



**NMDOT**

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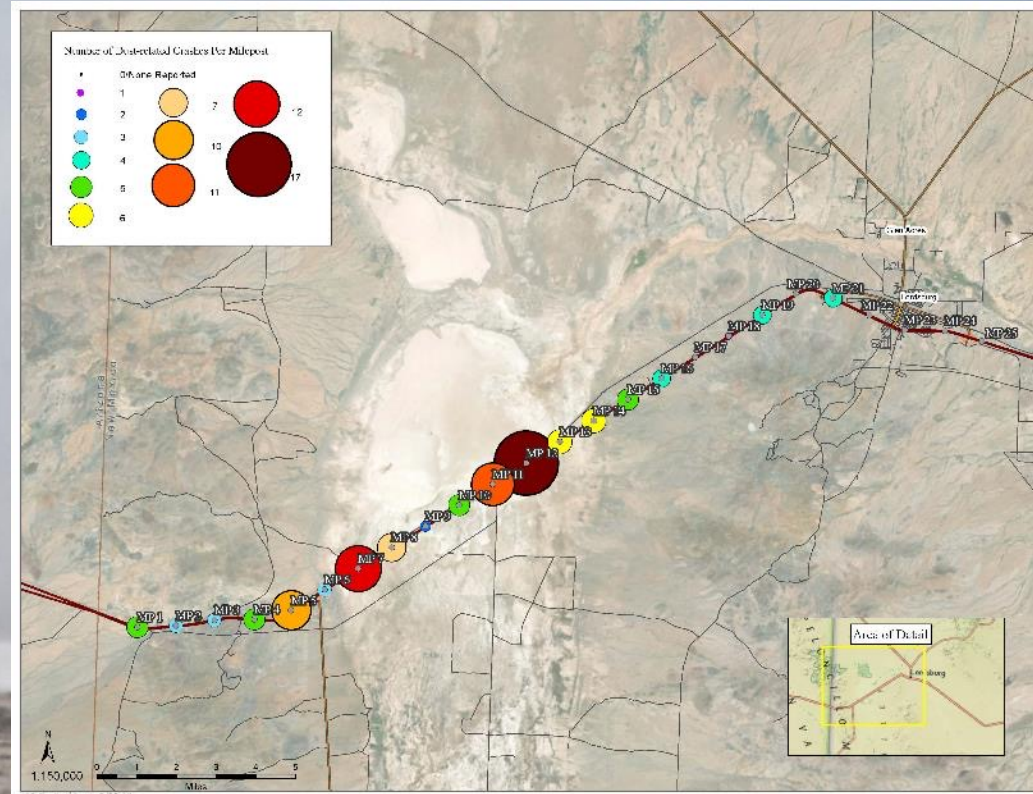
# 2022 Lordsburg Playa Dust Storm Mitigation -Phase 3 -



# Lordsburg Playa Dust Storms

1980 – Present: Over 40 Dust-storm related Highway Deaths

2012 – Present: 21 Deaths  
39 Closures of I-10  
120 Dust Events



# **NMDOT Environmental Bureau Dust Mitigation Projects**

**\$2.5 Million FHWA Highway Safety Improvement Program: Dust Mitigation Actions**

**\$185K FHWA/NMDOT Research Bureau: Dust/Visibility Monitoring (NMSU)**

**\$248,000 FHWA/NMDOT Funding: Seed Development for Restoration**





# July 6, 2020: Dust Event I-10 MP 7



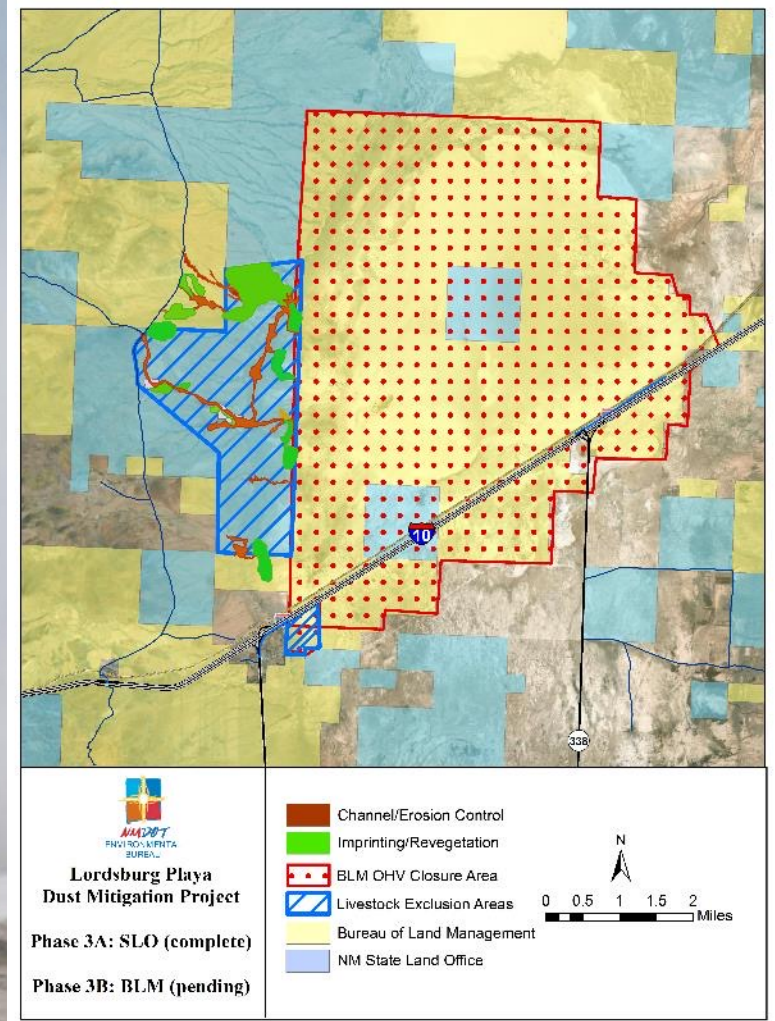
← Billboards  
Disappear



# Phase 3: Lordsburg Playa

## Primary Methods of Dust Mitigation

1. Revegetation: Keyline plowing, imprinting, native seeding
2. Erosion Control: Stabilization of channels, banks, & degraded ranch infrastructure
3. Land Use Management Adaptation (Manage surface disturbance & preserve soil crusts)



# ArcGIS Online Web Mapping Application

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Legend

Photo Points

Erosion Control Earthwork (Draft)

- Plug and Pond
- Contour Ditch
- Plug and Spread
- Other
- Rolling Dip
- Post Vane

Hand Rock Work Completed (Draft)

- Completed Rock Feature
- Proposed Future Hand Work
- Other
- 0

Hand Rock Work Type (Draft)

- One Rock Dam
- Baffle
- Footer
- Zuni Bowl
- Cross Vane
- Other
- Other

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Steins Mountain

Pipeline Obstruction

Arroyo Road

B Access Road

Summit Road

Playa

Phase 1A

Phase 1D

Phase 1C

Phase 2

Phase 5

Phase 1B

Phase 4

Phase 3

ESRI

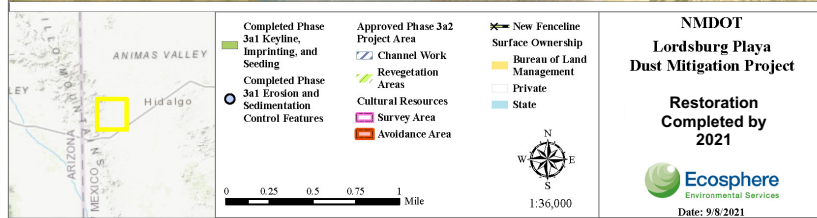
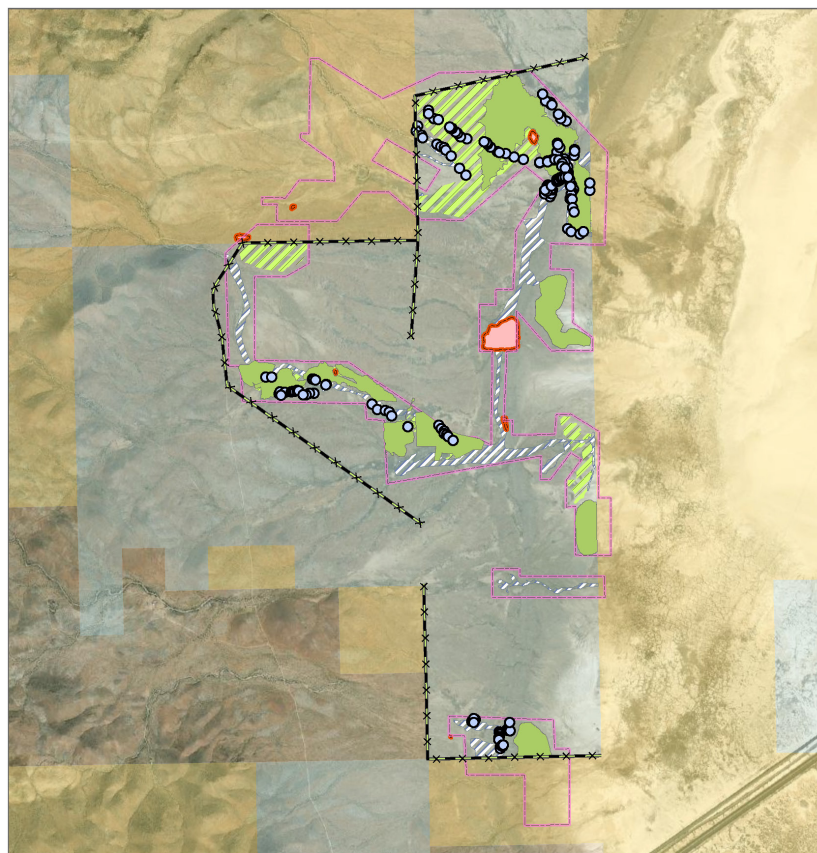
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Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA | Maxar | U.S. Bureau of Land Managem...



## Phase 3 Metrics

- 396 acres imprinted and seeded to date
- 241 erosion control structures affecting 68 acres immediately
- 3,424 acres fenced with cattle exclusion
- 300 additional acres to be imprinted this fall
- 1,500 total acres planned for seeding treatment





# Phase 3 Dust Mitigation Area

## Keyline plowing, Imprinting, Tackifier, Fencing







# Keyline, Imprint & Seeding on Degraded Grassland

December 2020

July 2021





# Keyline, Imprint & Seeding Around Erosion Headcut

December 2020

July 2021





# Phase 3 Dust Mitigation Area

## Plug & Pond, Erosion Control





# Plug & Pond to Restore Sheet Flow

December 2020



July 2021





# 1-Rock Dam Stops Downtcutting, Promotes Sheet Flow





## Next Steps:

- **Complete grazing plan for 7.5 Sq. Miles of fenced SLO Dust Mitigation Area**
- **Continue Dust Storm Visibility Monitoring with NMSU and Jornada Experimental Range**
- **Complete Environmental Documentation and Implement BLM Portion of Phase III and additional SLO Land**
- **Re-nominate The Lordsburg Playa to be Designated a BLM Area of Critical Environmental Concern**





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**Project Collaboration**

**BLM: Stakeholder and contributor**

**NM DPS: First-hand experience and crash data**

**Landowners/Lessees: Long-term knowledge of range conditions**

**Consultants: Stream Dynamics, Tooley's Trees, Ecosphere Site Southwest, West Consultants, Inc.**

**NMDOT: District 1 (Deming), Research Bureau, & Management Support**

**State Land Office: Stakeholder and contributor**

**NRCS: Soil Survey**

**NMSU (Dr. David Dubois) and Jornada Experimental Range (Brandon Edwards) monitoring and researching intensive dust storm analysis using NMDOT Research Bureau funding**

**USDA & UTEP: Playa research and establishment of a monitoring station as part of the National Wind Erosion Research Network**



Questions?

