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SPINEFLOWER WORKING GROUP

**August 7, 2014 - 10:00 AM**

San Bernardino Valley Water Conservation District  
1630 W Redlands Blvd, Suite A  
Redlands CA 92373  
(909) 793-2503

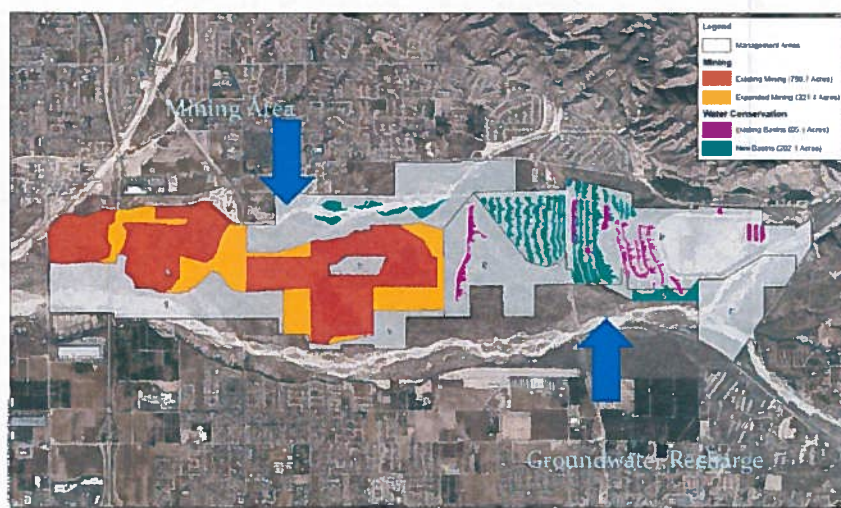
1. CALL TO ORDER
2. WELCOME AND SELF-INTRODUCTIONS
3. WASH PLAN HCP: HISTORY AND STATUS
4. SLENDER-HORNED SPINEFLOWER: BIOLOGY AND ECOLOGY
5. SPINEFLOWER MANAGEMENT AND HABITAT RESTORATION
6. NEXT STEPS
7. ADJOURN MEETING

# UPPER SANTA ANA RIVER WASH LAND MANAGEMENT & HABITAT CONSERVATION PLAN

August 7, 2014



## General Planning



## Protects

woolly star

cactus wren

Riverside alluvial fan sage scrub habitat

slender-horned spineflower

San Bernardino kangaroo rat

## Changes from Previous Version

- Less Mining
- Fewer Water Conservation Basins
- More Conservation and Management
- More Detail in Species, Habitat and Covered Activities
- More Detailed Habitat Management Planning
  - Spineflower issues



# Provides New Conserved Areas

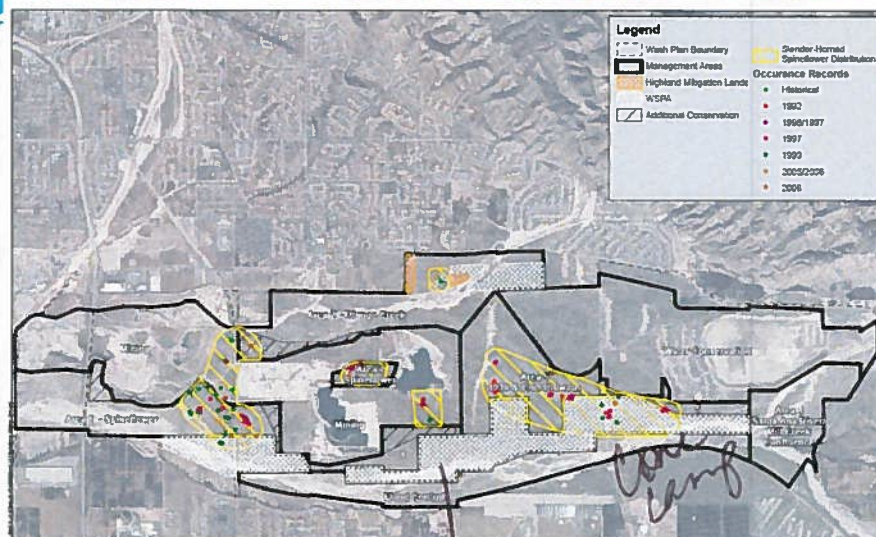
Preservation and enhancement of habitat resources

Information displayed is for informational purposes only and should be considered DRAFT for internal discussion

Proposed Upper Santa Ana River Wash HCP



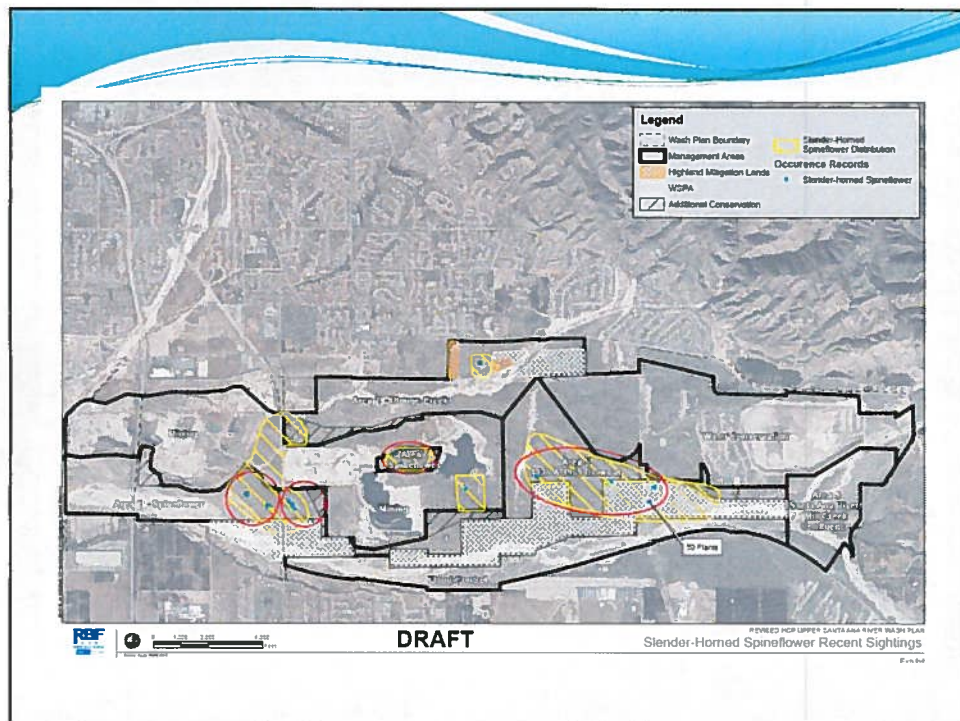
Made by Cheryl Hovey PWSO  
2/1/2014 11:58 AM



DRAFT

REVISED HCP UPPER SANTA ANA RIVER WASH PLAN  
Slender-Horned Spineflower Historic Sightings

WISPA



## Biological Objectives

- To develop a robust, science based experimental program to address issues unique to the maintenance and enhancement of existing slender-horned spineflower populations and the potential establishment of new ones within the conserved areas of the Wash Plan area;
- To actively manage conserved lands within the Wash Plan area for the benefit of covered species, including control of non-native plant species, selective vegetation thinning, habitat enhancement;

## Spineflower “Island”



## Opening Questions

- Why is spineflower distribution so limited?
- Is this a cryptogamic soil exercise?
- Can spineflower be propagated?
- How do we expand existing range?
- How do we know if we're successful?
- Are there ways to improve existing habitat?