

Los Angeles River-Instream Flow State Regulatory Roles

Los Angeles Regional Water Quality Control Board

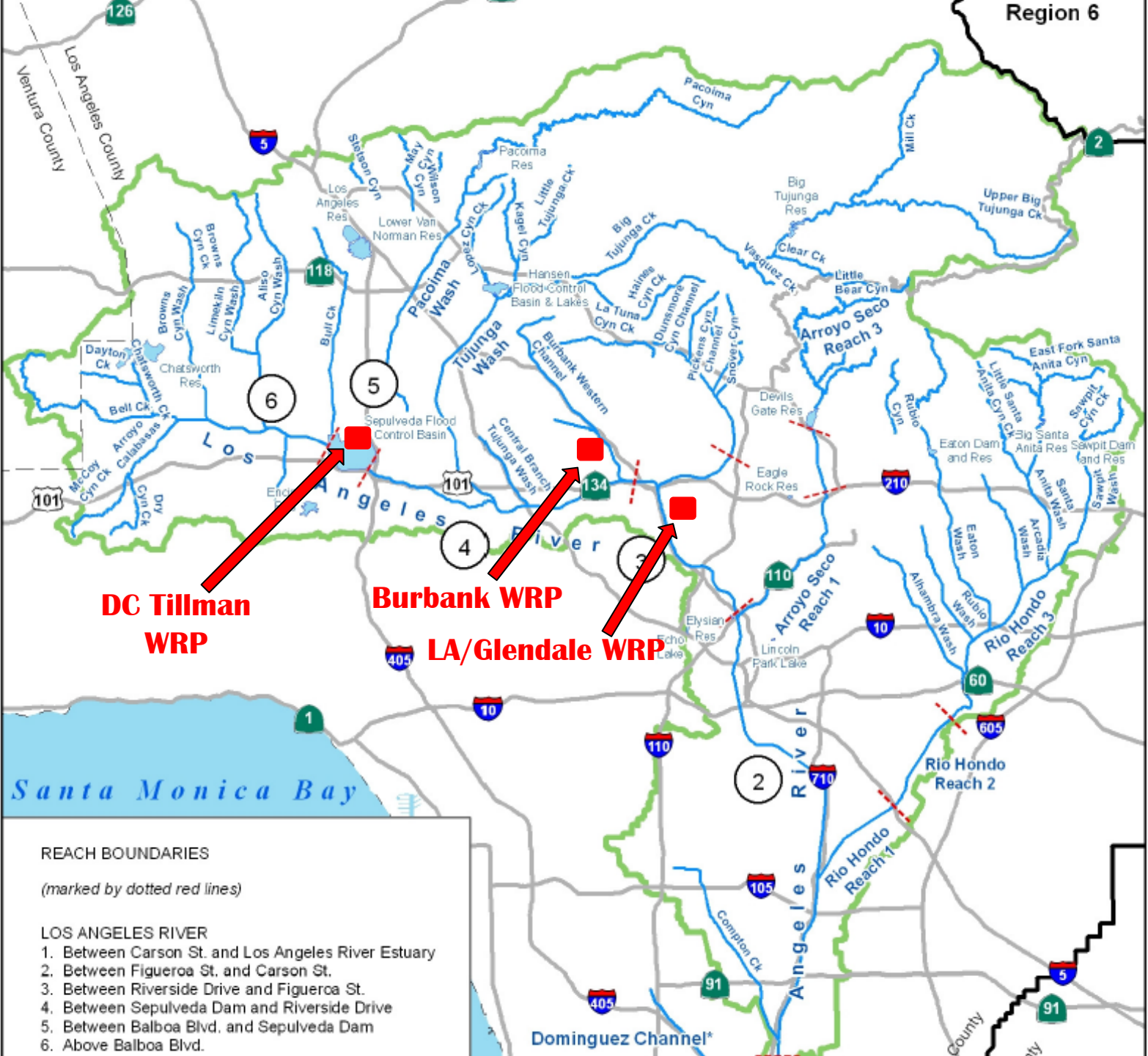
NPDES Permitting

City of LA - Donald C. Tillman WRP

City of LA - Los Angeles-Glendale WRP

City of Burbank - Burbank WRP





**DC Tillman
WRP**

Burbank WRP

LA/Glendale WRP

REACH BOUNDARIES

(marked by dotted red lines)

LOS ANGELES RIVER

1. Between Carson St. and Los Angeles River Estuary
2. Between Figueroa St. and Carson St.
3. Between Riverside Drive and Figueroa St.
4. Between Sepulveda Dam and Riverside Drive
5. Between Balboa Blvd. and Sepulveda Dam
6. Above Balboa Blvd.

Dominguez Channel*

DC Tillman WRP



Balboa Lake

Discharges to LA River-directly or via:

- Japanese Garden
- Wildlife Lake
- Haskell Channel
- Lake Balboa
 - Bull Creek
 - Hayvenhurst Channel

Los Angeles- Glendale WRP



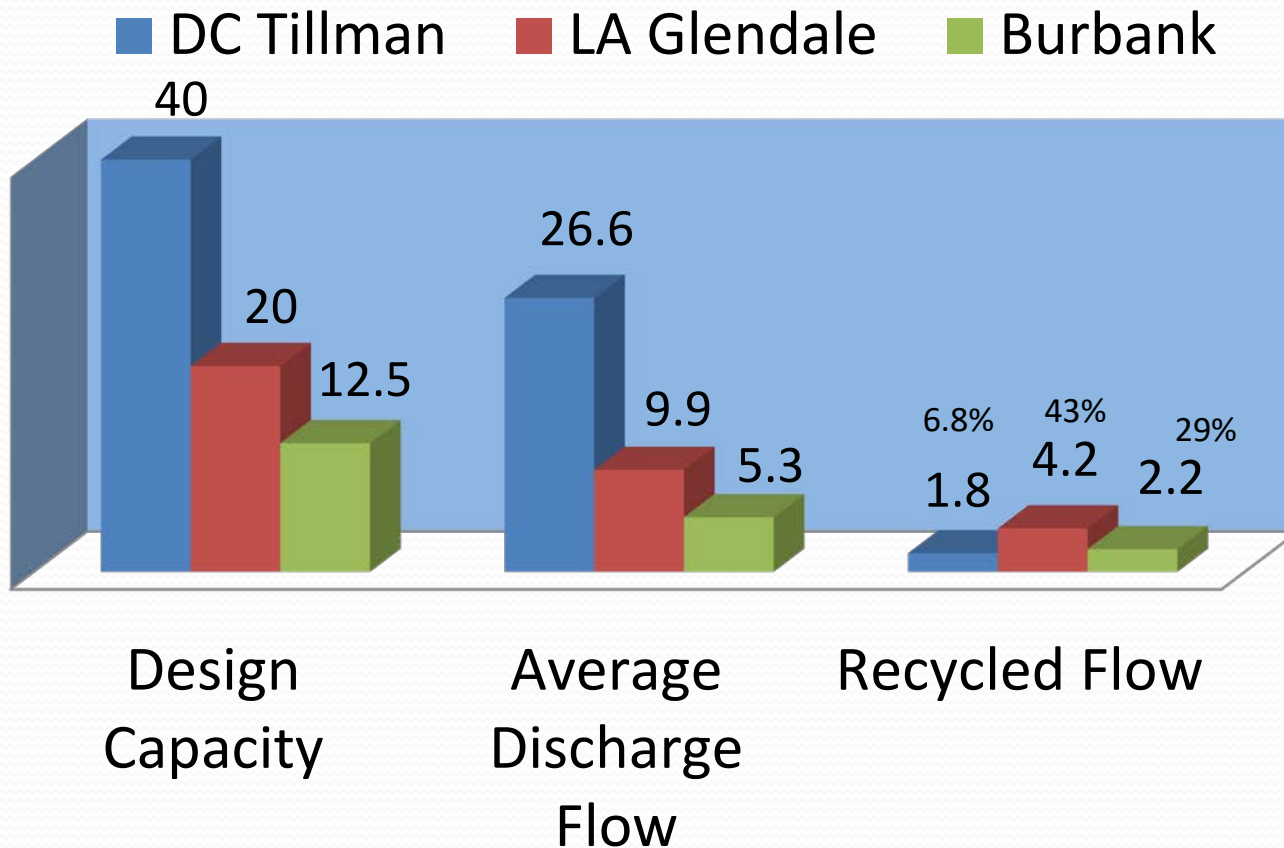
Discharge to LA
River

Burbank WRP



Discharge to LA River

POTW Annual Average Current Flow Comparison (mgd)



Clean Water Act, Section 401 Water Quality Certifications

- Required for any project that:
 - ✓ requires a federal permit or license, and
 - ✓ may result in a discharge into a water of the United States
- Must comply with all applicable water quality standards, limitations and restrictions
- Typical projects include:
 - ✓ Maintenance of outlets, concrete slopes and walls and other structures
 - ✓ LA Bridge Improvement construction
 - ✓ Maintenance of earth-bottom and concrete-lined channels
 - ✓ LA River Revitalization Project – multiple concrete removal projects



Artist rendering of the Verdugo Wash confluence with the LA River Revitalization Project

Beneficial Uses of the LA River

LA River Reach	Designated Beneficial Uses
Estuary & Reaches 1-6	Navigation – NAV , Water Contact Recreation - REC-1 , Non-contact Water Recreation - REC-2 , Warm Freshwater Habitat – WARM , Wildlife Habitat – WILD , Industrial Service Supply – IND ,
Reaches 1-6	Municipal and Domestic Supply- MUN , Ground Water Recharge – GWR
Estuary & Reach 1	Spawning, Reproduction, and/or Early Development – SPWN , Shellfish Harvesting - SHELL , Marine Habitat – MAR , Migration of Aquatic Organisms – MIGR , Rare, Threatened, or Endangered Species – RARE
Reach 1	Industrial Process Supply – PROC
Estuary	Commercial and Sports Fishing – COMM , Estuarine Habitat – EST
Estuary & Reaches 3,4,5, and 6	Wetland Habitat - WET

REC-1 Kayaking

LA River REC Zone
Managed by Mountains Recreation & Conservation Authority (MRCA)
May through September, annually since 2013
Kayaking Routes
Sepulveda Basin – 2 miles
Elysian Valley – 2.5 miles



REC-1 Swimming & Wading



Dabbling Ducks in Unlined Section

- Unlined sections have vegetation and obvious habitat value
- Deeper water with irregular, more natural bottom occurs
- Existing Wildlife beneficial use in Basin Plan along with other uses



Photo from KCET website on 10/16/2017 <https://www.kcet.org/earth-focus/concrete-a-necessary-evil-in-the-la-rivers-ecosystem>

Wading Shorebirds in a Concrete Section



Photo from KCET website on 10/16/2017 <https://www.kcet.org/earth-focus/concrete-a-necessary-evil-in-the-la-rivers-ecosystem>

- No vegetation; these sections are at times viewed as having no habitat value
- Birds rest (important behavior) or feed in these areas
- Best feeding areas are outside of the deeper low-flow channel in adjacent “floodplain” in ~0.5 – 2.5 inches of water; this depth is important
- Birds feed on algae or insects associated with algae

Birds Utilizing a Concrete Section

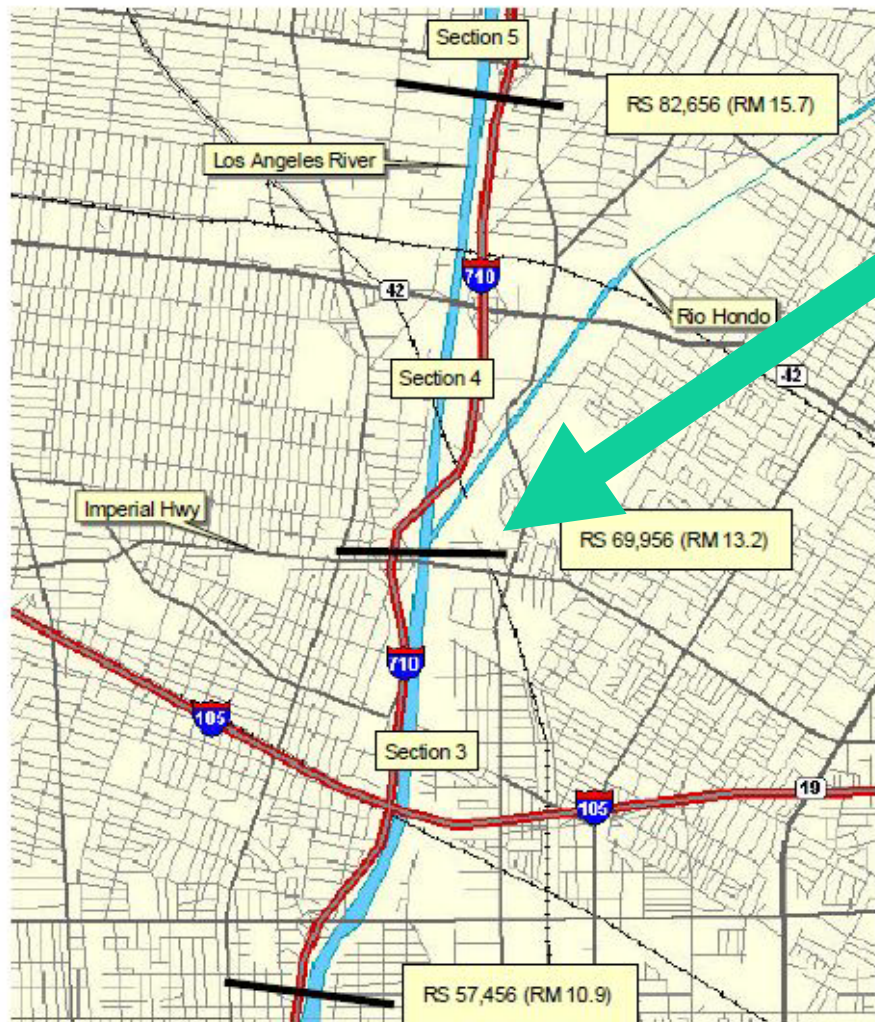
- These shallow water areas appear to function as lost natural coastal wetlands
- Designated with potential Wildlife beneficial use in Basin Plan; however, the use is clearly existing
- Two Hour Bird survey
 - ✓ 1999 – over 5,000 birds
 - ✓ 2000 – over 15,000 birds
- Existing uses must be protected per the CWA



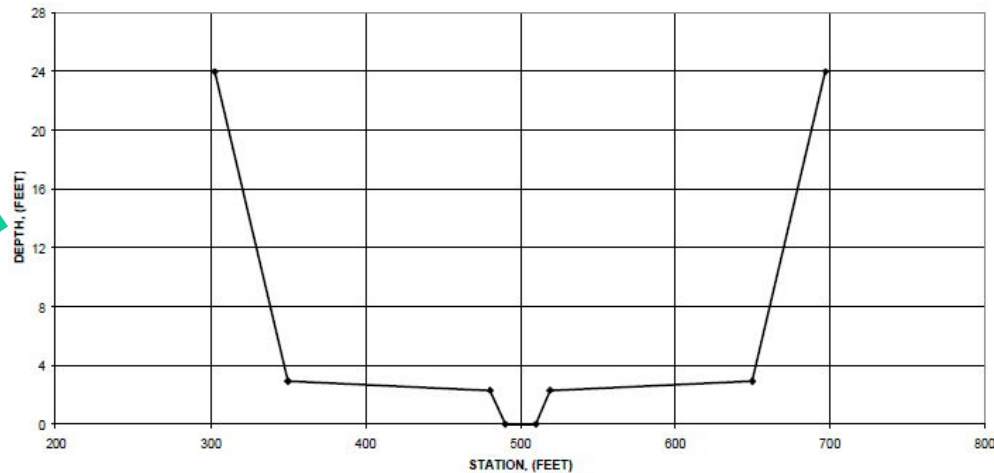
Photo by Rich Reid from National Geographic website on 10/16/2017
<http://news.nationalgeographic.com/news/2014/07/140719-los-angeles-river-restoration-kayaking-greenway/>

Potential Impact Due to Changes in Depth

EFDC MODEL CROSS SECTION LOCATION
Los Angeles River - Sections 3, 4, and 5



EFDC MODEL CROSS SECTION
Los Angeles River - Section 3
RS 57,456 to RS 69,956 (RM 10.9 to RM 13.2)



Small changes in depth will likely result in impacts to bird use of concrete areas

From Appendix A of "Modeling Analysis for the Development of TMDLs for Metals in the Los Angeles River and Tributaries", 2004

Changes in Dry Weather Flow Need to Consider any Impacts to Water Depths in Critical Bird Feeding Areas

- Channel cross-sectional information already exists
- Existing flow models could be adapted to model changes in depth from changed flows
- Various engineering solutions such as flow deflectors may help maintain critical feeding areas
- U.S. Bureau of Reclamation Low-Flow Channel Ecosystem Services Study

Los Angeles Regional Water Quality Control Board - Summary

There are many uses for the tertiary effluent from the DC Tillman, LA/Glendale and Burbank Water Reclamation Plants:

- Water supply for Title 22 non-potable uses
- Future groundwater replenishment for the San Fernando Basin
- Supports beneficial uses in the LA River
 - ✓ REC 1: kayaking
 - ✓ WARM: freshwater habitat,
 - ✓ WILD: wildlife habitat including the shallow concrete sections
- Beneficial uses vary depending on the section of the river
- Determining flow requirements for the varied beneficial uses in the river and balancing these with the water supply needs of the LA region will be an ongoing challenge