
LA RIVER

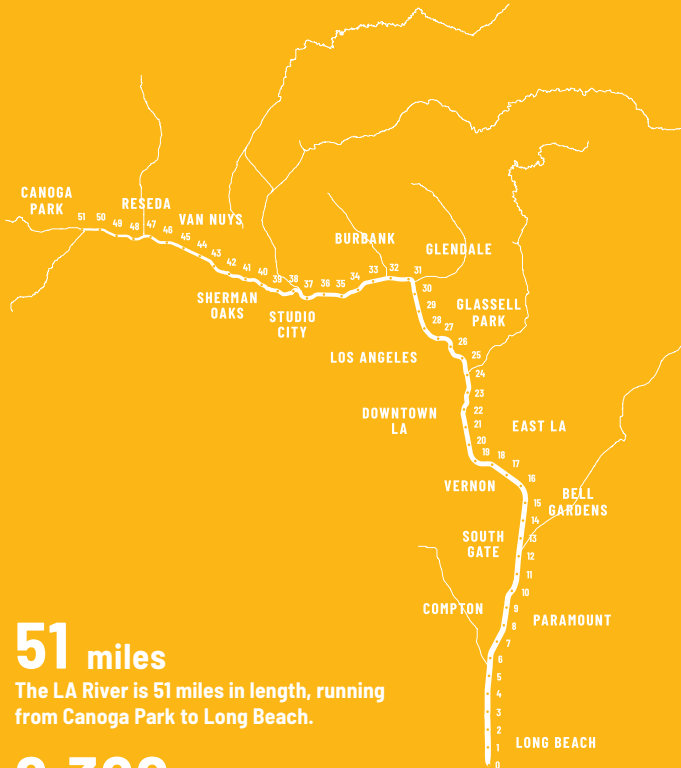
MASTER

PLAN

**OPERATIONS AND
MAINTENANCE**

POCKET SUMMARY





51 miles

The LA River is 51 miles in length, running from Canoga Park to Long Beach.

2,300 acres

There are 2,300 acres of primarily publicly-owned land within the right-of-way, including the river channel.

1,000,000 people

There are nearly one million people who live within one mile of the LA River.

VISION

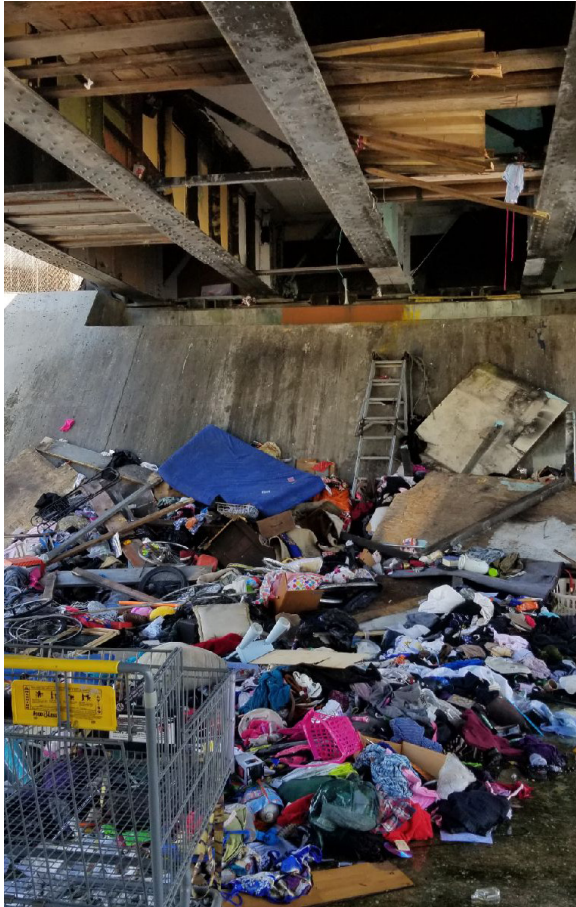
The Reimagined River

The iconic LA River flows through a 51-mile connected public open space that is seamlessly woven together with neighboring communities. It is an integral part of daily life in LA County—a place to enjoy the outdoors and to get across town, a place to appreciate the serene and to bring all people together, a place to celebrate a thriving urban habitat and understand infrastructure, a place to learn from the past and to shape the future.

The LA River flows through various conditions along its 51-mile course including concrete lined and “soft bottom” earthen reaches. The **typical river right-of-way includes flood management structures such as dams and levees, the channel itself as well as access roads, and various recreational amenities such as bike paths and trails.**



A worker removes invasive plant material from the channel near the Glendale Narrows, a maintenance practice that helps to increase the flood capacity of the LA River. Source: US Army Corps of Engineers, LA River Arundo Removal, 2004.



Los Angeles has one of the largest populations of persons experiencing homelessness in the United States, and many of the county's unsheltered residents take refuge within the LA River right-of-way, directly impacting operations and maintenance along the LA River.

Large amounts of trash and debris are common conditions underneath bridges along the LA River. Source: LA County Public Works, 2018.

Capital improvements must be accompanied by a robust plan for regular and long-term O&M to provide successful flood management, river park, open space, trails, habitat areas, water quality Best Management Practices, and environmental graphics and wayfinding.



A maintenance vehicle drives through the LA River channel at river mile 11.2. Source: LA County Public Works, 2018.

Public Engagement Feedback

61%

OF SURVEY AND COMMUNITY MEETING PARTICIPANTS SAID THAT THEY **DO NOT USE THE LA RIVER DUE TO SAFETY**

434

COMMUNITY MEMBERS REPORTED **POOR MAINTENANCE AS THE REASON WHY THEY ARE NOT VISITING THE LA RIVER**

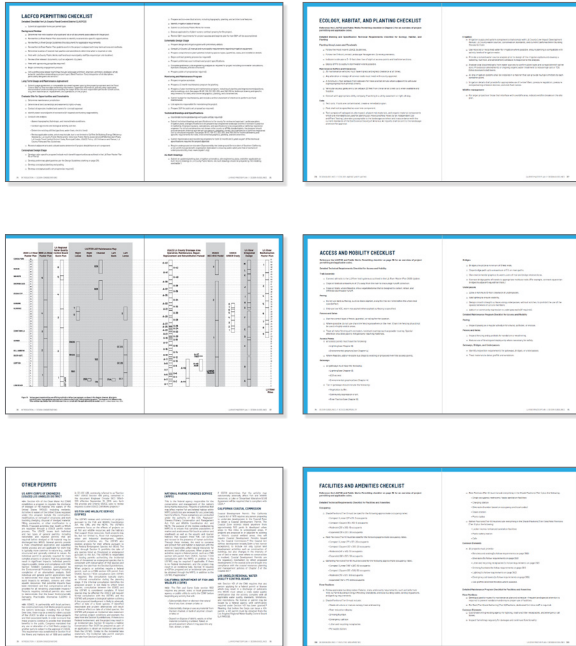


The East Yard Communities for Environmental Justice Community Event featured a presentation on plan goals, actions, and methods including housing stability. Source: OLIN, 2019.

Design Guidelines Operations and Maintenance Requirements

The design guidelines aid designers and engineers in the establishment of a 51-mile connected open space along the LA River

The LA River Design Guidelines (Appendix Volume I) outline requirements that all new projects should meet in relation to long-term maintenance planning. Prior to final design approval, a project review of maintenance services and activities should determine the routine, seasonal, and lifecycle replacement needs for proposed project areas or facilities. For LA County Flood Control District (LACFCD) Permit approval, every new project must prepare a 3-year extended monitoring and maintenance program for all improvements, including planting, pavilions, and site furnishings. The prepared plan needs to include agencies responsible for maintaining the project, a budget for maintenance, and a written statement of intention to perform and fund maintenance.



The LA River Design Guidelines contain protocols for permitting, which include planning for operations and maintenance. See Appendix Volume I: Design Guidelines.



Flood Risk Reduction

Increased coordination between the operations and maintenance entities along the river could enhance efficiencies in maintaining the functionality of the flood management systems.

Planning for the flood risk reduction projects and system proposals in the LA River Master Plan Update is critical for ensuring the physical feasibility and future success of projects along the river. The US Army Corps of Engineers (USACE) and the LACFCD have a combined responsibility in performing operations and maintenance of flood facilities to manage flood risk along the LA River and its tributaries. Clear delineation, tracking, and enforcement of operations and maintenance responsibilities by other agencies for adjacent and overlapping facilities, such as recreational amenities, are critical for ensuring that crucial operations and maintenance is performed at all pertinent locations.

Worker inspecting the debris build-up that occurs inside of the LA River channel. Source: Geosyntec, 2018.



Water Quality Best Management Practices

Regular operations and maintenance are critical for sustained performance of water quality BMPs over their service life.

Neglect or inadequate operation and maintenance activity will lead to reduced BMP lifespan, performance, benefits, and potential failure to achieve water quality objectives. Conversely, proper planning and execution of operations and maintenance from upstream pretreatment devices through all other BMP components can significantly improve the lifespan of BMPs and thereby improve the project benefits at the project and watershed scales.

Capital improvements must be accompanied by a robust plan for long term operations and maintenance. Source: OLIN, 2018.



Parks, Trails, and Open Space

Parks and open space require a different type of operations and maintenance than single benefit flood infrastructure.

Parks and open space are designed for a variety of purposes, and amenities such as lighting, restrooms, and seating are necessary for some uses. Maintaining a park is more expensive than maintaining typical flood infrastructure; however, parks and open space provide multiple benefits to communities and natural systems through built amenities as well as programming (e.g., outdoor classrooms and public gathering spaces). The range of skills needed is often varied as well, ranging from native vegetation experts to recreation field care to janitorial staff and facility operators.

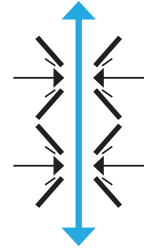
Recreation facilities at DeForest Park. Source: OLIN, LA County Public Works, 2018.

Concerns O&M and Safety Staff Can Address Along the River

A key takeaway from the Master Plan engagement process highlighted safety concerns as the most reported reason for not visiting the river. This was followed closely by poor maintenance along the river, absence of restrooms and activities. Also cited was not having enough information about the river channel or how to access the river.

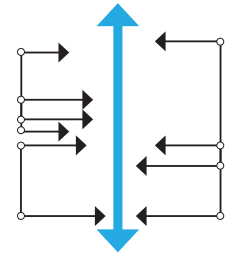
Along the length of the LA River and its adjacent River Pavilions and parks, public safety must receive considerable attention. Attention should be paid to urban design and planning and active operations. New open spaces along and over the LA River must be planned to be inviting with clear entrance and exit points that will promote the sense of a safe environment. Planning policies along the LA River should encourage public and private landowners to create a more inviting property front that faces the river. More eyes on the LA River's public space will foster a safer environment.

Many community members reported barriers to river access. These included uninviting conditions and confusion about how to get to river amenities.



REMOVE COMMUNITY-REPORTED BARRIERS TO RIVER ACCESS

The maintenance of the channel and adjacent land by multiple jurisdictions creates challenges for consistent and effective programs along the river.



COORDINATION AMONG JURISDICTIONS

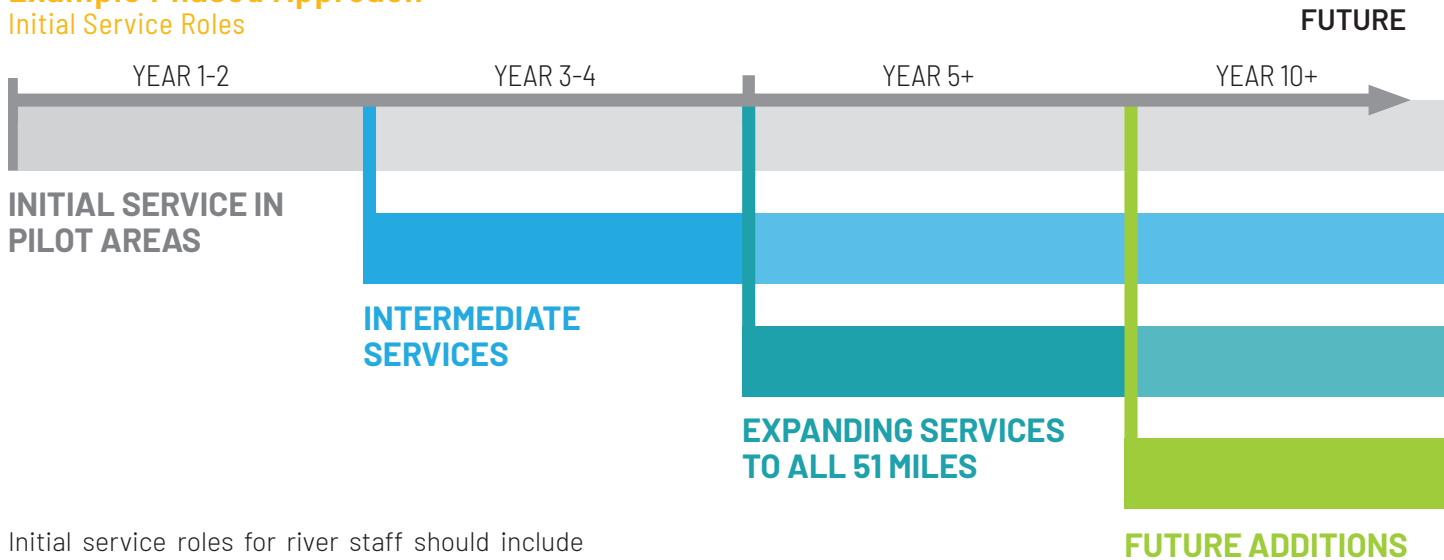
Various agencies with overlapping service areas can benefit from O&M and safety staff that work along the entire 51 miles of the river.



EFFICIENCY AND STREAMLINING SERVICES

Example Phased Approach

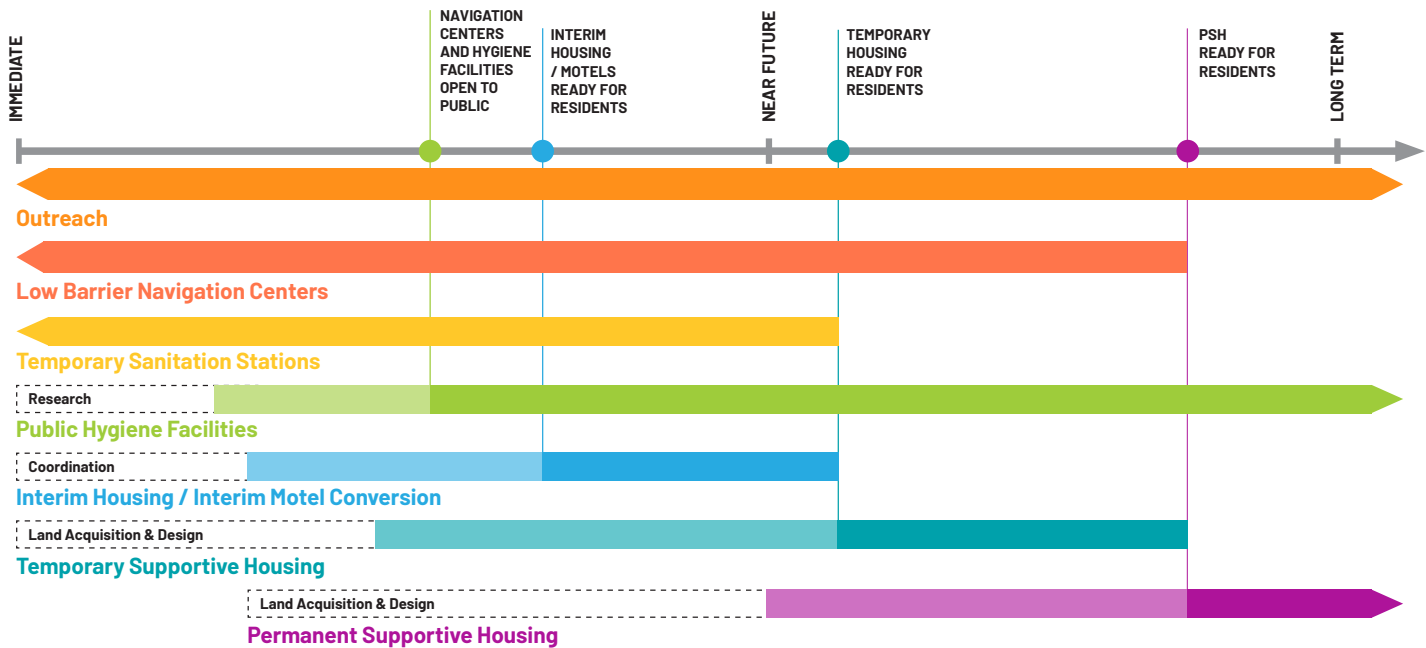
Initial Service Roles



Initial service roles for river staff should include picking up trash and emptying waste/recycling receptacles, on the ground emergency notification capabilities, wayfinding, providing basic information about the river, and associated administration and coordination duties. This could be piloted in a couple of 3-4 mile zones in year one at an estimated cost of \$225k per mile for staffing this team, operating expenses, and start up and training costs. Although start up and training costs will diminish over time, scaling the program to 51 miles is estimated at \$11.7 million in the near and long-term future for initial services.

A phased approach to river staff for operations and maintenance, safety, and interpretive programs can help build a safe, inclusive, and well maintained reimagined river.

Homelessness outreach works in parallel to the establishment of facilities.



*Concepts explored in Master Plan analysis and not directly featured in the final Master Plan.



For more info, visit
www.LARiverMasterPlan.org

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