Establishing Environmental Flows for the Los Angeles River

Stakeholder Working Group Meeting #1
March 22, 2019
Meeting Objectives and Agenda

Objectives:
• Provide overview of LA River Environmental Flows project
• Discuss and receive input on initial project elements
• Agree on workgroup structure and approach

Agenda
1. Welcome
2. Project background
3. Overview of technical project scope
4. Initial stakeholder interviews
5. Discussion, feedback, and group input
6. Workgroup charter
7. Public comment
PROJECT OVERVIEW
**Project Goals**

1. Characterize aquatic life and recreational uses in the LA River
2. Quantify flows needed to support uses
3. Model how various flow scenarios would affect uses
4. Develop a set of flow recommendations that optimize use support
5. Incorporate stakeholder input throughout the project
6. Serve as a model for similar situations
Work to Date

• Data compilation (recreational uses, species, habitats, environmental conditions)
• Mapping of aquatic life and recreational uses by reach
• Preliminary research to quantify flow-use relationships
• Initial work to configure the model
• Held first Technical Advisory Group Meeting
• Organized Stakeholder Working Group
What We Want

- Which species
- Which habitats
- What seasons
- Which flow metrics
- What scenarios
- What management
Overall Process for Developing Flow Criteria

**Overall Process**

1. **Scenario Description**
   - 1 WRP
   - 2 WRP + stormwater
   - 3 WRP + conservation
   - 4 WRP + stormwater + conservation

2. **Flow Criteria**
   - by reach and season

3. **Management/mitigation recommendations**

4. **Hydrologic**
   - Minimum annual flow
   - Duration of consecutive minimum annual flow
   - Frequency of high winter flows (Oct-Mar)
   - Frequency of Spring flush flows (March-June)
   - Date of latest flood during the winter
   - Decrease in flow per day in Spring following last Winter flood
   - Magnitude of summer base flow

5. **Hydraulic**
   - Presence of riffle (moderate depth, swift current, coarse substrate) habitat in Spring for spawning
   - Percent of habitat as eddies, eddies, and pools in the Spring and Summer
   - Minimum and maximum bottom velocity in the Spring and summer
   - Minimum depth of water in Spring, Summer, and Fall

6. **Mitigation measures**

7. **E-flow metrics**

8. **Agreed upon criteria**

9. **Flow-ecology relationships**
Assessing Environmental Flows for LAR

Activity 1: Stakeholder Coordination

Activity 2: Non-aquatic life use assessment

Activity 3: Aquatic life use assessment

Activity 4: Assess effects of flow modification/management

Activity 5: Monitoring and Adaptive Management

Today and Ongoing

WRP Water Reuse

Options for Other Scenarios
- Stormwater
- Groundwater
- Conservation
- Environmental restoration
Activity 2 – Assessing Non-aquatic Life Uses

Goal: Identify key non-aquatic life uses and determine hydrologic needs for those uses

• Survey existing reports
• Interview key individuals
• Produce list of uses by reach
• Establish flow needs for each use
  – Past reports
  – Interviews/BPJ

Preliminary results to be discussed later in the agenda
**Activity 2 – Assessing Non-aquatic Life Uses**

*Potential Product/Outcome*

<table>
<thead>
<tr>
<th>Reach</th>
<th>Uses</th>
<th>Flow Needs</th>
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<tbody>
<tr>
<td>1</td>
<td>a. Fishing</td>
<td>a. Depth and flow during all seasons</td>
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<td></td>
<td>b. Bird watching</td>
<td>b. Minimum depth to provide foraging area during non-storm periods</td>
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<td>2</td>
<td>a. Community education</td>
<td>a. No substantive flow restrictions</td>
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<td>b. Recreation/kayaking</td>
<td>b. Min flow and depth during spring and summer</td>
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<tr>
<td>3</td>
<td>a. Fishing</td>
<td>a. Depth and extent of inundation during spring and summer</td>
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<tr>
<td></td>
<td>b. Recreation/wading</td>
<td>b. Min flow and velocity during spring and summer</td>
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<td>4</td>
<td>TBD</td>
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</table>

- Flow, depth and velocity needs to be quantified to the extent possible
- Season considerations to be included
Activity 3 – Aquatic Life Use Assessment:

- Choose focal species
- Use existing databases on life history needs
- Augment with additional analysis as needed
- Model relationships between flow needs and probability of occurrence

<table>
<thead>
<tr>
<th>Life History</th>
<th>Requirements</th>
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| Spawning     | - Feb-Aug (June-July mostly)  
               - Quiet edge waters or pool  
               - 14-22°C  |
| Fry          | - Quiet edge waters with no-slight flow  
               - Aquatic vegetation  |
| Juvenile     | - Quiet edge waters  
               - Aquatic vegetation  
               - 0.5%-2.5% gradient  |
| Adult        | - 10-24°C  
               - Slow-moving streams or backwater/ponded  
               - Sand, gravel, cobble, boulder  
               - Adapted to fast 0.8m/s streams  
               - Depth=40cm  
               - 0.5%-2.5% gradient, <2% in upper San Gabriel  
               - Pools and g|des  
               - Emergent vegetation  |

Habitat suitability curve

Santa Ana Sucker and % Pool Habitat

Probability of Occurrence

Relative fish concentrations: High, Medium, Low
**Activity 3 – Aquatic Life Use Assessment: Potential Product of Flow Ecology Assessment**

**Goal:** Develop flow-ecology relationships for key aquatic species or habitats in the LA River

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Reaches</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great blue heron</td>
<td>1-3</td>
<td><strong>• Peak flow &gt; X</strong></td>
<td><strong>• High flow cfs duration between x and y days</strong></td>
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<td><strong>• Depth of water between x and y meters</strong></td>
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<tr>
<td>Riparian habitat/vireo</td>
<td>3-5</td>
<td><strong>• Peak flows &gt; X at least every Y years</strong></td>
<td><strong>• Sustained high flow &gt; x days</strong></td>
<td><strong>• Recession rates over 3 weeks to promote seed establishment</strong></td>
<td><strong>• Baseflow duration of 3 weeks</strong></td>
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<tr>
<td>SW pond turtle</td>
<td>2, 4, 6</td>
<td><strong>• Flushing flows &gt; X days and Y cfs</strong></td>
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<td></td>
<td><strong>• Baseflow &gt; x cfs</strong></td>
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<td></td>
<td><strong>• Baseflow duration through Aug</strong></td>
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<tr>
<td>Benthic Invertebrates</td>
<td>2-6</td>
<td><strong>• Frequency of high flow events &gt; x</strong></td>
<td><strong>• Peak flows between x and y</strong></td>
<td><strong>• Recession rates through June</strong></td>
<td><strong>• Flow &gt; ponding through Aug</strong></td>
</tr>
</tbody>
</table>
Activity 4 – Quantify Effects of Flow Management

Analyzing Scenarios

Specific scenarios to be discussed later in the agenda
Potential Expansions of Project Scope

• Restoration and recreation opportunities along Rio Hondo, Compton Creeks, and possibly other locations

• Model potential water quality effects
  – Temperature
  – Sediment/TSS
  – Specific conductance
  – Metals
  – CECs (optional)
Activity 4 – Quantify Effects of Flow Management

Flow Recommendation Products

• Develop flow recommendationsthat balance need to support multiple uses / management objectives
  – Specific reaches
  – Specific seasons or climatic conditions

• Optimization based on prioritization or weighting developed in coordination with stakeholder and technical workgroups

• Explore the effects of mitigation measures on reduced flows
  – Habitat restorations / invasive plant removal
  – Supplemental discharges
  – Seasonal management actions (based on critical conditions)

• Develop recommended flow management strategies based on agreed upon criteria
Activity 5 – Monitoring and Adaptive Management

**Goal:** Develop a recommended monitoring strategy with potential triggers for adaptive management

- **Approach:** work with stakeholders and technical team to develop monitoring strategies
  - Leverage existing monitoring and assessment programs (e.g. SMC)
  - Provide data to improve model performance
  - Evaluate efficacy of criteria and management actions
Major Products

• List of current and potential uses by reach
• Map of key species and habitats
• Flow needs and tolerances associated with aquatic and non-aquatic uses
• Evaluation of potential effects associated with various water use/reuse scenarios
• Suggested mitigation/management measures that could offset potential effects
• Proposed monitoring approach/strategies
Initial Stakeholder Input

• Interview Questions & SWG Background & Purpose Summary
  • Sent in advance of meeting

• Interview Begin & End Dates
  • March 11, 2019 through March 20, 2019

• Number of Interviews: 15
  • 8 Public Agencies & 7 NGOs/University

• Typical Length of Interview:
  • 30-45 minutes

• Range of Familiarity with Topic/Technical Issues
  • Moderate to Very High levels
Initial Stakeholder Input (cont.)

• AGENCIES
  • County of Los Angeles Department of Public Works/Flood Control District
  • City of Glendale
  • City of Burbank
  • City of Los Angeles
    • Bureau of Sanitation
    • LARiverWorks
  • Mountains Recreation Conservation Authority
  • California Department of Fish & Wildlife
  • U.S. Fish and Wildlife Service
Initial Stakeholder Input (cont.)

- NGOs/UNIVERSITY
  - Heal the Bay
  - LA Waterkeeper
  - The River Project
  - The Nature Conservancy
  - Friends of the Los Angeles River
  - Arroyo Seco Foundation
  - UCLA – Institute of the Environment & Sustainability
LA River Flows

Interview Questions

ORGANIZATION
Representative
Date

1. Tell us a little about the role(s) that you and your agency/organization have and how it could be affected by the development/implementation of LA River flow standards.

2. How would you describe your understanding of and perspective on the current LA River flows now, particularly related to:
   - current quantities
   - associated factors like groundwater related issues and/or tidal influence

3. The Regional Water Quality Control Board's Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) designates existing and potential beneficial uses. To what extent are you familiar with the Basin Plan and the beneficial uses assigned to the Los Angeles River reaches?

4. The State Water Board is currently funding development of the California Environmental Flows Framework (CEF), a two-tier approach for setting environmental flow criteria and that this project (LA River Flows) is part of that effort. How do you view the relationship between flows in the river and water quality (e.g., pollutant loading, stream temperature, etc.)?

5. A number of factors will be considered in setting flow standards; these will include:
   - Life cycle needs and habitat requirements of the species that live in the River
   - River ecology and how it might be affected by a modified flow regime
   - other types of uses (e.g., recreation such as wading and kayaking, fishing) of the River
   - how these might be affected by a modified flow regime

   To what extent are you familiar with these issues?

6. A variety of management proposals for wastewater reuse and stormwater capture (which would reduce the amount of water in the river and also increase our local water supply resilience) are being considered. What, if any, of these proposals do you find promising as it relates to the LA River?

7. What do you consider the major constraints/impediments associated with these management proposals?

8. What, if any, other initiatives and activities are going on that we should be aware of related to this LA River Flow Project and/or your participation?

9. Are there other “hot topics” you and your agency/organization are wrestling with now that might come up in discussion?

10. How would you define success for this project?

11. What last thoughts and/or advice to the facilitators and conveners are you able to offer?
Initial Stakeholder Input (cont.)

Purpose of the Interview Questions:

• Provide the Board with a better understanding of Stakeholder familiarity with current flow quantities in the Los Angeles River (River) and how Stakeholders might be affected

• Familiarity with existing and/or future management plans affecting the River and its flows and constraints/impediments

• Issues currently and/or which could affect the River with a modified flow regime
Initial Stakeholder Input (cont.)

Purpose of the Interview Questions (cont.):

• Identify issues/concerns/"Hot Topics"

• Define how success might be defined for the LA River Flows SWG project

• Input for the facilitators/conveners
Key Topics/Issues:

- **Historic Nature of River and Baseline**
  - Perception of historic level of flows (and species/habitats) versus what is actually flowing in the River needs to be better explained/understood

- **Origin and Ownership of Water**
  - Flows into River are from imported sources and therefore, are not part of the natural regime
  - Treated wastewater currently being put into the River can and will be diverted for potable and/or groundwater uses
Initial Stakeholder Input (cont.)

- **Water Quality/Recharge/Stormwater Capture**
  - Understand and/or are familiar with beneficial uses, but not exactly Basin Plan

  - Watershed is interconnected and must be viewed from this perspective when addressing flows and water quality/quantities

  - Changes in flow regime will affect water quality
Initial Stakeholder Input (cont.)

• **Projects & Mandates**
  • Multi-benefit projects are important
  • Flows determine what existing and future projects can be implemented in the River
  • Considering flood risk and management mandates are important

• **Biological Resources/Recreation**
  • Flows need to consider both biological resources/species and recreation needs
Initial Stakeholder Input (cont.)

- **Challenges/Opportunities**
  - Challenge will be to balance water recycling, stormwater capture, and water resiliency needs with biological and recreational needs
  
  - Barrier will be funding and water rights and differing goals and objectives for the River and the associated flows
  
  - Want a fair and honest and science-based discussion about flows in the River
Initial Stakeholder Input (cont.)

• **Challenges/Opportunities (cont.)**
  • Once study is completed, follow through for implementation, such as monitoring will be important
  
  • Need to find an ideal “balance” for flows that considers the full suite of issues (e.g., water quality, recreation, biological resources)
Initial Stakeholder Input (cont.)

• Misc. Topics/Themes
  • Not clear how far tidal reach extends into River
  • Water equity and Climate Change are important
  • Having information in advance of the meetings

• Basic Meeting Logistics
  • Parking
  • Lunch
  • Webinar (as option to physical attendance)
Topics for Stakeholder Discussion

• Recreational use assessment

• Habitat and species mapping

• Proposed stream reaches for analysis

• Preliminary management scenarios to evaluate
<table>
<thead>
<tr>
<th>River Reach</th>
<th>Wading</th>
<th>Skateboarding</th>
<th>Walking/Running</th>
<th>Fishing</th>
<th>Biking</th>
<th>Swimming</th>
<th>Horseback Riding</th>
<th>Kayaking/boating</th>
<th>Bird watching</th>
<th>Aesthetic Enjoyment</th>
<th>Picnicking</th>
<th>Arts</th>
<th>Community Event</th>
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Captured Data

- Visitor surveys (online and in person)
  - Occurrence
  - Frequency
- Observational data
- Field Reconnaissance (accessibility-signage, fencing, ramp or bridge access, reach descriptions)
- Water Depth (min, max, mean)
- Flow Conditions

Resources

River Recreation: Group Interview

• Stakeholder list compiled using draft criteria and list from previous planning and outreach efforts (Complete)

• Invite for participation group interview with follow-up survey for participants that are unable to attend (in progress)
  – “snowball” sampling

• Group interview (late March/early April)
  – Open ended questions about recreational activities, seasonality, recreational indicators, and associated flow needs
  – Ranking exercise to quantify extent of agreement
Biological Data Sources

**SPECIES**
- Center for Biological Diversity
- California Natural Diversity Database (CNDDB)
- Nature Conservancy/Aquarius/Nature Serve
- USFWS – threatened and endangered species
- eBird
- Global Diversity Information Facility (GBIF)
- HerpNET – Natural History Museums
- iNaturalist
- CDFW Wildlife Action Plan
- *Various species survey reports*

**HABITATS**
- Significant ecological areas
- National wetlands inventory
- California Native Plant Society
- CalVeg

**POTENTIAL FUTURE SOURCES**
- *Study plans & reports from various planning efforts*
- *CDFW fishing records/surveys*
- *Wading shorebird observations & surveys*
- *Others???
Preliminary Habitat Mapping
Preliminary Species Mapping

Los Angeles River Species

- Birds
- Herps
- Fishes

Los Angeles River Species of Concern

- Special Concern, California brown pelican
- Special Concern, Least Bittern
- Special Concern, Western Yellow-billed Cuckoo
- Special Concern, Willow Flycatcher
- Special Concern, California Red-legged Frog
- Special Concern, Coast Ranges Newt
- Special Concern, Two-lined Salamander
- Special Concern, Western Fence Lizard
- Special Concern, Arroyo Melba"
Preliminary Potential Focal Species

- Arroyo chub
- Santa Ana sucker
- Tri-colored blackbird
- Least bells’ vireo
- Black crowned night heron
- Black necked stilt
- Long-billed dowitcher
- Other suggestions
Selection Criteria of Study Reaches for Modeling

• Balance spatial resolution with modeling efficiency

• Represent areas likely to be affected by management actions

• Include current and potential future habitat/species locations

• Include entire study area
Proposed Reaches with Modeling Nodes

155 subcatchments (average of 14 km² each)
104 modeled nodes (5 dams, 14 flow gages)
## Proposed Management Scenarios

<table>
<thead>
<tr>
<th>Burbank Reuse</th>
<th>Glendale Reuse</th>
<th>Stormwater Capture</th>
<th>Restoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% recycle (6.9 cfs)</td>
<td>0% recycle (12.5 cfs)</td>
<td>Centralized capture (locations?)</td>
<td>Rio Hondo</td>
</tr>
<tr>
<td>20% recycle</td>
<td>20% recycle</td>
<td>On-site infiltration</td>
<td>Compton Creek</td>
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<tr>
<td>40% recycle</td>
<td>40% recycle</td>
<td>On-site direct use</td>
<td>Tujunga</td>
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<tr>
<td>60% recycle</td>
<td>60% recycle</td>
<td>Green streets</td>
<td>Arroyo Seco</td>
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<tr>
<td>80% recycle</td>
<td>80% recycle</td>
<td>Subregional infiltration</td>
<td>Glendale Narrows</td>
</tr>
<tr>
<td>100% recycle</td>
<td>100% recycle</td>
<td>Subregional direct use</td>
<td>OTHER LOCATIONS??</td>
</tr>
</tbody>
</table>

- Proposed in change petition is 60% reduction for Burbank and 65% reduction for Glendale in August
- Stormwater capture scenarios from Stormwater Capture Master Plan
- Can assess combinations of scenarios

**Input and Discussion**
## Schedule

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<td>Activity 4 - Apply Environmental Flows/Evaluate Scenarios</td>
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<td>Activity 6 - Summary of results/reporting</td>
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### TAC meetings to occur quarterly

- Stakeholder coordination meeting
Relationship of TAC to Other Groups (e.g. SAG)

Technical Advisory Group
Role: Technical guidance and peer review
Members: Regional and statewide experts in ecology and hydrology related to environmental flows

Technical Team
Role: Complete technical analysis to support policy
Members: SCCWRP, CSM, UC Davis, Council for Watershed Health

Project Oversight & Management
Role: Oversee progress of project team, manage contracts
Members: State and Regional Water Boards, City of LA, LACDPW, LACSD

Stakeholder Advisory Group
Role: Project feedback
Members: Facility, flood control, and recreation managers from the lower LA River, key NGOs

Policy Development
Role: Develop draft policy for State and Regional Board consideration
Members: Water Board Staff

Community and Local Stakeholders
Role: Project feedback
- Neighborhoods along the river
- Environmental Groups
- Recreation Groups
- Nearby Cities
- Local Agencies
- Others

Nearby Cities
- Environmental Groups
- Recreation Groups
- Local Agencies
- Others
Management Effects on Flows

Annual minimum flows
LA River at Wardlow

Mika et al. 2017

Manago and Hogue (2017)
### Alternate (Detailed) Schedule

<table>
<thead>
<tr>
<th>Activity / Sub-Task</th>
<th>Products</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<td>Q4</td>
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<td><strong>Activity 1 - Stakeholder coordination</strong></td>
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<tr>
<td>Stakeholder Advisory Group (SAG) Meetings</td>
<td>Charter, needs assessment, meeting notes</td>
<td>S1</td>
<td>S2</td>
<td>S3</td>
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<td>Technical Advisory Committee (TAC) Meetings</td>
<td>Meeting notes, feedback</td>
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<td>T2</td>
<td>T3</td>
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<td><strong>Activity 2 - Non-aquatic Life Use Assessment</strong></td>
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<tr>
<td>2A Characterize non-aquatic life uses</td>
<td>Map of NAL uses/indicators by reach</td>
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<tr>
<td>2B Determine flow use relationships</td>
<td>Flow-use relationships &amp; targets</td>
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<td><strong>Activity 3 - Aquatic Life Beneficial Use Assessment</strong></td>
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<tr>
<td>3A Assess hydrologic baseline condition</td>
<td>Baseline hydrology/data gaps</td>
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<tr>
<td>3B Identify priority ecological endpoints</td>
<td>List of priority endpoints, data summary</td>
<td></td>
<td></td>
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<tr>
<td>3C Determine flow ecology relationships for stream endpoints</td>
<td>Flow eco models/targets by reach for BMI &amp; verts</td>
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<tr>
<td>3D Determine flow ecology relationships for marsh/estuary</td>
<td>Flow eco models/targets for marsh/est habitats</td>
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<tr>
<td><strong>Activity 4 - Apply Environmental Flows and Evaluate Scenarios</strong></td>
<td></td>
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<tr>
<td>4A Update hydrologic modeling</td>
<td>Hydro &amp; hydraulic models of LAR</td>
<td></td>
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<tr>
<td>4B Analyze tolerances to flow modifications</td>
<td>Flow tolerance ranges for riparian hab, BMI, verts</td>
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<tr>
<td>4C Analyze wastewater reuse scenarios</td>
<td>Map wastewater reuse scenario effectiveness uses</td>
<td></td>
<td></td>
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<tr>
<td>4D Evaluate stormwater management scenarios</td>
<td>Map of stormwater/wastewater scenarios effects</td>
<td></td>
<td></td>
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<tr>
<td>4E Evaluate groundwater interaction scenarios</td>
<td>Map of groundwater/wastewater scenarios effects</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4F Evaluate habitat restoration effects</td>
<td>List of potential habitat projects and map of uses</td>
<td></td>
<td></td>
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<tr>
<td>4G Evaluate flow alteration effects on tidal portion of LA River</td>
<td>Map of scenario effects on tidal portion of LAR</td>
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<td></td>
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<tr>
<td>4H Establish recommended flow criteria</td>
<td>Recommended flow criteria by reach &amp; season</td>
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<tr>
<td><strong>Activity 5 - Monitoring and Adaptive Management Plan</strong></td>
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<tr>
<td>Proposed monitoring strategy</td>
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<tr>
<td><strong>Activity 6 - Summary of results/reporting</strong></td>
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<tr>
<td>Draft and final project report</td>
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</tbody>
</table>
Activity 2 – Assessing Non-aquatic Life Uses

**Potential Product/Outcome**

<table>
<thead>
<tr>
<th>Reach</th>
<th>Uses</th>
<th>Flow Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 1</td>
<td>a. Fishing</td>
<td>a. Depth and flow during all seasons</td>
</tr>
<tr>
<td></td>
<td>b. Bird watching</td>
<td>b. Minimum depth to provide foraging area during non-storm periods</td>
</tr>
<tr>
<td>2</td>
<td>a. Community education</td>
<td>a. No substantive flow restrictions</td>
</tr>
<tr>
<td></td>
<td>b. Recreation/kayaking</td>
<td>b. Min flow and depth during spring and summer</td>
</tr>
<tr>
<td>3</td>
<td>a. Fishing</td>
<td>a. Depth and extent of inundation during spring and summer</td>
</tr>
<tr>
<td></td>
<td>b. Recreation/wading</td>
<td>b. Min flow and velocity during spring and summer</td>
</tr>
<tr>
<td>4</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>

- Flow, depth and velocity needs to be quantified to the extent possible
- Season considerations to be included
### Activity 4 – Aquatic Life Use Assessment: Potential Product of Flow Target Determination

**Goal:** Evaluate effect of flow management/alteration on both aquatic life and non-aquatic life uses in the LA River

<table>
<thead>
<tr>
<th>Reach</th>
<th>Season</th>
<th>Flow Target</th>
<th>Species or Habitat</th>
<th>General Relationship to Non-aquatic Life Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fall</td>
<td>Target 1</td>
<td>Wading shorebirds</td>
<td>Promotes fishing</td>
</tr>
<tr>
<td></td>
<td>Winter</td>
<td>Target 2</td>
<td>Shorebirds, riparian habitat (scour)</td>
<td>No winter uses</td>
</tr>
<tr>
<td></td>
<td>Spring</td>
<td>Target 3</td>
<td>Benthic invertebrates, pond turtle</td>
<td>Potential conflict with recreational uses</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>Target 4</td>
<td>Pond turtle</td>
<td>Consistent with recreation</td>
</tr>
</tbody>
</table>

- Number of endpoints and targets based on input from workgroups
- Relationship to non-aquatic life uses will help inform scenario analysis