



Biological Goals and Objectives and the Adaptive Management Program

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MOJAVEMAX.COM



desert conservation
PROGRAM

The Adaptive Management Program:

- Provides objective, science-based approach to the implementation of the MSHCP
- Helps direct expenditures
- Leads projects that further the MSHCP
- Ensures an adaptive management approach to all management actions



Overview



Biological Goals and Objectives for the Clark County, NV Multiple Species Habitat Conservation Plan - Final

Prepared for the:



desert conservation
PROGRAM

4701 W. Russell Rd.
Las Vegas, NV, 89118

2013-TERRA-1410B-D10

Prepared by:

The Science Advisor Panel for the Desert Conservation Program:

TerraGraphics Environmental Engineering, Inc.

108 W. Idaho Ave.
Kellogg, ID 83837



www.terragraphics.com



Heron Ecological, LLC



H. T. HARVEY & ASSOCIATES
Ecological Consultants



sennabiological

University of Idaho

June 22, 2016

Adaptive Management and Monitoring Plan



desert conservation
PROGRAM

Prepared for:

Desert Conservation Program
4701 W. Russell Rd.
Las Vegas, NV, 89118

2013-TERRA-1410B-D17

Prepared by:

The Science Advisor Panel for the Desert Conservation Program:

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January 9, 2017

Riparian Reserve Units

- 4 Goals
- 11 Objectives
- 26 projects over the last year



Desert Reserve Units

- 4 Goals
- 13 Objectives
- 35 projects over the last year





Biological Goals and Objectives for the Riparian Reserve Units

BGO's for Riparian Reserve Units



Goal R 1. Maintain, improve, and expand habitat for the MSHCP-covered species on riparian reserve system lands

Objectives:

R 1.1: Monitor species occupancy

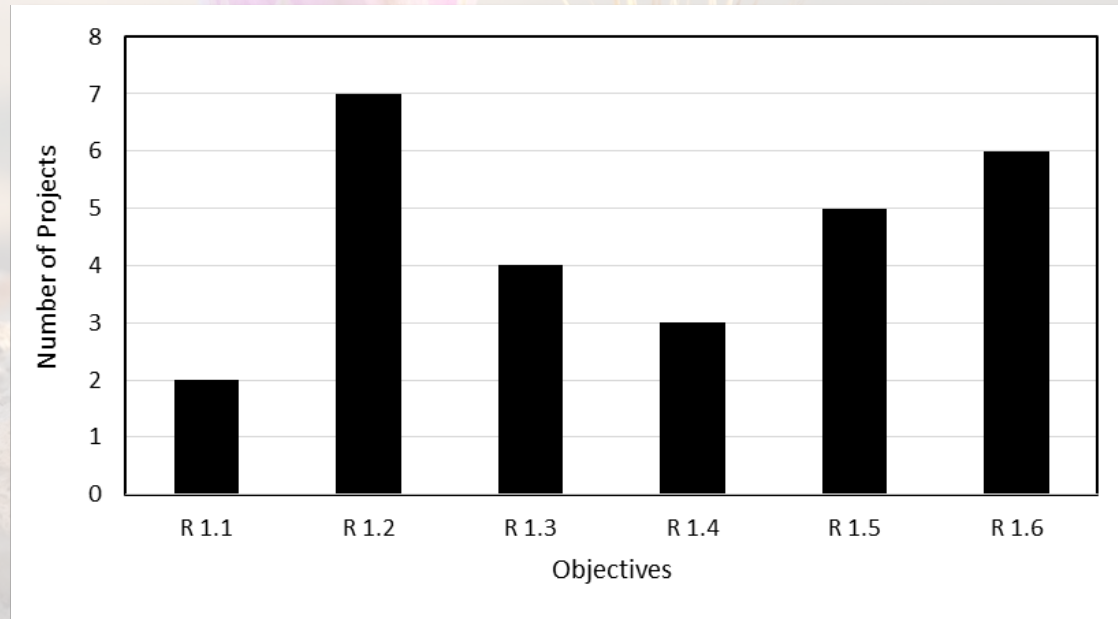
R 1.2: Maintain/increase habitat

R 1.3: Incorporate elements of natural riparian processes

R 1.4: Control invasive plant species

R 1.5: Reduce habitat fragmentation/improve connectivity

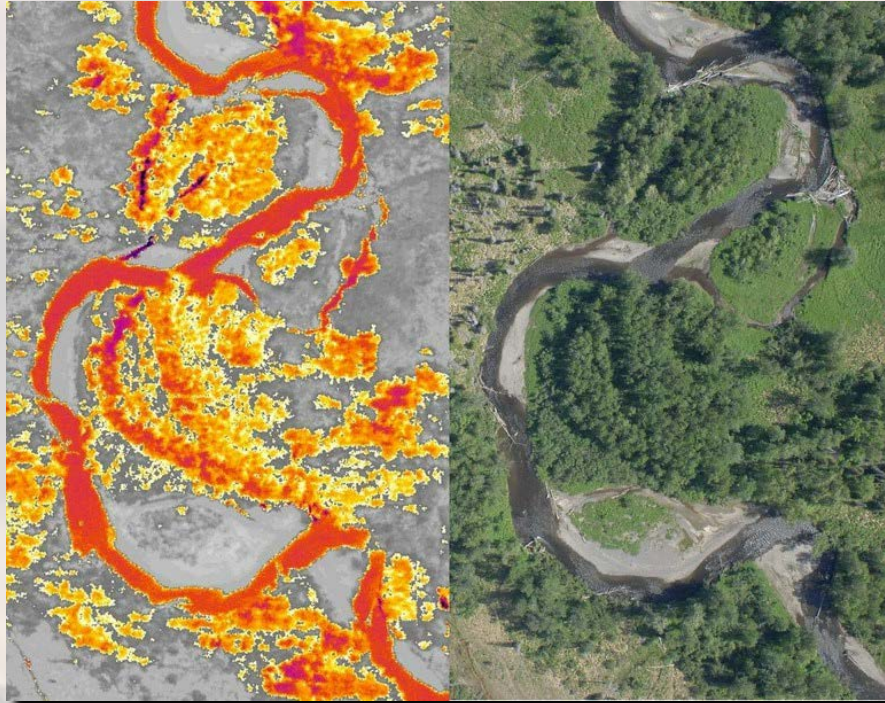
R 1.6: Acquire riparian property



R 1.3 Incorporate Elements of Natural Riparian Design



Thermal refugia of the riparian reserves

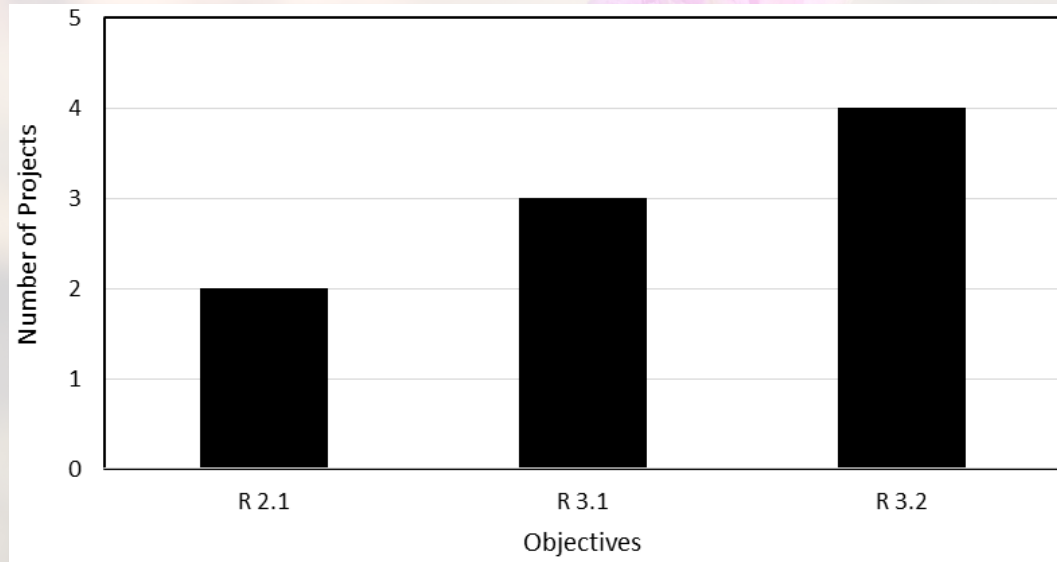


Plant pollinators



Goal R 2. Maintain stable or increasing populations of T&E species

Objectives: **R 2.1:** Monitor and adaptively manage for breeding bird populations



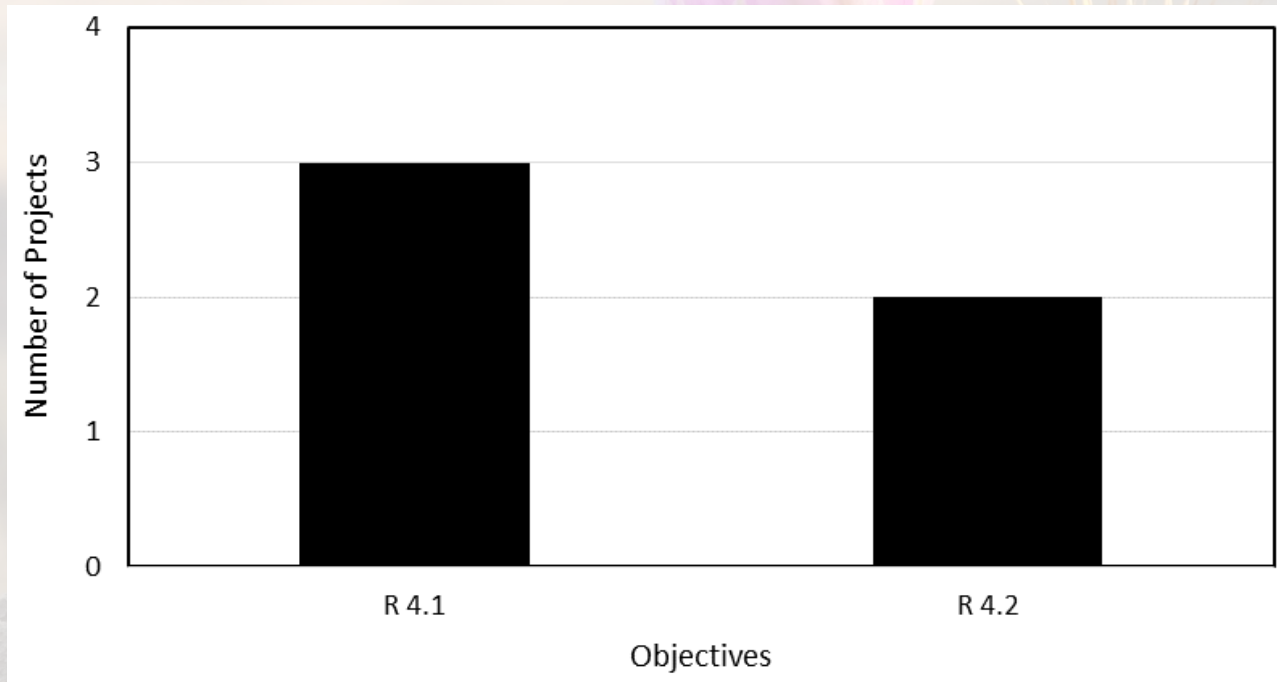
Goal R 3. Foster community and stakeholder engagement

Objectives: **R 3.1:** Collaborate with other stakeholders **R 3.2:** Promote responsible recreation

Goal R 4. Promote ecological resiliency on riparian reserve system lands

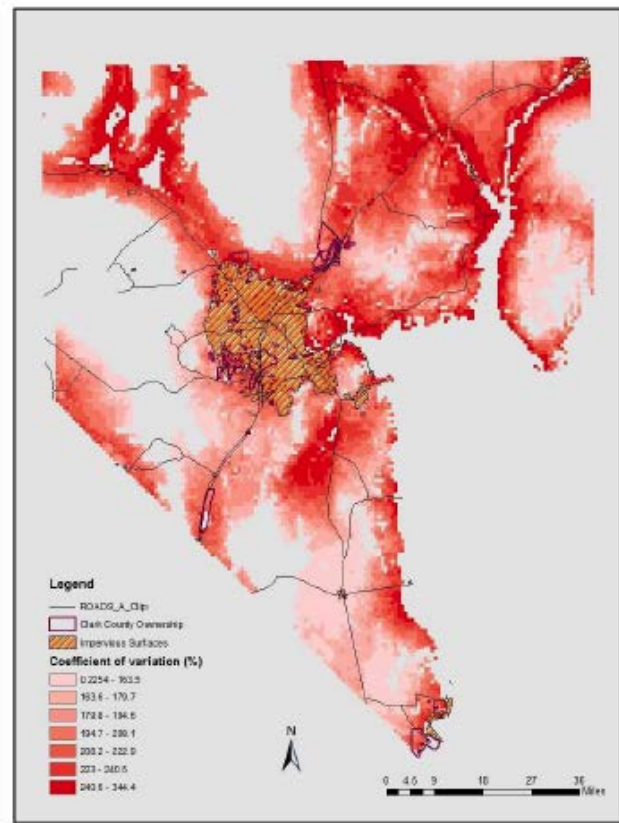
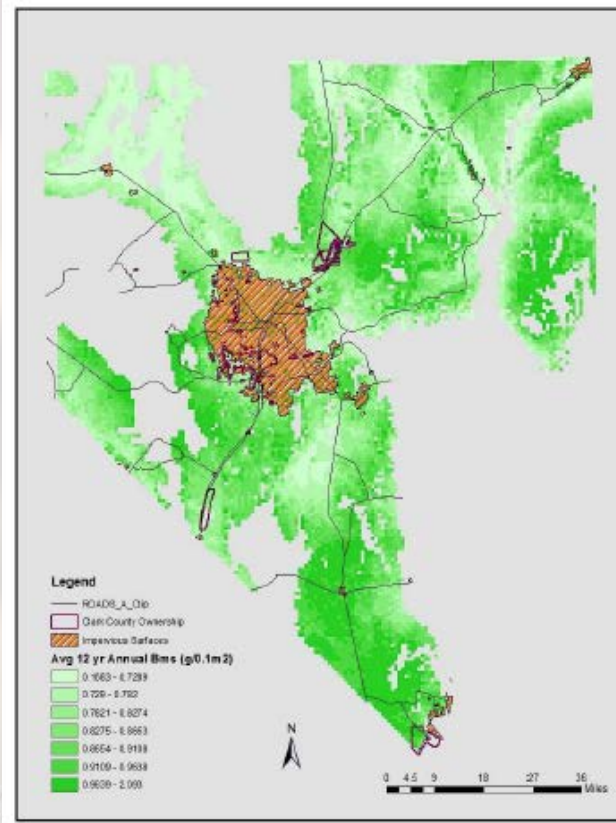
Objectives: **R 4.1:** Identify critical uncertainties

R 4.2: Identify critical connectivity corridors



R 4.1 Identify Critical Uncertainties

Fire risk modeling



Biological Goals and Objectives for the Desert Reserve Units



BGO's for Desert Reserve Units



Goal D 1. Maintain, improve, and expand habitat for MSHCP-covered species on desert upland reserve system lands

Objectives:

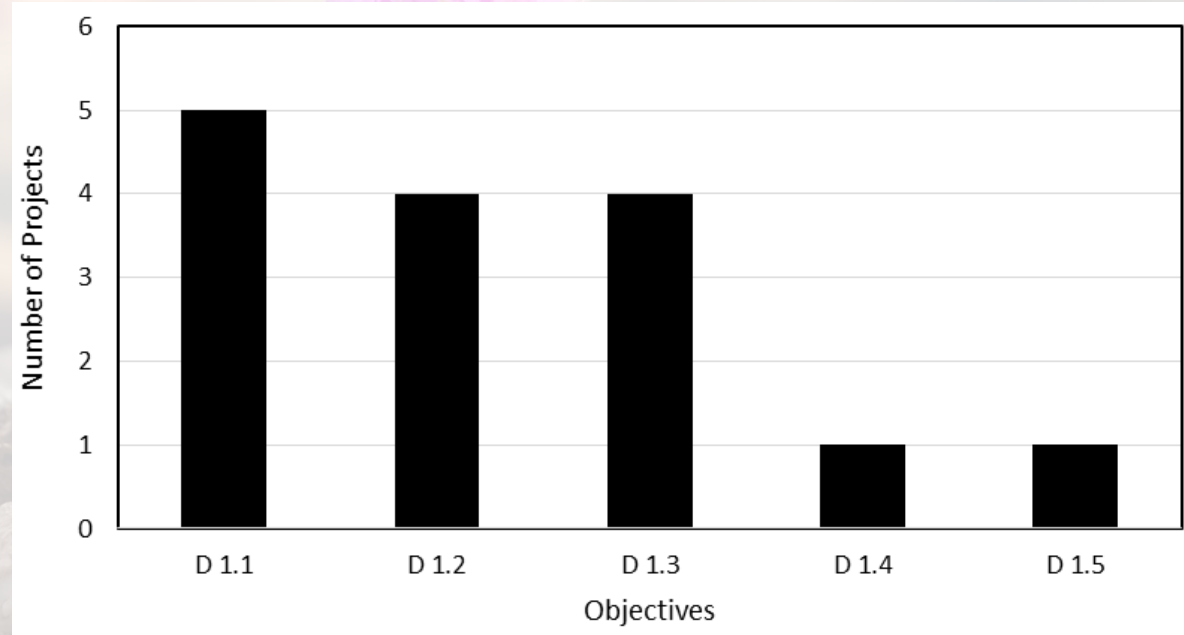
D 1.1: Monitor species occupancy

D 1.2: Maintain existing habitat and restore degraded habitat

D 1.3: Protect habitat for covered plants

D 1.4: Control invasive plant species

D 1.5: Reduce habitat fragmentation/improve connectivity

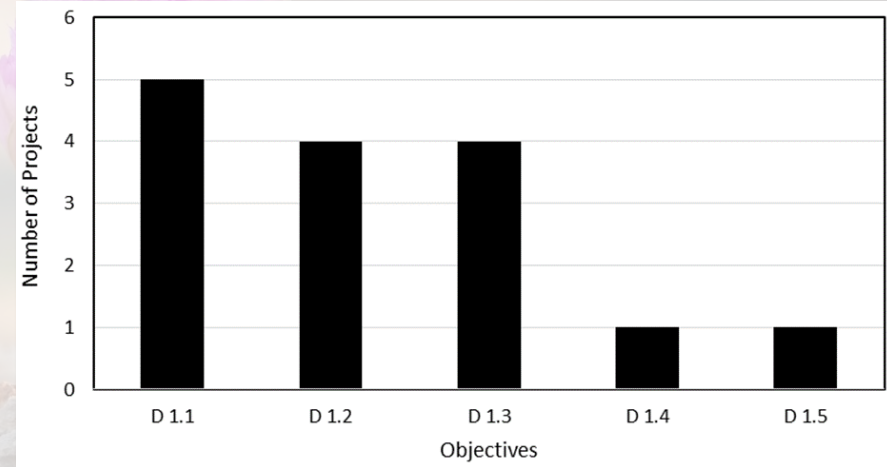
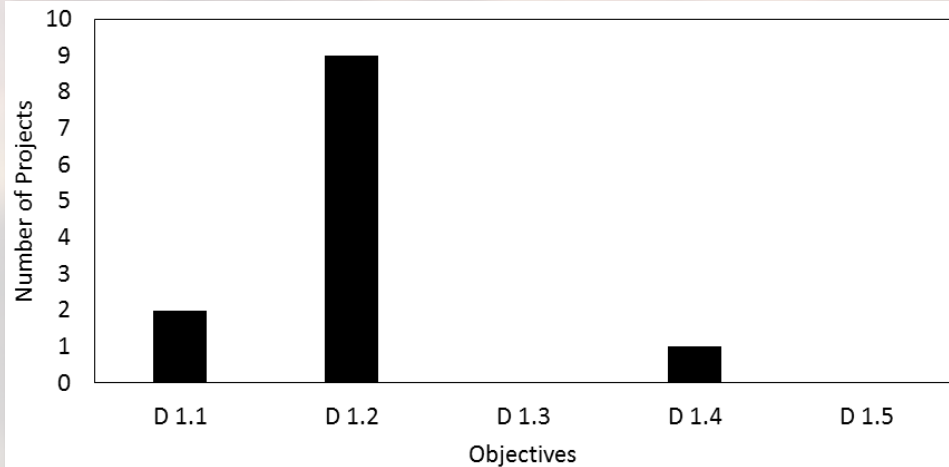


Year to Year Comparison of Goal D1

2017

Vs.

2018



D 1.4: Control invasive plant species

Brome reduction in Trout Canyon



EsplAnade™

The logo for Specimen Plateau herbicide. It features the word "SPECIMEN" in a grey, outlined font at the top. Below it, the word "PLATEAU" is written in a large, bold, blue font with a white outline and a green shadow effect. Underneath "PLATEAU" is the word "herbicide" in a smaller, blue font. A registered trademark symbol (®) is located to the right of the word "PLATEAU".

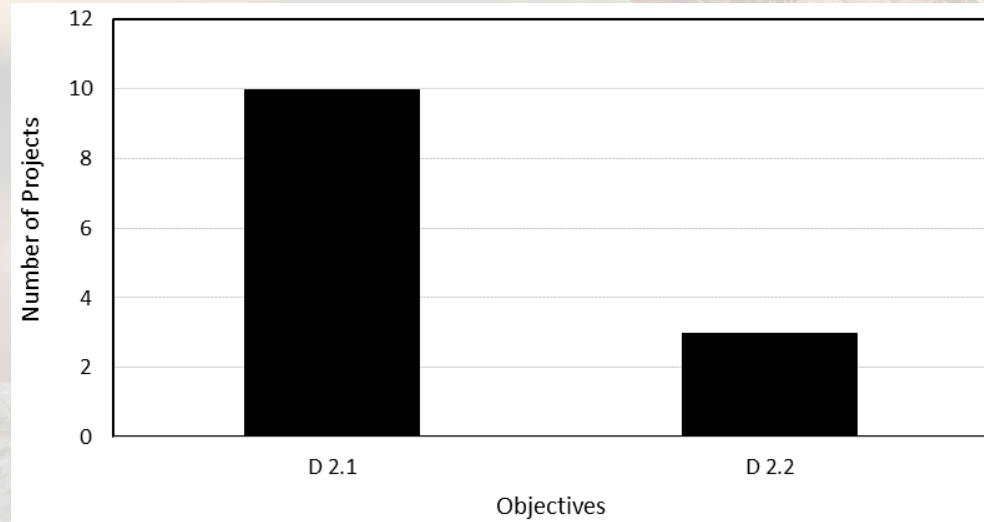
FOR WEED CONTROL, NATIVE GRASS ESTABLISHMENT AND TURF GROWTH
SUPPRESSION ON PASTURES, RANGELAND AND NONCROP AREAS AND
CONIFER PLANTATION SITE PREPARATION

Goal D 2. Maintain stable/increasing populations of T&E species on reserve system lands

Objectives:

D 2.1: Monitor and adaptively manage for desert tortoise populations

D 2.2: Augment populations through translocation programs when appropriate



D 2.2: Augment populations through translocation

September 2017 Release

- 38 adult tortoises
 - 36 from USGS studies
 - 2 removed from construction sites
- 16 tortoises affixed with radio transmitters
 - Current total of 45 tortoises
 - 28 translocated
 - 17 residents
- All tortoise received health assessments before release.



D 2.2: Augment populations through translocation

Propagation and reintroduction of rare plant species



Goal D 3. Foster community and stakeholder engagement

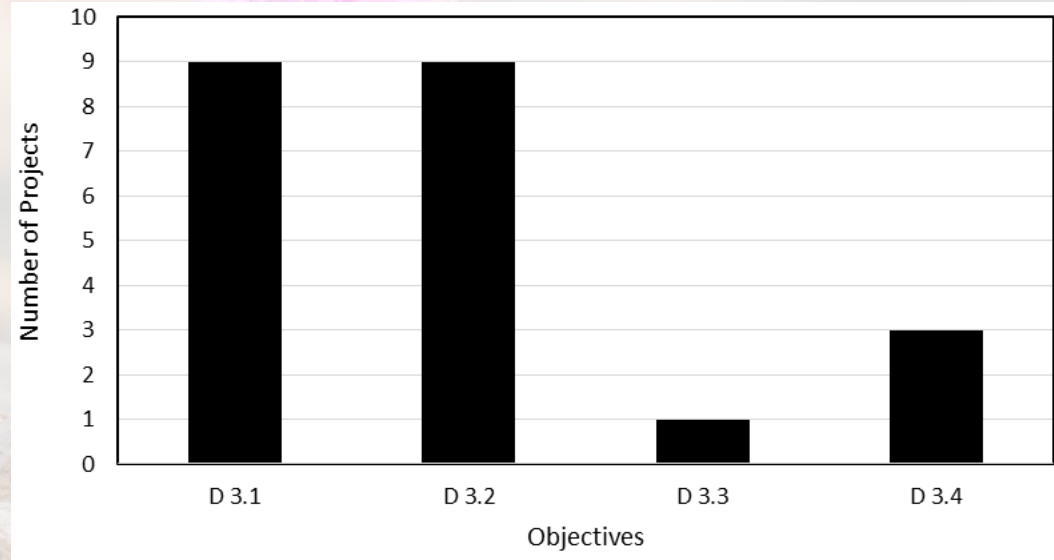
Objectives:

D 3.1: Collaborate with other stakeholders

D 3.2: Promote responsible recreation

D 3.3: Provide law enforcement

D 3.4: Educate construction personnel about procedures for reporting tortoises and provide a mechanism for collection and relocation



Tortoise and plant OHV awareness

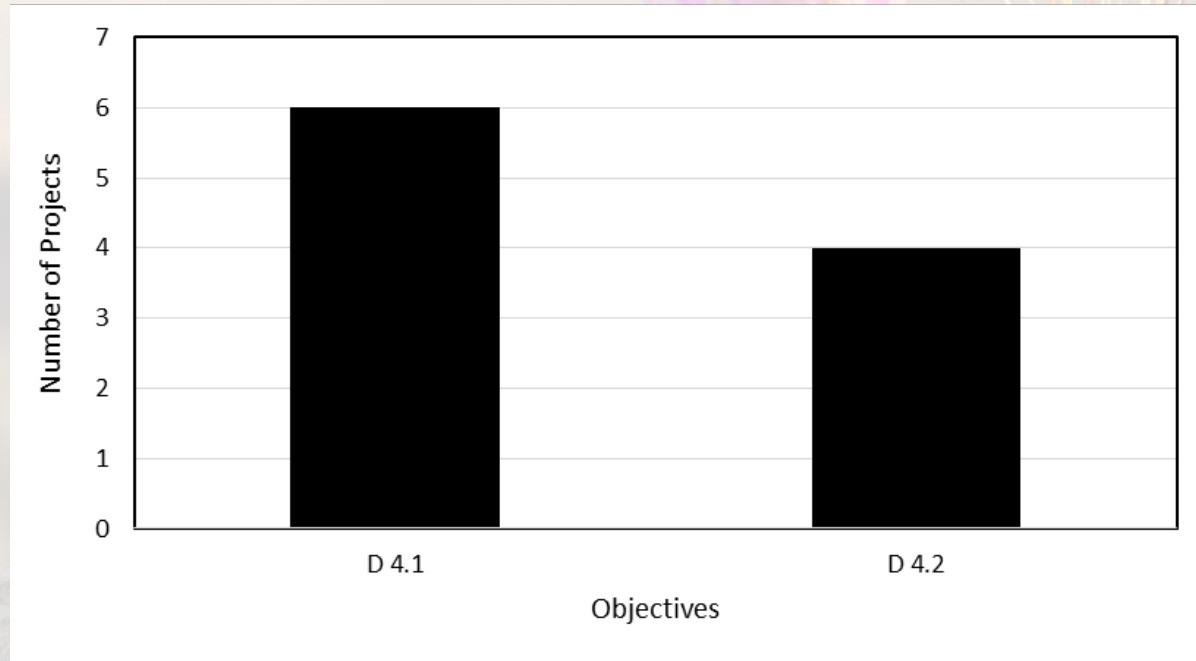


Construction worker training



Goal D 4. Promote ecological resiliency on desert upland reserve system lands

Objectives: **D 4.1:** Identify critical uncertainties **D 4.2:** Identify critical connectivity corridors



D 4.1 Identify Critical Uncertainties

Tortoise movement across culverts



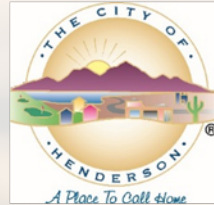
Photos provided by Kerry Holcomb

D 4.2 Identify Critical Connectivity Corridors

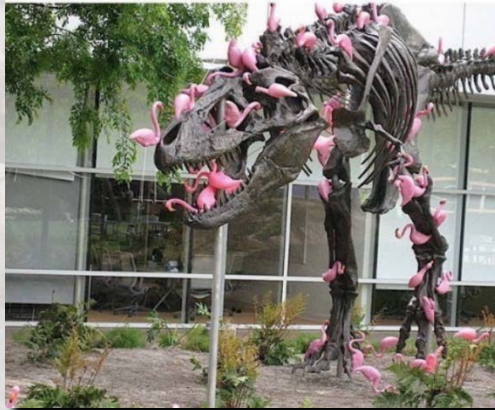
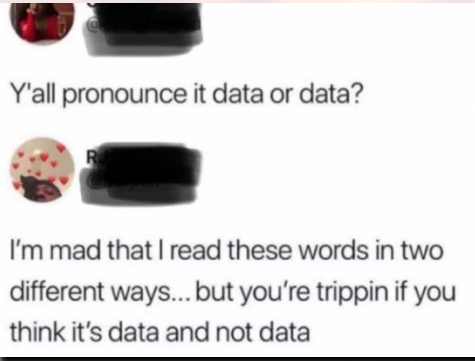
Gila monster connectivity



THANK YOU TO THE PERMITEES



Questions?



Kevin: "Hey Jeff, are you koalafied to be a cameraman?"

Jeff: "My career is not a joke, Kevin."

