

# MSHCP Amendment: Agency Focus Group Monitoring

Kimberley Goodwin  
February 7, 2025



MOJAVEMAX.COM



desert conservation  
PROGRAM



Describes 3 types of monitoring:

1. Baseline monitoring: establishes current conditions, necessary to in order to assess changes to species/habitats over time
2. Compliance (or implementation) monitoring: ensures that the Permittees are complying with permit terms and conditions
3. Effectiveness monitoring:
  - Assesses Covered Species in the Plan Area
  - Tracks progress towards meeting biological goals and objectives
  - Evaluates effectiveness of management actions
  - Provides early warning of threats (or adaptive management triggers)

# HABITAT MONITORING



## Invasive species monitoring

- Develop an Early Detection Rapid Response Program for weed species within 3 years
- Develop a weed management plan for each SMA within 2 years

## Habitat quality monitoring

- Review and update habitat suitability models every 10 years
- Use habitat quantification assessment at the landscape scale to track changes over time
- Site-specific assessments will use a habitat uplift tracking system (under development)

# HABITAT MONITORING



## Covered plant species sediment source monitoring

- Threecorner milkvetch and sticky buckwheat – identify sediment sources within 1 year
- Avoid impacts to sediment sources if feasible; if not, implement minimization and mitigation measures

## Connectivity Monitoring

- Identify high priority connectivity corridors (desert tortoise, pocket mouse, Gila monster) within 3 years
- Identify key seed dispersal corridors for Covered Plants
- Develop a Connectivity Management Plan within 3 years; implement connectivity improvement projects

# SPECIES MONITORING



Ensure Covered Species populations are stable or increasing within the Reserve System

- Baseline surveys for first 2-3 years (most species)
- Surveys conducted every 5-10 years thereafter
  - May be more frequent for federally listed species
- Monitoring protocols are species specific
- Remote sensing, use of drones, and passive acoustic methods are proposed where feasible to minimize monitoring costs

# SPECIES MONITORING



Species	Monitoring Method
Golden Eagle	Point count/passive acoustic
Western burrowing owl	Point count/passive acoustic
Yellow-billed cuckoo	Protocol survey
Southwestern willow flycatcher	Protocol survey
Gilded flicker	Point count/passive acoustic
Loggerhead shrike	Point count
Ridgway's rail	Protocol survey
Bendire's thrasher	Point count
LeConte's thrasher	Point count
Arizona Bell's vireo	Point count

# SPECIES MONITORING



Species	Monitoring Method
Desert pocket mouse	Species-specific
Townsend's big-eared bat	Passive acoustic
Spotted bat	Passive acoustic
Desert tortoise	Occupancy survey
Banded Gila monster	Species habitat model and assessments
Mojave poppy bee	Species-specific
Monarch butterfly	Species-specific
Sticky buckwheat	Species-specific
Las Vegas bearpoppy	Species-specific
Threecorner milkvetch	Species-specific