

# Vegetation Management on Clark County MSHCP Properties



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Lake Mead Inter-Regional Invasive Plant Management Team

MSHCP Annual Project Progress Report Symposium

August 28, 2019

# Virgin River Weed Management 2019 MSHCP Annual Project Progress Symposium (2017-NPS-1720A)



# Project Information

- Awarded late February 2018-March 2021
- Purpose: Conduct inventory and weed treatments of non-native vegetation
- Work Plan and Data Plan Submitted
- Initial weed survey and treatments conducted
- Recon and size up of vegetation used to develop recommendations

# Virgin River Reserve Unit



# Virgin River County Parcels



# Priority Weeds of Concern

- Tall Whitetop (*Lepidium latifolium*)
- Camelthorn (*Alhagi maurorum*)
- *Tamarix species* (*Aphylla reproducing*)
- Malta Starthistle (*Centaura melitensis*)
- Russian Olive (*Elaeagnus angustifolia*)

# Tall Whitetop

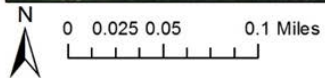


# Tall Whitetop/Perennial Pepperweed Mormon Mesa Unit





## 2018 Mormon Mesa ACEC Lake Mead EPMT Treatments



Compiled by Rachel Skoza 8/27/2019  
Contact Curt Deuser [curt\\_deuser@nps.gov](mailto:curt_deuser@nps.gov)

# Malta Starthistle

*Centaurea melitensis*



# Bunkerville West Unit Tamarisk Control

## 33 Acres basal spray treatment

2019 Virgin River Lake Mead EPMT Treatments



# Athel Trees at Riverside Bridge Unit

## *Tamarix aphylla*



# Camelthorn

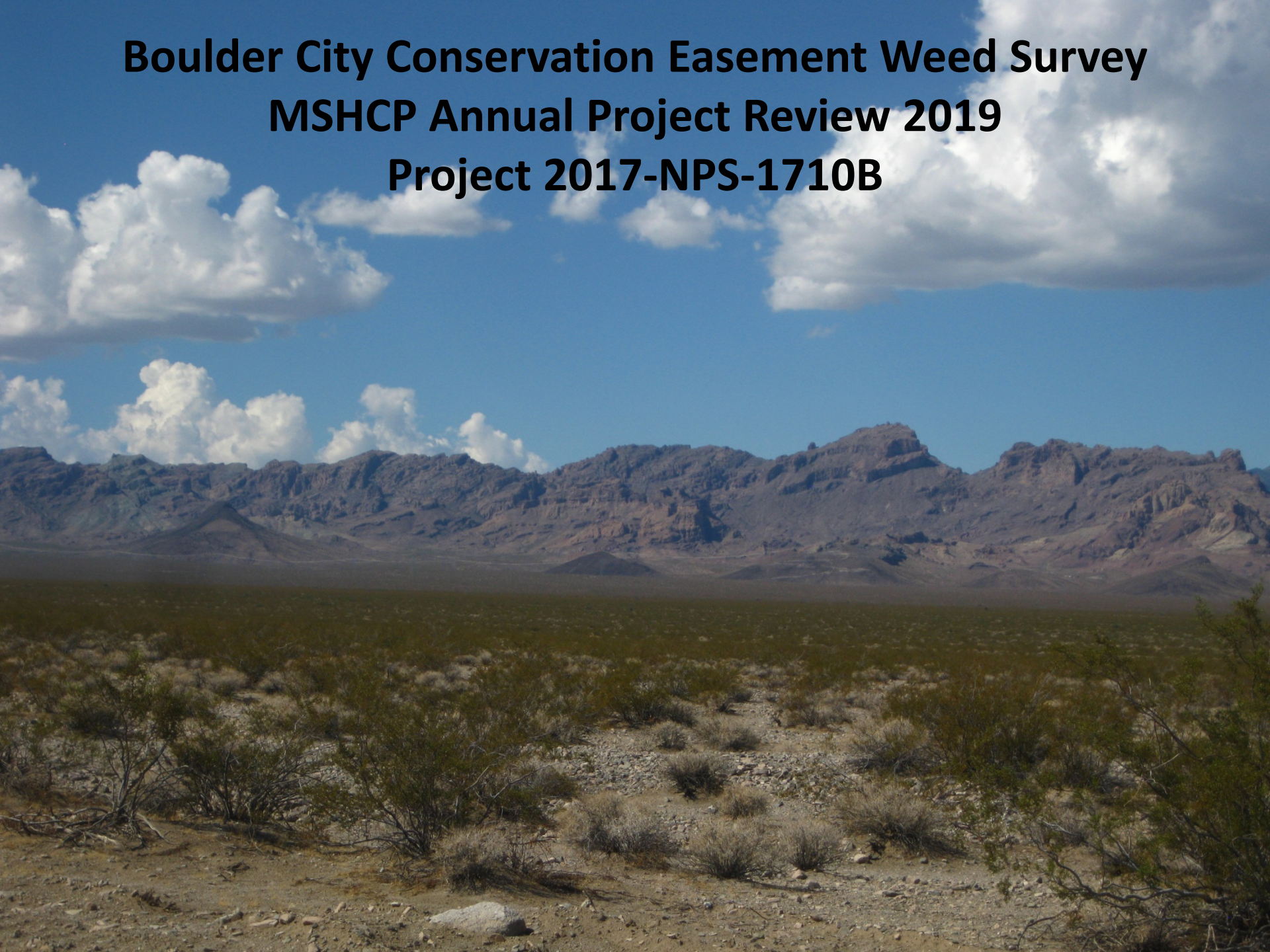


03/13/2018

# Future Work

- Floodplain treatments (tamarisk)
- Athel Control at Riverside
- Re-treat maintain previous treatment areas
- Tall Whitetop monitoring
- Camelthorn post flood monitoring and treatments
- Additional revegetation

**Boulder City Conservation Easement Weed Survey  
MSHCP Annual Project Review 2019  
Project 2017-NPS-1710B**



# Project Overview

- Inter-local Agreement between Clark County and NPS (awarded January 2018 to November 2019 Close out)
- Optional two-year renewal Dec 2019-Nov 2021
- Conduct surveys of routes within the BCCE to detect non-native (exotic) vegetation/weeds
- Conduct targeted weed treatments
- Note native plants observed
- Up to 95 miles of roads, 10 meters on either side of road edge
- Winter and Summer surveys
- Control incipient weeds/early detection rapid response



# Project Goal

Support vegetation management and maintenance activities in the BCCE to maintain and improve desert tortoise habitat.



Tortoise photo courtesy of National Park Service





# Native Big Galleta Grass

*Pleuraphis rigida*



# Native Dune primrose

*Oenothera deltooides* var. *deltooides*



# Summary of Accomplishments

- Conducted weed surveys and treatments
- Completed biennium progress summary report
- Buffel grass detected and treated

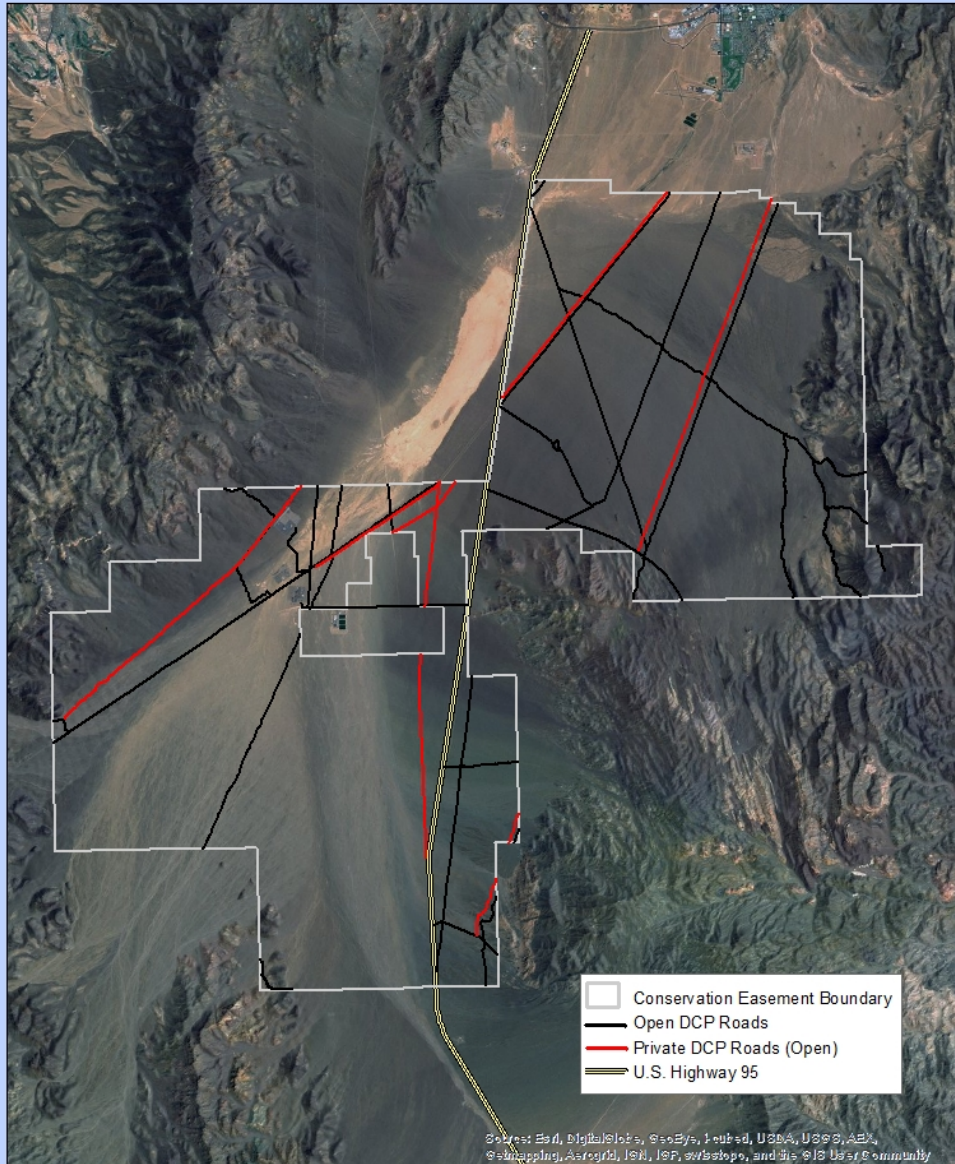
# GPS Mapping



# Roadside Weed Control



# Boulder City Conservation Easement



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, ISF, Swirestop, and the GIS User Community

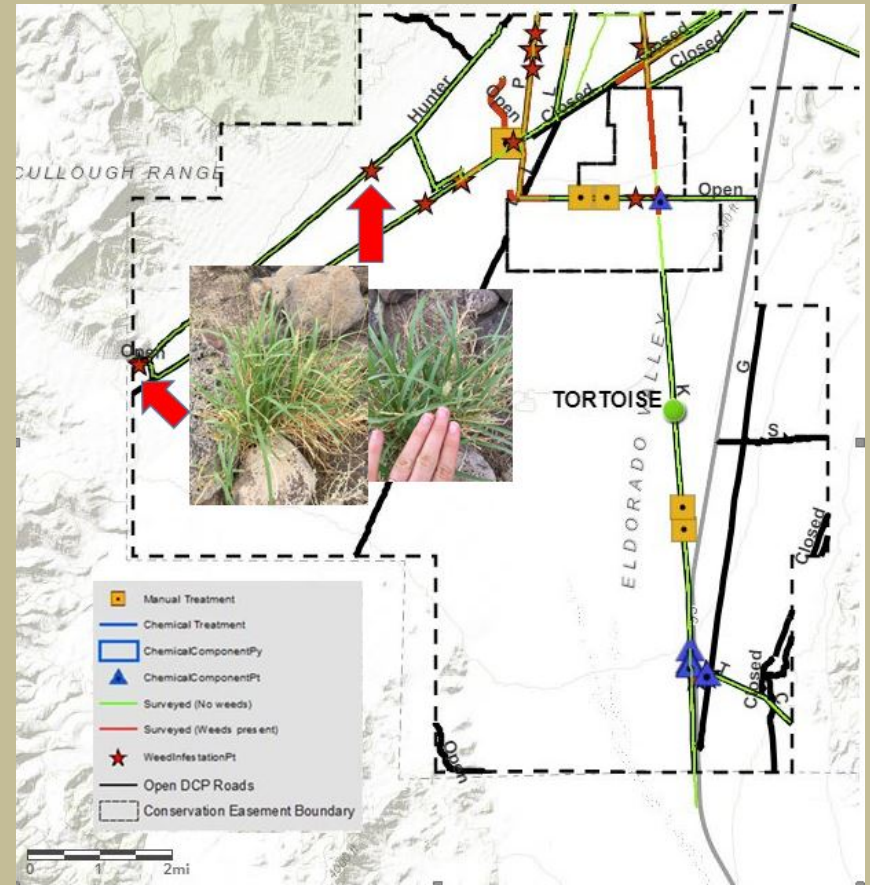
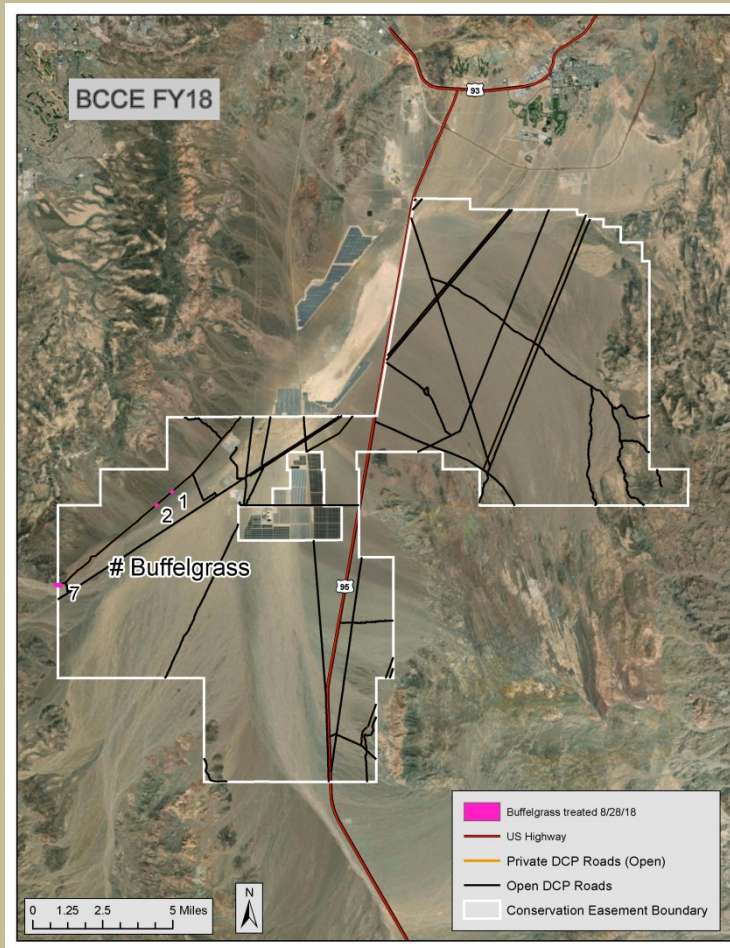
Lake Mead Exotic Plant Management Team, Feb. 2014







# Buffel Grass Detection and Treatments



# Buffel Grass Treatment

*Cenchrus ciliaris* / *Pennisetum ciliaris*

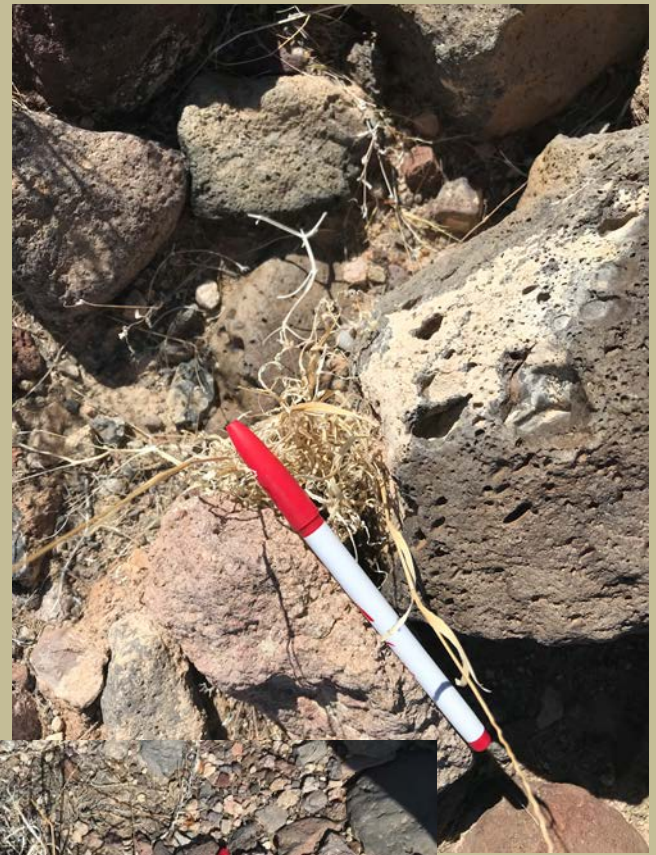


# Buffel Grass Control

**Before treatment August 2018**

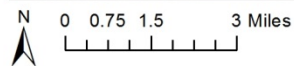
**After treatment Aug 2019**







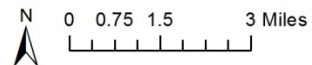
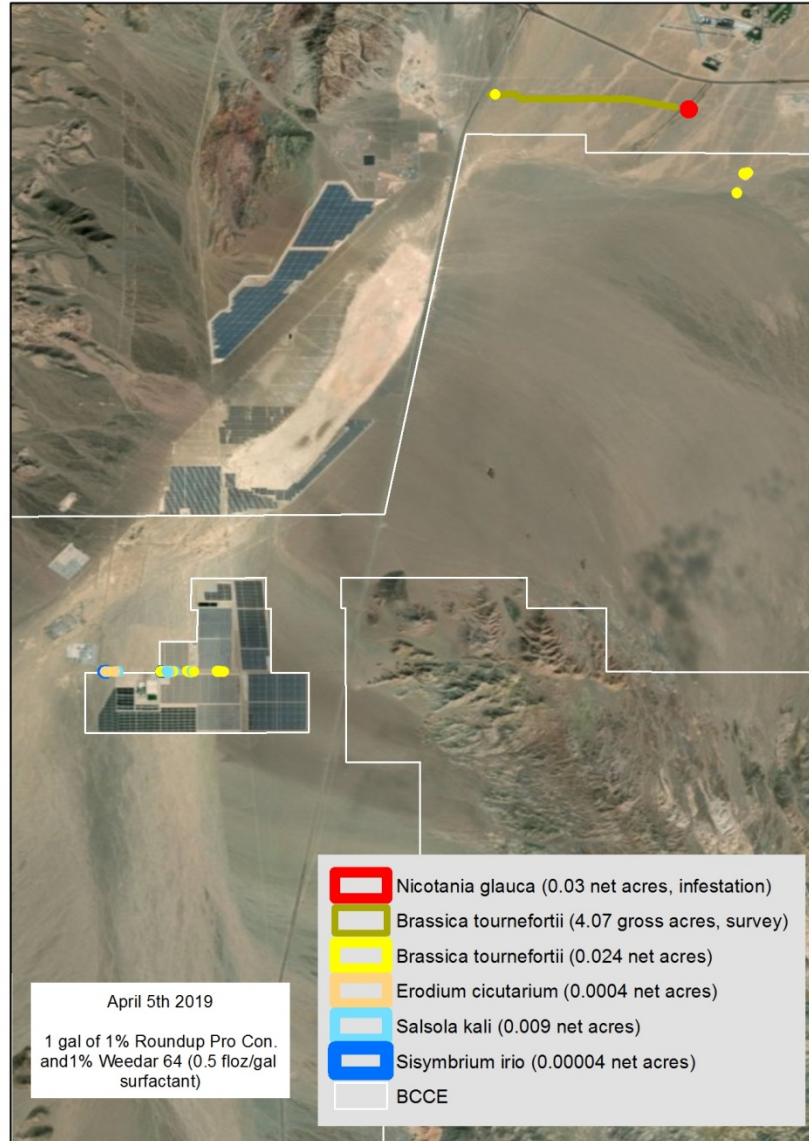
### Boulder City Conservation Easement 2018 - 2019 Lake Mead EPMT Accomplishments



Compiled by Rachel Skoza 8/27/2019  
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# Boulder City Conservation Easement 2018 - 2019 Lake Mead EPMT Accomplishments



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# Sahara Mustard

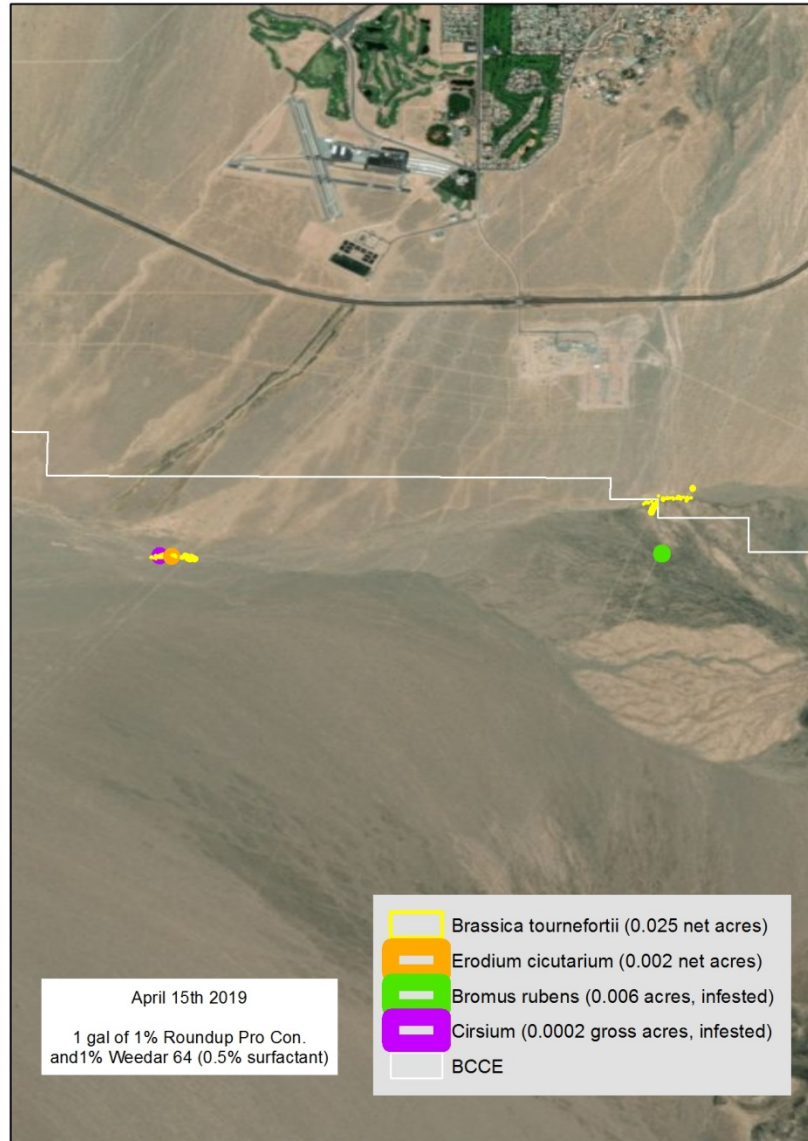
*Brassica tournefortii*





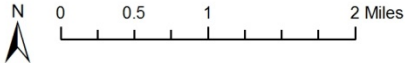


# Boulder City Conservation Easement 2018 - 2019 Lake Mead EPMT Accomplishments



April 15th 2019  
1 gal of 1% Roundup Pro Con.  
and 1% Weedar 64 (0.5% surfactant)

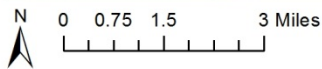
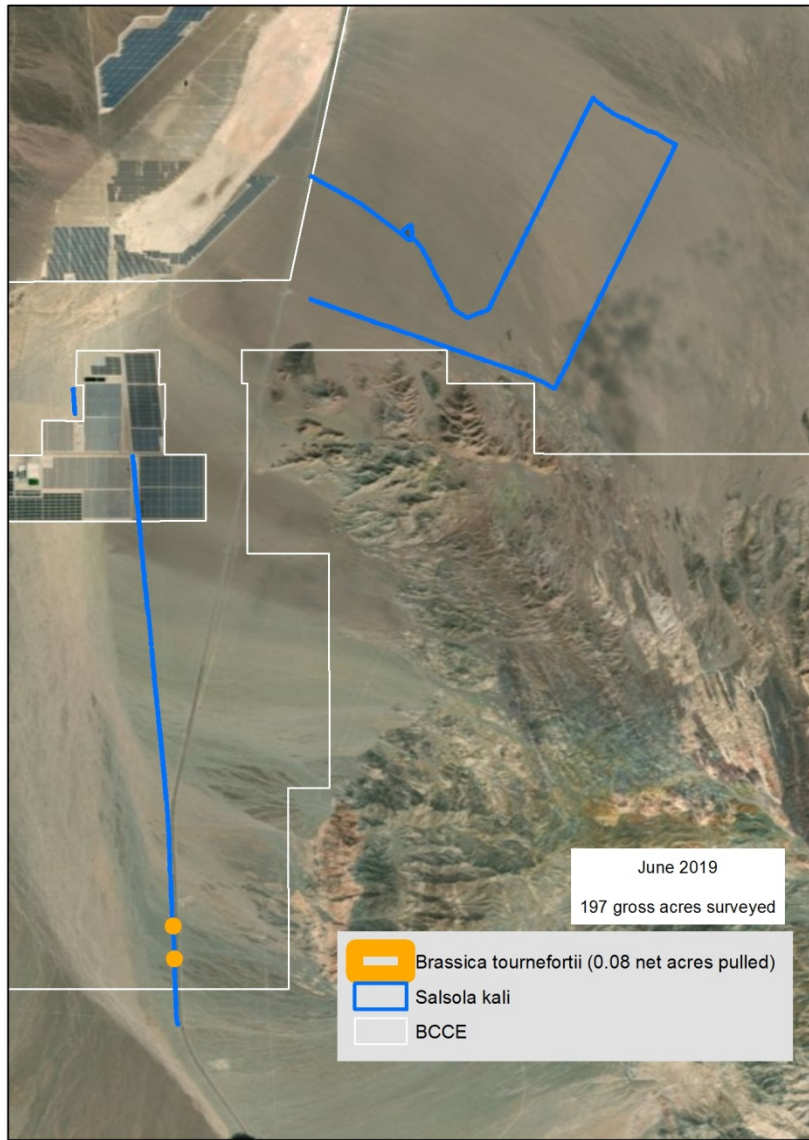
- Brassica tournefortii (0.025 net acres)
- Erodium cicutarium (0.002 net acres)
- Bromus rubens (0.006 acres, infested)
- Cirsium (0.0002 gross acres, infested)
- BCCE



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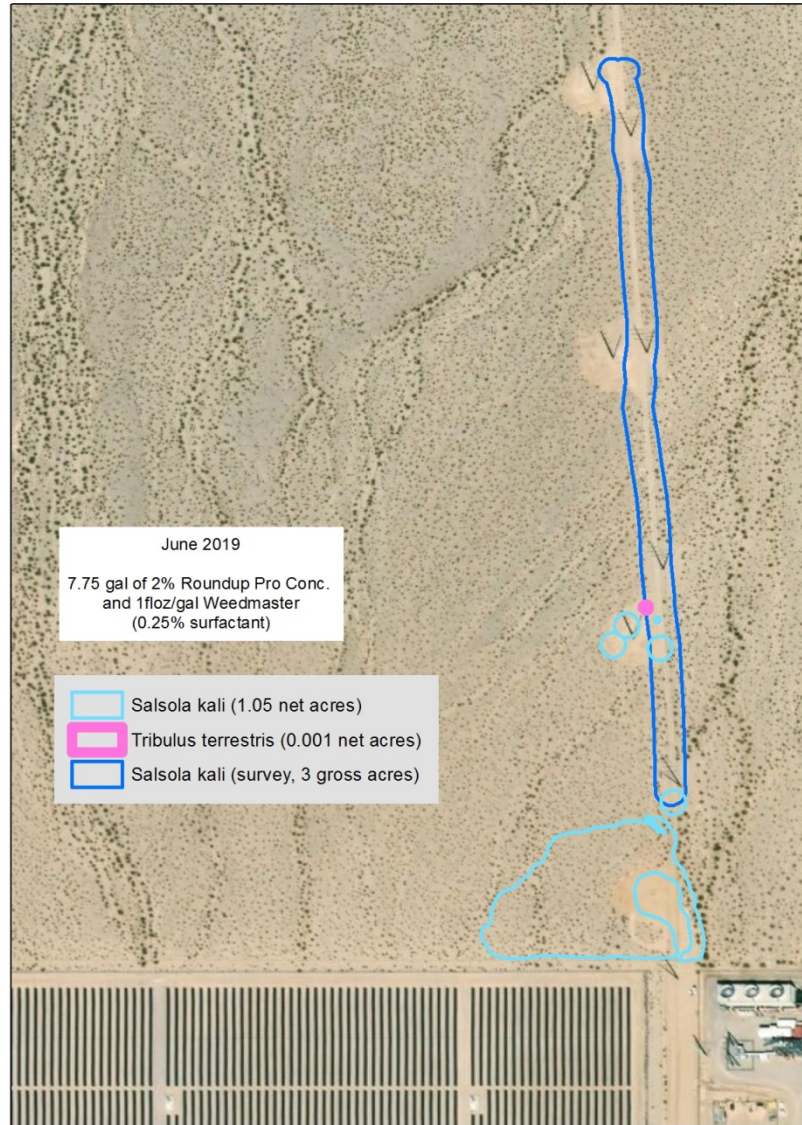
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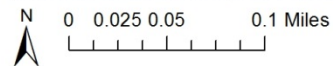


# Boulder City Conservation Easement 2018 - 2019 Lake Mead EPMT Accomplishments



June 2019  
7.75 gal of 2% Roundup Pro Conc.  
and 1 fl oz/gal Weedmaster  
(0.25% surfactant)

- Salsola kali (1.05 net acres)
- Tribulus terrestris (0.001 net acres)
- Salsola kali (survey, 3 gross acres)



Compiled by Rachel Skoza 8/27/2019  
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# Russian Thistle Treatments

**Before Treatment June 2019**



**After Treatment August 2019**



# Acknowledgements

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- John Brekke and Caryn Wright, Clark County Dept of Air Quality/Desert Conservation Program
- NPS EPMT Staff: Tarl Norman, Darrin Gobble, Andy Pigg, Brandon Blackburn, Anna Wheeler, and Rachel Skoza, Kathleen Lynch, Jessica McCulloch, others