
Imperial Irrigation District's Burrowing Owl Monitoring and Conservation Program



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Overview

- Water Transfer and Habitat Conservation Plan
- IID' s Avoidance and Monitoring Program
- Population Surveys
- Future Projects

Habitat Conservation Plan

- What is the **Habitat Conservation Plan (HCP)**?
 - *Part of the Water Transfer. Protects endangered, threatened and special plants and animals in IID 's Service Area*
 - *Only covers approved IID activities in the Service Area*
- What are the major components?
 - *Species Avoidance & Mitigation: Burrowing Owl & Pupfish*
 - *Managed Marsh*
 - *Salton Sea mitigation projects*
 - *Air Quality and pilot projects*



Burrowing Owls in the Imperial Valley

- Worker Education Program
- Burrow Avoidance Program
- Pre-Construction Surveys
- Farmer and Public Education Programs
- Valley-Wide BUOW Population Monitoring Program
- Demographic Studies
- Artificial Burrow Creation Program



IID Avoidance and Monitoring Program

- Annual Employee Training
- Operation and Maintenance
 - *Marks active and potentially active burrows*
 - *Inspected a few weeks before scheduled work*



IID Avoidance and Monitoring Program

- Construction Projects
 - *Inspected for longer time period*
 - *Marked same as avoidance*
 - *Can be done year-around if no burrow will be impacted*
 - *Projects impacting a burrow can only be done Oct 1st thru Jan 31st with removal of the burrow by HCP team*



IID Burrow Markings

- How are burrows marked for avoidance?
 - Using **Pink** marking tape



Along lined portions and in the roadway



Unlined portions



Opposite Side of Unlined

- Marking along edge of right-of-way

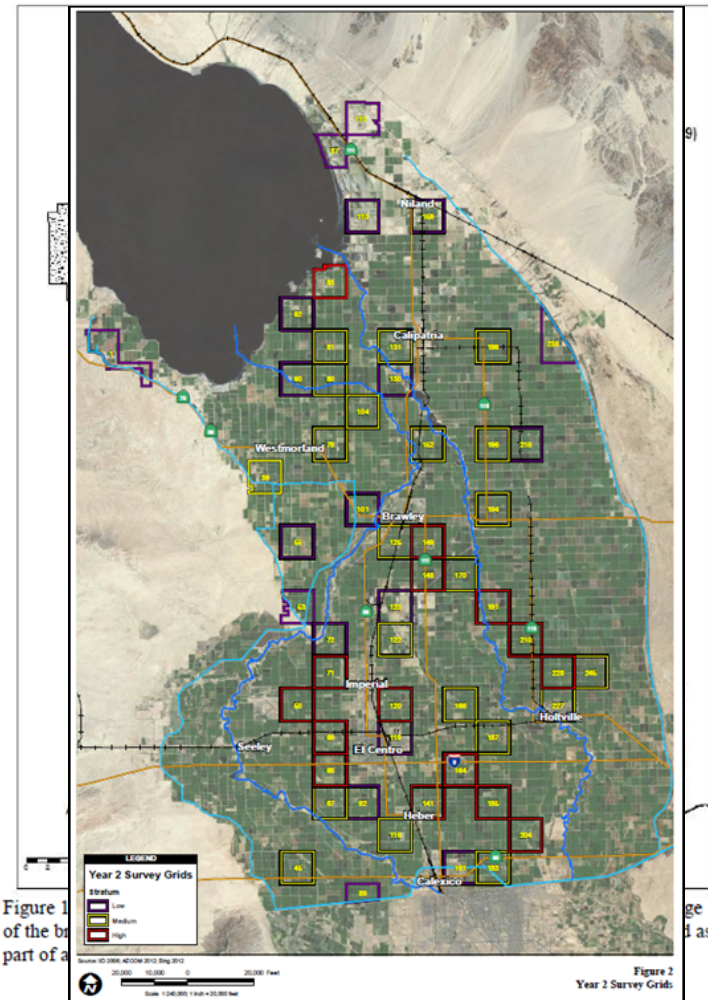
IID Avoidance and Monitoring Program

- *In case of injury or mortality by IID*
 - *Required to report when, where and how it happened*
- *This program is outlined in IID's HCP and covers IID activities only*



Valley-Wide Population Monitoring

- 2006: Pilot Study
- 2007-2008: IID Rights-of-Way Census
- 2011-2012: IID Rights-of-Way Subsampling



Valley-Wide Population Monitoring

Conservation of IID Right-of-Way

2011	4,589 Pairs
2012	3,776 Pairs



Artificial Burrow Creation Program



- IID can install artificial burrows if we permanently destroy a burrow



Future Projects

- Continue Monitoring BUOW
- Population/Demographic Studies
- Artificial Burrows
- Cooperation with local groups



References

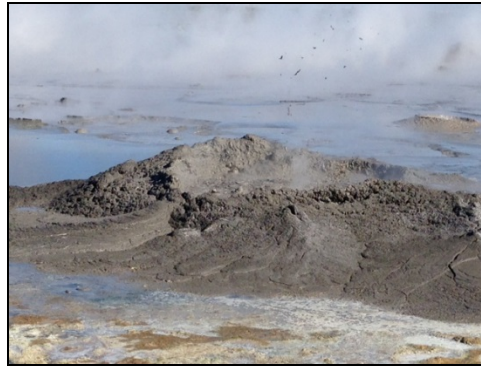
AECOM. (2012). *2012 Burrowing Owl Monitoring Results, Imperial Irrigation District Rights-of-Way Imperial County, California.*

Bloom Biological. (2009). *Burrowing Owl Population Size in the Imperial Valley, California: Survey and Sampling Methodologies for Estimation.* Final Report to the Imperial Irrigation District.

Barrett Biological. (2009). *Burrowing Owl Artificial Burrow Installation Manual.*



Osprey – Galleano Reservoir



Mud Volcanoes – Salton Sea



Pelicans – Salton Sea

Questions?

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HCP Mitigation – Environmental Reports

<http://www.iid.com/index.aspx?page=664>

