APCO. Existing monitors operated by the District may be used as upwind/downwind monitors. Additional EPA reference and equivalent method PM_{10} monitors (40 CFR Part 53) shall be operated by the City, unless mutually agreed otherwise.

b. If a monitor is operated by the City, its operation and maintenance must follow District procedures and data collection must be incorporated into the District communications network. The District reserves the right to audit monitors and monitoring data collected by the City. The District also reserves the right to install and operate or require the City to install and operate additional PM_{10} monitors to adequately monitor the PM_{10} emissions coming from tilled areas.

c. All PM_{10} monitoring equipment will be in place as soon as practicable as shallow flood areas dry, but no later than the start of tillage activities.

d. Impacts caused by maintenance activities and non-tillage sources shall be excluded from the PM_{10} data. Maintenance activities and non-tillage PM_{10} sources may include, but are not limited to, adjacent grading and road construction activities, as well as vehicle traffic. PM_{10} monitors should be placed so as to minimize impacts from non-tillage sources.

e. When the daily downwind to upwind PM_{10} concentration difference for any dust event (other than during maintenance activities in the tillage area) exceeds 50 $\mu g/m^3$ and there is no evidence to show that the additional downwind PM_{10} did not come from the TWB^2 Area, maintenance will be performed in the tillage area.

4. Induced Particulate Erosion Test

a. The Induced Particulate Erosion Test (IPET) method will be used to determine if tilled area surfaces are starting to become emissive. The IPET method uses a small radio-controlled helicopter-type craft (Radio-Controlled Wind Induction Device or RCWInD) to create wind on the surface. Each RCWInD craft shall be pre-tested to determine the test height above the surface (H_t) at which the craft creates a target maximum horizontal wind speed (TWS) measured at 1 centimeter ($U_{0.01}$) above a flat surface equal to 11.3 meters per second (m/s). If the payload on a craft is changed, e.g. a different camera is used, then H_t must be re-

determined for the new payload since it will affect the amount of thrust needed to keep the RCWInD aloft.

b. Testing to determine H_t and TWS will be done on a smooth flat surface, e.g. concrete or asphalt pavement or plywood test platform with calm ambient winds (< 2 m/s). H_t is measured from the bottom of the rotor blade to the surface. The maximum wind speed for any flight height is taken at a height one centimeter above the surface at a point that is one rotor blade length away from the point beneath the center of the fastest rotor blade taken on a line extending outward from the rotor arm. The wind speed measurement is taken with a pitot tube pointing toward the center of the rotor blade. The RCWInD must be flown in a stationary position to get a sustained wind speed measurement.

c. When the craft is flown over a ridged surface H_t is measured from the bottom of the craft's rotor blades to the highest surface projection anywhere directly below the craft.

d. Three erosion alert levels are set using the IPET method: 1) an <u>early warning</u> of possible clod and surface stability deterioration, 2) a <u>warning</u> level to alert the City of a potential breakdown of the surface stability and to advise voluntary maintenance efforts, and 3) a <u>mitigation</u> action level to require re-tilling and/or re-flooding of all or part of a TWB^2, DWM or Brine BACM Area.

e. The IPET method will be used to determine erosion alert levels as follows:

- Level 1 – An erosion <u>early warning</u> is indicated when any visible dust is observed to be emitted from a surface or particles are dislodged when the RCWInD is flown at a height below one half of H_t. Voluntary mitigation may be appropriate to prevent further surface degradation.
- Level 2 – An erosion <u>warning</u> is indicated when any visible dust is observed to be emitted from a surface when the RCWInD is flown at a height below H_t and above one half of H_t. Voluntary mitigation is advised to prevent further surface degradation.
- Level 3 – <u>Mitigation</u> action is required if visible dust is observed to be emitted from a surface when the RCWInD is flown at a height of H_t or higher.

D. The City shall re-flood TwB^2 areas to comply with the BACM Shallow Flood control

efficiency target for that area, if either of the following erosion thresholds are exceeded as determined using the sand flux and IPET measurements described in Paragraphs IV.C.2 and IV.C.4.

1. Sand flux measured at 15 cm above the surface exceeds 1.0 gram per square centimeter per day, or
2. Induced Particulate Erosion Test method shows visible dust emissions when operated at the reference test height, H_t.

V. Brine BACM

A. Stable surfaces for Brine BACM shall be defined as consisting of standing water, evaporite salt deposit, and capillary brine salt crust as follows:

1. Water: Standing water or hydrologically saturated surface as defined by BACM Shallow Flooding, regardless of salinity level.
2. Evaporite Salt Deposit: A crystalline deposit of salt minerals precipitated on the surface of the lakebed from evaporation of Owens Lake brine. The evaporite salt deposit does not include the development of salt crust by upward capillary movement of saline fluids through the soil column. The evaporite salt deposit must have an average thickness of 1.5 centimeters or greater and may be either wet or dry.
3. Capillary Brine Salt Crust: A crust enriched in salt minerals formed at the soil surface by upward capillary movement of water through the soil. The capillary brine crust typically consists of a mix of salt minerals and soil particles in various proportions, and must meet the following three conditions:
    a. The capillary brine salt crust within a Brine BACM area must have an average thickness of 10 centimeters or greater and may be either wet or dry,
    b. a capillary brine salt crust must be accompanied by either water and/or an evaporite salt deposit, and
    c. the proportion of qualifying capillary brine crust within a Brine BACM area cannot exceed one-third of the required total compliant cover within a Brine BACM area.

B. Each Brine BACM area shall be operated such that the total areal extent of the surface cover of the qualifying surfaces are maintained such that they meet or exceed those as

defined by the Shallow Flooding Control Efficiency Curve in Exhibit 3. The combined mosaic of stable Brine BACM surfaces shall cover the entire dust control area.

C. Brine BACM can be used by the City of Los Angeles (City) throughout the Owens Lake bed where backup BACM Shallow Flood infrastructure exists and can be implemented, as set forth in this protocol, to ensure that Brine BACM areas do not cause or contribute to exceedance of the NAAQS for PM_{10}.

D. The boundaries for each Brine BACM area will be pre-defined by the City prior to implementation. Each Brine BACM area will be monitored separately to determine compliance with required surface cover conditions.

E. The City will monitor each Brine BACM area with at least one sand flux monitor (SFM) site instrumented with paired Cox Sand Catchers (CSCs) and Sensits with inlets positioned 15 cm above the surface, radio equipment, and dataloggers programmed to record 5-minute sand motion data. SFM sites will primarily be located in portions of Brine BACM areas covered with a capillary crust. All Sensit data will be reported daily to the District. Sand motion data from the CSCs and Sensits will be processed to track sand flux at each site.

F. Brine BACM areas will be monitored using the IPET method following the procedures used for Tillage with BACM Back-up areas in Paragraph IV.C.4.

G. The City shall re-flood Brine BACM areas to comply with the BACM Shallow Flood control efficiency target for that area, if either of the following erosion thresholds are exceeded as determined using the sand flux and IPET measurements described in Paragraphs IV.C.2 and IV.C.4.

   1. Sand flux measured at 15 cm above the surface exceeds 5.0 grams per square centimeter per day, or
   2. Induced Particulate Erosion Test method shows visible dust emissions when operated at the reference test height, H_t.

VI. Dynamic Water Management

A. Areas that are eligible for Dynamic Water Management (DWM) must meet the following sand flux history criteria:

   1. 5 years or more of sand flux data from before dust control implementation, and

2. The frequency of significant sand flux ($\geq$5 g/cm^2/day) taking place outside of the modified shallow flood dust control period did not occur in more than one calendar year over any continuous six year period.

B. The modified dust seasons for DWM have three different start dates in the beginning of the season that reflect the delayed start of source area activity across the lakebed. The modified start dates are applicable to certain dust control areas based on the sand flux history as evaluated in Paragraph VI.A and the method of shallow flooding using conventional flooding or sprinkler irrigation.

1. For areas shallow flooded by methods other than sprinkler irrigation, the standard and modified dust control periods are:

   Standard Dust Season

   October 16 to June 30 (with ramping of 99% control areas after May 15)

   Modified Dust Seasons for Dynamic Water Management

   October 16 – April 30

   December 1 – April 30

   January 16 – April 30

2. For eligible areas that are shallow flooded with sprinkler irrigation, the modified DWM seasons shall be adjusted to provide water two weeks earlier in the beginning of the dust season to simulate ramp up as applied in conventional BACM Shallow Flood areas and one month later at the end of the dust season due to the lack of wetness during the dry down period with conventional BACM Shallow Flood areas. The adjustments to the DWM seasons for sprinkler irrigated shallow flooding areas are provided below.

   Modified Dust Seasons Adjusted for Sprinkler Irrigated Shallow Flooding Areas

   October 16 – May 31

   November 16 – May 31

   January 1 – May 31

3. In areas approved for DWM, the City of Los Angeles (City) shall meet the shallow flood control efficiency and wetness targets indicated in Exhibits 2 and 3 by or before the applicable start dates in Paragraph VI.B and water may be shut off with no spring ramping at the end of the modified season.

C. Each DWM area will be instrumented by the City with sand flux monitoring (SFM) sites

using paired Sensits and Cox Sand Catchers (CSCs) during the modified start and end periods. The locations of SFM sites shall be determined by the City in coordination with the District.

1. The number of SFM sites at the modified start of the dust season will be proportional to the areal extent of the DWM area. All DWM areas will require at least one SFM site however; the APCO may require proportionally more SFM sites for DWM areas greater than 320 acres such that there is approximately one SFM site per 160 acres of DWM area.
2. During the modified end period of the dust season, the LADWP shall install SFM sites incrementally in stages as a DWM area dries. The number of SFM sites is provided in Table 1 below.

Table 1. Number of SFM sites required per DWM area during the modified end of the dust season.

Drying Stage	Exposed Lakebed	Number of SFM sites
1	Less than 50 acres	0
2	50 – 160 acres	1
3	>160 acres	1 per every 160 acres

3. The City will pair CSCs with Sensits with inlets positioned at 15 cm above the surface, radio equipment and dataloggers programmed to record 5-minute sand motion data. All Sensit data will be reported daily to the District. Sand motion data from the CSCs and Sensits will be processed to track sand flux at each site.
4. During the modified start of the dust season all sand flux monitoring equipment will be placed by the City no later than October 16. During the modified end of the dust season all SFM sites will be placed by the City within 7 calendar days of reaching each drying stage. The City shall inform the District of all SFM site installations within 7 days of installation.
5. SFM sites installed for monitoring in the modified beginning dust season may be removed from a DWM area once the modified dust season has started for each DWM area or once the site location is endanger of getting flooded. The City shall inform the District of all SFM site removals within 7 calendar days of their removal

date. SFM sites installed for monitoring of the modified end of the dust season may be removed from a DWM area after June 30.

D. DWM areas will be monitored using the IPET method following the procedures used for Tillage with BACM Back-up areas in Paragraph IV.C.4.

E. The City shall re-flood a DWM area or sub-area as indicated by the available information to comply with the BACM Shallow Flood control efficiency target for that area, if either of the following erosion thresholds are exceeded as determined using the sand flux and IPET measurements described in Paragraphs IV.C.2 and IV.C.4.
   1. Sand flux measured at 15 cm above the surface exceeds 5.0 grams per square centimeter per day, or
   2. Induced Particulate Erosion Test method shows visible dust emissions when operated at the reference test height, H_t.

F. If any DWM area exceeds either erosion threshold in Paragraph VI.E in more than one calendar year over any continuous six-year period, that area will revert to the standard BACM Shallow Flood dust season as shown in Paragraph VI.B.1 since the area will no longer meet the DWM criteria in Paragraph VI.A.

GB23-01 – Interim Variance
GBUAPCD Staff Report – Exhibit 4

Notice to Comply 2002

Phillip L. Kiddoo
Air Pollution Control Officer

GREAT BASIN UNIFIED AIRPOLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109
www.gbuapcd.org

April 28, 2022

Paul Liu
Owens Lake Dust Mitigation Program Manager
Los Angeles Department of Water & Power
111 N. Hope Street
Los Angeles, California 90012

Via electronic mail and US CERTIFIED MAIL: 7019 0700 0000 3251 8313

Subject: Notice to Comply 2002 to the City of Los Angeles Department of Water and Power

Dear Mr. Liu:

The Great Basin Unified Air Pollution Control District (District) hereby issues this Notice to Comply 2002 to the City of Los Angeles Department of Water and Power (LADWP) for its failure to meet Best Available Control Measure (BACM) Shallow Flooding wetness compliance performance requirements as required by District Governing Board Order 160413-01, and to require LADWP develop and implement corrective actions. The specific BACM Shallow Flooding dust control areas with ongoing compliance issues include T10-1a, T13-1, T23E, T24, T25, T25-3a, T26, T27 and T30-3.

In spring 2021, the District and LADWP discussed the need for more extensive maintenance in several BACM Shallow Flooding dust control areas that were regularly failing to meet BACM Shallow Flooding wetness compliance performance criteria. The District recognizes LADWP's efforts performing smaller maintenance projects in 2021 and the efforts this spring to meet wetness compliance performance criteria in the reoccurring deficient areas. However, this Notice to Comply is issued due to the multi-year trends of noncompliance, expansion of the deficient areas, and increasing frequency of failure to meet required standards. As detailed in the attached Notice to Comply 2002, LADWP shall provide the District a written response on or before May 31, 2022, outlining immediate corrective actions to be taken to achieve compliance in all areas on October 16, 2022.

The District looks forward to assisting LADWP in resolving Notice to Comply 2002 and fulfilling the requirements of District Governing Board Order 160413-01 to meet BACM Shallow Flooding wetness compliance performance criteria in all areas operated and maintained as BACM Shallow Flooding for PM10 control measures.

Sincerely,

Phillip L. Kiddoo
Air Pollution Control Officer

Enclosure:
1. Notice To Comply 2002

Cc: (via email only)
Arrash Agahi, LADWP
Liz Calderon, LADWP
Ann Logan, GBUAPCD
Nik Barbieri, GBUAPCD
Grace Holder, GBUAPCD
Chris Howard, GBUAPCD
Kim Mitchell, GBUAPCD

Phillip L. Kiddoo
Air Pollution Control Officer

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537 Tel: 760-872-8211 www.gbuapcd.org

NOTICE TO COMPLY

I. General Information		№ 2002
Owner or Operator Name: **Los Angeles Department of Water & Power**		
Premises or Operations Location: **BACM Shallow Flooding Dust Control Areas, Owens Lake, Inyo County, CA**		
Contact: **Paul Liu**	Title: **Dust Mitigation Program Manager**	Phone №: **N/A**
Mailing Address: **111 N. Hope Street Los Angeles, California 90012**		
Email: **paul.liu@ladwp.com**	GBUAPCD Permit # (if applicable): **N/A**	

II. Compliance Issue

YOU ARE HEREBY NOTIFIED THAT YOUR FACILITY, OPERATIONS OR PREMISES ARE NOT IN COMPLIANCE WITH STATE OR FEDERAL CODES, AND/OR OF GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT RULES & REGULATIONS.

List of Code Sections, Rules or Regulations Violated:

District Board Order 160413-01 Paragraph 9

Immediately correct the following items that are out of compliance:

Failure to meet BACM Shallow Flooding wetness compliance performance requirements as detailed in District Governing Board Order 160413-01.

Recommended corrective action:

Provide a written response on or before May 31, 2022, including a list of corrective actions, to meet BACM Shallow Flooding requirements in all deficient areas by October 16, 2022.

CORRECTION DUE DATE: **October 16, 2022**. If this corrective action is completed by the due date, no further action will be taken on the lack of compliance noted above. Failure to complete the corrective action by the due date may result in further enforcement action by the District. If corrective action is not possible by the due date, an extension or variance may be requested by contacting the District. To appeal the issuance of this Notice to Comply, send a written appeal to the APCO within 10 days of receipt of this notice. Specify in detail why you believe these allegations are incorrect and attach a copy of the Notice to Comply and all supporting documentation.

III. Notification

Notice Issued by: **Phillip L. Kiddoo, APCO**	Signature:	
Date Issued: 20220428	Issued Via: ☐ Hand Delivered ☑ Email ☑ Mail	Certified Mail #: **7019 0700 0000 3251 8313**

IV. Corrective Action – to be completed by the Owner/Operator

Please complete this section after the corrective action is complete and return a copy to the District.

Thank you for your timely attention to this matter.

Corrective Action Taken (Include Date Completed): If required, attach additional sheets.

Name:	Title:	Signature:

NTC Form: Revised 12/2021

GB23-01 – Interim Variance
GBUAPCD Staff Report – Exhibit 5

Variance Conditions

EXHIBIT 5 – Variance Conditions

If the Hearing Board approves LADWP's interim variance request, the District staff recommend the following conditions are required with the granting of an interim variance.

1. **Emission Reduction**. To reduce emissions in areas impacted by Tropical Storm Hilary, LADWP shall keep adjacent ponds full, operate any Shallow Flood variance area as close to wetness compliance as possible while completing berms and any earthwork, and take any other available measures to reduce emissions and/or emission potential of variance areas.
2. **Monitoring**. For any variance area, LADWP shall monitor emissions utilizing the District's approved sand flux monitoring protocol from the 2016 Owens Valley Planning Area State Implementation Plan. The monitoring shall include:

    - Data shall be transmitted to the District through the existing procedures. Sensit data shall be transferred on a daily basis. Sand masses and logs shall be posted to the Owens Lake Reporting FTP site as they become available.

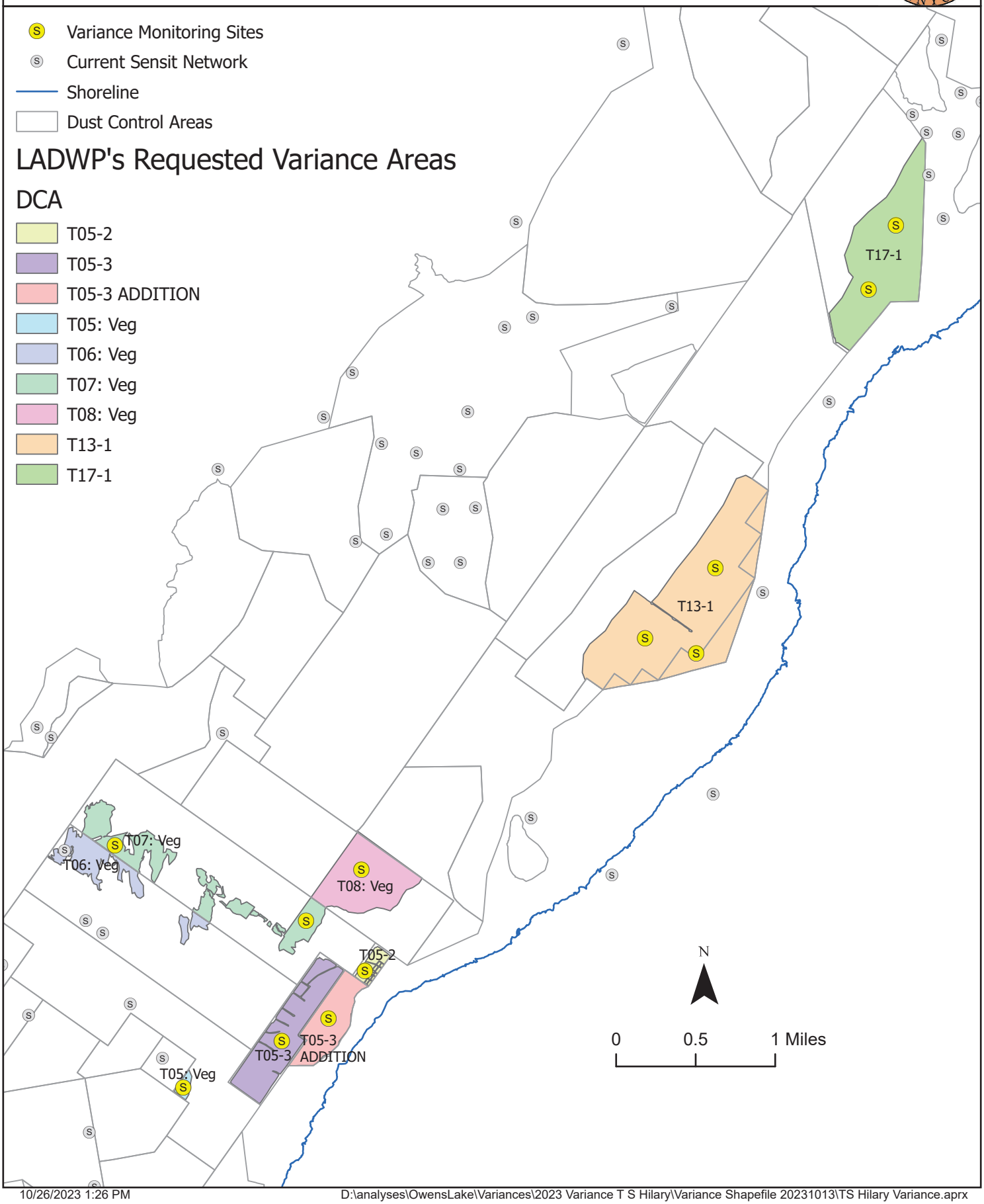
    - The number of sand flux monitoring sites per variance area shall be:

Variance Area	BACM	Requested Variance Area (acres)	Sites
T5	Vegetation	7	1
T6 & T7	Vegetation	181	2
T8	Vegetation	127	1
T5-2	Shallow Flood	15	1
T5-3	Shallow Flood	125	1
T5-3 Addition	Shallow Flood	78	1
T13-1	Shallow Flood	457	3
T17-1	Shallow Flood	255	2

- A map showing the required monitoring locations is included below. LADWP shall work with District staff on the final placement of each site to ensure they appropriately represent each area.
- Monitoring sites should be installed within 2 weeks and operated and maintained through the variance period.
- As areas are returned to compliance and removed from the variance, LADWP may work with District to ensure the District has all necessary data before removing any monitoring sites.

3. **Written Update**. LADWP shall provide a written update to the Hearing Board and District staff at least seven business days prior to the regular variance hearing that includes any updates regarding completed repairs, updates on the ability to meet compliance for areas, and additional information regarding repair plans, increments of progress, and timelines.

Variance Monitoring Sites



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