Dust Storm Mitigation Update

Trent Botkin & Bill Hutchinson
Lordsburg Playa Dust Storms

1965–Present: Over 40 Dust-related Highway Deaths

2012–Present: 13 Deaths
39 Closures of I-10
120 Dust Events
I-10 MP 6 – Road Forks Playa

- Site of Multiple Crash Fatalities
- Sediment Accumulation Caused by I-10 “damming” a drainage swale
- Managed by BLM
- Already monitored by NMSU climatologist for dust activity
- Opportunity to reduce the amount of available dust near the roadway
Research & Design
NEPA Coordination with the BLM & FHWA

- Assessment of current BLM land management plans
- Interagency meetings
- Public Meetings
- BLM Plan of Development
- Environmental Assessment
- Categorical Exclusion
Final Design
Sept. 2018: Keylining, Imprinting, Tackifier, Fence
Native and Non-native Growth within Imprinting Area
Road Forks Playa Management Plan

- NMSU Climatologist monitoring air quality with multiple methods
- Restoration contractor & BLM Botanists monitoring revegetation
- Under FHWA/NMDOT management, the area will remain ungrazed to preserve the soil crust (~200 acres)
Phase 3: Lordsburg Playa

- Over 16 Square Miles of Playa Floor
- Eroding playa surface & watershed from modern and historic ranching and mining
- Surface disturbance analysis (NMDOT) & corroborating NRCS soil data
- Land managed by BLM & SLO
Watershed Land Use -Related Erosion
Grazing Disturbance

- Corral in center of playa
- Highly erodible playa surface (cattle footprints)
- Cattle trail through playa steppe
Disturbance Impact in Relation to Dust - Caused Fatalities
Grazing Restrictions

- Highly controversial for BLM
- Primarily affecting two grazing lessees
- Recommendation for long-term restrictions
<table>
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<tr>
<th>Project Collaborators</th>
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<tr>
<td><strong>NRCS</strong>: Completing intensive soil mapping project 2019</td>
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<td><strong>NMSU</strong>: State Climatologist Dr. Dubois conducting intensive dust storm analysis using NMDOT Research Bureau funding</td>
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<td><strong>USDA-Jornada Experimental Range</strong>: Establishing a research station on the playa as part of the National Wind Erosion Research Network</td>
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<td><strong>BLM</strong>: Stakeholder and contributor in completing Environmental Assessments</td>
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<td><strong>NM DPS</strong>: Provide first-hand experience and crash data</td>
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<td><strong>Landowners/Lessees</strong>: Provide long-term knowledge of range conditions</td>
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<td><strong>Consultants</strong>: Stream Dynamics, Site Southwest, Ecosphere</td>
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<td><strong>NMDOT</strong>: District 1 (Deming), Research Bureau, and Management Support</td>
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NMDOT ENVIRONMENTAL BUREAU

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