Los Angeles River Ecosystem Restoration Study, Los Angeles, California
Frequently Asked Questions (FAQs) and Answers October 17, 2013

1. What is the purpose of the alternatives proposed by the study? The purpose of the alternatives is to restore riparian and aquatic habitat to support species like sensitive birds and fish, restore natural river functions, and reconnect the river to major tributaries, its historic floodplain, and regional habitat zones such as the Santa Monica Mountains and San Gabriel Mountains. The alternatives include channel widening and major tributary restoration to restore natural in-channel ecosystems, as well as restoration side channels and daylighting tributaries outside the river channel. A secondary purpose is passive recreation.

2. Will you restore the whole river? Not as a part of this study. This study focuses on the 11 miles of the river from Griffith Park to downtown Los Angeles determined to have the least constraints and the highest potential for restoration (ARBOR Reach). This portion of the river is the central nexus of the watershed's former and existing ecosystems.

3. How were alternatives developed? The Corps, City, other agencies, and many stakeholders collaborated to develop and combine features into preliminary alternatives. Plans considered structure, function, and dynamic processes to achieve objectives. Constraints were maintaining existing flood risk management, avoiding hazardous substances wherever practicable, consistency with levee policies, and consideration of high real estate costs. The plans were divided into reaches and recombined to form many more alternatives. The team identified four alternatives that best met objectives within the constraints.

4. What are the major features of the plans? All reaches include riparian corridors where possible, and streams are daylighted in reaches 3, 4, 5, 7 and 8. Major features are listed below:

Major Features	Alt 10	Alt 13	Alt 16	Alt 20
Pollywog Park	Yes-riparian area	Yes- riparian area	Yes- riparian area	Yes-riparian area
Bette Davis Park	No	No	No	Yes - widens LAR
Ferraro Fields	No	Yes – side channel	Yes – side channel	Yes – side channel
Verdugo Wash Confluence	No	No	No	Yes – widens and removes concrete to naturalize bed
Griffith Park and Los Feliz Golf Courses	Yes- side channels	Yes- side channels	Yes -side channels	Yes- side channels
Riverside Dr	No	No	Yes –widened with terraces	Yes –widened with terraces
Taylor Yard	Yes – widens 100 ft	Yes- widens 300 ft	Yes- widens 300 ft	Yes- widens 300 ft
Arroyo Seco Confluence	No	Yes – naturalizes bed and banks	Yes – removes concrete, naturalizes bed and banks	Yes – removes concrete, naturalizes bed and banks
LA River State Historic Park	No	No	No	Yes- terracing and wetlands
Piggyback Yard	Yes- riparian area and historic wash	Yes- riparian area and historic wash	Yes- riparian area, historic wash, side channel, marsh, and removes concrete from bed, terraces	Yes- riparian area, historic wash, side channel, marsh, removes concrete from bed, terraces

5. Will you remove the concrete from the sides and bed of the river? The alternatives would not be able to remove all the concrete from the sides and bed of the river due to flood risk. The study looked at the cost to restore the river back to the historic floodplain in the study area, and the real estate cost alone was $7.6 Billion, without factoring in any construction or relocation costs for people and businesses. The study team also looked at building an underground tunnel to take off flood flows, but it was cost prohibitive. Instead, the team developed plans that could restore river functions without taking out all concrete, but plans would modify the concrete channel side at Taylor Yard, remove the concrete wall and bed next to Piggyback Yard (in 16 and 20), push back the wall at Bette Davis Park and along the I-5 at Griffith Park, and remove concrete in the bed of Verdugo Wash.

6. What does "NER" mean, and why is that important in identifying the tentatively selected plan? Does the plan recommended to Congress have to be the NER plan? The "NER" plan is the National Ecosystem Restoration Plan, which is the plan having the maximum benefits over costs. This plan is identified by evaluating successively larger plans until the incremental benefits no longer outweigh the incremental costs, hence the extra environmental value is just worth the extra costs. Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes net environmental benefits while passing tests of efficiency, significance of outputs, acceptability, completeness, and effectiveness. The NER plan is the tentatively selected plan unless the sponsor identifies a locally preferred plan (LPP). With an LPP, the City would pay the difference in costs between the NER Plan and the LPP if the LPP is more expensive.

7. How are the beneficial and negative impacts to people and economic revitalization taken into account? The Corps compares ecosystem restoration benefits to costs to identify the NER Plan, but it also takes into account regional economic development (RED) and other social effects (OSE). RED benefits are changes in income and employment in the region. The OSE effects are social aspects such as community well being, displacement, environmental health, public health and safety, and community connections. The National Environmental Policy Act (NEPA) analysis also looks at beneficial and negative impacts on the human environment.

8. What about recreation? Is the purpose of this study to create a big park? Recreation is a secondary purpose of the project. The project will restore ecological function to the river, and recreation features will complement restoration. The recreation features are passive, meaning non-consumptive uses with the least impact on the ecosystem such as wildlife viewing, walking and include trails and bridges for public access and use.

9. How much do the plans cost? Who will pay for the project if authorized? The ecosystem restoration plans cost $374 million (Alt 10), $453 million (Alt 13), $804 million (Alt 16), and $1.081 billion (Alt 20). The recreation plan costs $6.1 million, with an annual cost of $318,000 and an annual benefit of $2.4 million. The Federal government will appropriate funds per budget priorities for its share of the total ecosystem restoration cost and recreation cost. The City will pay for its share of total project costs, including providing all project lands, easements relocations, rights of way, and disposal sites needed for the project. The Federal Government and City will split recreation costs 50/50.

10. Are you studying flood risk management? The purpose of the current study is ecosystem restoration, rather than flood risk management. The Corps re-studied flood risk management on this part of the river in the 1980s-1990s, and authorized improvements downstream of the study area to supplement the original LA County flood risk management project built from the 1930s to the 1950s. That original project based the size of the channel on a hypothetical flood event now considered undersized by today's standards. It does not convey the 1 percent Annual Chance Exceedance (ACE), also called the 100 year flood, and there are some areas more prone to flooding than others. The Hydrology & Hydraulics Appendix includes maps that show the areas susceptible to flooding in the ARBOR reach during several

different sized flood events. The current study does not include features specifically designed to reduce flood risks, but focuses on the areas that offer opportunities for ecosystem restoration.

11. Why hasn't the Corps removed the existing trees and trash in the river? The Corps performs operation and maintenance for flood risk management in the ARBOR Reach. Under the 1930s design conditions, no vegetation or accumulated sediment would be allowed in the bed of the ARBOR Reach. However, the Corps' ability to perform operation and maintenance activities depends on funding appropriated each year by Congress. The Corps has used its limited funding to remove invasive species and trash when possible. Restoration project construction and adaptive management would remove the invasive species currently growing in the river to limit migration into the newly restored areas. The Corps would use the new information developed for the restoration design to verify what type and how much vegetation could remain in the rest of the river without increased flood risk.

12. Are there levees in the study area? Will this project affect the levees? There are 5 levees (raised embankments to manage flooding of adjacent areas) in the study area. These levees are located on both sides of the river between the Burbank Western Channel and Fletcher Drive and between Piggyback Yard and Spring Street. The restoration project will comply with Corps levee guidelines, meaning that the project would not plant or allow vegetation other than native grasses on the levees or within 15 feet of the levees. As part of the Corps Levee Safety Program (not part of the restoration study or project), levee inspection within the ARBOR Reach is ongoing and anticipated to be completed in 2015. These inspections will aid in determining conditions of the levees and compliance with existing policies. Funding to correct any levee deficiencies would come from Federal funding separate from the source for ecosystem restoration projects.

13. Will this project clean up hazardous substances in soils or groundwater? Will the restored sites be safe for the public? The City must remediate or ensure someone else remediates hazardous substance contamination at sites that are used for the restoration project, to the standards needed for the restoration project and human and ecological use, before the restoration project is constructed at those sites. One of the groundwater basins in the project area (the San Fernando Groundwater Basin) is also affected by the San Fernando Valley Superfund Site, a large groundwater plume. The EPA is overseeing its cleanup. Since the contamination was discovered, residents have been provided with alternate drinking water supplies. To construct restoration features safely, areas will be dewatered (groundwater removed from an area for a temporary period). The City will be responsible for the remediation of the water generated during dewatering. All of the dewatering efforts will be conducted under the overview and to the standards of local, state, and national water control agencies.

14. Will construction traffic go through my neighborhood? Although specific construction routes have not been determined in the study, areas next to the river will likely have construction traffic during the construction. The Corps and the City will work with neighborhoods and use best management practices to help minimize impacts to traffic, noise, and air quality (dust and emissions).

15. Will the restoration features have enough water? The amount of water in the Los Angeles River, like many river systems in the southwest, is highly variable and a function of seasonal rainfall. During periods of prolonged drought and during dry summer months, flow in the river was historically negligible. During periods of prolonged and intense rainfall, water levels historically rose, overtopping stream banks and causing flooding. Currently, during the summer, approximately 70 percent of river flow comes from treatment plants such as the Tillman Plant and from storm drains that discharge into the river. This portion of the river also interacts with groundwater because part of it does not have a

concrete bed. As a result, the quantity of water in the river varies seasonally. Native vegetation is dependent on seasonal variability, and will thrive as it would under natural variability in availability.

16. Will this project improve water quality? The purpose of the project is to restore degraded ecological functions, creating some incidental benefits to water quality. The pollutants in the river are correlated with urbanized land uses and come from stormwater runoff. The river is listed as impaired for ammonia, copper, cyanide, indicator bacteria, lead, benthic macro invertebrates (such as aquatic insects), nutrients, oil, selenium and trash. Local governments are responsible for water quality, and there are Federal and state regulations and permit programs that deal with discharges into the river.

17. What happens next? After the comment period, the team will respond to all comments and prepare the final report (IFR). The Final IFR as drafted goes to the Corps' Civil Works Review Board in Washington for consideration for recommendation to Congress. If given an endorsement, the Final IFR will be released to the public for additional state and agency review. After that, a Chief of Engineers report would be prepared, and reviewed by the Assistant Secretary of the Army for recommendation to Congress for authorization. The report will wait for Congress to authorize it. In the meantime, the Corps can start some design of the project, but cannot begin construction until Congress authorizes it. If authorized by Congress, the Corps and City would enter into a Project Partnership Agreement and construct the project in phases. Federal funding depends on annual appropriations decisions.

18. Where can I get more information? The entire report is available on the Corps' website at: www.spl.usace.army.mil . We want your comments on the study and all the restoration alternatives. Comments will be accepted through November 18, 2013. The Public Meeting presentation and these FAQs are also available on the Corps' website.