

Date: 10/17/16

Submitted in Budget Committee

13-1641

Council File No.

# Los Angeles River in the Elysian Valley

Project No.: 1 Habitat Enhancement and Opportunities Study (Currently in Scientific Peer Review, Expected August 2016)

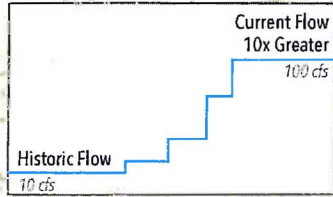
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## Historical Ecology

LA River Riparian Zone of the Elysian Valley in late 1800s

Dry Weather Surface Flow in the River



Riparian habitat in the broad historic floodplain was characterized by:

- Low dry weather surface flow sustained by rising groundwater (see above); and
- Infrequent 'flashy' storm events.

With an average of only 36 rainy days per year, the native riparian vegetation

communities of Southern California are adapted to this dry weather hydrological regime. Today, more than 80% of dry weather flow is from treated wastewater discharge.

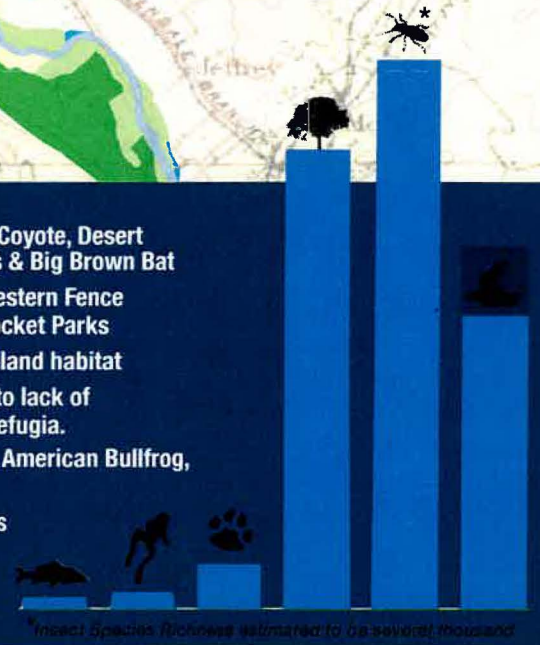
- Historic Vegetation Communities
- River Channel (Intermittent Surface Water)
  - Perennial Freshwater Wetland
  - Willow Woodlands, Mulefat or Alluvial Scrub
  - River Wash (Sand or Alluvial Scrub)
  - California Sycamore - Coast Live Oak Woodland

## Urban Wildlife

Native Plant Species



- 17 Mammals, including 10 natives like Coyote, Desert Cottontail & California Ground Squirrels & Big Brown Bat
- 5 native Reptiles & Amphibians, incl. Western Fence Lizards utilizing the native shrubs in Pocket Parks
- Birds use both in-stream & adjacent upland habitat
- 5 non-native Fish & no native Fish due to lack of hydrological connections & high-flow refugia.
- Invasive species include Argentine Ant, American Bullfrog, Brown-headed Cowbird & Giant Reed
- 106 Birds, incl. 33 breeding & 89 natives
- 109 Taxonomic Families of Insects
- 167 Plants, incl. 76 natives



## Key Study Findings

### Multiple Flow Scenarios = Uncertainty

There are multiple visions for the dry weather and peak stormwater flow characteristics of the River because of the differing management priorities of the agencies and stakeholders that have governance over the system.

Bringing the various hydrologic plans and possibilities for the watershed into alignment in one single integrated vision will allow certainty and clarity for the design of habitat, water quality and water supply projects.



### Prioritize Complementary Habitats

Enhancing and increasing the amount of perennial riparian habitat in-channel alone will not create as much biological value as identifying complementary enhancement opportunities outside of the River channel in adjacent upper terrace floodplain and upland habitats.

### Hydrology Drives Biology

Specific to in-channel habitat, increases in biodiversity will only occur when hydrologic conditions (e.g. lower dry weather flows) are created that favor native species.

### River Adjacent Land Use

Land uses adjacent to the River and throughout the watershed should be thought of as part of the solution and part of the River's biological and hydrologic system. The landscaping and hydrology of these areas can be designed to provide a value-added role to the habitat functions of the Los Angeles River ecosystem.

