

# Los Angeles River Watershed Fish Passage, Restoration, and Flows

World Fish Migration Foundation/Institute of Fisheries Management  
Groningen, Netherlands

April 16, 2024 Wendy Katagi, CEP

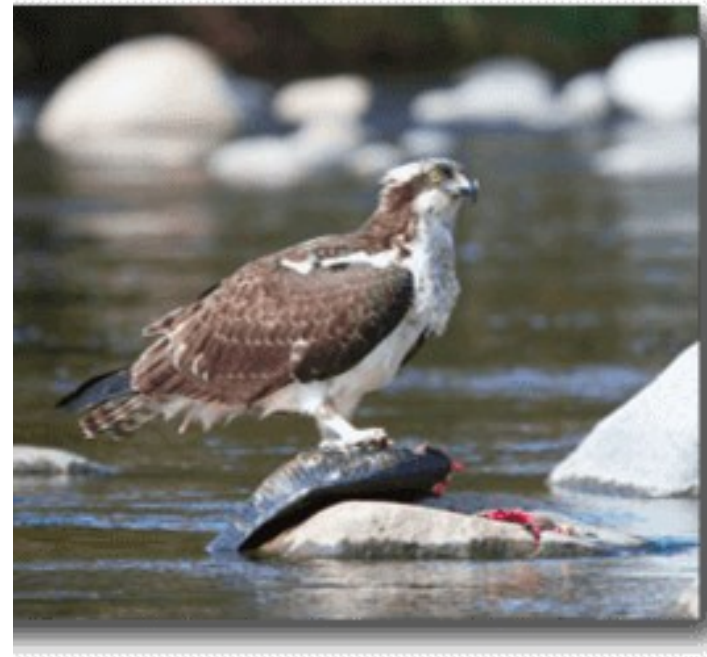
- Wendy Katagi, CEP

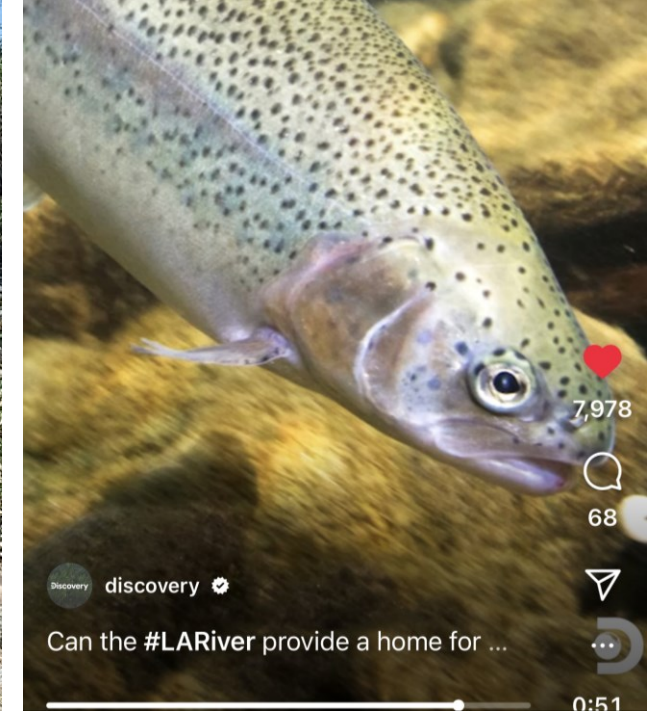






Restoration and recovery is key in shaping our future





Watershed stewardship aligned  
with policy decision-making

# Decision-making Criteria for Evaluating Minimum Baseflows in the Los Angeles River: Third-Party Review of the "Los Angeles River Environmental Flows Project"

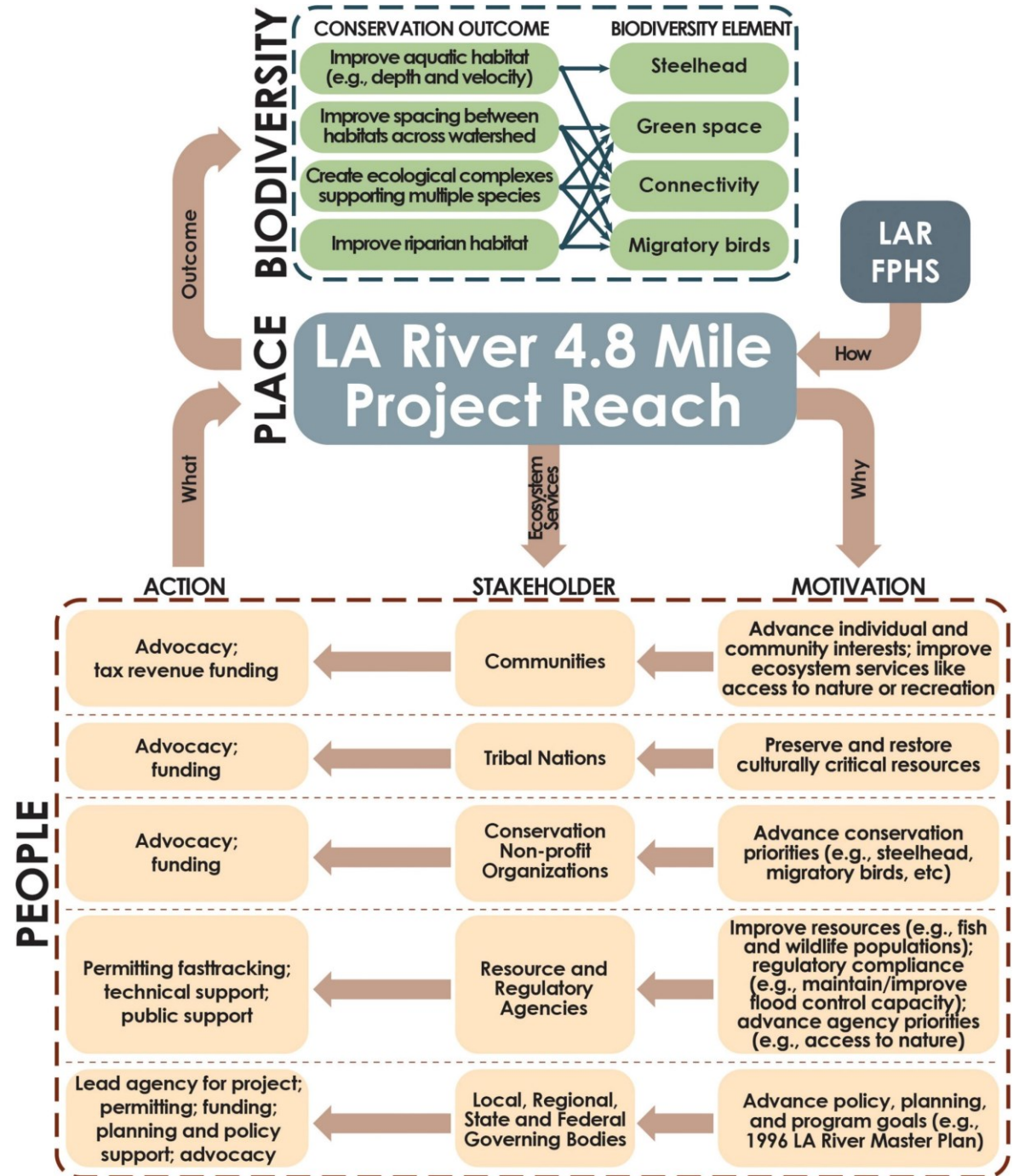


**PREPARED FOR**

Conservancies of the LA River:  
Mountains Recreation and Conservation Authority, San Gabriel &  
Lower Los Angeles Rivers & Mountains Conservancy, Santa Monica  
Mountains Conservancy, Watershed Conservation Authority  
c/o MRCA  
570 W. Avenue 26, Suite 100  
Los Angeles, CA 90065

**PREPARED BY**

Stillwater Sciences  
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# FUNCTIONAL FLOW COMPONENTS

Fall Pulse  
Flow

Wet-season  
Baseflow

Dry-season  
Baseflow

Peak Flows

Spring  
Recession Flows

Physical  
Habitat

Biological Interactions

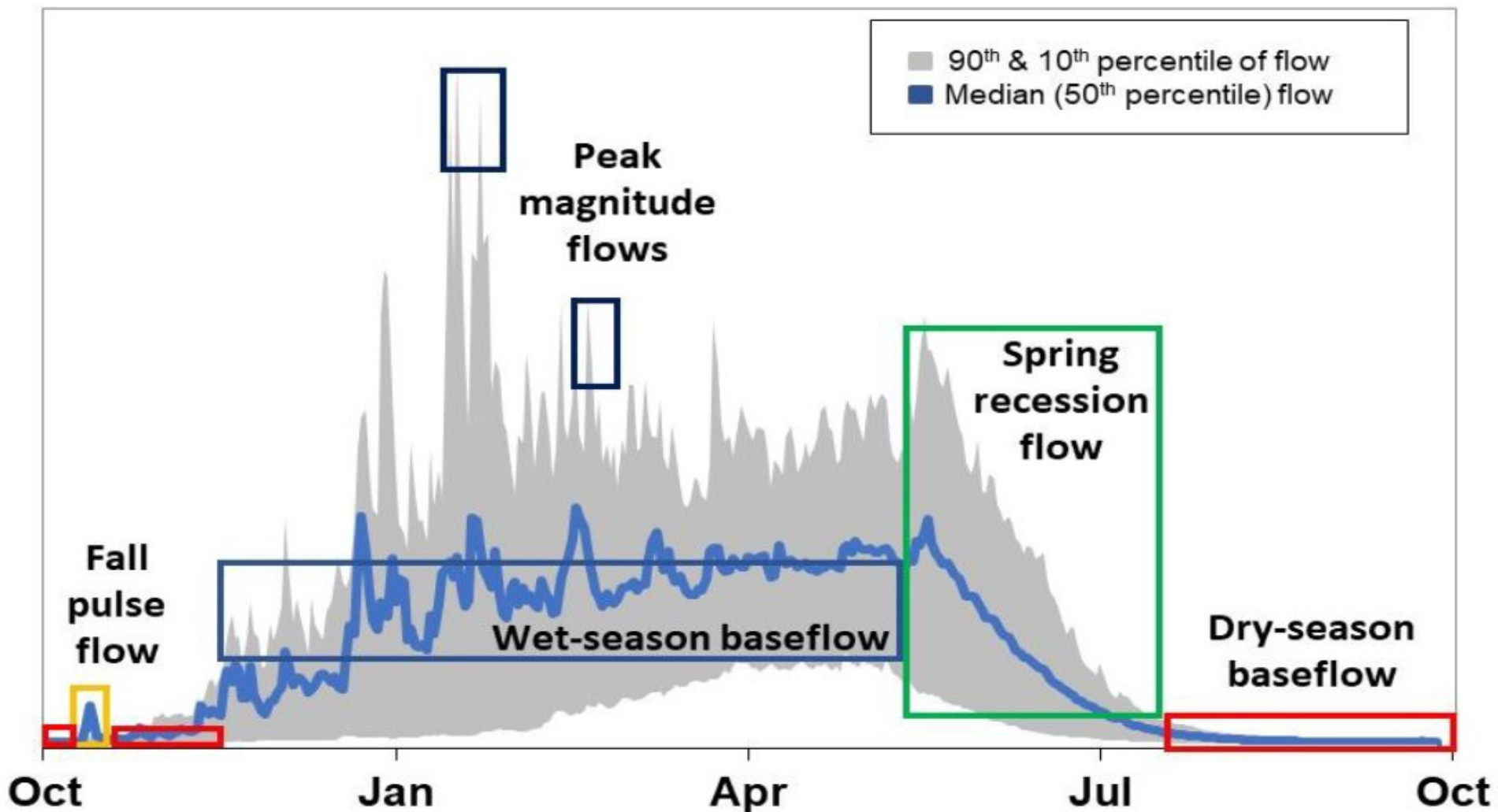
Water  
Quality

Ecosystem Functions

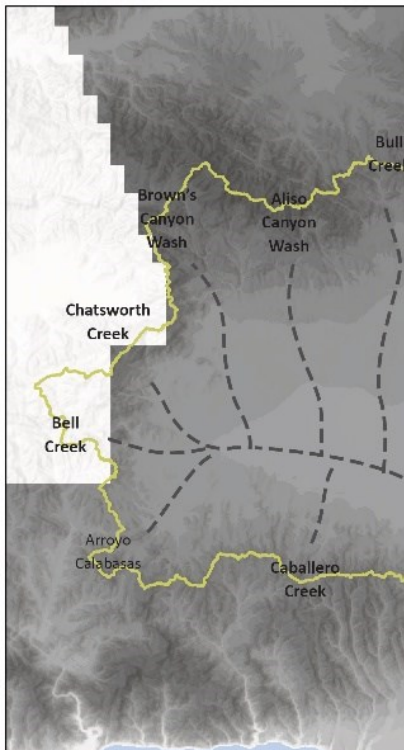
Ecological Responses



Discharge



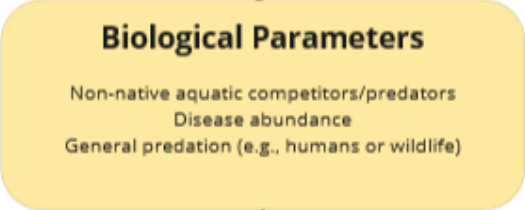
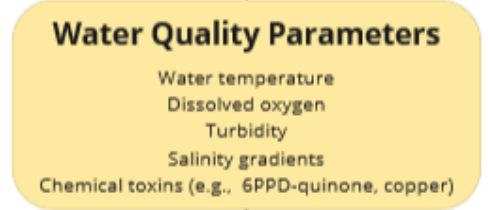
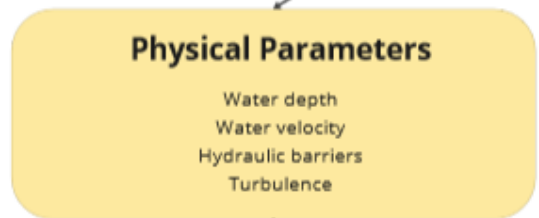




Assess available data or model stream hydraulics across range of migration flows

Assess available data or model water quality across range of migration flows

Assess available data relating predation and flow



Apply hydraulic suitability thresholds

Apply water quality suitability thresholds

Apply cover suitability thresholds

Physical habitat suitability for upstream adult steelhead migration

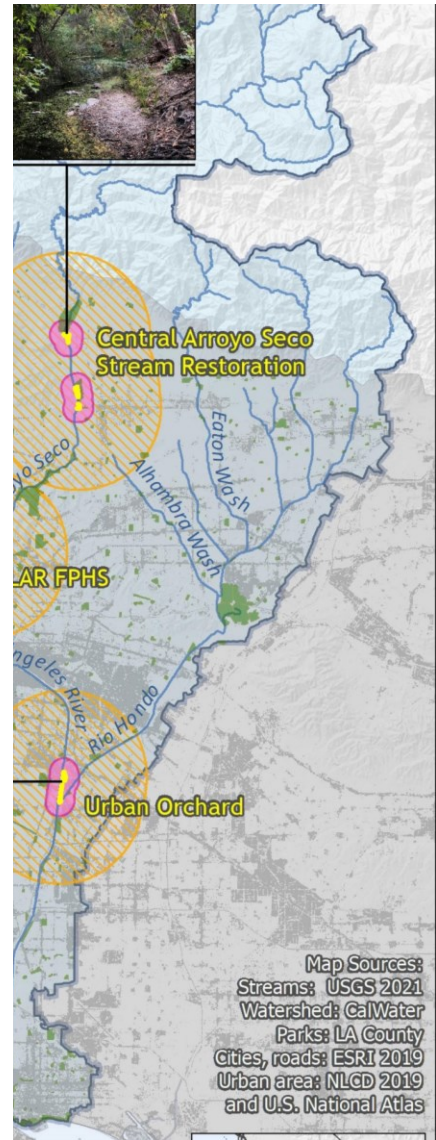
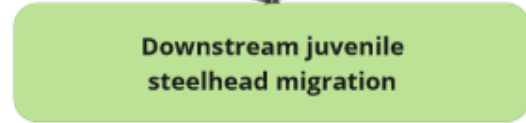
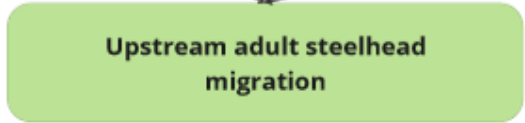
Physical habitat suitability for downstream juvenile steelhead migration

Water quality suitability for upstream adult steelhead migration

Water quality suitability for downstream juvenile steelhead migration

Biological suitability for upstream adult steelhead migration

Biological suitability for downstream juvenile steelhead migration



Map Sources:  
Streams: USGS 2021  
Watershed: CalWater  
Parks: LA County  
Cities, roads: ESRI 2019  
Urban area: NLCD 2019 and U.S. National Atlas

**Assumed Stream Life Cycle Role**  
*(pre 1800's, including Rio Hondo)*

Primarily spawning and rearing

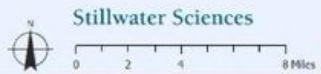
# Los Angeles River Major Projects Underway

1. River Origin Park
2. **County Headwaters Project** ●
3. City Headwaters Bike Path
4. Canoga Park River Park
5. **City West Valley Bike Path** ●
6. Southern Aliso Green Network
7. **TPL Aliso Creek Confluence Park /Reseda River Loop**
8. **MRCA Caballero Creek Confluence Park**
9. **LACC/MRCA Boating Program** ●
10. **City Sepulveda Basin Masterplan**
11. **County North Valleyheart Greenway**
12. **MRCA LA River Zev Yaroslavsky Greenway** ●
13. **SLAROS LA River Natural Park**
14. Hazeltine River Edge Park
15. Hazeltine Avenue
16. Harvard Westlake River Park
17. Tujunga Wash Path
18. Tujunga Wash Confluence Park
19. **Sennett Creek**
20. **City of LA/USACE Headworks**
21. Burbank Western Green Network
22. **Burbank Bob Hope Park** ●
23. Glendale Riverwalk Non-Motorized Bridge
24. **Glendale Narrows Riverwalk** ●
25. Verdugo Wash Path
26. River Glen Wetlands (ARBOR)
27. River Glen Wetlands (ULART)
28. Griffith Park Side Channel (ARBOR)
29. San Fernando Path
30. **Central Service Yard** ●
31. Atwater Village East Bank Riverway
32. **City N. Atwater Park & RRC N. Atwater Bridge** ●
33. San Fernando Railroad Path
34. **City Sunnynook Park** ●
35. **MRCA Lewis MacAdams Riverfront Park** ●
36. **G1 Bowtie**
37. **G2 Park/Paseo del Rio**
38. **CA State Parks Rio de LA State Park** ●
39. **Taylor Yard Non-Motorized Bridge** ●
40. **HUD NELA Riverfront Collaborative** ●
41. LACC River HEART
42. **City Elysian Valley Bike Path** ●
43. Dorris Place Sanitation Yard
44. TIGER River Bikeway Network

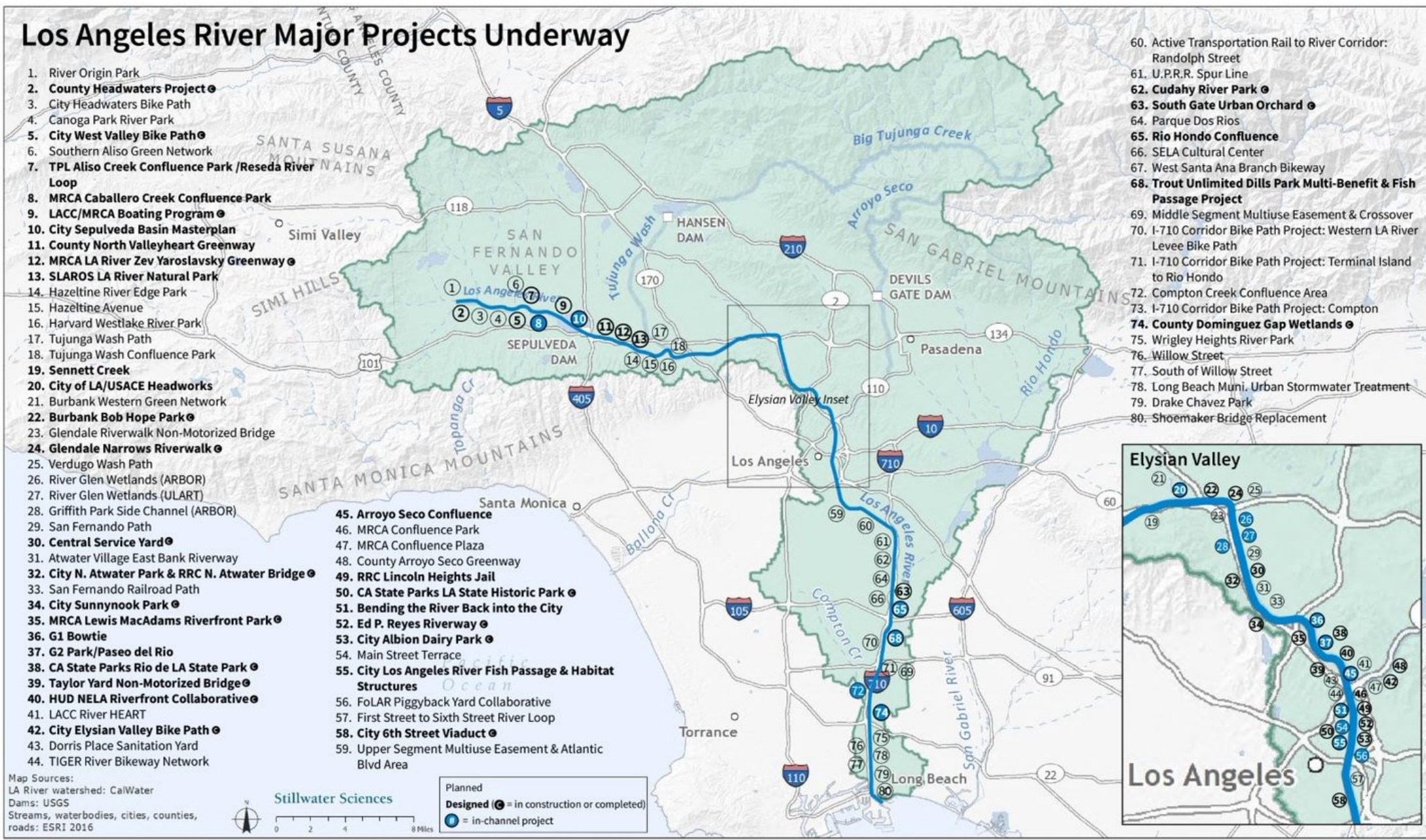
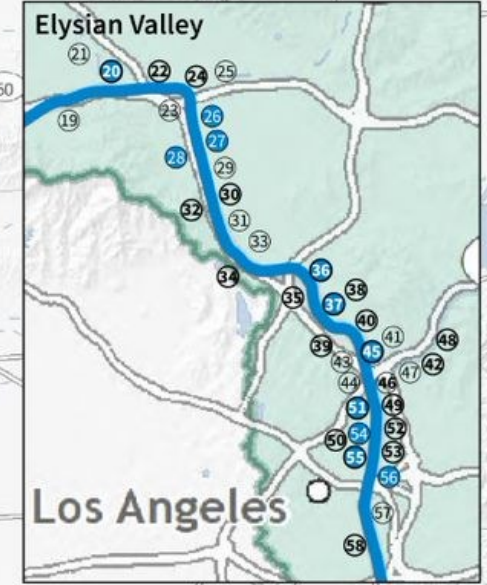
45. **Arroyo Seco Confluence**
46. MRCA Confluence Park
47. MRCA Confluence Plaza
48. County Arroyo Seco Greenway
49. **RRC Lincoln Heights Jail**
50. **CA State Parks LA State Historic Park** ●
51. **Bending the River Back into the City**
52. **Ed P. Reyes Riverway** ●
53. **City Albion Dairy Park** ●
54. Main Street Terrace
55. **City Los Angeles River Fish Passage & Habitat Structures**
56. FoLAR Piggyback Yard Collaborative
57. First Street to Sixth Street River Loop
58. **City 6th Street Viaduct** ●
59. Upper Segment Multiuse Easement & Atlantic Blvd Area

60. Active Transportation Rail to River Corridor: Randolph Street
61. U.P.R.R. Spur Line
62. **Cudahy River Park** ●
63. **South Gate Urban Orchard** ●
64. Parque Dos Rios
65. **Rio Hondo Confluence**
66. SELA Cultural Center
67. West Santa Ana Branch Bikeway
68. **Trout Unlimited Dills Park Multi-Benefit & Fish Passage Project**
69. Middle Segment Multiuse Easement & Crossover
70. I-710 Corridor Bike Path Project: Western LA River Levee Bike Path
71. I-710 Corridor Bike Path Project: Terminal Island to Rio Hondo
72. Compton Creek Confluence Area
73. I-710 Corridor Bike Path Project: Compton
74. **County Dominguez Gap Wetlands** ●
75. Wrigley Heights River Park
76. Willow Street
77. South of Willow Street
78. Long Beach Muni. Urban Stormwater Treatment
79. Drake Chavez Park
80. Shoemaker Bridge Replacement

Map Sources:  
 LA River watershed: CalWater  
 Dams: USGS  
 Streams, waterbodies, cities, counties, roads: ESRI 2016



Planned  
 Designed (●) = in construction or completed  
 (●) = in-channel project







PLANTING SLEEVES AND BOXES IN CONCRETE WITH NON-WOODY PLANTS FOR STEELHEAD COVER & BIODIVERSITY

DRIVABLE PATH FOR MAINTENANCE

VEGETATED AREA ON PERFORATED CONCRETE SLAB WITH BERM TO TREAT STORM DRAIN DISCHARGE AND IMPROVE WATER QUALITY

EXISTING CONDITIONS  
LOS ANGELES RIVER - REACH 8A



RESTING POCKETS FOR STEELHEAD PASSAGE

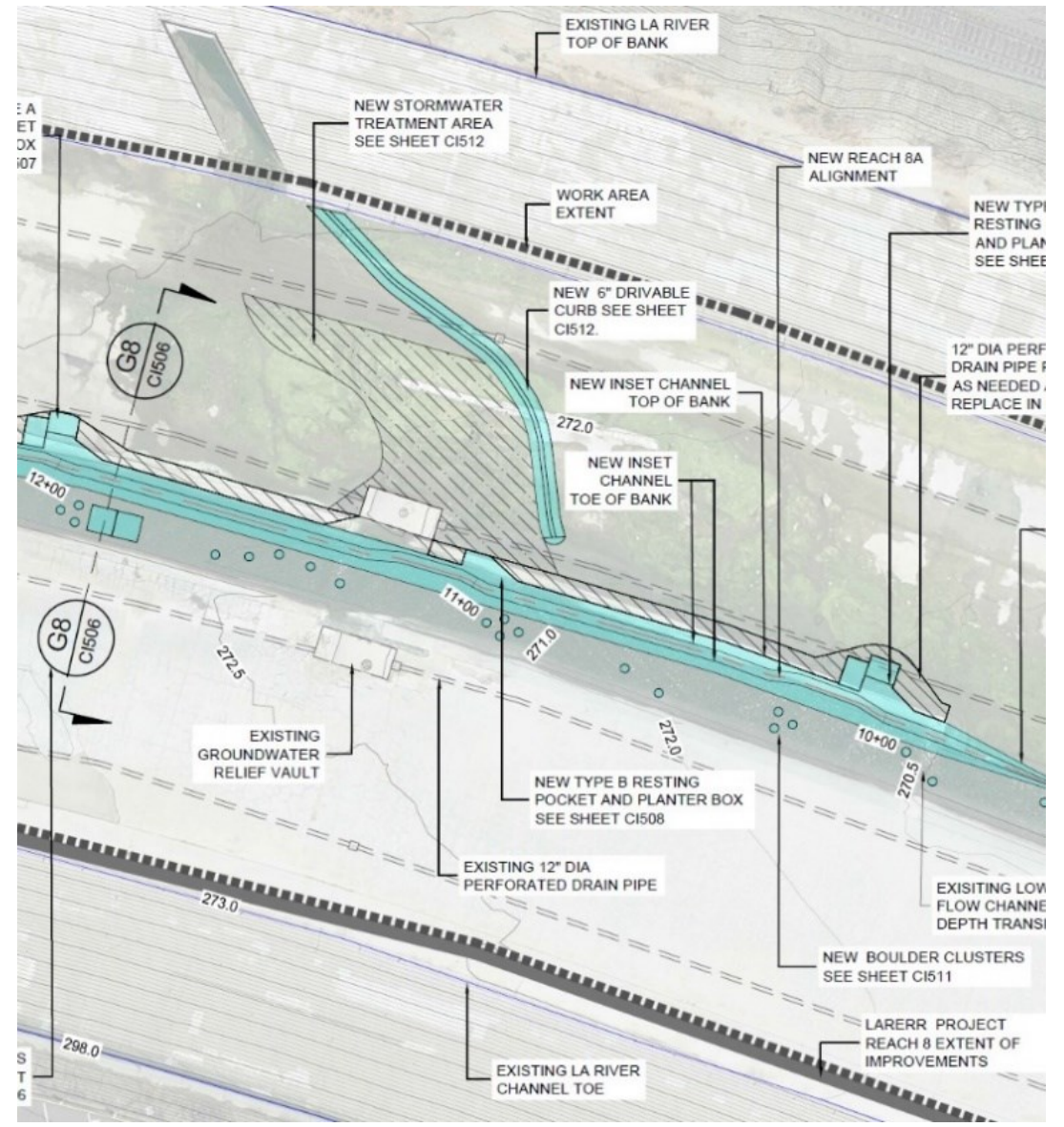
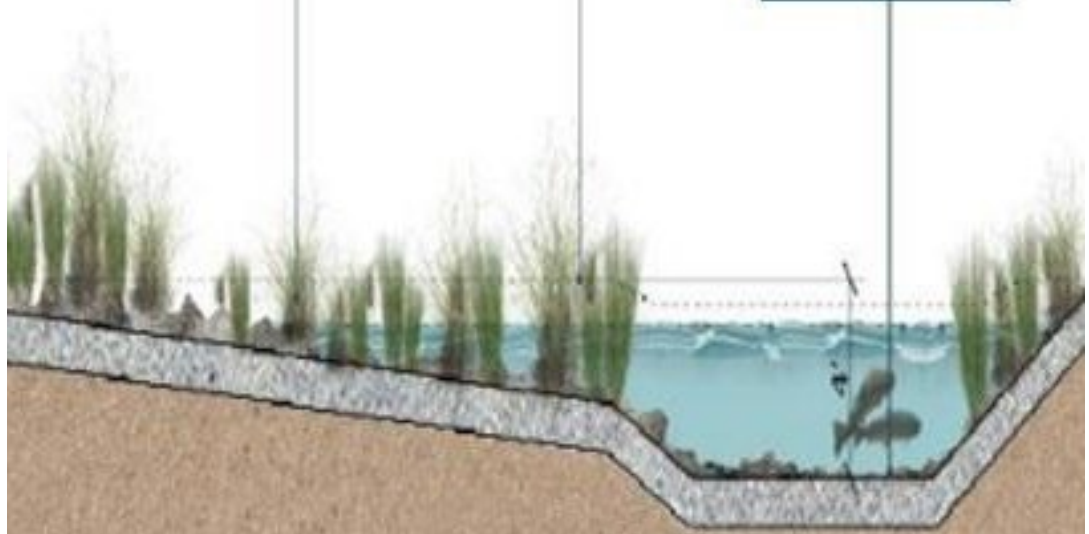
ANCHORED BOULDERS FOR STEELHEAD RESTING

Tab

Herbaceous Plants

Existing Low-Flow Channel

Grouted Cobbles and Boulders









# Starting a river movement

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## Acknowledgements

The acknowledgements section features logos for the following organizations and agencies:

- Stillwater Sciences
- SCCWRP (Southern California Coastal Water Research Project)
- ARROYO SECO FOUNDATION
- BUREAU OF RECLAMATION
- FRIENDS OF THE LA RIVER
- NOAA FISHERIES
- CITY OF LOS ANGELES
- U.S. FISH & WILDLIFE SERVICE
- CALIFORNIA DEPARTMENT OF FISH & WILDLIFE
- Public Works LOS ANGELES COUNTY
- WCB (State of California Wildlife Conservation Board)