Santa Ana Sucker Translocation Plan Kick-Off

December 17, 2015

Valley San Bernardino Municipal Water District

Upper Santa Ana River Habitat Conservation Plan

DUDEK

Cardno Shaping the Future

Aspen Environmental Group

Presentation Overview

- Introductions
- Reintroduction Context (Heather Dyer)
- Approach and Schedule (Mikael Romich)
- Translocation Plan Preliminary Outline (Joel Mulder)
- Habitat Assessment Considerations (Craig Seltenrich)
- RCRCD Update (Kerwin Russell)
- Break
- Roundtable-open feedback session- goals, issues, concerns, questions etc.
- LUNCH !!

Consultant Team

DUDEK

- **Mikael Romich** – Project Manager
- **Craig Seltenrich** – Senior Advisor
- **Chris Oesch** – Habitat Assessment Technical Lead
- **Jonathan Martin** – Hydrogeologist

CARDNO

- **Joel Mulder** – Sucker Technical Lead
- **Camm Swift** – Sucker Senior Advisor

ASPEN

- **Justin Wood –** Habitat Assessment Support

Translocation Plan Context

- Currently species is critically imperiled, largely due to limited distribution.
- In Santa Ana River, species is almost exclusively reliant on WWTP effluent flows.
- Current barriers to migration means species cannot recolonize Upper Watershed.
- Upper Santa Ana River HCP conservation strategy
- Draft recovery plan lists reintroduction to Santa Ana River recovery unit as Priority 1.

Project Approach- Meetings and Coordination

- Sharepoint site created for the Translocation Plan

Santa Ana Sucker Translocation Plan

Santa Ana Sucker Translocation Plan

- Home
- Schedule
- Meeting Agendas/Minutes
- Plan Documents
- Assignments/Tracking
- Background Literature
- Maps
- Comments
- Contact List

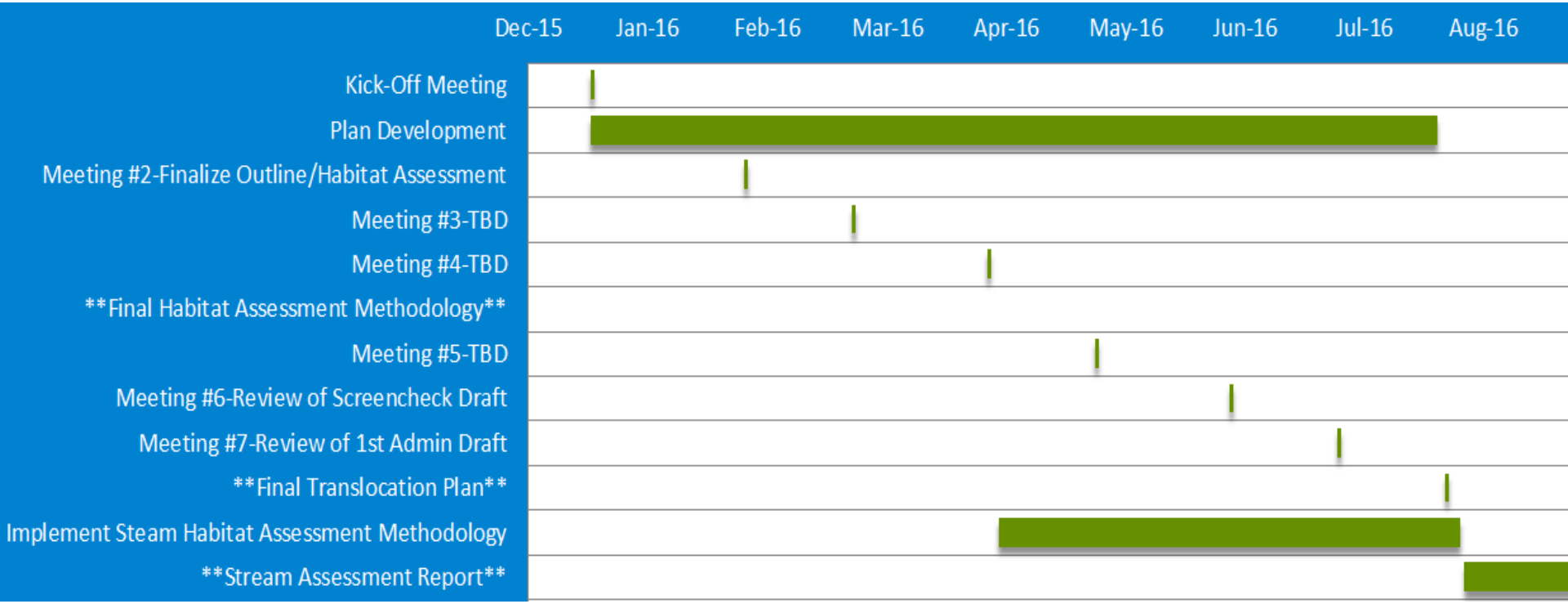
Welcome to the Santa Ana Sucker Translocation Plan Project Portal!

Upper Santa Ana River Habitat Conservation Plan

This web portal serves as a centralized location to share, edit, and collaborate on documents and information related to the Santa Ana Sucker Translocation Plan. This site leverages SharePoint and Word co-authoring capabilities to enable multiple authors to collaborate in the same files simultaneously. For more information about using this web portal, please email SharePointSupport@dudek.com.

Dudek.com

Project Schedule



Translocation Plan Preliminary Outline

1. Background
    a. Project History
    b. History, Status, and Draft Recovery Plan Guidance for Santa Ana Sucker in the San Gabriel River
2. **Habitat Requirements**
3. **Genetics Conservation and Donor Stock**
    a. San Gabriel River and Los Angeles Basin Sucker Genetics
    b. Donor Stock Source Populations
    c. Captive Breeding and Rearing
4. Ecological Interactions and food Web Considerations
    a. Benthic Macroinvertebrates and Algae
    b. Potential Interactions between Santa Ana Sucker and Native Fish Species
    c. Potential Interactions between Santa Ana Sucker and Native Amphibian Species
    d. Potential Interactions between Santa Ana Sucker and Non-native Species

Translocation Plan Preliminary Outline

5. Reintroduction Plan and Implementation Strategy

- a. Annual Donor Stock Availability
- b. Numbers and Life Stages Proposed for Transfer
- c. Donor Stock Collection and Timing
- d. Release Location Habitat Assessment and Ranking
- e. Release Timing
- f. Pathogen Screening

6. Monitoring Plan

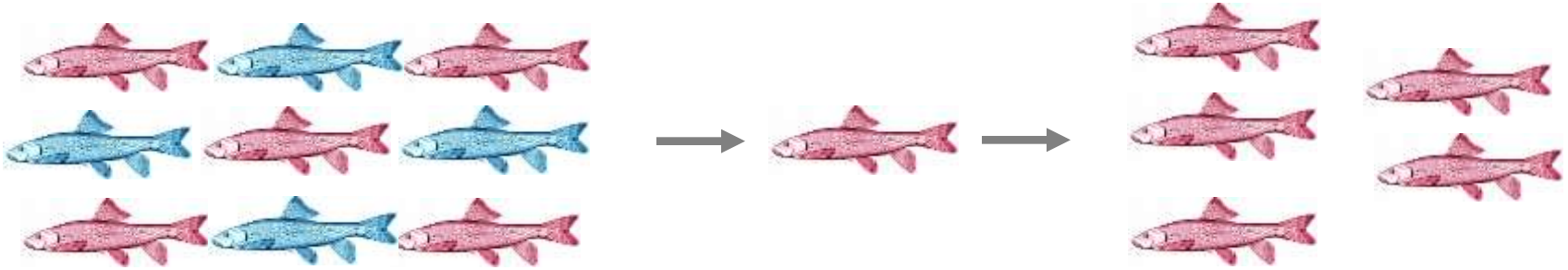
- a. Monitoring and Evaluation Guidance
- b. Donor Population Monitoring
- c. Introduced Population Monitoring

7. Success Evaluation

Source Population and Genetics

Key Elements:

- Founder population source and genetics
- Reduce the risk of "Founder Effect"
- Maintenance of source population viability
- Disease management



Post-Translocation Fish Monitoring

Pre- and post reintroduction monitoring in order to assess the effectiveness and success of the translocation effort.

1. Evaluate current information on most effective monitoring techniques for the species.
2. Design Short- term and long-term monitoring methods, goals, and success criteria
    - Abundance and distribution
    - Growth and condition
    - Survival
    - Genetic diversity
    - Recruitment

3. Recommendations for milestones and adaptive management strategies.

New Santa Ana Sucker Facility

- Role of the facility
- Facility standard operating procedures
  - Capture
  - Disease minimization
  - Propagation and rearing
  - Genetic management

RCRCD
Riverside-Corona Resource Conservation District

New Santa Ana Sucker Facility

Receiver Site Evaluation

1. Determining suitability and overall quality of translocation sites for all sucker life stages.

2. Stream habitat assessment parameters to consider from CSSHRM*, SWAMP**, and others:

   - Physical habitat data
     - habitat typing, sinuosity, gradient, water depth, substrate composition, bankfull width, water velocity, and instream cover

   - Hydrology
     - stream gauge data in conjunction with field streamflow measurements, water sources, water rights, long-term water availability

   - Vegetation
     - instream, margin, riparian/overhanging, and canopy cover

California Salmonid Stream Habitat Restoration Manual

***Surface Water Ambient Monitoring Program*

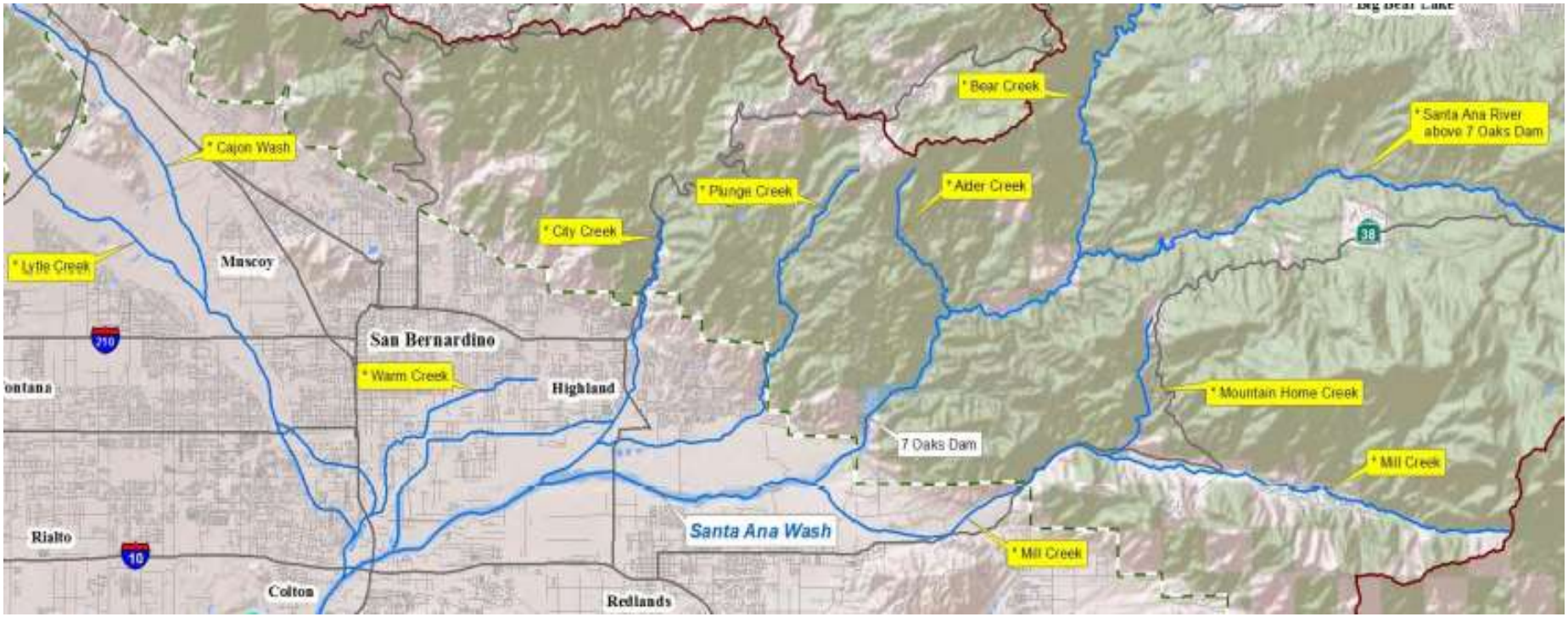
Receiver Site Evaluation

- Water quality
  - ➢ temperature, D.O, pH, conductivity, turbidity, and alkalinity data.
- Benthic macroinvertebrate (BMI) and algal surveys (sucker food resources)
- Identification of potential threats

3. Develop Range-Wide Habitat Assessment Template
   - Standardized habitat assessment parameters and reporting
   - Detailed replicable data collection methods
   - Determine post-monitoring and reporting requirements

Receiver Site Evaluation

- Several creeks being considered for possible reintroduction (USFWS 2014):



- City Creek and Plunge Creek have high quality essential habitat features (OCWD 2009)
- City Creek with historical sucker occurrence

Receiver Site Evaluation

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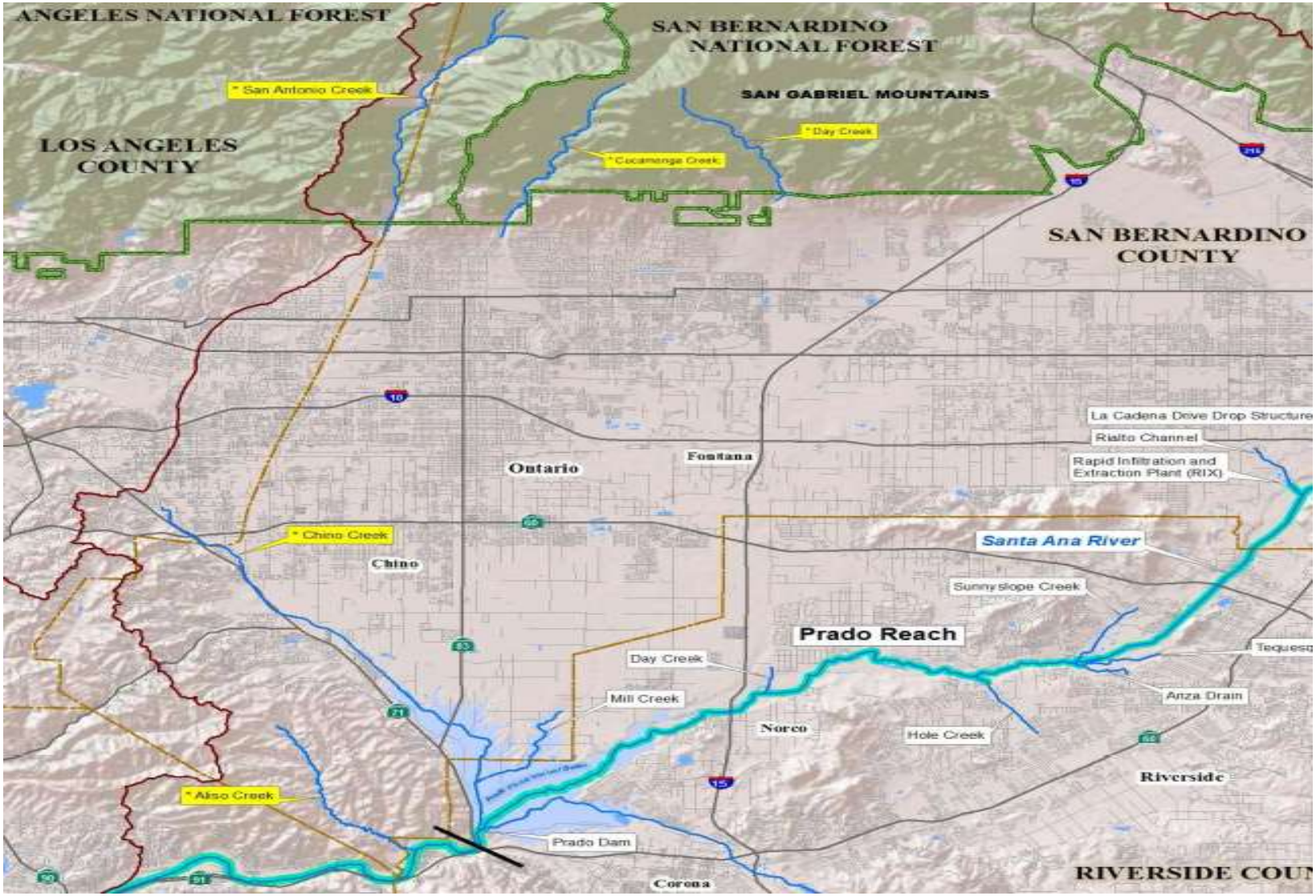

Roundtable