

2. Responses to Comments on the Draft Integrated Feasibility Report

Introduction

This document, Appendix L, Part 2, constitutes the second part of a two part document which includes: Part 1 - Comments on the Draft Los Angeles River Ecosystem Restoration Integrated Feasibility Report (Feasibility Study and Environment Impact Statement/ Environmental Impact Report) (Draft IFR); and Part 2 - Responses to Comments on the Draft IFR. This appendix is part of the Final Los Angeles River Ecosystem Restoration Integrated Feasibility Report (Feasibility Study and Environment Impact Statement/ Environmental Impact Report) (Final IFR).

Part 2, Responses to Comments on the Draft IFR, presents the Corps' and City's responses to the comments received on the Draft IFR during the public review period which ended on November 18, 2013. The Corps and the City of Los Angeles made the Draft IFR document publicly available on the Corps' website on Friday, September 13, 2013, opening the 45-day public review period. The Notice of Availability was published in Federal Register on October 4, 2013 which extended the public comment period an additional 2 weeks to Monday, November 18, 2013. In addition, comments were received at the Public Meeting held on October 17, 2013 at the L.A. River Center and Gardens Atrium.

Responses are provided for each comment letter received, in the same order as presented in Part 1, by groups: federal, state, county, city, and local representatives and agencies, and governmental entities, then organizations and businesses, followed by individuals in alphabetical order by the last name of the first signature. Each numbered response corresponds to the assigned comment number provided in Part 1. Some comments have been assigned a letter code, which corresponds to a specific topic. For each of these topics, a General Response has been prepared and is listed below. A specific response has been provided for all other comments.

The definition of acronyms that may appear in the response to comments may be found immediately following the Table of Contents in the main report of the Final IFR.

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General Responses

Responses to issues and concerns raised by multiple comments are addressed in a set of General Responses (GR-A and GR-B) as described below. All other responses are presented individually by comment letter.

GR-A Support for Alternative 20

Thank you for your comments on the Draft Integrated Feasibility Report (IFR) prepared by the U.S. Army Corps of Engineers (Corps) and City of Los Angeles (“City” or “non-Federal sponsor”) for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the final alternatives carried forward for further analysis and consideration, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes regional terrestrial and aquatic habitat connections. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and will be the plan recommended for authorization.

Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, as the largest of the final array plans, it will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, these benefits are generated at a very high cost, especially for the cost compared to the NER Plan. From a Federal interest perspective, the primary focus of the project is ecosystem restoration, not regional economic output. In an ecosystem restoration feasibility study the NER Plan must be identified. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects are worth the incremental costs. Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan. In this case, the NER Plan was identified in the Draft IFR as Alternative 13, and was named the ARBOR Corridor Extension (ACE) plan. It was selected as the Tentatively Selected Plan (TSP) based on evaluation criteria established in the feasibility study and mandated by governing federal water resources policy.

The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by those two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

During the public comment period for the Draft IFR, which closed on 18 November 2013, the Corps received and evaluated nearly 500 comments. Comments were received from Federal agencies including the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), Department of Interior (DOI), and the Urban Waters Federal Partnership.

Comments were also received and evaluated from State and local agencies, Non-Governmental Organizations (NGOs), other interest groups, elected officials, and private citizens.

- The Corps reviewed all the feedback by subject area, and carefully designated key categories of input:
 - Scope of the recommended plan
 - Support for Administration's Urban Waters Federal Partnership initiative
 - Compliance with WRDA 2007 requirements to reflect the City's LA River Revitalization Master Plan
 - Acceptability to sponsor and stakeholders
 - Connectivity benefits associated with individual plans
 - Habitat Model used to calculate benefits (CHAP)
 - Environmental justice
 - Inclusion of Union Pacific Rail Road Yard (LATC) site
 - Global scarcity of subject habitat type(s)

The Final IFR's Comments Appendix Lincludes all public comments along with Lead Agencies' responses that address pertinent issues identified in the comments.

In general, while agency and stakeholder comments provided a large amount of technical input and analysis regarding the regional importance of Alternative 20, much of this information had already been taken into account in identifying Alternative 13 as the NER plan in the Draft IFR. However, as a result of these comments and input from reviews, the Corps used a framework suggested by an Independent External Peer Review (IEPR) panel to better quantify the beneficial outputs of connectivity. By evaluating hydrologic, local, and regional connectivity and combining the resultant output with the initial habitat model output, the Corps was able to more comprehensively compare the alternatives in the final array (See response GR-B for more detail). Although quantifying connectivity showed more restoration output for each of the alternatives as well as for differing combinations of key features, the increase in cost between Alternative 13 and the next best buy plan was over \$100 million. Given the magnitude of the incremental costs relative to the incremental increase in benefits (after quantifying connectivity functions), there was not sufficient justification to select a larger scale plan as the NER Plan.

Following public review, further detailed cost analysis was performed, which identified a more cost effective variation on Alternative 13 (referred to in the Final IFR as "Alternative 13v" for "variation"). Alternative 13v is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20, which provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park, daylighting three streams, and restoration of the confluence of Arroyo Seco. The Reach 7 plan from Alternative 20 provides greater benefits at a lower cost than the Reach 7 plan included in Alternative 13. Alternative 13v provides the greatest amount of ecosystem restoration output for the investment cost; in other words, there is no other plan of similar cost that produces more restoration output. Furthermore, compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for cost effectiveness, efficiency, acceptability, and completeness. Accordingly, Alternative 13v is identified as the NER Plan in the Final IFR.

In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the Recommended Plan at a cost-share scenario different from traditional Corps policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and the Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exemption and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

The LPP, Alternative 20, would include additional restoration benefits beyond those identified for the NER plan, with widening and terracing in Reach 5 in the Glendale Narrows, restoration at Verdugo Wash, and expansion of restoration at and adjacent to the Los Angeles Trailer and Container Intermodal Facility (LATC) site. These additional restoration benefits include restoration of an additional 121 acres, nearly twice the acreage of local and hydrologic connectivity (298 acres total), and opportunity for a direct connection to the significant ecological area of the Verdugo Mountains. The LPP is most consistent with the goals of the Los Angeles River Revitalization Master Plan published in 2007 by the City of Los Angeles because it includes three of its five opportunity areas (versus Alternative 13v's inclusion of two). Implementation of the LPP appears to best address the public's expressed desire for increased habitat and hydrologic connectivity, regional economic development and recreation, and restored community cohesion.

The following table provides a comparison of the NER Plan and the LPP. It includes a comparison of the acres restored and average annual habitat unit outputs (AAHUs), describes major restoration features in each of the 8 reaches, and summarizes connectivity benefits. The cost associated with the 121 additional acres in Alternative 20 is relatively high, because the acres are restored through modifications to the river channel by removing concrete or reconfiguring channel walls, and by widening the channel to restore hydrologic connectivity and additional wetland habitat. Alternative 20 restores about 20% more overall acreage and twice the acreage of local and hydrologic connectivity as Alternative 13v, and is the only alternative that provides a connection to the significant ecological area of the Verdugo Mountains.

Table 1 – NER and LPP Comparison

Criteria	NER Plan (Alternative 13v)	LPP (Alternative 20)	Incremental Difference
Acres	598	719	121
AAHU's	5,989	6,782	793
First Cost	\$694 Million	\$1.339 Billion	\$645 Million
Comparison of Restoration Features			
Reach 1	Habitat corridor/riparian planting	Same as NER Plan	-
Reach 2	Habitat corridor/riparian planting	+ Channel widening right bank	20 acres 55 AAHU
Reach 3	Side channel/daylighted streams/habitat corridor	+ Verdugo Wash confluence restoration	30 acres 130 AAHU
Reach 4	Daylighted streams/side channel/habitat corridor	Same as NER Plan	-

Reach 5	Habitat corridor/daylighted stream	+ Widening channel/terracing banks	27 acres 265 AAHU
Reach 6	Habitat corridor/widening river	Same as NER Plan	-
Reach 7	Daylighted streams + Arroyo Seco restored + Connection to Los Angeles River State Historic Park with 10 acres of wetlands/habitat corridor	Same as NER Plan	
Reach 8	Riparian overbank/restored wash/habitat corridor	+ Concrete removal, off channel wetlands, hydrologic connection	44 acres 342 AAHU
Connectivity Benefits			
Local (acres)	142	298	156
Regional (acres)	780,000	797,000	17,000
Hydrologic (acres)	133	280	147
Hydrologic (count)	2	4	2

GR-B Connectivity

Many public comments received, as well as a comment from the project’s Independent External Peer Review (IEPR) Panel, suggested that an additional analysis of connectivity benefits would assist with alternative comparison and selection. The Corps used a framework suggested by the project’s IEPR panel to better quantify the beneficial outputs of connectivity. Four different metrics were developed to further quantify different connectivity outputs. By evaluating two hydrologic, one local, and one regional connectivity metrics, and combining the resultant output with the initial habitat model output, the Corps was able to more comprehensively compare the alternatives in the final array.

Local connectivity was evaluated based on the potential for wildlife to physically move between the river and areas restored by the project. The metric is based on the acreage of the restored sites and the ability of wildlife to access them. For the purpose of this evaluation, it was assumed that all types of wildlife must have access in order to be considered in the metric (i.e. mammals, reptiles, and amphibians, in addition to birds whose movements are not limited by barriers between the channel bottom and restored areas).

Regional connectivity was evaluated based on the restored opportunities for wildlife to move out of the restored project area into adjacent, more distant significant ecological areas (now or in the future, after additional restoration occurs along river tributaries). This metric is based on the acreage of habitat area to which a given alternative connects. Areas considered include the Santa Monica Mountains (via Griffith Park) and Elysian Park, which constitute terrestrial connections, and potential future opportunities via tributaries to the San Gabriel Mountains (via Arroyo Seco) and the Verdugo Mountains (via Verdugo Wash), which constitute aquatic connections.

Hydrologic connectivity was evaluated based on the restored areas/floodplain that would be reconnected to the river via natural hydrology. The total acreage of the sites with a natural hydrologic connection and the number of sites with a natural hydrologic connection were evaluated (two separate metrics). Parcels were considered hydrologically connected if the river is widened into a floodplain area, where the river can more naturally flood, meander, change shape, and interact with adjacent sites. The floodplain is considered to be the area where floodwaters would be allowed to inundate.

For each metric, the values for each site (i.e. acres or count) were calculated and then summed across each alternative. In order to calculate the metric value, a Relative Value Index (RVI) was used, whereby the total for a given alternative was divided by the maximum possible value. In this way, the metric value is a simple proportion of the total possible, on a scale of 0 to 1 (1 being the maximum).

To obtain an overall connectivity metric, the metric values for each connectivity component were then summed, and an RVI calculated to determine a single, combined connectivity metric (see Table 1). These combined metric values were then input into the economic analysis (CE/ICA) and weighted at varying levels using the Combined Habitat Assessment Protocol (CHAP) outputs. The original analysis only considered the CHAP analysis in the quantitative comparison and resulted in all four Final Array Plans included in the Draft Integrated Feasibility Report (IFR) (10, 13, 16, and 20) being Best Buy Plans. In the revised analysis, two additional scenarios were evaluated that based the CE/ICA analysis on a Total Weighted Output Metric that included CHAP and connectivity benefits. The first weighted the CHAP and Combined Connectivity equally, and the second weighted the CHAP at 75% and Combined Connectivity at 25%. These results were consistent in showing Alternative 13 as the first Best Buy Plan.

Although quantifying connectivity showed more restoration output for each of the alternatives, the increase in cost between Alternative 13 and Alternative 16 is over \$350 million, and the increase in cost between Alternative 13 and Alternative 20 is over \$627 million. Given the magnitude of the incremental costs relative to the incremental increase in benefits, there was not sufficient justification to select a larger scale plan as the NER Plan.

Table 1 – Connectivity Metrics

	RVI - Connectivity Metrics					Connec- tivity Metric Value	First Cost \$M*	Incremental Cost \$M*
	Local Connec- tivity	Regional Connec- tivity	Hydrologic Connec- tivity - acres	Hydrologic Connec- tivity - count	Total			
Alt 10	0.30	0.22	0.29	0.25	1.06	0.26	\$ 375	
Alt 13	0.48	0.98	0.48	0.50	2.43	0.61	\$ 453	\$ 78
Alt 16	0.86	0.98	0.88	0.75	3.46	0.87	\$ 804	\$ 351
Alt 20	1.00	1.00	1.00	1.00	4.00	1.00	\$ 1,081	\$ 277

* First costs and incremental costs shown are from the September 2013 Draft IFR. Costs were updated in the Final IFR.

Following public review, further detailed cost analysis was performed, which identified a more cost effective variation on Alternative 13 (referred to in the Final IFR as “Alternative 13v” for variation). Alternative 13v is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This variation is identified as the NER plan in the Final IFR. With respect to connectivity, Alternative 13v provides similar benefits to Alternative 13, with a slight increase in local and regional connectivity with the restoration at the Los Angeles State Historic Park in Reach 7.

The Corps recognizes that Alternative 20 has the most benefits, across many benefit categories, among the final array plans. Accordingly, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) (ASA (CW)) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA (CW) granted the requested LPP exception, and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

Specific Response

Federal Agencies and Representatives

U.S. Senate Committee on Environmental and Public Works, Senator Barbara Boxer



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

The Honorable Barbara Boxer
Chairman of Committee on Environment and Public Works
Washington, D.C. 20510-6175

Dear Senator Boxer:

Thank you for your comments on the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the final alternatives carried forward for further analysis and consideration, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes additional connections to regional habitat areas in important areas. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and is the Recommended Plan in the Final Integrated Feasibility Report (IFR) and in the Chief of Engineers Report.

In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the recommended plan at a cost-share scenario different from traditional U.S. Army Corps of Engineers (Corps) policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and the Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception, and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

After detailed cost analysis, the Corps also refined the NER plan. That refined plan, Alternative 13v, provides the greatest amount of ecosystem restoration output for the investment cost; in other words, for the total project cost for Alternative 13v of \$694 million, there is no other plan of similar cost that produces more restoration output. Accordingly, Alternative 13v is identified as the NER plan in the Final IFR. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Alternative 20 has been identified as the LPP and Recommended Plan for the reasons previously stated.

As part of her permission to the Corps to consider Alternative 20 as the LPP, the ASA(CW) permitted the Corps to consider alternative cost sharing.

If you have any further questions, please contact the Los Angeles District Commander, Colonel Kimberly M. Colloton, at (213) 452-3961, or your staff may contact the Deputy District Engineer for Project Management, Mr. David M. Van Dorpe, at (213) 452-3971.

Sincerely,

Steven Stockton
Director of Civil Works

Attachment 1

The following information provides a more detailed explanation for the selection of the National Ecosystem Restoration (NER) Plan and the Locally Preferred Plan for the proposed Los Angeles River Ecosystem Restoration Project.

Acceptability and Public Support

During the public comment period for the Draft Integrated Feasibility Report (IFR), which closed on 18 November 2013, the Corps received and evaluated nearly 500 comments. Comments were received from Federal agencies including the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), Department of Interior (DOI), and the Urban Waters Federal Partnership. Comments were also received and evaluated from State and local agencies, Non-Governmental Organizations (NGOs), other interest groups, elected officials, and private citizens.

- The Corps reviewed all the feedback by subject area, and carefully designated key categories of input:
 - Scope of the recommended plan
 - Support for Administration's Urban Waters Federal Partnership initiative
 - Compliance with WRDA 2007 requirements to reflect the City's LA River Revitalization Master Plan
 - Acceptability to sponsor and stakeholders
 - Connectivity benefits associated with individual plans
 - Habitat Model used to calculate benefits (CHAP)
 - Environmental justice
 - Inclusion of Union Pacific Rail Road Yard (LATC) site
 - Global scarcity of subject habitat type(s)

Alternative 13, the NER plan identified in the Draft IFR, met required criteria for completeness, effectiveness, efficiency, and acceptability. This alternative is complete in that it provides for all features necessary to realize the planned effects, is effective in that it meets study objectives to alleviate problems and realize opportunities while being efficient, as described above. This alternative was evaluated for acceptability from the perspective of the Nation's general public, and is consistent with Federal law, authority and public policy. In general, in terms of scope and completeness of the recommended plan, agency and stakeholder input did not provide any new information to the Corps that had not been previously considered in reaching its selection of Alternative 13 as the NER Plan.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in the Final IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in

Alternative 13, at a lower cost. This variation on Alternative 13 has been identified as the NER plan in the Final IFR on the basis of the analysis referenced above.

In a letter dated April 10, 2014, the City of Los Angeles requested that Alternative 20 be the Recommended Plan. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memorandum dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report. The rationale for granting that request is described below.

The LPP would include additional restoration benefits above that identified for the NER plan at Verdugo Wash, and at the Los Angeles Trailer and Container Intermodal Facility (LATC) site, as well as river widening in additional reaches. These additional restoration benefits include direct restoration of an additional 121 acres, nearly twice the acreage of local and hydrologic connectivity (298 acres total), and provision of a direct connection to the significant ecological area of the Verdugo Mountains. Nearly unanimous support for Alternative 20 was expressed by the public through review of the Draft IFR and public meetings. Alternative 20 is consistent with the goals of the Los Angeles River Revitalization Master Plan published in 2007 by the City of Los Angeles. Implementation of Alternative 20 as the LPP appears to best address the public's expressed desire for increased habitat and hydrologic connectivity, regional economic development and recreation, and restored community cohesion.

Over the last 150 years, the Los Angeles River has been degraded by development, flooding, and channelization, including the Corps construction of the Los Angeles County Drainage Area (LACDA) flood risk management project that modified most of the Los Angeles River with concrete banks and a mostly concrete bed to protect the city and surrounding areas from catastrophic flooding. The Flood Control Acts of the 1930s and 1940s directed the Corps to construct the LACDA project, which ultimately involved construction of 5 dams and approximately 500 miles of channels to protect communities from significant and recurring flood damages. Restoration of 11 miles of the Los Angeles River, that is the focus of the present Study, is within the footprint of the existing flood risk management project. The ecosystem project would, in part, reverse a portion of the degradation associated with the existing LACDA project, and would advance a number of important Administration efforts, including the Climate Action Plan, America's Great Outdoors initiative, and the Urban Waters Federal Partnership. The Corps has factored in climate variability and future uncertainties, and with a more naturally functioning channel, there may be associated incidental benefits with respect to drought, such as increased percolation area and increased detention and retention characteristics. The America's Great Outdoors initiative would be advanced through provision of increased access to restored lands and urban waters. Lastly, the Los Angeles River is one of 7 original pilot locations for the Urban Waters Federal Partnership, and the proposed restoration activities would advance the goals of restoring the ecosystem and balancing revitalization with flood avoidance to ensure public safety for the 11 miles of 51 miles of the Los Angeles River that are the focus of the partnership work.

Quantification of the connections among restored areas demonstrate the significant benefits to be realized through implementation of the LPP in lieu of the NER plan. Restoration of such

connections will involve modifications to the urban river channel by removing concrete and reconfiguring channel walls, and by widening the channel to restore hydrologic connectivity and additional wetland habitat. The LPP would also provide significantly greater regional economic benefits, including over 11,000 more jobs and over \$3.8 billion in labor income, as well as substantive opportunities for redevelopment in the Verdugo Wash area. Environmental justice benefits would also be realized through restored community cohesion for communities previously separated by the existing LACDA flood risk management project, through provision of new public access to restored natural areas with associated recreational amenities.

The Recommended Plan includes a recreation plan formulated to be consistent with the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite provided by interaction with nature.

Significance of Ecosystem Outputs

Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, Alternative 20, as the largest of the final array plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, from a Federal interest perspective, the primary focus of the project is ecosystem restoration and the NER Plan must be identified in a restoration feasibility study as a primary basis for decision making. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects just equal or exceed incremental costs, or where any extra environmental value is just worth the costs.

Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan. In this case, the NER Plan in the Draft IFR was identified as Alternative 13, named the ARBOR Corridor Extension (ACE). It was selected based on the required criteria used to assess and establish selection of the NER Plan. The increased benefits for habitat value, local/nodal and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion

in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Regarding comments relating to connectivity, these outputs were considered in the evaluation and comparison of alternatives. Further, in response to Independent External Peer Review comments, connectivity benefits were quantified in greater detail, combined with habitat outputs from the CHAP model and subject to additional cost effectiveness and incremental analyses. Such analysis substantiated that the incremental costs per output are significantly higher for Alternative 20, and therefore, when considering the criterion of reasonableness of cost, Alternative 13v is affirmed to be the NER Plan in the Final IFR.

The following table provides a comparison of the NER Plan and the LPP. It includes a comparison of the acres benefiting from the restoration and average annual habitat unit outputs (AAHUs), describes major restoration features in each of the 8 reaches, and summarizes connectivity benefits. The cost associated with the 121 additional acres in Alternative 20 is relatively high, because the acres are restored through modifications to the river channel by removing concrete or reconfiguring channel walls, and by widening the channel to restore hydrologic connectivity and additional wetland habitat. Alternative 20 restores 22% more overall acreage and twice the acreage of local and hydrologic connectivity as Alternative 13v, and is the only alternative that provides a connection to the significant ecological area in the Verdugo Mountains

Table 1 – NER and LPP Comparison

Criteria	NER Plan (Alternative 13v)	LPP (Alternative 20)	Incremental Difference
Acres	598	719	121
AAHU's	5,989	6,782	793
First Cost*	\$694 Million	\$1.339 Billion	\$645 Million
Comparison of Restoration Features			
Reach 1	Habitat corridor/riparian planting	Same as NER Plan	-
Reach 2	Habitat corridor/riparian planting	+ Channel widening right bank	20 acres 55 AAHU
Reach 3	Side channel/daylighted streams/habitat corridor	+ Verdugo Wash confluence restoration	30 acres 130 AAHU
Reach 4	Daylighted streams/side channel/habitat corridor	Same as NER Plan	-
Reach 5	Habitat corridor/daylighted stream	+ Widening channel/terracing banks	27 acres 265 AAHU
Reach 6	Habitat corridor/widening river	Same as NER Plan	-
Reach 7	Daylighted streams + Arroyo Seco restored + Connection to Los Angeles	Same as NER Plan	-

	River State Historic Park/habitat corridor		
Reach 8	Riparian overbank/restored wash/habitat corridor	+ Concrete removal, off channel wetlands, hydrologic connection	44 acres 342 AAHU
Connectivity Benefits			
Local (acres)	151	298	147
Regional (acres)	780,000	797,000	17,000
Hydrologic (acres)	133	280	147
Hydrologic (count)	2	4	2

* First costs shown are from the September 2013 Draft IFR and are subject to change.

Environmental Justice

Although environmental justice was not a key criterion in the plan selection process, the Final IFR includes a more robust analysis of environmental justice issues in Section 3.13.3 and 5.13. Many other project outputs were identified for consideration by the public (such as water quality, groundwater recharge, recreation, and regional revitalization), which under Corps policy were not primary criteria for identifying the NER plan. The rationale for the LPP as the Recommended Plan is provided above.

Cost

When selecting a plan to propose for authorization, the Corps must consider not only NER benefits, but also the reasonableness of costs necessary to achieve those benefits in comparing alternatives. Plan selection on this basis is required by Corps regulations and policy in Engineering Regulation 1105-2-100. The \$694 million cost of Alternative 13v is significant when compared to the Federal investment in other ecosystem restoration plans by the Corps in the Southwest, especially when calculated as cost per acre restored. The added areas of restoration in Alternative 20 did not increase benefits sufficiently to justify the added and almost doubled cost of \$645 million. Although quantifying connectivity showed more restoration output for each of the alternatives, there was not sufficient justification to select a larger scale plan as the NER Plan.

As you noted in your letter, because of the high lands, easements, rights of way, relocations, and disposal sites (LERRD) costs associated with the alternative plans, and the Corps' policy that plans have a target LERRD percentage of no more than 25 percent of total ecosystem restoration costs, the City of Los Angeles has offered to voluntarily waive reimbursement of all LERRD costs exceeding its statutory share of total ecosystem restoration costs. The ASA(CW) granted a policy waiver to allow the Corps to consider plans with higher LERRD costs and to allow the City to waive reimbursement of LERRD. As part of its request for Alternative 20, the City

confirmed its waiver of reimbursement and offered alternative cost sharing for the LPP. As part of her permission to the Corps to consider Alternative 20 as the LPP, the ASA(CW) permitted the Corps to consider alternative cost sharing, subject to sponsor waiver of reimbursement and credit for LERRD above 35 percent of total ecosystem restoration cost. The Chief of Engineers will make a decision on the cost sharing that will be recommended to Congress prior to submittal of the Chief's Report to Congress.

Accordingly, Alternative 13v is identified as the NER plan in the Final IFR. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan described above. However, Alternative 20 has been identified as the LPP and Recommended Plan for the reasons previously stated.

Members of U.S. Congress, Bass, Becerra, Roybal-Allard



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

The Honorable Karen Bass
The Honorable Xavier Becerra
The Honorable Lucille Roybal-Allard
The Honorable Adam B. Schiff
Members of Congress
4929 Wilshire Blvd, Suite 650
Los Angeles, CA 90010

Dear Members of Congress:

Thank you for your comments on the Draft Integrated Feasibility Report (IFR) prepared by the U.S. Army Corps of Engineers (Corps) and City of Los Angeles (“City” or “non-Federal sponsor”) for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the alternatives carried forward for further analysis and consideration, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes additional connections to regional habitat areas in important areas. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and will be the Recommended Plan.

We recognize that Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, it is recognized that Alternative 20, as the largest of the final array plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, from a Federal interest perspective, the primary focus of the project is ecosystem restoration, and the NER Plan must be identified in a restoration feasibility study. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects equal the incremental costs, or where the extra environmental value is just worth the costs.

Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan. In this case, the NER Plan identified in the Draft IFR was Alternative 13, named the ARBOR Corridor Extension (ACE). It was selected based on the required criteria used to assess and establish the selection of the NER Plan. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives, provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

During the public comment period for the Draft IFR, which closed on 18 November 2013, the Corps received and evaluated nearly 500 comments. Comments were received from Federal agencies including the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), Department of Interior (DOI), and the Urban Waters Federal Partnership. Comments were also received and evaluated from State and local agencies, Non-Governmental Organizations (NGOs), other interest groups, elected officials, and private citizens.

- The Corps reviewed all the feedback by subject area, and carefully designated key categories of input:
 - Scope of the recommended plan
 - Support for Administration's Urban Waters Federal Partnership initiative
 - Compliance with WRDA 2007 requirements to reflect the City's LA River Revitalization Master Plan
 - Acceptability to sponsor and stakeholders
 - Connectivity benefits associated with individual plans
 - Habitat Model used to calculate benefits (CHAP)
 - Environmental justice
 - Inclusion of Union Pacific Rail Road Yard (LATC) site
 - Global scarcity of subject habitat type(s)

The Final IFR's Comments Appendix includes all public comments along with Lead Agencies' responses that address pertinent issues identified in the comments.

In general, in terms of scope and completeness of the recommended plan, while agency and stakeholder comments provided a large amount of technical input and analysis regarding the importance of Alternative 20, the Corps considers this input to be similar to what had previously been considered in reaching the agency's identification of Alternative 13 as the Tentatively Selected Plan (TSP).

In terms of connectivity benefits and the model used to calculate benefits, the Corps used a framework suggested by an Independent External Peer Review (IEPR) panel to better quantify the beneficial outputs of connectivity noted as being not fully captured in the public comments. By evaluating hydrologic, local, and regional connectivity and combining the resultant output with the initial habitat model output, the Corps was able to more comprehensively compare the alternatives in the final array.

Although quantifying connectivity showed more restoration output for each of the alternatives as well as for differing combinations of key features, the increase in cost between Alternative 13 and the next bigger best buy plan was over \$100 million. Given the magnitude of the incremental costs relative to the incremental increase in benefits (after quantifying connectivity functions), there was not sufficient justification to select a larger scale plan as the NER Plan.

Following public review, further analysis was performed that included a more detailed cost analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7,

where it includes the Reach 7 features from Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

Alternative 13v provides the greatest amount of ecosystem restoration output for the investment cost; in other words, for the total project cost for Alternative 13v of \$694 million, there is no other plan of similar cost that produces more restoration output. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan. Accordingly, Alternative 13v has been identified as the NER plan.

In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the Recommended Plan at a cost-share scenario different from traditional Corps policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report. The rationale for granting that request is described below.

The LPP would include additional restoration benefits above that identified for the NER plan at Verdugo Wash, widening of the natural riverbed in 1.5 miles of the Glendale Narrows (Reach 5), and expansion of restoration at and adjacent to the Los Angeles Trailer and Container Intermodal Facility (LATC) site. These additional restoration benefits include direct restoration of an additional 121 acres, nearly twice the acreage of local and hydrologic connectivity (298 acres total), and provision of a direct connection to the significant ecological area of the Verdugo Mountains. Nearly unanimous support for Alternative 20 was expressed by the public through review of the Draft IFR and public meetings. The LPP is consistent with the goals of the Los Angeles River Revitalization Master Plan published in 2007 by the City of Los Angeles. Implementation of the LPP appears to best address the public's expressed desire for increased habitat and hydrologic connectivity, regional economic development and recreation, and restored community cohesion.

Over the last 150 years, the Los Angeles River has been degraded by development, flooding, and channelization, including the Corps' construction of the Los Angeles County Drainage Area flood risk management project that modified most of the Los Angeles River with concrete banks and a mostly concrete bed to protect the city and surrounding areas from catastrophic flooding. The Flood Control Acts of the 1930s and 1940s directed the Corps to construct the Los Angeles County Drainage Area project, which ultimately involved construction of 5 dams and approximately 500 miles of channels to protect communities from significant and recurring flood damages. Restoration of 11 miles of the Los Angeles River, that was the focus of this IFR, is within the footprint of the existing flood risk management project. The ecosystem project would, in part, reverse a portion of the degradation associated with the existing Los Angeles County Drainage Area project, and concurrently advance a number of important Administration efforts, including the Climate Action Plan, America's Great Outdoors initiative, and the Urban Waters Federal Partnership. The Corps has factored in climate variability and future uncertainties, and with a more naturally functioning channel, there may be associated incidental benefits with

respect to drought, such as increased percolation area and increased detention and retention characteristics. The America's Great Outdoors initiative would be advanced through provision of increased access to restored lands and urban waters. Lastly, the Los Angeles River is one of 7 original pilot locations for the Urban Waters Federal Partnership and the proposed restoration activities would advance the goals of restoring the ecosystem and balancing revitalization with flood avoidance to ensure public safety for 11 miles of 51 miles of the Los Angeles River.

Quantifications of the connections among restored areas demonstrate the significant benefits to be realized through implementation of Alternative 20 in lieu of the NER plan. Restoration of such connections will involve modifications to the urban river channel by removing concrete and reconfiguring channel walls and widening the channel to restore hydrologic connectivity and additional wetland habitat. Alternative 20 would also provide significantly greater regional economic benefits, including over 11,000 more jobs and over \$3.8 billion in labor income, as well as substantive opportunities for redevelopment in both the Verdugo Wash confluence and Chinatown/Cornfields areas. Environmental justice benefits would also be realized through restored community cohesion for communities previously separated by the existing Los Angeles County Drainage Area flood risk management project through provision of new public access to restored natural areas with associated recreational amenities.

The Recommended Plan includes a recreation plan formulated to be consistent with the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

If you have any further questions, please contact me at (213) 452-3783.

Sincerely,

Eduardo T. De Mesa
Acting Chief, Planning Division
USACE, Los Angeles District

Congresswoman Lucille Roybal-Allard

Thank you for your letter. Please reference the congressional letter addressed to you above.

Congressman Adam B. Schiff

Thank you for your letter. Please reference the congressional letter addressed to you above.

U.S. Department of the Interior

1. Thank you for your comments and additional information to be considered for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 is one of the action alternatives considered in detail in the IFR. The Corps typically recommends the plan that is the National Ecosystem Restoration (NER) Plan. In this case, the NER Plan in the Draft Integrated Feasibility Report (IFR) was identified as Alternative 13, named the ARBOR Corridor Extension (ACE) alternative, because it met study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v is identified as the NER Plan in the Final IFR.

However, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) (ASA (CW)) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA (CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

The Recommended Plan includes a recreation plan formulated to be consistent with the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan;

these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite. The importance of passive recreation, and in particular multi-use trails, is recognized. The recreation plan that was initially developed to be compatible with Alternative 13 was adjusted to be compatible with and take advantage of the ecosystem restoration features included in Alternative 20. The recreation plan includes passive recreation opportunities comprised of trail improvements, pedestrian bridges, trail access points and wildlife viewing points that are compatible with the restoration features.

We appreciate the information you provided on (1) the Santa Monica Mountains National Recreation Area (SMMNRA), (2) the Rivers, Trails, and Conservation Assistance (RTCA) Program's current and past projects along the Los Angeles River, (3) the proposed project's location within the planning corridor for the Juan Bautista de Anza National Historic Trail through the Los Angeles region, and (4) the Los Angeles River's location in the study area for the Rim of the Valley Special Resource Study. We have incorporated this information into the report, as appropriate, in the section of the Final IFR that addresses resource significance.

2. During the engineering and design phases of the project, careful consideration will be taken to account for and take advantage of existing and ongoing recreational programs, studies and plans in the study area. As required by Corps policy, the project's recreation plan was developed after restoration features were planned and must be compatible with restoration features. During the detailed design phase, the Corps will ensure that recreational use is compatible with the more in depth design of restoration features, particularly limiting recreation to passive activities in restored widened areas.
3. Your support for Alternative 20 is noted. All applicable studies and projects will be considered in the Final IFR.

U.S. DOI Fish and Wildlife Service

1. Thank you for your comments on the Los Angeles River Ecosystem Restoration Feasibility Study, identifying how it relates to important efforts of the Fish and Wildlife Service. We appreciate your commitment to working with Federal partners on river efforts.
2. Your support for Alternative 20 based on its relevance to your Connecting People with Nature initiative, outreach to underserved communities, and biodiversity is noted. The significance of the California Floristic Province is described in Section 2.1. See GR-A.

U.S. Environmental Protection Agency

Thank you for your comments on the Los Angeles River Ecosystem Restoration Study and its relationship to Urban Waters Federal Partnership goals.

Responses to detailed comments:

1. Water quality and conservation benefits were qualitatively described in Section 5.4 of the Draft IFR. Water quality benefits (for human consumption purposes) are considered as ancillary, incidental benefits. Because the Corps mission and project objectives focus on ecosystem restoration, the benefits of habitat restoration are primarily considered. Improving water quality can only be an objective to the extent it is necessary to achieve ecosystem benefits. In this case, the quality and amount of water available is not the primary limiting factor that is precluding establishment of native habitats. Once the proposed modifications to the channel and overbank structures and topography are implemented, planting/seeding is established and water is redirected into these areas, then successful restoration should be achieved. Additional improvements that result from habitat restoration (i.e., filtration, infiltration, and removal of suspended sediments or contaminants through natural processes) are expected to occur, but are not the driving factors.

The Corps has coordinated with the Environmental Protection Agency (EPA) throughout the study process, and that coordination will continue as needed through design and implementation. The 404(b)(1) Evaluation that will be the basis for the Corps' request to the Regional Water Quality Control Board (Los Angeles Region - RWQCB) for Section 401 Certification is included in the Final IFR and is found in Appendix F. The Corps will include EPA in the 401 Certification process by providing copies of correspondence between the Corps and the RWQCB, to include a copy of the application for 401 certification.

2. Benefits of groundwater recharge were qualitatively described in Section 5.4 of the Draft IFR. These benefits were considered as ancillary, incidental benefits. Because the Corps mission and project objectives focus on ecosystem restoration, the benefits of habitat restoration are considered primary.

3. See GR-B.

4. Policy requires that the Corps consider potential climate change impacts when undertaking long-term planning, setting priorities, and making decisions affecting its resources, programs, policies, and operations. Per this requirement, the IFR has incorporated climate change in the existing conditions chapter in Section 3.2, in the impacts chapter in Sections 5.2 and 5.4, and in the Hydrology and Hydraulics Appendix (E), Section 9. Because it is difficult to quantify resilience of restoration measures to climate change, the Corps intends to design all restoration features with climate change resiliency built in. Because all restoration measures are designed to consider climate change resiliency, and because the nuances between levels of restoration are difficult to quantify, including them in the CHAP would provide little meaningful cost-benefit analysis. However, as your recommendation suggested, the Corps has and will continue to coordinate with the Bureau of Reclamation and the Los Angeles County Department of Public Works on the Los Angeles Basin Stormwater Conservation Study. The Corps provided period of record flows and other technical input in anticipation of having quantitative results applicable for use in the next phase of this study.

5. The environmental justice analysis has been expanded in the Final IFR to further address effects, including positive effects as recommended in the comment. See Section 5.13. Table 5-46 summarizes some of the differences among alternatives relative to social and environmental justice issues. The Corps will award construction contracts in accordance with the FAR, and will utilize small business programs including HUBZ one set asides where appropriate and practicable.

6. The Corps will consider such materials for use in recreation structures during the detailed design phase.
7. The paragraph on point and non-point sources has been clarified/corrected in Section 3.4.3 in the Final IFR.
8. Details pertaining to the San Fernando Valley Superfund sites have been edited as recommended in Section 3.4.4.
9. The last paragraph has been edited to state that "most" stormwater is untreated.
10. While recreation is not a primary project purpose, it is still considered one of the primary planning objectives evaluated in the study. Typo 2 will be corrected to 3 on p 4-3.
11. The 2012 MS4 permit will be referenced in Section 5.4.2.
12. Text has been edited as suggested in the comment.
13. Text has been edited as suggested in the comment.
14. As stated in Section 5.7.3 in the IFR, passenger rail would remain in place and continue to operate.
15. Comment noted. The fourth sentence in paragraph 1 has been changed as follows: " For contaminated groundwater that cannot be addressed prior to construction activities, such as the ..."
16. We have added a sentence to Section 5.11.3, as follows: "These temporary operations should also be consistent with current management of contaminated groundwater at SFVSS and Pollock Well Field." We will continue to coordinate with the EPA as the project proceeds.
17. The word "applicable" has been deleted from this sentence.
18. References to dewatering activities in the IFR have been reviewed for consistency. The sections 5.11.3 and 6.2.3 in the Final IFR has been revised to state consistently that the non-Federal sponsor is responsible, at 100 percent non-project cost, for addressing any contaminated groundwater encountered during construction activities, including its handling, treatment and disposal during dewatering.
19. Appendix K has been updated to indicate that the Los Angeles Department of Water and Power (LADWP) operates the wellhead treatment facility at Pollock, and to include a statement that because of the existence of this facility and its ongoing operation, the EPA considers the Pollock Well Field as an adequate remedy for addressing the HTRW groundwater contamination in this area of the SFVSS site and has concluded that further remedy is unnecessary. Appendix K has been further modified to address the comment regarding disposal and discharge requirements, including a statement that requirements for disposal and discharge of HTRW contaminated groundwater will also have to be identified and complied with prior to determining the final treatment technology for the contaminated water. In response to the comment that contaminant concentrations may still exceed drinking water and disposal and discharge standards, it is understood that concentrations of VOCs and chromium in this portion of the project area could still exceed drinking water standards and disposal or discharge standards.

State Agencies and Representatives

Members of Assembly California Legislature, Gatto and Gomez



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

Assembly Member Mike Gatto
43rd District, California
300 East Magnolia Blvd., Suite 504
Burbank, CA 91502

cc: Assembly Member Jimmy Gomez
Assembly Member Richard Bloom
Assembly Member Raul Bocanegra
Assembly Member Ian Calderon
Assembly Member Ed Chau
Senator Lou Correa
Assembly Member Roger Hernandez
Assembly Member Chris Holden
Senator Ted Lieu
Senator Carol Liu
Assembly Member Adrin Nazarian

Dear Honorable Members of the Assembly and Senate:

Thank you for your comments on the Draft Integrated Feasibility Report (IFR) prepared by the U.S. Army Corps of Engineers (Corps) and City of Los Angeles (“City” or “non-Federal sponsor”) for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the alternatives carried forward for further analysis and consideration, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes additional connections to regional habitat areas in important areas. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and will be the Recommended Plan.

We recognize that Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, it is recognized that Alternative 20, as the largest of the final array plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, from a Federal interest perspective, the primary focus of the project is ecosystem restoration, and the NER Plan must be identified in a restoration feasibility study. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or where the extra environmental value is just worth the costs.

Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan.

In this case, the NER Plan was Alternative 13, named the ARBOR Corridor Extension (ACE), in the Draft IFR. It was selected based on the required criteria used to assess and establish the selection of the NER Plan. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

During the public comment period for the Draft IFR, which closed on 18 November 2013, the Corps received and evaluated nearly 500 comments. Comments were received from Federal agencies including the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), Department of Interior (DOI), and the Urban Waters Federal Partnership. Comments were also received and evaluated from State and local agencies, Non-Governmental Organizations (NGOs), other interest groups, elected officials, and private citizens.

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The Final IFR's Comments Appendix includes all public comments along with Lead Agencies' responses that address pertinent issues identified in the comments.

In general, in terms of scope and completeness of the recommended plan, while agency and stakeholder comments provided a large amount of technical input and analysis regarding the importance of Alternative 20, the Corps considers this input similar to what had previously been considered in reaching the agency's identification of Alternative 13 as the Tentatively Selected Plan (TSP).

In terms of connectivity benefits and the model used to calculate benefits, the Corps used a framework suggested by an Independent External Peer Review (IEPR) panel to better quantify the beneficial outputs of connectivity noted as being not fully captured in the public comments. By evaluating hydrologic, local, and regional connectivity and combining the resultant output with the initial habitat model output, the Corps was able to more comprehensively compare the alternatives in the final array.

Although quantifying connectivity showed more restoration output for each of the alternatives as well as for differing combinations of key features, the increase in cost between Alternative 13

and the next bigger best buy plan was over \$100 million. Given the magnitude of the incremental costs relative to the incremental increase in benefits (after quantifying connectivity functions), there was not sufficient justification to select a larger scale plan as the NER Plan.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

Alternative 13v provides the greatest amount of ecosystem restoration output for the investment cost; in other words, for the total project cost for Alternative 13v of \$694 million, there is no other plan of similar cost that produces more restoration output. Accordingly, Alternative 13v has been identified as the NER plan. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan.

In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the Recommended Plan at a cost-share scenario different from traditional Corps policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report. The rationale for granting that request is described below.

The LPP would include additional restoration benefits above that identified for the NER plan at Verdugo Wash, widening of the natural riverbed for 1.5 miles in the Glendale Narrows (Reach 5), and expansion of restoration at and adjacent to the Los Angeles Trailer and Container Intermodal Facility (LATC) site. These additional restoration benefits include direct restoration of an additional 121 acres, nearly twice the acreage of local and hydrologic connectivity (298 acres total), and provision of a direct connection to the significant ecological area of the Verdugo Mountains. Nearly unanimous support for Alternative 20 was expressed by the public through review of the Draft IFR and public meetings. The LPP is consistent with the goals of the Los Angeles River Revitalization Master Plan published in 2007 by the City of Los Angeles. Implementation of the LPP appears to best address the public's expressed desire for increased habitat and hydrologic connectivity, regional economic development and recreation, and restored community cohesion.

Over the last 150 years, the Los Angeles River has been degraded by development, flooding, and channelization, including the Corps' construction of the Los Angeles County Drainage Area flood risk management project that modified most of the Los Angeles River with concrete banks and a mostly concrete bed to protect the city and surrounding areas from catastrophic flooding. The Flood Control Acts of the 1930s and 1940s directed the Corps to construct the Los Angeles County Drainage Area project, which ultimately involved construction of 5 dams and approximately 500 miles of channels to protect communities from significant and recurring flood

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If you have any further questions, please contact me at (213) 452-3783.

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CA State Senator Kevin de León



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

Kevin de León
State Senator
22nd District, California
State Capitol, Room 510B
Sacramento, CA 95814

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CA State Senator Fran Pavley



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

The Honorable Fran Pavley
State Senator
27th District, California
5016 North Parkway Calabasas, Suite 222
Calabasas, CA 91302

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Assembly Member Richard Bloom



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915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

Richard Bloom
Assembly Member
50th District, California
2800 28th Street, Suite 150
Santa Monica, CA 90405

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2. The IFR evaluates the other social effects (OSE), as you mentioned "recreational opportunity for everyone" or environmental justice associated with project alternatives. It is recognized that the study area includes lower income and minority populations, and the area has a strong need for additional parks and recreation opportunities, in particular neighborhood parks. The NER Plan (Alternative 13v) would provide significant benefits to the local population, as outlined in the OSE analysis. The OSE benefits are even more substantial for Alternative 20, the Recommended Plan, and would greatly benefit the local population. The project would include a recreation plan, which does not detract from ecosystem outputs while enhancing recreation opportunities in a restored ecosystem setting. This recreation plan would also provide significant benefits to the local population.

If you have any further questions, please contact me at (213) 452-3783.

Sincerely,

Eduardo T. De Mesa
Acting Chief, Planning Division
USACE, Los Angeles District

CA Dept of Fish and Wildlife, Scott P. Harris

1. The City of Los Angeles will coordinate with CDFW on a Streambed Alteration Agreement.
2. The IFR will be updated to include discussion of potential impacts to waters of the state and the difference between WOTS and WOUS.
3. The algae and herbaceous foraging habitat in the concrete lined bed may be disturbed during construction, depending on the location, but ultimately any concrete lined areas that are not restored to natural habitat would be maintained as they currently are. Sediment, algae, and herbaceous foraging habitat are expected to re-establish in these areas after construction is complete. It is expected that any concrete in the channel that is removed (as in Alternatives 16 and 20) would be replaced by natural geomorphology and riparian/wetland habitat that would be a habitat improvement over the current concrete lined bed, including for shorebirds.

CA Dept of Parks and Recreation

1. The Corps recognizes the many benefits that are associated with selection of Alternative 20. (See GR-A). The Corps also recognizes the statewide and national significance of the Los Angeles River as stated in your comment letter. The Corps further recognizes that the river corridor includes environmental justice communities. Thank you for the information on the National Park Service Rim of the Valley Corridor Special Resource Study. The study information was discussed in Section 2.1.2. The Corps appreciates the willingness of your agency to provide lands at the Bowtie and Cornfields sites for the restoration project. Since receiving your comments, we have engaged with you to further coordinate on the consistency of the plans for Cornfields and the Bowtie parcel, and to address the interests in land necessary for the restoration project. We will continue to coordinate with you on this effort.
2. We appreciate your comments on the biological resources found in the study area and the potential for restoration. Sensitive plant and wildlife species as well as their potential for occurrence in various habitat types within the Study Area are included in Appendix H. In compliance with CEQA, special status species were considered in the preparation of Appendix H in the following manner: In preparing the biological resources section of the EIS/EIR/IFR, we reviewed information from several sources, including the CNDDDB for the USGS quads that cover the ARBOR Reach and tributaries, the USFWS and CDFW species list for the Los Angeles County area, and the California Native Plant Society list (focusing primarily on 1A and 1B plant species from the CNPS list). Once the list was narrowed to those species that could potentially be found in habitats that occur in riparian areas in southern CA waterways, the list was further refined based on habitats that were identified in the CHAP appendix. Sensitive species that were determined to be likely to occur in the study area were discussed in Sections 3.5.4 and 5.5.4 of the Draft (and Final) IFR. All other species with the potential to occur in historically-occurring habitats were listed in the tables in the Appendix H. The comment letter specifically mentioned *A. pulchra pulchra*. This species requires loose soils in chaparral or pine-oak woodlands, a habitat type that may well occur in the watershed but not in the study reach. This species was identified as being “Not Likely to Occur” and has been added to the appendix.

Impacts to vegetation and wildlife species during construction and operation and maintenance activities are generally described in Section 5.5.3. Minimization measures are included in Section 5.5.4. Impacts or benefits to each individual species with potential to occur are not specified, as impacts are considered to be similar across various groups of species that are found within riparian and/or wetland ecosystems as described in Section 5.5.3.

3. Concur. These BMPs are included in the Final IFR in Section 5.5.4.
4. See GR-B.
5. Thank you for your comment. The Corps appreciates and acknowledges the more historic references to the property. However, for practical purposes and due to its frequent use to this point, its reference as “Cornfields” in the report will remain the same, but the alternative names will be included in the report at first usage.
6. The Corps agrees that additional study is needed consistent with the NHPA Section 106 process. During subsequent planning stages for project construction, but prior to the issuance of a notice to proceed for construction, a records and literature search, and intensive field survey and inventory, will be conducted. In addition, a National Register of Historic Places (NRHP) evaluation will be conducted of all identified resources. The California State Parks would be invited to review and comment on all studies. If properties listed in, or eligible for listing in the NRHP, would be affected by the Recommended Plan, comments of the SHPO, Tribal organizations and individuals, California State Parks, the ACHP, and other interested parties shall be sought pursuant to NHPA Section 106 and its implementing regulations. Comments shall also be sought in the event that for the recommended plan, there will be "no effect" on historic properties. If the project will result in an adverse effect, the Corps shall ensure that a historic property treatment plan (HPTP) is prepared, executed and fieldwork completed prior to the initiation of any activities that have the potential to effect historic properties. The HPTP will be prepared in consultation and coordination with the consulting parties. The California State Parks has been invited to consult on the undertaking and on the Draft Programmatic Agreement (PA) for historic properties, has been afforded consulting party status pursuant to 36 CFR 800.3(f)(1), and has been invited to be a concurring party to the PA to address the remainder of the NHPA Section 106 process. The PA is located in Appendix O Cultural Resources.
7. Concur with this concern. These additional studies including geomorphic studies and analysis of ethnographic village locations and archaeological deposits for the project would be undertaken during the design phase of the project.
8. The Corps appreciates the opportunity to review and utilize this additional information in our identification efforts.
9. The Corps has invited the California State Parks to be a concurring party to the PA.

CA State Clearinghouse

Thank you for your letter. Your comments are noted.

CA Water Boards, LA Regional Water Quality Control Board

1. Thank you for your comments on the IFR. We appreciate your statement that the project alternatives are consistent with the Greater Los Angeles County Integrated Regional Water Management Plan and with those of the State's Recycled Water Policy. This project is proposed as part of the Corps' mission to restore habitat values in aquatic and riparian ecosystems. Storm water and water quality improvements are not objectives of the study as they are the responsibility of other parties; water quality improvements are incidental benefits.
2. Comment noted. However in this instance, the term stormwater runoff is not referring to the legal definition of stormwater discharges (outfalls). Under NPDES permitting, the term discharge is specifically referring to pollutants generated and discharged from watershed point sources: construction, municipal, and industrial. The intent of the text was to demonstrate the diffuse sources of pollutants that rainwater collects as it moves surficially through the watershed.

To prevent confusion, instances in the text where non-point sources and stormwater runoff are used in the same sentence will be re-written to clarify that stormwater discharges are point sources.

3. The IFR is updated in accordance with the factual information that was provided pertaining to the water quality section. Comments on water quality improvements are noted. Water quality benefits are incidental to the restoration.
4. See response 2 above, Section 3.12.4- Stormwater will be edited in the final IFR to incorporate clarification that addresses the comment.
5. Comment noted. The Final IFR will be updated with the new Order Number.
6. Concur. Language pertaining to the MS4 Permit will be added.
7. The edits recommended to the text on Page 5-48 will be incorporated. Remediation of water quality and quantity issues is not an objective of the restoration study. However, water quality improvement may be an incidental benefit.
8. Comment noted. The Final IFR will include language to further clarify the SWPPP requirement and 401 certification consistent with the comment.
9. The BMPs included in the Draft IFR reflect protection of bird nesting activities (Section 5.5.4). Construction BMPs are established to protect water quality (5.4.4) and biological resources (5.5.4). All federal and state regulations regarding construction will be followed.
10. NPDES permit requirements are noted in Section 5.4 of the IFR, consistent with your comment.
11. This is an important issue throughout the Los Angeles Watershed; however, the issues of recycled water, increased capture, and use of stormwater are outside of the scope of Corps ecosystem restoration, except as they may affect the available water budget. The City is responsible for providing water necessary to support the restoration features. It is the City's desire to use recycled water, when feasible, for construction and maintenance of the completed project to support habitat. The recommended sentence will be added to Page 5-41, Line 31.
12. The IFR addresses potential improvements to water quality for communities in the study area. See section 5.13.3: "Any improvements in environmental quality (such as water quality) in the region as a result of a cleaner, active River system would benefit all populations in the study area" was included as an operational effect for Alternative 10 and referenced for the remaining alternatives.
13. The benefit of increased infiltration was not evaluated quantitatively at this level of design and study. The Final IFR includes recognition in Section 5.4.3 that there may be incidental water quality benefits from implementation.
14. References and citations will be revised consistent with the comment.

South Coast Air Quality Management District

1. The list of equipment presented in Appendix F has been updated. The equipment list corresponds with data entered into CalEEMod.
2. Comment noted. We are aware of Rule 403 requirements for large operations and will consult with SCAQMD staff regarding permits and forms.
3. Proposed BMP's will be incorporated in the Final IFR as appropriate, as addressed below.
4. Revised emissions estimates indicate that for all alternatives emissions would not exceed Regional Significance Thresholds. However, for Alternatives 10, 13, 16, and 20 there would be limited exceedances of Local Significance Thresholds. Tier 4 equipment would be utilized to the

extent practicable during construction years when emissions are expected to exceed Local Significance Thresholds.

5. Revised emissions estimates indicate that for all alternatives emissions would not exceed Regional Significance Thresholds. However, for Alternatives 10, 13, 16, and 20 there would be limited exceedances of Local Significance Thresholds. During construction years when emissions are expected to exceed Local Significance Thresholds, model year 2010 and newer diesel haul trucks would be utilized to the extent practicable.
6. Operating permits will be provided as required at the time of construction.
7. We can let contractors know about the availability of SCAQMD “SOON” program funds.
8. The air quality chapter has been updated to reflect the correct General Conformity Thresholds. In addition, the Corps coordinated with SCAQMD General Conformity compliance. Discussions of NEPA and General Conformity thresholds are discussed in the revised air quality chapter and the Record of Non-Applicability in Appendix F.
9. The availability of rail transport through Taylor Yard during construction is unknown since restoration activities would also extend into Taylor Yard. The recommendation would be further evaluated during the engineering and design phase subsequent to the completion of the draft EIR/EIS.

County Agencies

County of LA Dept of Parks and Recreation

Noted. Coordination with the department’s trails section on the referenced trail will occur prior to development of detailed plans and specifications. The proposed trail should be consistent with our recreation plan.

County of LA Dept of Public Works

1. Thank you for your comments. The City of Los Angeles is in the process of requesting a LOMR (letter of map revision) to FEMA that would identify the flood risks and flood zones along the Los Angeles River. We are working with the City on that effort. That effort is anticipated to be complete before any construction begins on the ecosystem restoration project. This ecosystem restoration study does not preclude any future flood risk management studies.
2. One of the major constraints for the ecosystem restoration study is there would be no adverse impacts to the current flood risks along the river. To accomplish this, we have identified the design water surface and water velocity as the two factors for determining the impacts. An increase in water surface would be an unacceptable result for any of the project features. Thus the proposals result in no increase in water surface elevation and there would be no adverse impacts on the interior drainage system, see Appendix E for a discussion of water surface elevations.

County of LA Dept of Regional Planning

1. Thank you for your comments and the information provided on the County’s Significant Ecological Area Program (SEA). SEA information will be added to section 3.5.6 as appropriate.
2. See GR-A.

City of LA Councilmember Tom LaBonge



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

The Honorable Tom LaBonge
Councilmember
District 4, City of Los Angeles
200 N. Spring St. Room 480
Los Angeles, CA 90012

Dear Councilmember LaBonge:

Thank you for your comments on the Draft Integrated Feasibility Report (IFR) prepared by the U.S. Army Corps of Engineers (Corps) and City of Los Angeles (“City” or “non-Federal sponsor”) for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the four final alternatives carried forward for further analysis and consideration in the Draft IFR, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes additional connections to regional habitat areas in important areas. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and will be the Recommended Plan.

We recognize that Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, it is recognized that Alternative 20, as the largest of the final array plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, from a Federal interest perspective, the primary focus of the project is ecosystem restoration, and the NER Plan must be identified in a restoration feasibility study. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or where the extra environmental value is just worth the costs.

Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan. In this case, the NER Plan identified in the Draft IFR was Alternative 13, named the ARBOR Corridor Extension (ACE). It was selected based on the required criteria used to assess and establish the selection of the NER Plan. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

During the public comment period for the Draft IFR, which closed on 18 November 2013, the Corps received and evaluated nearly 500 comments. Comments were received from Federal agencies including the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), Department of Interior (DOI), and the Urban Waters Federal Partnership. Comments were also received and evaluated from State and local agencies, Non-Governmental Organizations (NGOs), other interest groups, elected officials, and private citizens.

- The Corps reviewed all the feedback by subject area, and carefully designated key categories of input:
 - Scope of the recommended plan
 - Support for Administration's Urban Waters Federal Partnership initiative
 - Compliance with WRDA 2007 requirements to reflect the City's LA River Revitalization Master Plan
 - Acceptability to sponsor and stakeholders
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 - Environmental justice
 - Inclusion of Union Pacific Rail Road Yard (LATC) site
 - Global scarcity of subject habitat type(s)

The Final IFR's Comments Appendix includes all public comments along with Lead Agencies' responses that address pertinent issues identified in the comments.

In general, in terms of scope and completeness of the recommended plan, while agency and stakeholder comments provided a large amount of technical input and analysis regarding the importance of Alternative 20, the Corps considers this input similar to what had previously been considered in reaching the agency's identification of Alternative 13 as the Tentatively Selected Plan (TSP) in the Draft IFR.

In terms of connectivity benefits and the model used to calculate benefits, the Corps used a framework suggested by an Independent External Peer Review (IEPR) panel to better quantify the beneficial outputs of connectivity noted as being not fully captured in the public comments. By evaluating hydrologic, local, and regional connectivity and combining the resultant output with the initial habitat model output, the Corps was able to more comprehensively compare the alternatives in the final array.

Although quantifying connectivity showed more restoration output for each of the alternatives as well as for differing combinations of key features, the increase in cost between Alternative 13 and the next bigger best buy plan was over \$100 million. Given the magnitude of the incremental costs relative to the incremental increase in benefits (after quantifying connectivity functions), there was not sufficient justification to select a larger scale plan as the NER Plan.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in the IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the

Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

Alternative 13v provides the greatest amount of ecosystem restoration output for the investment cost; in other words, for the total project cost for Alternative 13v of \$694 million, there is no other plan of similar cost that produces more restoration output. Accordingly, Alternative 13v has been identified as the NER plan. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan.

In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the Recommended Plan at a cost-share scenario different from traditional Corps policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report. The rationale for granting that request is described below.

The LPP would include additional restoration benefits above that identified for the NER plan at Verdugo Wash, widening of the natural riverbed for 1.5 miles in the Glendale Narrows (Reach 5), and restoration at the Los Angeles Trailer and Container Intermodal Facility (LATC) site. These additional restoration benefits include direct restoration of an additional 121 acres, nearly twice the acreage of local and hydrologic connectivity (298 acres total), and provision of a direct connection to the significant ecological area of the Verdugo Mountains. Nearly unanimous support for Alternative 20 was expressed by the public through review of the Draft IFR and public meetings. The LPP is consistent with the goals of the Los Angeles River Revitalization Master Plan published in 2007 by the City of Los Angeles. Implementation of the LPP appears to best address the public's expressed desire for increased habitat and hydrologic connectivity, regional economic development and recreation, and restored community cohesion.

Over the last 150 years, the Los Angeles River has been degraded by development, flooding, and channelization, including the Corps' construction of the Los Angeles County Drainage Area flood risk management project that modified most of the Los Angeles River with concrete banks and a mostly concrete bed to protect the city and surrounding areas from catastrophic flooding. The Flood Control Acts of the 1930s and 1940s directed the Corps to construct the Los Angeles County Drainage Area project, which ultimately involved construction of 5 dams and over 240 miles of channels to protect communities from significant and recurring flood damages. Restoration of 11 miles of the Los Angeles River, that was the focus of this IFR, is within the footprint of the existing flood risk management project. The ecosystem project would, in part, reverse a portion of the degradation associated with the existing Los Angeles County Drainage Area project, and concurrently advance a number of important Administration efforts, including the Climate Action Plan, America's Great Outdoors initiative, and the Urban Waters Federal Partnership. The Corps has factored in climate variability and future uncertainties, and with a more naturally functioning channel, there may be associated incidental benefits with respect to drought, such as increased percolation area and increased detention and retention characteristics. The America's Great Outdoors initiative would be advanced through provision of increased

access to restored lands and urban waters. Lastly, the Los Angeles River is one of 7 original pilot locations for the Urban Waters Federal Partnership and the proposed restoration activities would advance the goals of restoring the ecosystem and balancing revitalization with flood avoidance to ensure public safety for 11 miles of 51 miles of the Los Angeles River.

Quantifications of the connections among restored areas demonstrate the significant benefits to be realized through implementation of Alternative 20 in lieu of the NER plan. Restoration of such connections will involve modifications to the urban river channel by removing concrete and reconfiguring channel walls and widening the channel to restore hydrologic connectivity and additional wetland habitat. Alternative 20 would also provide significantly greater regional economic benefits, including over 11,000 more jobs and over \$3.8 billion in labor income, as well as substantive opportunities for redevelopment in both the Verdugo Wash confluence and LA State Historic Park (Chinatown/Cornfields areas). Environmental justice benefits would also be realized through restored community cohesion for communities previously separated by the existing Los Angeles County Drainage Area flood risk management project through provision of new public access to restored natural areas with associated recreational amenities.

The Recommended Plan includes a recreation plan formulated to be consistent with the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

If you have any further questions, please contact me at (213) 452-3783.

Sincerely,

Eduardo T. De Mesa
Acting Chief, Planning Division
USACE, Los Angeles District

City of LA Councilmember Mitch O'Farrell



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

The Honorable Mitch O'Farrell
Councilmember
District 13, City of Los Angeles
200 N. Spring St. Room 450
Los Angeles, CA 90012

Dear Councilmember O'Farrell:

Thank you for your comments on the Draft Integrated Feasibility Report (IFR) prepared by the U.S. Army Corps of Engineers (Corps) and City of Los Angeles ("City" or "non-Federal sponsor") for the Los Angeles River Ecosystem Restoration Feasibility Study. Alternative 20 was one of the four final alternatives carried forward for further analysis and consideration, because it is an efficient plan which provides greater habitat restoration output than smaller scale plans and includes additional connections to regional habitat areas in important areas. Although this alternative was not identified as the National Ecosystem Restoration (NER) plan, this alternative has been identified as the Locally Preferred Plan (LPP) and will be the Recommended Plan.

1. We recognize that Alternative 20 provides the greatest habitat restoration output of the final array plans. Further, it is recognized that Alternative 20, as the largest of the final array plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. However, from a Federal interest perspective, the primary focus of the project is ecosystem restoration, and the NER Plan must be identified in a restoration feasibility study. Corps planning guidance describes the NER Plan as the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and non-monetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or where the extra environmental value is just worth the costs.

Selecting the NER plan requires careful consideration of the plan that meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. The NER plan determines Federal interest and forms the basis of cost-sharing for the recommended plan. In the Draft IFR, Alternative 13 was identified as the NER plan. It was selected based on the required criteria used to assess and establish the selection of the NER Plan. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

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Quantifications of the connections among restored areas demonstrate the significant benefits to be realized through implementation of Alternative 20 in lieu of the NER plan. Restoration of such connections will involve modifications to the urban river channel by removing concrete and reconfiguring channel walls and widening the channel to restore hydrologic connectivity and additional wetland habitat. Alternative 20 would also provide significantly greater regional economic benefits, including over 11,000 more jobs and over \$3.8 billion in labor income, as well as substantive opportunities for redevelopment in both the Verdugo Wash confluence and LA State Historic Park (Chinatown/Cornfields areas). Environmental justice benefits would also be realized through restored community cohesion for communities previously separated by the existing Los Angeles County Drainage Area flood risk management project through provision of new public access to restored natural areas with associated recreational amenities.

The Recommended Plan includes a recreation plan formulated to be consistent with the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

2. Your comments on lack of recreation and natural space for many neighborhoods in the project area are noted. Recreation and open space are discussed in Sections 3.9, 3.13.3, and 5.9 of the Final IFR.

If you have any further questions, please contact me at (213) 452-3783.

Sincerely,

Eduardo T. De Mesa
Acting Chief, Planning Division
USACE, Los Angeles District

City of LA Bicycle Advisory Committee

See GR-A.

City of LA Bureau of Sanitation

1. See GR-A.
2. It is noted that the LA Bureau of Sanitation supports Alternative 20 and that as part of a collaboration under Proposition O, LA Sanitation is committed to improving water quality.

City of LA Dept of City Planning

1. See GR-A.
2. The description of the Vision Plan and Economic Development Strategy for the Northeast Los Angeles River District has been added to Section 3.3.3. The RIO overlay was described in Section 3.3.3 of the IFR.

City of LA Dept of Recreation and Parks

1. Thank you for your comments. Recreation impacts have been addressed in Section 5.9 of the EIS. The Corps will continue to coordinate with the City's Recreation & Parks Dept. during the pre-construction engineering and design phase to address any potential issues such as those described in your comment.
2. The recommended edits to table references will be made.

City of LA Economic and Workforce Development Dept

1. See GR-A.
2. We have included information about the Partnership for Sustainable Communities program in Section 3.3.3 of the IFR.

Los Angeles Dept of Water and Power

1. See GR-A.
2. Recycled water and increasing constraints on its availability is a significant factor in the water budget. The non-Federal sponsor understands its responsibility for ensuring the necessary supply to support ecosystem restoration features. The goal is to utilize native plants that can persist without supplemental irrigation. The plant palette will adapt to the amount of water available.
3. As part of this study, we will produce an Adaptive Management Plan. This plan will include adjustments that may need to be made based on fluctuating water supplies to ensure success of the restoration proposals. Flow rates along the river will be reviewed and updated as needed. We welcome any support from and continued coordination with LADWP.
4. Noted. Some of the restoration alternatives will require relocation of water and/or power lines as part of the non-Federal sponsor's provision of all necessary lands, easements, rights of way, relocations and disposal sites. These impacts are discussed in Sections 5.12 and Chapter 7 of the IFR. We will work with all the proper agencies to ensure any effects on water and/or power infrastructure will be addressed appropriately.
5. Thank you for your comments.

Los Angeles Unified School District, Bennett Kayser, Board Member

1. See GR-A.

2. Comment noted. Educational value is a benefit that will result from any of the alternatives, including the NER plan and the Recommended Plan.

Los Angeles Unified School District, Office of Environmental Health and Safety

See GR-A.

Other Cities

City of Burbank Community Development Dept

1. The IFR has been updated to reflect the newly completed Burbank2035 General Plan.

Existing conditions from attached sources will be reviewed and incorporated into the document as needed.

2. The existing Class II (bike lane) bikeway on Riverside Drive and the existing Class III (bike route) bikeway on Keystone Street are in relatively close proximity to the features in the recreation plan. While connection to the existing Burbank facilities is outside the scope of the LA River Ecosystem Restoration project, there may be opportunities for improvements which the City of Burbank and City of Los Angeles might investigate as feasible.

3. Regarding the project traffic analysis, the Lead Agencies have determined that the anticipated volume of project trips does not trigger the need to do a comprehensive traffic study. The project team reviewed the recreation study that was created as part of the Economics Appendix (Appendix B of the IFR) to identify any locations that may present a point-source draw for recreationalists. Recreation numbers were reviewed and compared to figures showing access points, point draws, and new or refurbished trails. None of the project features are within the city limits of Burbank, and the only part of the project area in proximity to Burbank that could reasonably contribute to traffic is Pollywog Park. Two access points would be available for users of the improved trail in Pollywog Park and existing trails on the north side of the river, near Griffith Park. Almost 0.5 mile of upgraded trail would occur in Pollywog Park, which is located outside of the Burbank city limits. Access points to the trails are located near the Burbank city limits, and while parking needs in their vicinity may increase, there is street parking located along the park perimeter in the following locations: at Pollywog Park along Reese Road and Valleyhart; at Buena Vista Park along Riverside Drive and Bob Hope Drive; and at the Betty Davis Picnic Area along Rancho Avenue and Riverside Drive and Riverside Drive and Western. It appears that local neighborhood residents currently utilize the unmaintained dirt trails throughout this area and presumably do so by foot rather than vehicle. Figure 7-8 of the IFR, and associated figures in Appendix B, Attachment 1 (Recreation Analysis) display the location of trails and access points. Trail usage data was not available, and therefore, projections were developed through the application of the "Recreation Park and Open Space Standards and Guidelines," by the National Recreation and Parks Association (NRPA 1983). It cites a standard for urban trail use at maximum of 90 users per day per mile of trail (weekends). Section 2.1 of the Recreation Analysis, which is part of Appendix B of the IFR, describes the methodology in more detail. At a maximum estimated amount of 65 users per mile on summer weekdays under proposed conditions, it is estimated that the upgraded trail would draw a maximum of 33 users per day, some of whom would access the trail from points upstream and downstream of Pollywog Park and would, therefore, not be parking at the access points. Even if all trail users drove to the access points within the Burbank city limits, the increase in traffic would still be far below the level for required traffic analysis or significant impacts specified by the City of

Burbank's CEQA traffic significance thresholds. Specifically, the significance threshold for local street impacts is 500 or more daily trips, and at most only 33 daily users are expected in this area. Daily usage numbers are derived from the methodology described above and in multiplying 0.5 miles of improved trail by a maximum of 65 users per mile on weekdays. Therefore, applying the City of Burbank's CEQA traffic thresholds does not alter the conclusion that impacts to traffic would be less than significant.

4. Concur. Language has been added in Section 5.8.3 to indicate that weekday construction will occur between 8:00AM – 6:00 PM, Saturdays from 8:00-5:00, and not at all on Sundays or holidays.

5. The potential staging areas identified in the IFR will be further coordinated during the Preconstruction, Engineering, and Design (PED) and Construction Phases of the project. These areas are proposed for restoration, some of the only open space in the area, and are in non-Federal sponsor ownership, and therefore, provide reasonable staging areas for the project. Additional coordination of staging will be conducted in PED.

6. Specific coordination will occur during PED and Construction. Necessary approvals will be obtained prior to construction. The Corps and the City of Los Angeles will closely coordinate implementation details with neighboring municipalities and community stakeholders.

7. While Alternative 13 was the tentatively selected plan in the Draft IFR and 13v is the NER plan, Alternative 20 is the Recommended Plan. Alternative 20 is one of the alternatives considered in the final array of alternatives in the Draft IFR and in this Final IFR. No recirculation or supplemental IFR is required, as Alternative 20 was addressed in the Draft IFR; however, there is an opportunity for additional agency and public comment on the Final IFR during its 30-day circulation period.

City of Glendale

See GR-A.

City of Lakewood

Thank you for your comment. One of the major constraints for this study was there would be no adverse impacts to the current flood risk management along the Los Angeles River. As such, any modifications to the channel will entail detailed engineering analyses to ensure the project will not adversely impact channel capacity or structural stability of the existing channel. The recommended plan will not increase flood risks or residual flood risks for all reaches of the Los Angeles River, including the Los Angeles River in the vicinity of Lakewood.

Organizations & Businesses

AIA Los Angeles

See GR-A.

Alliance of River Communities

See GR-A.

Alternative Apparel

See GR-A.

Arid Lands Institute

See GR-A.

Arroyo Seco Foundation

See GR-A and GR-B.

Arthur Golding & Associates

1. We agree incorporating flood risk management as an objective could be beneficial, but flood risk management is not within the scope of the current Ecosystem Restoration Feasibility Study as agreed upon with the non-Federal sponsor. The non-Federal sponsor does not have jurisdiction for flood risk management, which is performed by the Corps and the Los Angeles County Department of Public Works. The current study does not preclude additional flood risk management study in the future.
2. The Corps recognizes the flood risks along this portion of the Los Angeles River and we could partner with an appropriate agency to address flood protection measures in future studies. As we move into the detailed design phase of the current study, we will incorporate designs favorable to ecosystem restoration, which may also have an incidental flood risk benefit.
3. The Corps agrees that there are many opportunities for restoration and additional flood risk management, however, not all of these opportunities can be realized by the Corps alone. It is expected that many entities will collaborate to respond to restoration needs along the river.
4. See GR-B.
5. Comment noted. The proposed project is designed to be consistent with general plans for each city in the ARBOR reach, as well as the specific plans for each community that touches the study area. Not all of the recommendations in those plans can be completed through this project.
6. The Corps understands that local plans outline continuous greenways, however not all of these greenways can be realized by the Corps alone. It is expected that many entities will collaborate to respond to restoration needs along the river. The plant palettes will be coordinated further with local experts on LA River flora in the project area vicinity and may be updated as necessary to ensure the most appropriate mix of locally native species is used in each area.
7. See GR-A.

Arup

See GR-A.

Audubon Center at Debs Park

1. See GR-A.
2. We are aware of the IBA downstream of the study reach. Water flows would not be altered as a result of implementing restoration in the ARBOR reach. Therefore the proposed project should have no effect on the suitability of downstream areas to support shorebird use. However, it should be noted that water flows within the channel are not controlled by the restoration project.

Big Brand Water Filter, Inc

The primary purpose of the alternatives considered in the IFR is to restore approximately 11 miles of the Los Angeles River from Griffith Park to Downtown Los Angeles by reestablishing riparian strand, freshwater marsh, and aquatic habitat communities and reconnecting the River to major tributaries, its historic floodplain, and the regional habitat zones of the Santa Monica, San Gabriel, and Verdugo mountain ranges while maintaining existing levels of flood risk management. A secondary purpose is to provide recreational opportunities consistent with the restored ecosystem. Water quality improvement is considered an ancillary problem/opportunity and is not an objective of the Study. It was considered as an objective initially, because of public concerns about the River's poor water quality, but was not carried forward for several reasons. While water quality improvement objectives would be focused on improvement for aquatic organisms and restoration purposes (not human use or consumption), the existing riparian and freshwater marsh habitats and the associated wildlife have been sustained and are viable under the current water quality conditions. Water inputs to the River from the upstream Tillman Water Reclamation Plant are regulated and monitored by State water agencies and storm water inputs to the river are being improved through local regulations. Furthermore, certain measures currently evaluated in the study will incidentally improve water quality through natural processes such as 1) increased acreage of riparian and freshwater marsh, 2) daylighting storm drains and planting wetlands at their confluences, 3) creating side channels that remove water from the River, direct it through created wetland and riparian areas, and return this naturally treated water to the River. The LA River Ecosystem Restoration Study will not attempt to address State total maximum daily loads (TMDLs) standards, and assumes that those entities identified as responsible parties will comply with State requirements prior to construction of any proposed project. Despite the presence of contaminants and TSS, many fish and wildlife species have continued to persist and utilize the aquatic resources provided by the river. Incidental improvements to water quality through the restoration project, while not a stand-alone objective, will improve conditions for these species and others that will be attracted to the expanded habitat area. The proposed project will include direct removal of trash within the study area, as well as establishment of marsh and riparian vegetation that will promote natural processes of physical and biological remediation. With respect to soil and water contamination subject to CERCLA, the City of Los Angeles is responsible at 100% non-project cost for addressing lands contamination prior to project construction and responsible at 100% non-project cost for addressing groundwater contamination encountered during construction, including during dewatering activities.

CA Native Plant Society, Los Angeles/Santa Monica Mountains Chapter

See GR-A.

Central City Association

See GR-A.

Chatten-Brown & Carstens

See GR-A.

Chinese American Citizens Alliance, Los Angeles Lodge

See GR-A.

Community Conservation Solutions

See GR-A.

Council for Watershed Health

1. See GR-A.
2. Thank you for the information confirming the study's analysis with respect to river areas and confluences.
3. While we recognize that water quality improvements may occur as a result of ecosystem restoration, this is not a specific objective of the study and such benefits are considered incidental.
4. An Adaptive Habitat Management Plan has been developed for the Final IFR that outlines an invasives management program within the project area. The Corps will be responsible for invasives management until success criteria are met (typically within 5 years), and the City of Los Angeles as the non-Federal sponsor will be responsible thereafter for the life of the project. Management of invasives outside of the project area would be the responsibility of other entities interested in funding and maintaining such an effort in those areas.
5. The plant palettes will be coordinated further with local experts on LA River flora in the project area vicinity and may be updated as necessary to ensure the most appropriate mix of locally native species is used in each area.
6. The Corps has met with representatives from the Council for Watershed Health to discuss use of local seed sources for restoration. Since construction is not expected to begin for many years, the Corps will continue to collaborate to support use of local seed for propagation of restoration plant material wherever possible.
7. The Corps has participated in the Coalition to discuss the proposed plant palettes and use of local plant material. The Corps will continue to collaborate to improve restoration implementation and receive guidance from local experts.
8. It is recognized that Alternative 20, as the largest of the final array plans, would generate the greatest benefits to the regional economy (RED Account). However, the primary focus of the project is ecosystem restoration. The Corps typically recommends the plan that is the National Ecosystem Restoration (NER) Plan. Engineering Regulation 1105-2-100 specifies (p. E-7), that: "For ecosystem restoration projects, a plan that reasonably maximizes ecosystem restoration benefits compared to costs, consistent with the Federal objective, shall be selected. The selected plan must be shown to be cost effective and justified to achieve the desired level of output. This plan shall be identified as the National Ecosystem Restoration (NER) Plan."

In this case, the NER Plan in the Draft IFR was Alternative 13 because it was the alternative that met study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array. When selecting a plan to propose for authorization, the Corps must consider not only benefits but the reasonableness of costs to achieve those benefits in comparing alternatives (ER 1105-2-100, p. E-164). The cost of Alternative 20 is over \$600 million greater than the cost for Alternative 13. Therefore, Alternative 13 was identified as the NER Plan.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on

Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. This variation has been identified as the NER plan in the Final IFR on the basis of the analysis referenced above.

However, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

9. It is recognized that Alternative 20, as the largest of the final array plans, would generate the greatest benefits to the Other Social Effects (OSE) account. As noted in the comment, these benefits are more difficult to quantify than other categories of benefits, but the larger scale of Alternative 20 does afford the opportunity for greater OSE benefits as outlined in the IFR. As noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan (including RED and OSE).

10. It is true that Alternative 20 is both a cost effective and Best Buy plan, which is why it was one of the four plans carried forward in the Final Array. As the comment notes, while Alternative 20 is a Best Buy Plan, it does provide diminishing returns, i.e., the incremental costs per output for this plan are substantially higher than for Alternative 13v. Hence, this plan is less efficient than Alternative 13v and was a primary reason why Alternative 13v is confirmed as the NER Plan. However, for the reasons cited above, the Corps is recommending Alternative 20 as the Locally Preferred Plan.

11. While Turf Reinforcement Mats (TRMs) are currently considered for erosion control, design decisions will be made during the detailed design phase prior to construction. The Corps will continue to evaluate options for erosion control to minimize impacts to wildlife.

Downtown Los Angeles Neighborhood Council

1. The Draft IFR document and technical appendices were made available for public coordination per NEPA regulations, including proper public notification and the required 30 day review period. Additionally, the public review period was extended due to the temporary government shutdown.

2. Thank you for your close attention to the IFR and for your comments. The alternatives included in the IFR address the 11-mile study reach for the reasons described in sections 1.1.2 and 1.2.1 [Please note that Alternative 13 does include proposed restoration at the Los Angeles Trailer and Container (LATC) rail facility, also known as the “Piggyback Yard.” This is a 100+ acre site on the east bank of the river in the community of Boyle Heights, adjacent to Lincoln Heights located just upstream of Cesar Chavez Avenue—the last major restoration area proposed in the study area, which ends just downstream near 1st Street.] You are correct that Alternative 20 would offer more restoration in the Downtown LA area than Alternative 13 would, because it would include a habitat connection between the LATC site and the river and upstream

connections to the LA State Historic Park site. The 6th Street Bridge is a separate –project being undertaken by the City of Los Angeles, which will have Corps review as part of the Section 408 permit process.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. This variation has been identified as the NER plan in the Final IFR on the basis of the analysis referenced above.

3. The social benefits of a more comprehensive alternative plan are not captured in the ecological analyses but are addressed by other Corps analysis included in the report. They are considered in the analyses of regional economic development (RED) and Other Social Effects (OSE) section of the IFR, per the US Army Corps of Engineers planning guidelines.

It is recognized that Alternative 20, as the largest of the final array of plans, would generate the greatest benefits to the regional economy (RED Account). However, the primary focus of the project is ecosystem restoration. The Corps typically recommends the plan that is the National Ecosystem Restoration (NER) Plan. Engineering Regulation 1105-2-100 specifies (p. E-7), that: “For ecosystem restoration projects, a plan that reasonably maximizes ecosystem restoration benefits compared to costs, consistent with the Federal objective, shall be selected. The selected plan must be shown to be cost effective and justified to achieve the desired level of output. This plan shall be identified as the National Ecosystem Restoration (NER) Plan.”

In this case, the NER Plan is Alternative 13v, because it is the alternative that meets study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array. When selecting a plan to propose for authorization, the Corps must consider not only benefits but the reasonableness of costs to achieve those benefits in comparing alternatives (ER 1105-2-100, p. E-164). The cost of Alternative 20 is \$645 million greater than the cost for Alternative 13v. Therefore, Alternative 13v was identified as the NER Plan.

However, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

Drennan Enterprises

1. See GR-A.

EcoTone Studios

1. Thank you for your comments. This study does not preclude any future land acquisitions by the City or other parties to expand the floodplain.
2. The City of Los Angeles is in the process of requesting a LOMR (letter of map revision) to FEMA that would identify the flood risks and flood zones along the Los Angeles River. That effort should be complete before any construction has begun for the current Ecosystem Restoration study. This ecosystem restoration study does not preclude any future flood risk management studies. Floodplain development is subject to local regulation.
3. The team concurs that water access is an important community desire. However, Corps guidance requires that the recreation plan be a separable component of the ecosystem restoration plan. As such, the recreation plan does not specify kayak launch sites or ramps specifically, as it is difficult to ensure compatibility with the ecosystem restoration features at this level of design. Instead, the team will incorporate water access for recreation as a complementary function of the safety/maintenance ramps that will be designed into the ecosystem restoration plan during the forthcoming Pre-construction Engineering and Design (PED) phase of the study. Further, current design for the ecosystem restoration plan includes vertical channel walls on only one side of the channel at a time, and thus access to the river at areas with vertical channel walls on one side does not preclude inclusion of water access in the more detailed design phase that occurs during PED.

Elysian Valley Arts Collective

See GR-A.

Enterprise Community Partners, Inc

See GR-A.

Environment Now

See GR-A.

Film LA, Inc

See GR-A.

Friends of the Los Angeles River

1. Thank you for your detailed comments on the IFR. We recognize FoLAR's long term efforts on restoration of the river. Responses to each of your detailed comments are provided below. Historic conditions were summarized in Sections 1.2.2 and 1.2.3. The historic information we reviewed did not have sufficient level of detail to identify presence or locations of specific marsh types within the study area (including vernal marshes or alkali meadows), although the Corps does recognize that those habitat types were present within the region. The proposed project does not include restoration of these specific marsh types. The Corps made determinations about the appropriate habitats to consider for restoration based on this information, as well as the feasibility of restoring self-sustaining habitats within the study area.

Corps policy guidance states that systems "should mimic, as closely as possible, conditions that would occur in the area in the absence of human changes." The level of restoration that the Corps

can achieve "as closely as possible" to historic conditions does not necessarily equate to the uppermost limit of what is possible, and must account for project constraints. Restoration alternatives are determined by the benefits generated from an alternative as compared to the costs, as well as the overall reasonableness of cost.

The Corps follows policy guidance to determine the benefits of a given study. Because the assessment of benefits cannot be subjective or arbitrary, the Combined Habitat Assessment Protocol (CHAP) method was used to assess potential ecosystem benefits that could be achieved as compared to existing conditions. While the Corps understands that maximizing benefits is a desirable approach in the highly degraded urban setting, costs must also be considered and compared to benefits to determine the alternative that supports the wisest federal investment.

2. The Corps must examine a full range of possibilities and evaluate both ecosystem outputs and costs. The range of values must include both those that minimally meet and more fully meet objectives. Numerical criteria were identified that in Corps' judgment were neither artificially low (restoring one acre of riparian habitat would not meet objectives), nor artificially high.

Overly high numerical criteria can improperly limit the range of alternatives. Criteria were based on the assumed minimal increase in habitat necessary to support a meaningful opportunity for expanded wildlife usage and or population density. These assumptions were based on literature research and best professional judgment. Riparian habitat criteria, for instance, included the minimal acreage necessary to support nesting and foraging for the federally threatened least Bell's vireo, based on an approximate average of values found in literature. Where the performance criteria for an objective state that at least one of a given feature is required, it does not limit restoration to only one such feature. Furthermore, the study does not preclude other agencies from performing complementary restoration in neighboring areas along the river.

3. Refer to responses 1 and 2 and GR-B.

4. Reaches with existing vegetation in the channel (4-6) contain trees and will be restored by removing trash and non-native vegetation. In reaches 2 and 3, overbank areas would be restored with trees in addition to shrubs and herbaceous vegetation. In Reach 7, restoration at Arroyo Seco would include installation of riparian trees. In this way, Reaches 2-7 are restored with trees in addition to shrubs. Table 4-8 describes which of the alternatives met this objective, and each of the final array of alternatives met the objective as described.

5. The intent of the objective related to riparian (least Bell's vireo) habitat was to focus on the linear width of habitat patches restored, which could be supported by flows/channels either from within the site, or from the adjacent river channel. The focus of this objective was not on how the habitat is restored, but on its location and size (river adjacent parcels that based on a literature investigation were deemed large enough to attract and support nesting vireo pairs).

6. Refer to response 2.

7. While the language specifies "San Gabriel and Verdugo Mountains", the criteria identifies that at least one major tributary connection should be restored (i.e. San Gabriel and/or Verdugo Mountains). In this way, Alternative 13 satisfies this criteria through restoration of the Arroyo Seco confluence, with connectivity to the San Gabriel Mountains. The IFR has been revised in Section 4.2.2 Item 2a to clarify this point.

8. Refer to Response 2 and GR-B.

9. The verbatim language identifies that connections be made to nearby ecological zones "such as the Santa Monica Mountains, Verdugo Hills, Elysian Hills, and San Gabriel Mountains." This does not specify that every ecological zone must be connected to the river in order to meet

objectives. Per the sub-objective, the requirement to meet the objective is that "at least one major tributary connection should be restored". Alternative 13 meets this criteria with restoration of the Arroyo Seco with connectivity to the San Gabriel Mountains. See response 2.

10. The Figures in Chapter 6 (Figure 6-5) are simplified connectivity maps that encompass the entire project area. To get an accurate view of the restoration measures proposed to be implemented, refer to Figures 4-5 to 4-20 (end of Chapter 4). These maps display measures such as overbank and channel wall plantings that are not explicitly shown in the connectivity maps. By referring to the Figures in Chapter 4, connectivity through all 8 reaches in Alternative 13 can be seen.

11. Refer to Response 2. Each alternative daylight many streams that are currently confined to culverts. Specific stream connections proposed with various alternatives were identified based on a series of charrettes with numerous stakeholders early in the planning process.

12. The Corps acknowledges that there are many benefits provided by the proposed alternatives. However, there is no one model in existence that would capture all the benefits described - including habitat, connectivity, air quality, recreation, economic, and social benefits.

Since the Corps mission is ecosystem restoration, and since the Corps does not have mission areas for water quality, air quality, recreation, and aesthetics, these additional benefits are considered ancillary and incidental to restoration efforts. Other benefits are described qualitatively and considered after evaluation of restoration benefits. The model used to evaluate benefits for this restoration project (CHAP) focuses on the direct outputs of ecosystem restoration, per Corps mission and policy guidance.

While the CHAP methodology did not capture all benefits, it is based on more than just vegetation in terms of shrubs and trees. In addition to vegetation, the CHAP method considers wildlife species and the functions they provide in the ecosystem, as well as more specific habitat elements found in a particular vegetation community. The details of the CHAP method are described in Appendix G.

13. See GR-B.

14. Refer to Response 13. Evaluation of the study area as located in a biodiversity hotspot was completed at a qualitative level in Section 2.1 under Resource Significance. Descriptions of the rarity of the Mediterranean climate will be added. No known formal model is capable of capturing the quantitative value of all components.

15. Refer to Response 12.

16. Refer to Responses 12 and 13.

17. Refer to Response 13.

18. Refer to Response 13.

19. Refer to Responses 12 and 23. Water quality benefits were qualitatively described in Section 5.4.3 of the Draft IFR. Water quality benefits (for human consumption purposes) are considered as ancillary, incidental benefits. Because the Corps mission and project objectives focus on ecosystem restoration, the benefits of habitat restoration are primarily considered. Improving water quality can only be an objective to the extent it is necessary to achieve ecosystem benefits. In this case, the quality and amount of water available is not the primary limiting factor that is precluding establishment of native habitats. Once the proposed modifications to the channel and overbank structures and topography are implemented, planting/seeding is established and water is redirected into these areas, then successful restoration should be achieved. Additional improvements that result from habitat restoration (i.e., filtration, infiltration, and removal of

suspended sediments or contaminants through natural processes) are expected to occur, but are not the driving factors.

20. The reference to “small mammals” was made in error and the report will be revised accordingly. The species list was based on input from local resource agencies as to the potential for species to occur within the study area. Coyote and bobcat were included on the list. The appendix will be edited to read “mammals” and avoid misunderstanding of the types of mammals considered.

The potential for reintroduction of threatened and endangered species is considered as part of the national significance of the project, as discussed in the resource significance section of the IFR. The reintroduction of listed species, however, is not a project objective. Rather, the goal is to create (restore) habitat conditions that would be conducive to use by multiple species that would occur in a urban/wildland interface, including federally listed species such as vireo.

The Corps recognizes that the narrative does not include an exhaustive list of species. Providing an inventory of all species occurring in the study area, or with potential to occur in the study area, is not the focus of the Report. Nor would providing such an inventory accomplish more in terms of identifying national significance or benefits. It would not affect the decision process, which is focused primarily on the extent and value of habitat restoration for the general types of species that utilize this area. The document describes species generally and provides sufficient information to evaluate impacts of the proposed project to various guilds. Section 5.5.3 provides a discussion of impacts to wildlife for each alternative as well as impacts to wildlife movement. The Corps determined that the major benefits of restoration are related more to the expansion of wildlife populations within and through the restored habitat areas, as opposed to dramatic increases in species diversity. A diversity of species already exists within the ARBOR area, particularly in the riparian vegetated Glendale Narrows.

21. Refer to Responses 12 and 23.

22. Refer to Responses 12 and 23.

23. Refer to Response 13, which discusses the Corps’ supplemental analysis of connectivity benefits.

Identification of the NER Plan is based upon evaluating ecosystem restoration outputs relative to costs. Other incidental benefits (such as water quality, air quality, social effects and regional economic development benefits) may be realized but they are not the basis for NER Plan identification or Federal interest. Focusing on ecosystem outputs (including habitat and connectivity) relative to costs shows that there are substantial increases in incremental cost per output for Alternatives 16 and 20 relative to Alternative 13, which was identified as the NER Plan in the Draft IFR.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. This variation on

Alternative 13 has been identified as the NER plan in the Final IFR on the basis of the analysis referenced above.

The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. When also factoring in the key consideration of reasonableness of cost, Alternative 13v is a more efficient alternative. However, the non-Federal sponsor requested that Alternative 20 be the Recommended Plan instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

24. Thank you for your comment. The Corps has examined the referenced website and the Griffith Park Wildlife Management Plan. The Corps has revised the IFR to reference the Griffith Park Wildlife Management Plan and the on-going studies on wildlife movement of large mammals.

25. The Corps acknowledges the importance of Verdugo Wash, LATC site, and LA State Historic Park for connectivity, and that Alternative 20 provides the greatest connectivity of the final array plans.

Regarding the comments relating to connectivity, these outputs were considered in the evaluation and comparison of alternatives which led to the identification of Alternative 13 as the NER plan in the Draft IFR. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost as previously stated.

Further, in response to Independent External Peer Review comments, connectivity benefits were quantified in greater detail, combined with habitat outputs from the CHAP model and subject to additional cost effectiveness and incremental analyses. See response GR-B. Such analysis substantiated that the incremental costs per output are significantly higher for Alternative 20.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan. Accordingly, Alternative 13v has been identified as the NER plan. However, as noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan. See response to 23 above.

26. Arroyo Seco is also a node greater than 5 acres that is included beginning in Alternative 13. Regarding the Cornfields site, the Corps can only count benefits for restored areas within its study area. Since the remainder of the Cornfields site was not included in the study area due to its current use as a park, the remaining 41 acres cannot be included in the benefits analysis.

27. The major benefits of restoration are related more to the expansion of wildlife populations within and through the restored habitat areas, although we recognize and anticipate some increase in species diversity. A large diversity of species already exists within the ARBOR area, particularly in the riparian vegetated Glendale Narrows. See also Response 20.

28. Refer to Responses 2 and 13. While some projects may utilize indicator species to compare restoration alternatives a habitat model (CHAP) was used to measure benefits and compare alternatives. The Monitoring and Adaptive Management Plan will discuss success criteria.

29. Refer to Response 13.

30. The Corps recognizes that there are many studies available for reference. The Corps conducted sufficient research of applicable reports, and consulted with local resource agencies and other experts. The qualitative analysis considered species that do not currently occur within the study area that may move through the restored environment, and documents the detrimental effect of habitat loss and fragmentation.

31. It is recognized that Alternative 20, as the largest of the final array plans, would generate the greatest benefits to the regional economy (RED Account). Further, due to its larger scale, Alternative 20 would provide additional social effects (OSE) benefits (as analyzed and described in the IFR). However, the primary focus of the project is ecosystem restoration. The Corps recommends the plan that is the National Ecosystem Restoration (NER) Plan. In this case, the NER Plan was identified in the Draft IFR as Alternative 13, because it met study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the

Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. After further analysis including cost updates, the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan. See response to 23 above.

However, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA (CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

32. As noted in these comments, the IFR identified the substantial RED benefits that could be realized in the Chinatown-Cornfields area with the larger scale restoration features included under Alternative 20 relative to Alternative 13. However, these benefits are included with the Alternative 13 variation (Alternative 13v), which includes the LA State Historic Park (Chinatown-Cornfields) plan for Reach 7.

33. The IFR recognizes that the larger scale restoration features included under Alternative 20 relative to Alternative 13v would accommodate greater opportunities for recreation development and would also provide greater OSE benefits. These benefits were among those that led to the decision to support the recommendation of Alternative 20 as the Locally Preferred Plan.

34. Refer to Responses 2, 12, and 25.

35. Refer to Responses 2, 13, 23, and 25.

36. Refer to Responses 1, 2, and 25.

37. Refer to Response 25. When selecting the NER plan, the Corps must consider not only benefits but the reasonableness of costs to achieve those benefits in comparing alternatives (ER 1105-2-100, p. E-164).

38. The criteria referenced on page 6-42 include decision criteria from the Principles and Guidelines and include effectiveness, efficiency, completeness, and acceptability. Alternative 13v has been identified as the NER plan as it provides the greatest amount of ecosystem restoration output for the investment cost. However, Alternative 20 has been identified as a Locally Preferred Plan. In a letter dated April 10, 2014, the City of Los Angeles requested selection of Alternative 20 as the Recommended Plan at a cost-share scenario different from traditional Corps policy. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memo dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the

requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

39. Refer to responses 12, 23, and 25.

FoLAR -- Press Articles submission

Comment noted. Thank you for your input. These references will be included in the administrative record for this study.

Glassell Park Improvement Association

See GR-A.

Glendale Rancho Neighborhood Association

See GR-A.

Great Ecology

1. Comment noted. See GR-A.

2. Regarding the comments relating to connectivity, these outputs were considered in the evaluation and comparison of alternatives, which led to the identification of Alternative 13 as the NER and tentatively selected plan in the Draft IFR. Further, in response to Independent External Peer Review comments, connectivity benefits were quantified in greater detail using IEPR recommended metrics, combined with habitat outputs from the CHAP model and subject to additional cost effectiveness and incremental analyses. See GR-B. Such analysis substantiated that the incremental costs per output are significantly higher for Alternative 20.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

However, the non-Federal sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in

the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

Heal the Bay

1. See GR-A.
2. This project is proposed as part of the Corps' mission to restore habitat values in aquatic and riparian ecosystems. Water quality improvements are considered ancillary to habitat restoration. Under Corps policy, the Corps does not propose, for Civil Works implementation, restoration projects or activities that would principally result in treating or otherwise abating pollution problems caused by other parties where they have, or are likely to have, a legal responsibility for remediation or other compliance responsibility.
3. Policy requires that the Corps consider potential climate change impacts when undertaking long-term planning, setting priorities, and making decisions affecting its resources, programs, policies, and operations. Per this requirement, the IFR has incorporated climate change in the existing conditions chapter in Section 3.2, in the impacts chapter in Sections 5.2 and 5.4, and in the Hydrology and Hydraulics Appendix (E), Section 9. Because it is difficult to quantify resilience of restoration measures to climate change, the Corps intends to design all restoration features with climate change resiliency built in. Because all restoration measures are designed to consider climate change resiliency, and because the nuances between levels of restoration are difficult to quantify, including them in the CHAP would provide little meaningful cost-benefit analysis.
4. The project alternatives are formulated to address reduced habitat values for aquatic and riparian species. Peak flow reduction is not a goal or objective of this project or the Corps' ecosystem restoration program. Various restoration strategies were examined to address the project objectives, but measures and alternatives incorporating tunnels or other diversions were eliminated due to excessive cost with minimal benefit.
5. MS4 permit information has been updated.
6. There are opportunities for construction during the flood season where impacts to conveyance could be avoided. Water would only be diverted around work areas, and would then continue downstream, therefore flows will not decrease. Refer to section 5.4.3 of the IFR. Construction period diversions will not result in reduced flows, since flows will only be routed around the various work areas and will continue downstream.
7. Maintenance of the LACDA project consistent with the existing project authorization provides conveyance of flood flows. However, as part of the request for authorization of the project, the Corps would propose to modify the operations and maintenance of the LACDA project to accommodate and complement the ecosystem restoration features, while maintaining existing flood risk management levels. The restoration features would be maintained by the City while the Corps continues to maintain the channel for flood risk management. O&M of the ecosystem restoration features in perpetuity is a non-Federal sponsor requirement. Removal of invasive species is part of the proposed ecosystem restoration project, while flood risk management maintenance is funded from the Corps' Operations budget. O&M will be further detailed in the design and construction phases of the project.
8. Funding for operation and maintenance of the ecosystem restoration project is a non-Federal sponsor responsibility, as described in Section 7.5.3 of the IFR.
9. The proposed alternatives are not intended to directly address water quality or trash coming from storm drains emptying to the river, as these are local responsibilities. However, an

ancillary effect of ecosystem restoration will include water quality benefits, and the Non-Federal Sponsor will maintain the condition.

10. Minimum summer flows are comprised primarily of discharge from Tillman Water Reclamation Plant. If climate change or other conditions result in the need to capture more of this water, summer flows could be nonexistent under the No Action Alternative. The City's Bureau of Engineering has recently announced a proposal to recapture water and reduce discharges to the river. The IFR indicates that it is possible that 1) water flows cannot be assured into the future; a condition reflected by climate change adaptation policy, and 2) a reduction in water could impact restored wetlands and open waters. However, under the action alternatives, the sponsor would be required to ensure the provision of sufficient water sustain the ecosystem restoration features. A water budget for the project is included in the report as Section 4.14.7, and Appendix E.

Historic Highland Park Neighborhood Council

See GR-A.

i2 Capital Group, Inc

See GR-A.

Kaiser Permanente

Thank you for your comment regarding the use of your property. Currently, we have not identified your parcel as being a possible staging area. The map on page 450 of the Draft IFR contained an error and is not consistent with the real estate plan. Necessary corrections have been made in the Final IFR.

Los Angeles County Bicycle Coalition

See GR-A.

Los Angeles Kayaking Club

See GR-A.

Los Angeles River Artists and Business Association

See GR-A.

LA River Expeditions

See GR-A.

LA River Revitalization Corporation

1. See GR-A.
2. We appreciate your interest in seeing this study concluded and a project recommended for authorization in an expedited manner. However, it is not possible to expedite the report process further, as statutory and policy review timelines apply.

Los Angeles Waterkeeper

1. See GR-A.

2. Water quality improvements and pollution remediation are not part of the Corps' mission for ecosystem restoration. This project is proposed as part of the Corps' mission to restore habitat values in aquatic and riparian ecosystems. The Corps' mission does not include remediation of polluted waters or soils for which other parties have responsibility. Water quality improvements are incidental to the overall goals and objectives of this project.

Los Angeles World Airports

Thank you for your letter and review of the Draft Integrated Feasibility Report (IFR).

Los Encinos School

1. Thank you for the very creative and thoughtful ABC book. Thank you as well for caring and learning more about the river, and for helping to make it a better place for people and wildlife. We agree that planting native vegetation, removing trash and protecting our natural resources are all very worthwhile goals. The Corps' proposed ecosystem restoration plan will address all of those things, but its success will partly depend on you and other members of the public to keep it in good condition. We encourage you to keep up the good work!

2. See GR-A.

Los Feliz Improvement Association

See GR-A.

Main Street Capital BIDCO

See GR-A.

Mas

See GR-A.

Metabolic Studio

See GR-A.

Thank you for the information on your “Bending the River Back Into the City” proposal, which would utilize areas adjacent to, and potentially within, features of Alternative 20.

Mia Lehrer + Associates

See GR-A.

Montrose/Verdugo City/Sparr Heights Neighborhood Association

See GR-A.

Mountains Recreation & Conservation Authority

Thank you for your comments on the IFR. Alternative 20 is one of the final array alternatives carried forward for further analysis of its benefits. However, the Corps typically recommends the plan that is the National Ecosystem Restoration (NER) Plan. In this case, the NER Plan in the Draft IFR was Alternative 13, named the ARBOR Corridor Extension (ACE), because it is the

alternative that met study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

The Recommended Plan includes a recreation plan with features that are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, interpretive signage and opportunity for environmental education, and improved public health by providing opportunities for exercise and psychological respite. The recreation plan that was initially developed to be compatible with Alternative 13 was modified to be compatible with and take advantage of the ecosystem restoration features included in Alternative 20. The features of the Alternative 20 recreation plan include additional trail improvements, pedestrian bridges, trail access points and wildlife viewing points.

Regarding a suggestion to include more recreation features and a more significant investment in recreation, please note that the recreation plans were developed in accordance with Corps regulations and policies. These policies specify the types of recreation features that are allowed at ecosystem restoration projects, as well as the intent of recreation at such projects. These regulations specify that recreation features at ecosystem restoration projects should be austere and should be developed to assure that the recreation features do not have any detrimental impacts to the primary purpose of ecosystem restoration. We expect there to be sufficient space around interpretive signage to accommodate group gathering.

Regarding the operation and maintenance costs for recreation features, these were estimated based on a percentage of the construction cost of the recreation features identified in the plan for ongoing annual maintenance. These O&M costs are not inclusive for all of the project, but are incremental above and beyond the restoration project. O&M costs for the restoration features are separately addressed.

See GR-A for a lengthier description of the plan evaluation and selection process.

Mt. Washington Association

See GR-A.

National Wildlife Federation

See GR-A and GR-B.

Northeast Los Angeles Arts Organization

See GR-A.

Oaks Homeowners Association

See GR-A.

Oakwood School, Fourth Graders

1. Thank you for your thoughtful comments. You will be pleased to know that the Corps is recommending Alternative 20 as a Locally Preferred Plan.

2. See GR-A.

Pasadena Audubon Society

See GR-A.

Santa Monica Bay Restoration Commission

See GR-A.

Santa Monica Mountains Conservancy

1. Your comments are noted; the Santa Monica Mountains Comprehensive Plan will be added to the list of institutional and technical recognition.

2. Comment noted.

3. See GR-B.
4. The Corps acknowledges that there are many benefits provided by the proposed alternatives. However, there is no one model in existence known to the Corps that would capture all the benefits described - including habitat, connectivity, rarity, air quality, recreation, economic, and social benefits. Since the Corps' primary mission in this case is ecosystem restoration, these additional benefits are considered ancillary and incidental to restoration efforts. Other benefits are described qualitatively and considered after evaluation of restoration benefits. Consideration was given to the importance of the study area as located in a biodiversity hotspot as documented in Section 2.1 under Resource Significance. Descriptions of the rarity of the Mediterranean climate will be added.
5. Refer to Response 3.
6. Refer to Responses 3 and 4. The Corps acknowledges the importance of Verdugo Wash, the LATC site, and LA State Historic Park for connectivity, and that Alternative 20 provides the greatest connectivity of the final array plans.

Alternative 13 was identified in the Draft IFR as the NER Plan, because it was the alternative that meets study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

Regarding the comments relating to connectivity, these outputs were considered in the evaluation and comparison of alternatives, which led to the identification of Alternative 13 as the NER and tentatively selected plan in the Draft IFR. Further, in response to Independent External Peer Review comments, connectivity benefits were quantified in greater detail, combined with habitat

outputs from the CHAP model and subject to additional cost effectiveness and incremental analyses. Such analysis substantiated that the incremental costs per output are significantly higher for Alternative 20. See Response GR-B. Alternative 13v is affirmed to be the NER Plan.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

7. The Corps recognizes that there are many studies available for reference, a number of which are listed in Section 1.4 and throughout the report. The Corps conducted substantial research of applicable reports, and consulted with local resource agencies and other experts. The qualitative analysis generally considered species that do not currently occur within the study area that may move through the restored environment and documents the detrimental effect of habitat loss and fragmentation.

8. Refer to Response 3.

9. Refer to Responses 3 and 4.

10. Thank you for your comment on Alternative 20 on the Los Angeles River. This alternative was one of the final array alternatives carried forward for further analysis of its benefits. As noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan.

The Recommended Plan includes a recreation plan that complements the recommended ecosystem restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

11. The Corps follows policy guidance to determine the benefits of a given study. The assessment of benefits cannot be subjective or arbitrary, therefore reviewed and approved methods are chosen to determine ecosystem benefits. While the Corps understands that maximizing benefits is a desirable approach in the highly degraded urban setting, costs must also be considered and compared to benefits to determine the alternative that supports the wisest federal investment.

Alternative 20 is both a cost effective and Best Buy plan, which is why it was one of the plans carried forward in the Final Array. As noted above, the Corps is recommending Alternative 20

as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan. Also refer to Responses 3, 4, and 6.

12. The Corps must examine a full range of possibilities and evaluate both ecosystem outputs and costs. The range of values must include both those that minimally meet and more fully meet objectives. Numerical criteria were identified that in the Corps' judgment were neither artificially low (restoring one acre of riparian habitat would not meet objectives), nor artificially high. Overly high numerical criteria can improperly limit the range of alternatives. Criteria were based on the assumed minimal increase in habitat necessary to support a meaningful opportunity for expanded wildlife usage and/or population density. These assumptions were based on literature research and best professional judgment. Riparian habitat criteria, for instance, included the minimal acreage necessary to support nesting and foraging for the federally threatened least Bell's vireo, based on an approximate average of values found in literature. Where the performance criterion for an objective states that at least one of a given feature is required, it does not limit restoration to only one such feature. Furthermore, the study does not preclude other agencies from performing complementary restoration in neighboring areas along the river.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. This variation has been identified as the NER plan on the basis of the analysis referenced above.

Alternative 13v meets all objectives. Furthermore, the study does not preclude other agencies from performing complementary restoration in neighboring areas along the river. Also refer to Responses 3, 4, 6, and 11.

13. The criteria referenced on page 6-42 include decision criteria from the Principles and Guidelines and include effectiveness, efficiency, completeness, and acceptability. Alternative 13v is identified as the NER plan as it provides the greatest amount of ecosystem restoration output for the investment cost. However, Alternative 20 has been identified as a Locally Preferred Plan. In a letter dated April 10, 2014, the City of Los Angeles requested a Locally Preferred Plan (LPP) of Alternative 20. Based on that letter the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memo dated May 27, 2014 the Assistant Secretary of the Army (Civil Works) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

14. It is recognized that Alternative 20, as the largest of the final array plans, would generate the greatest benefits to the regional economy (RED Account). As noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan (including RED, OSE and recreation).

15. See GR-A.

16. Comment noted. Habitat and trail improvements are planned in the Arroyo Seco vicinity, including a pedestrian bridge across the LA River.

Save LA River Open Space

See GR-A.

Sherman Oaks Neighborhood Council

See GR-A.

Sierra Club Angeles Chapter Crescenta Valley

See GR-A.

Sierra Club Angeles Chapter Water Committee

1. Water conservation was not an objective of this ecosystem restoration study. The Corps did consider modification to upstream facilities, but they were eliminated from further consideration due to the reasons described in the IFR. While the study does not quantify potential recharge amounts, achieving restoration goals would also provide incidental infiltration benefits. Infiltration would occur to some limited degree in all alternatives (see Section 3.4.4).

2. Regarding comments relating to the discounting of benefits and costs, all costs in the IFR are presented at constant fiscal year price levels. Interest during construction costs (IDC) are included in the investment cost estimates for alternatives presented in the report. IDC accounts for the opportunity cost of these plan expenditures during construction, prior to the completion of the project. Ecosystem restoration benefits are presented in terms of habitat units and are not monetized. Average annual habitat units were derived by taking a simple average of projected values over the 50 year period of analysis. This accounts for when benefits will be accrued as the habitat is established and matures.

Regarding comments relating to the high cost of Alternative 20, this was a key consideration in identifying the National Ecosystem Restoration Plan and Tentatively Selected Plan. Corps guidance specifies that efficiency and reasonableness of cost are key considerations in the identification of the NER Plan. Alternative 20 is substantially less efficient than Alternative 13, and the incremental cost between these alternatives is over \$600 million. These were among the key reasons that Alternative 13 was determined to be the NER in the Draft IFR. The Corps typically recommends the plan that is the National Ecosystem Restoration (NER) Plan.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively

stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan in the Final IFR.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

Regarding comments on construction phasing, the next phase of the project would be preconstruction engineering and design followed by project construction if a project is authorized. As noted, construction of a project would take a number of years, due to both project implementation realities and constraints, as well as available funding per congressional appropriations. Therefore, by necessity, the project would need to be constructed in phases. The Corps will work with the non-Federal sponsor to develop the most beneficial and logical sequence for construction of project features based on all the relevant factors. A discussion of construction sequencing is included in Section 7.5.7 in the Final IFR, in Appendix C Cost, and in Appendix F Air Quality.

3. The “Study” and the “ARBOR Study” are one and the same. Objectives for the study are outlined up front in the main document in the Executive Summary under ES.6 and in detail in the main document in Section 4.2.

4. The study took into account mammals both large and small. The reference to “small mammals” was made in error. The species list was based on input from local resource agencies as to the potential for species to occur within the study area. Coyote and bobcat were included on the list. The appendix will be edited to read “mammals” and avoid misunderstanding of the types of mammals considered. The Corps is aware of the presence of the mountain lion (P-22) in Griffith Park adjacent to the study area.

The Corps acknowledges that many stressors occur within such a highly urbanized area. Stressors were evaluated in collaboration with local resource agencies, and those listed in the report were determined to be the most impactful to vegetation/habitat elements, and have the greatest potential to affect presence or absence of wildlife within the study area. The type of trash and means of arrival in the study area were not distinguished, as all trash was considered a detriment. Regardless of size, homeless encampments were considered to have a detriment through trampling of vegetation and altering of habitat structure.

5. As indicated in the CHAP Appendix G on pages 16, 42, and 51, “Due to the large volume of data, maps, and spreadsheets, the complete set of files is available upon request from the Corps, Los Angeles District.” Files were made available upon request by commenters to allow for further evaluation.

6. The comment references maps starting on pg 17 of Appendix G. These maps reference proposed features of the alternatives; they do not include existing habitat within the study area which is referenced in your comment.
7. The Corps is not aware of osprey nests currently existing within the Taylor Yard site. Any removal of osprey nests during initial clean up of the site was not a Corps activity.
8. The outflow from the treatment plants is covered in several sections in the report. For instance, on page 3-26, we state "Discharges from the Donald C. Tillman Water Reclamation Plant upstream of the study area, and the Los Angeles-Glendale and the Burbank Water Reclamation Plants are contributors to the River, contributing 20, 15.5, and 6.4 million gallons per day, respectively, or 31, 24, and 10 cfs, respectively (City of Burbank 2013)." And also on page 3-24, "The River is an effluent-dominated waterbody. Nearly 70 percent of the volume in the River 48 is from Water Reclamation Plant tertiary-treated effluent discharged outside of storm events (Ackerman 49 2003)." And on page 3-66, we state "Greywater from Tillman Treatment Plant and the Los Angeles/Glendale Water Reclamation Plant, and stormwater from surrounding cities are discharged into the River. During the summer months these inputs may be the only source of water in the River." The Corps is aware of proposals to reduce flows to the river due to recapture efforts. As part of its commitments for the restoration project, the City of Los Angeles is required to ensure the adequate provision of water to sustain the restoration features.
9. See Response 1.
10. The final array of alternatives considered restoration of the confluences of the Arroyo Seco (Alt 13, 13v, 16, and 20) and the Verdugo Wash (Alt 20). Due to the scope and scale of complete restoration of these tributaries, the study could not include restoration of their entire length in this one project. Other Corps studies as well as projects from other agencies may provide future opportunities for restoration along the whole of those tributaries, as well as connectivity to other regional areas.
11. The IFR addresses many of the challenges faced by fish and wildlife species under existing and "future without project" conditions.
12. "Functioning ecological zones" refers to regional areas that support functioning ecosystems, such as the San Gabriel Mountains and Santa Monica Mountains. It refers to improving "habitat connectivity" to these areas.
13. Although we are not certain of the particular report referenced by the comment, the Corps is aware of several existing or potential corridors documented in literature, and the IFR addresses several opportunities for improvement throughout the document (Sections 3.5.7, 5.5).
14. Section 3.10 - Aesthetics of the report makes no such reference, and no such maps are depicted. The Glendale Narrows are encompassed in Reaches 4 to 6. In Reach 4, the river does run adjacent to Griffith Park to the west. However in Reaches 5 and 6, to the west of the river are residential and industrial uses. In describing the Aesthetics of Reaches 4 to 6, the report states in Section 3.10.1 on Page 3-68 "In some areas, the forested and scrub-shrub habitats of Griffith Park and Elysian Park can be seen rising in the west, though they are both separated from the River by roads and other development."

The IFR does not state or imply that Griffith Park has little or no habitat value. The land use section, 3.3, describes land uses in the area and clearly shows Griffith Park as Open Space/Recreation in Figures 3-5 and 3-6, which is defined in Table 3-5 as "Environmentally sensitive habitat, wildlife refuge/preserve, river, stream or floodplain, coastal bluff, vacant urban

land. State, county, city parks or beach, recreation facility, cultural center, golf course, campground.” Mapping also clearly shows the Glendale Narrows as adjacent to residential and industrial uses in Reaches 5 and 6.

15. The Corps concurs that tourism is an important component of the local economy. The breakdown of employment by industry follows the standard categories per the US Census. Tourism related employment would be largely encompassed within the categories of retail trade and arts, entertainment, recreation, accommodation and food service. The purpose of this socioeconomic data is to present a broad perspective of the Study Area economy, rather than the specific businesses and employment within the immediate area adjacent to the river. Note that the report includes an evaluation of specific opportunity areas for redevelopment that could be realized adjacent to the river under project alternatives in the regional economic development analysis.

Regarding comments on environmental justice, the IFR and Economic Appendix specifically evaluate the other social effects (OSE) associated with project alternatives. The Final IFR contains a robust environmental justice analysis in Section 3.13 and in Section 5.13. It is recognized that the study area has large lower income and minority populations, and the area has a strong need for additional parks and recreation opportunities, in particular neighborhood parks. While many of the comments on environmental justice concerns are outside the scope of this study, all alternatives would provide significant benefits to the local population, as outlined in the OSE analysis. Alternative 20 has been selected as the Locally Preferred Plan and is the Recommended Plan.

A recreation plan was also developed which is compatible with the recommended plan and does not detract from ecosystem outputs while enhancing recreation opportunities in a restored ecosystem setting. This recreation plan will also provide significant benefits to the local population. Restoration at the Verdugo Wash confluence was evaluated in the array of alternatives and is included in Alternative 20.

16. The Corps recognizes the seasonal passive recreation activities allowed in and along the river from Fletcher Drive to just upstream of Riverside Drive. The Corps participated in the development of the Los Angeles River Recreation Zone, which includes walking, birdwatching, fishing (with a license), and non-motorized boating from Memorial Day to Labor Day. Signage addressing the Recreation Zone rules including fishing rules is provided along the subject reach.

With regard to swimming, swimming is not currently allowed in the river, including within the Recreation Zone, and would not be advisable for a variety of safety and health reasons.

Marsh Park is managed by the MRCA. The map of this area will be reviewed for accuracy. However, maps of such areas are not intended to be prepared to precise scale as this would not affect the impact assessment.

With respect to bicycle trails, existing authorized bicycle trails are shown on the mapping although we realize that other trails and maintenance roads are utilized throughout the study area.

17. The model utilized to evaluate the cost effectiveness and incremental costs of project alternatives is IWR Planning Suite. Information on this model, as well as a link to download the

software, is available at the following publicly accessible website - <http://www.pmcl.com/iwrplan>. Section 6.2 of the Economic Appendix (Appendix B) describes the model, the model purpose, inputs and outputs. Primary inputs and outputs to the model are the average annual costs and habitat units for each plan. Tables 6.2 and 6.3 of the Economic Appendix show the inputs for the analysis, while subsequent tables and graphs show the outputs.

18. Section 4 of the IFR outlines the Federal Objectives as well as specific planning objectives for this feasibility study.

19. The IFR including EIS/R is considered adequate for NEPA purposes. The Final IFR will be circulated to the public for comment, but no supplemental Draft IFR is needed.

20. A public involvement summary is included in chapter 8 of the IFR. The charrette (scoping) report is available to the public upon request. The MMRP will be included in the Final IFR.

21. The surface inputs from the drainage area were assessed as part of this study, as were groundwater sources. Information in the report can be found at Section 3.4 and Appendix E. A water budget analysis was prepared that characterizes the current conditions along the ARBOR reach of the Los Angeles River and provides comparison to each of the four alternatives. The level of detail for the water budget is commensurate with that required to determine the feasibility of the proposed features. The analyses mentioned in the comment are outside the scope of work for this study.

22. As described in the IFR, once construction is complete, rail operations can return to a before-project state; thus, there would be no long-term operational impact on active rail lines. As stated in the IFR, the project would coordinate with railroad stakeholders to ensure continuous operation and appropriate safety measures. Project impacts on potential future rail projects such as line extensions would be addressed through these coordination efforts.

23. The assessment includes minimization and mitigation measures where necessary. The project description, setting and assessment are sufficient to support the feasibility phase.

24. Comment noted. Hazardous substance contamination of lands and groundwater within the study area is assessed in the report and appendices. The City will ensure that hazardous substance remediation on land needed for the project is completed prior to project construction. The sites identified as having known or likely hazardous substance contamination are not used for recreational purposes and are outside existing waters of the United States. Any remediation plan will be conducted in accordance with state regulatory agency approvals. The City will ensure proper handling, treatment and disposal of any contaminated groundwater encountered during construction.

25. The City, as part of its commitments for the project, will assess its financial capability for its share of total project costs. The proposed project would be implemented over several years. The City already owns some of the land to be utilized for the Recommended Plan.

26. This is a feasibility level planning and assessment document. Signed agreements prior to NEPA analysis are inappropriate.

27. The cumulative impacts of this project considered along with past, present and reasonably foreseeable future actions are included in the IFR in the cumulative impacts section. Some projects are too speculative to include. With respect to water availability and diversion, the City is responsible for ensuring the provision of adequate water to support the restoration features.

28. The IFR assesses current recreation opportunities within the study area and the recreation plans for the project. The IFR also assesses environmental justice impacts of the project alternatives. See sections 3.13 and 5.13. The project is not proposing any form of redevelopment which might have the potential for gentrification or low income dislocation. In the cases of

restoration of the Verdugo Wash confluence and the LATC site, businesses would be displaced, but the effects of doing so on EJ communities has been analyzed in the IFR.

29. The Corps does not agree that the document is inadequate, incomplete or based on unfounded conjectures. An EIS must be a technical, legal, scientific, and analytical document to provide for reasoned analysis among project alternatives. The differences among and the effects of the alternatives are given in sufficient detail in the IFR. The Draft IFR will not be recirculated; however, the Final IFR will be circulated for a 30-day state and agency review during which time the public may provide additional comment.

30. The comments provided in this format are difficult to follow and often include added emphasis and repeated information from the report that does not indicate what question is being asked or comment made. All reasonable efforts have been made to respond to the comments.

31. Both quantitative and qualitative assessments were conducted in the analysis. Where qualitative analyses were made or terms of art were used throughout the report they are defined within the document. References to the connectivity analysis are updated in the final IFR.

The connectivity analysis included in Chapter 6 of the report describes the percentages cited. Additional connectivity analysis was conducted and is included in the Final IFR.

Reference to costs and benefit analysis conducted as part of the study is appropriate to disclose and include in the IFR, both for Corps planning purposes under the Principles and Guidelines and under NEPA regulations. NEPA regulations at 40 CFR 1502.23 specifically state that where cost-benefit analysis is relevant to the choice among environmentally different alternatives, that analysis should be disclosed or incorporated into the document.

The report assesses environmental justice under NEPA and the Executive Order on environmental justice. The executive order directs federal agencies to identify disproportionately high and adverse impacts to environmental justice communities. The environmental justice analysis is in the IFR in sections 3.13 and 5.13.

32. The report discloses current levels of flood risk management throughout the study area. The proposed project alternatives provide ecosystem restoration. There is no planned associated flood risk management project at this time and no segmentation or piecemealing of connected actions. The project alternatives do not preclude future flood risk management studies and improvements. The Corps most recently studied flood risk management within the study area in its 1992 review report and no recommendations for increased levels of flood risk management were made for the study area, although a project was recommended for the downstream portion of the river.

With respect to water availability, a water budget for the project alternatives is included in the IFR. With respect to liquefaction, liquefaction requires soils susceptible to liquefaction, high groundwater, and seismic shaking/source. The IFR analysis concludes that neither the Recommended Plan nor any of the alternatives would induce a significant change in any of the above liquefaction required conditions. General objections to report content cannot be addressed by the Corps.

33. The groundwater figures presented in the geotechnical appendix to the IFR are based on water level data from the Geotracker database. It should be noted that this configuration is based on water levels taken at different times and is an approximation of local water levels without noting seasonal impacts. These data provide a general description of the configuration of the

groundwater conditions in the vicinity of the ARBOR. Based upon these data and visual observations of emergent seepage within the channel it is understood that groundwater is at or very near the elevation of the existing channel bottom. The groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of their impact to and from the alternative plans. The analysis in the report quoted in the comment is not dependent on project specific modeling. We do not anticipate any significant changes in the groundwater regime based on the alternatives. Therefore, development of detailed groundwater modeling is not necessary for this study.

34. See response 33. The groundwater analysis is adequate for the evaluation of alternatives

35. The groundwater model provided in the report relies upon available groundwater data. The referenced studies address site and project specific issues that are not specifically related to the concerns of the ecosystem restoration study. However, the basic data (groundwater elevations) were used to assess the impacts of groundwater on all of the alternatives. It is our opinion that the model that has been provided is adequate for its intended use.

36. Wherever the existing channel bottom is open, groundwater is in close proximity to the invert elevation. Changes in the groundwater elevation are a function of the differences in inflow and outflow which are principally impacted by climatic and seasonal weather patterns as well as man-made discharges into the channel. These conditions have persisted throughout the recent past and are expected to continue into the future relatively unchanged. Visual evidence alone suggests that both surface and groundwater conditions are sufficient to support vegetation.

37. It is the Corps' opinion that surface and groundwater connections as discussed above, from a feasibility standpoint, are adequate to evaluate project alternatives. The alternatives will rely upon the available sources of water to support vegetation.

38. Your comment is acknowledged. It is the Corps' opinion that the groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of the alternative plans. See response 33.

39. Your comment is acknowledged. It is the Corps' opinion that the overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area discussed in the IFR and its appendices are adequate with respect to the evaluation of the alternative plans. The Feasibility Study relies on existing information and institutional knowledge to support the conclusions reached for proposed habitats. Detailed surface to groundwater modeling is far beyond the scope for this study and is not needed to evaluate the alternative plans.

40. See response 33.

41. The figure is conceptual in nature and is in no way fully representative of the highly complex and interdependent surface and subsurface groundwater regimes. Nor was the figure intended to depict isolation of groundwater or surface water conditions. The double arrow was intended to imply interaction.

42. Groundwater regimes were discussed in the Geotechnical Appendix as well as in the H&H Appendix. See response 33.

43. "Blowouts" and "soil boils" can be generated anywhere where confining materials are insufficient to confine increased pore pressures that are generated by either cyclical induced stresses (in the case of seismic induced liquefaction) or sustained pressure head differential caused by flood loading. Both of these conditions are well researched and documented in the geotechnical engineering and engineering geology literature. In addition, numerous analysis procedures and design applications are available to mitigate adverse impacts from these

conditions. Seepage design of levees and flood control systems incorporate the increased flood induced pore pressure considerations and are outlined in engineering design manuals (EM 1110-2-1901 et al.). Separate from the flood induced issues, seismic induced liquefaction is routinely studied as part of typical geotechnical design in Southern California and would be studied during the design phase as required by the standard of practice and care and pertinent California State Laws. Furthermore, the levees within the project reach are of limited height and the flood loading durations are of a relatively short duration. Therefore, the potential for “blowouts” and “soil boils” is considered minimal.

44. It is acknowledged that some quantity of flow within the river is due to the emergence of groundwater. However, during storm events, groundwater emergence would be severely limited by the increased pressure head due to flows in the channel, and at some locations the pressure head may be significant enough to induce infiltration. A significant amount of this induced infiltration will likely re-emerge after the flood has subsided. Regardless of the quantity, groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of the alternative plans.

45. The IFR recognizes the historical uses of both the Taylor Yard and LATC sites. Taylor Yard is recognized as having known contamination, with LATC indicated to have likely contamination based on past and current use. The IFR development involved consultation and review of many available sources. The level of detail included in the IFR is sufficient for project alternatives analysis. It is recognized that these sites would require remediation prior to project construction, at 100% non project cost. The City would ensure the remediation of land contamination is complete prior to project construction.

46. An assessment has been completed of the utilities affected by the project that would require protection in place or relocation. These utilities are listed in the Real Estate Plan.

47. The statements in the IFR are accurate with respect to flood risk management levels, not arbitrary or subjective. Specific levels were not provided in the IFR, because the conveyance capacity varies throughout the study area reaches, and flood maps were included in Appendix E of the IFR to show impacts of flooding during various events. The Hydrology and Hydraulics Appendix provides additional information and includes details from the Corps’ 1992 LACDA Feasibility Study, which was specifically done to assess flood risks along the Los Angeles River and tributaries. Specific information on design level and approximate existing capacity level is available from the Corps and has been shared with the public on numerous occasions. The City is in the process of requesting a LOMR.

48. Comment noted. The final document will resolve such issues with cross references.

49. The report includes estimated costs for trestling of railroad tracks in Reaches 7 and 8 as part of the LERRD for the project. With respect to HTRW remediation and response, the report provides an order of magnitude estimate for the remediation, which the City would ensure is complete prior to project construction at 100% non project cost. These costs are considered when assessing feasibility but are not part of the total cost shared project costs. Remediation of all groundwater contamination within the study area and sites not affecting the project alternatives is outside the scope of remediation necessary for the project alternatives. The IFR has assessed the likelihood of contamination that would affect lands necessary for the project and assigned the costs associated with those lands’ remediation.

50. The determination of whether to prepare an EIS or an EA is not based on the study or project stage. It is typical for the Corps to prepare an EIS for complex feasibility studies. The level of design does not render the IFR inadequate or incomplete. The level of design is appropriate for

impact assessment. If additional, previously unassessed impacts are identified during design, the Corps would prepare a supplemental EIS or EA as needed.

51. The language specifically states “Similar to Alternative 10, there would be six reaches with restored riparian corridors in overbank areas (1, 2, 4, 5, 6, and 8)”. Reach 7 is dis-similar from Alternative 10 in that it performs restoration in Reach 7 in-channel at the Arroyo Seco tributary, which is why it is not encompassed in the statement on page 4-56 line 12-13. In Alternative 10, Reach 7 is restored only with daylighted streams currently encased in culverts.

52. The designs and cost estimates are prepared at a feasibility level of detail and are appropriate level of detail for an EIS/EIR. As is standard practice for a Corps of Engineers project, there is a design phase following feasibility when preconstruction engineering and design occurs. If approved, that phase will occur in the future. The documentation has been prepared with the information available at this time. If additional impacts are identified during more detailed design phases, or even during implementation, then the Corps and non-Federal sponsor will prepare and circulate a Supplemental EIS/EIR or Supplemental Environmental Assessment/Negative Declaration as appropriate.

53. LERRD costs in the Draft IFR were based on cost estimates. LERRD costs in the Final IFR are based on a gross appraisal and assessment of relocation costs. Formal relocation agreements are developed prior to project construction and after NEPA/CEQA analysis.

54. Terms of art and technical terminology, where used in the report, are explained where appropriate.

55. The preparers are aware of the locations of railroad tracks in the study area. This section was not intended to imply tracks would be relocated or closed for significant periods. Rerouting of mainline rail is not proposed. The Final IFR in Section 5.7.3 more appropriately conveys the fact that the intent is to minimize delays to rail transportation, although some delays may occur. The project proponents acknowledge that the rail lines that would be trestled to connect to lines running east along the north and south borders of the LATC site. As described in the Draft IFR, impacts from trestling a portion of the rail line, and, by extension, to rail routes using those tracks, would be short-term because the intent is to construct the trestle prior to removal of the existing rail line.

As stated in the IFR, the project would coordinate with railroad stakeholders to ensure continuous operation and appropriate safety measures. Trestling the rail lines would be part of the City of Los Angeles’ provision of LERRD for the project and the City would negotiate appropriate relocation agreements. Formal relocation agreements are inappropriate prior to NEPA compliance. The IFR includes costs of the trestling in the total project cost.

56. The trestle proposed in association with Cornfields is depicted at the end of Chapter 4, Sheet 4: Reach 6-8. Engineering designs for the bank-side and trestle tracks have not yet been completed since the project is still in the NEPA/CEQA analysis, proposal, and planning stage. The designs will be prepared by engineers to ensure their technical feasibility and safety.

57. Comment noted.

58. Comment noted. This project is not for the purpose of increased flood risk management, although maintaining existing levels of protection is a main project constraint.

59. The basis for this comment is uncertain. No pollution release due to contaminated soils or groundwater would occur with the project alternatives. The existing SFVSS plume and potential for localized groundwater contamination are acknowledged and the IFR documents the approach for the City to address such contamination during project activities such as dewatering. Proper

treatment and disposal will be performed. With respect to contaminated lands, the project will not undertake construction until hazardous substances are remediated. Cost estimates for addressing contamination are included in the IFR appendix on HTRW.

60. The recommended assumption is unwarranted. The alternatives are not expected to have a significant impact on the existing groundwater conditions. See Appendix D, Geotechnical Section 5.1 and IFR 5.4.

61. The point of the referenced section is that restored river channel with additional natural wetland and riparian vegetation will improve water quality. More detailed discussion of environmental chemistry and bioremediation is not pertinent to the well-established fact that water quality is improved by wetlands.

62. The word “biologic” will be removed from before “organisms” in the identified location. This is an editorial change that does not affect the overall analysis. Related statements are not erroneous as stated by the commenter.

63. Assessment in the IFR is based on available information including a database search. Future investigation of potential groundwater and soil HTRW issues will be addressed during PED by the non-Federal sponsor. Per Corps policy, construction will not begin until a clean site acceptable to applicable regulatory agencies has been provided to the project. The City will ensure proper handling, treatment and disposal of any contaminated groundwater encountered during construction.

64. Per CEQA guidelines, CEQA significance criteria are outlined for each environmental resource (see “Significance Criteria” from Sections 5.1 to 5.13 (except Air Quality which is in Section 5.2.3)). Significance criteria define that a significant impact would occur if those criteria were met. Significance criteria provided in this IFR are based on the environmental checklist in the California 43 Environmental Quality Act (2005) and Los Angeles CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles (City of Los Angeles 2006) guidelines.

65. The IFR analysis is conducted at a feasibility level. Formal agreements with railroads prior to NEPA analysis are inappropriate. The Corps and City have discussed potential impacts with various rail entities. As indicated in the IFR, minimization of construction impacts on rail services is accounted for in the alternatives and would be further addressed during the design phase.

66. In this study, the hydrologic connection is considered “natural” in that water is able to flow freely between the river and the adjacent site without the use of artificial methods such as pumps, culverts, or gravity fed pipes.

67. Wildlife inhabiting the study area are expected to be accustomed to the existing urban noise levels. Furthermore, with removal of the rail operations at Piggyback Yard, noise levels may be expected to decrease in the area.

68. “Natural” is used here as a relative term based on the context of the surrounding, highly urbanized and highly degraded areas. In this study, the hydrologic connection is considered “natural” in that water is able to flow freely between the river and the adjacent site without the use of artificial methods such as pumps, culverts, gravity fed pipes, etc. Habitats generally refer to vegetation communities supporting populations of various wildlife species, again in the context of the highly urbanized setting.

69. The northwest portion of the Boyle Heights community is within Reach 8. The Northeast Los Angeles Community Plan covers portion of reaches 3-7. Information on this Plan has been added to the chapter. The USC-LA County Medical Center Master Plan area is east of Interstate

5 and east of Piggyback Yard and has no strong bearing on this project. Cumulative effects related to groundwater resources and contaminated materials are discussed in section 5.14.2. The sponsor will ensure appropriate handling, treatment and disposal of any contaminated groundwater encountered during construction in the project right-of-way; cumulative effects would only come into play where there was an immediately adjacent project and, in that case, the other project would also be expected to appropriately handle any contaminated groundwater or soils in their project footprint.

70. Approximately 1 1/2 miles of the LA River is within the Cornfield/Arroyo Seco community. A review of the CAS community plan does not uncover any substantial inconsistencies with the LAR project as the buffer area on the west side of the river is designated as a public facility.

71. Eight projects in the LA River watershed are being funded in whole or part by bonds resulting from the passage of Prop O. The projects are designed to improve water quality in the LA River watershed. New bridges proposed outside of the ones included in the project are discussed in 5.9.3. Several historic bridges in the project area are being proposed for possible replacement including the Sixth Street viaduct.

72. Comment noted.

73. The site on which on the LATC is currently located is included in all action alternatives. The provision of the LATC site would be part of the sponsor's LERRD responsibilities.

74. As described in the IFR, alternatives require the inclusion of the site where the LATC is currently located. The Corps of Engineers and City of Los Angeles are aware of the requirements involved with LERRDs and the LERRDs estimate includes those costs.

75. Your comment is acknowledged. The IFR evaluated available information. Future investigation of potential groundwater and soil HTRW issues will be addressed during PED in cooperation with the non-Federal sponsor. Per Corps policy, construction will not begin until a clean site acceptable all regulatory agencies has been provided to the project. With respect to groundwater contamination, the sponsor will be responsible for addressing groundwater contamination during construction, including appropriate treatment and disposal during dewatering activities.

76. The statements in the report are clear. Per Corps policy, construction will not begin until a clean site acceptable to regulatory agencies has been provided to the project. With respect to groundwater contamination, the sponsor will be responsible for addressing groundwater contamination during construction, including appropriate treatment and disposal during dewatering activities.

77. Your comments as to what should be considered "natural" are noted. The project proponents are aware that the channel is engineered for flood risk management. This project is seeking to restore ecosystem function as much as possible within the recognized constraints. With those constraints an entirely natural channel is not possible, but what is possible is improvement of existing ecosystem conditions.

78. The "1 percent/100-year recurrence protection" is a concept used by FEMA to assess flood insurance. The Corps of Engineers used different methods to design the Los Angeles River channel in the 1930s and 1940s. The flood risks are documented in Section 2.3 of the IFR and details are provided in the H&H Appendix (Appendix E).

79. HTRW evaluation was based on available information. The non-Federal sponsor will perform, or ensure the performance of, investigations to characterize the existence and extent of hazardous substances during the Planning Engineering and Design phase of the project. Per Corps policy, construction will not begin until a clean site acceptable to regulatory agencies has

been provided to the Corps. Methane and hydrogen sulfide as related to worker safety would be a concern as related to underground construction or confined spaces. The proposed project does not include construction measures undertaken underground or in confined spaces and no methane or hydrogen sulfide safety issues are anticipated. Standard operating procedures in accordance with federal, state, and local occupational health standards will be followed.

80. The typographical error on the title to Figure 4.15 will be corrected.

81. Comment noted; left and right banks are standard terminology when referring to a river channel. Cardinal directions were added to the text as descriptors for the public.

82. Trestles, if necessary for the recommended alternative, would be designed during PED. The typical cross sections are merely intended to show the location of the trestles, not specify design details.

83. The LATC would no longer be located on the subject site; therefore, provisions for the infrastructure in the comment are unnecessary. Trestles are only shown where they would be necessary if those measures were to be included. Not all existing infrastructure is included on the typical cross sections.

84. There is no intent to elevate the entire LATC site onto trestles. The referenced sentence in Appendix A has been revised for clarity. As previously stated the LATC site would be utilized for the project, with rail yard use no longer on site, but the existing rail lines along the river would remain in place. The corrected sentence reads, "Existing main line railroad tracks adjacent to the LATC parcel would be rebuilt on trestles at existing elevation to allow flow through and connection of the riparian zone and marsh habitat to the main channel."

85. Comment noted. See response 84.

86. Trestling plans will be determined with the affected railroads under relocation agreements between the City and the railroad.

87. Freshwater marsh can also be supported by intermittent or ephemeral water sources. The assumption is that daylighted storm drains will support wetland habitat as depicted in Figure 3.1.

88. The section being referenced is Alternative 20 in Reach 7. As shown in attachment 3, a trestle is included with implementation of restoration at this location.

89. The term biota as used here was a general reference to living organisms; it will be replaced with "habitat."

90. Comment noted. See responses to 84 and 85.

91. In Alternative 13, marsh vegetation will be planted throughout the LATC site with minimal impacts to the active rail lines, since they will be left at grade. In Alternative 16 and 20, marsh vegetation will also be planted; however, the active rail lines which run parallel to the Los Angeles River will be trestled at grade.

92. As stated throughout the report, the action alternatives that require the LATC site and the rail yard would no longer use the site. This has been captured in the LERRD cost estimates.

93. Operation and maintenance of relocated facilities and utilities will be conducted by the facility/utility owner, not as part of the project.

94. It is recognized that there are uncertainties and risks inherent to costs developed for a feasibility study. The contingencies have attempted to capture these risks in applying cost contingencies. It is understood that relocations will require coordination with railroads.

95. Your comments regarding oil seeps, H₂S migration, and methane migration from natural sources are acknowledged. These occurrences are not uncommon in Southern California and have been documented in the historic literature. However, the USGS and the California Division of Oil and Gas do not indicate the presence of oil or gas seeps along the length of the ARBOR

reach. The lack of definitive locations for oil and gas seeps does not preclude the potential that they will be discovered during future investigations or during construction.

Your comments regarding potential data sources for historical uses and potential contamination sources are acknowledged. The referenced maps, while historically significant, do not definitively define the extent and quantity of potential HTRW conditions for specific sites. These maps along with other available resources are considered tools for planning the comprehensive subsurface investigations for determining the nature and extent of HTRW impacted soil and groundwater. Future studies will need to further quantify the nature and extent of recognized potential HTRW sites.

HTRW assessment was based on available information. Prior to construction, the non-Federal sponsor will perform, or ensure the performance of, investigations to characterize the existence and extent of hazardous substances. Per Corps policy, construction will not begin until a clean site, acceptable to regulatory agencies, has been provided to the Corps by the non-Federal sponsor.

The potential presence of contamination in the vicinity related to railroad operations, lumber, and coal gasification facilities is recognized. The extent and degree to which previous industrial operations have impacted specific sites cannot be fully determined until detailed site investigations can be completed. These investigations will require access to property and authorization to conduct an unencumbered investigation. When access and authorization are granted, these investigations will be completed. Review of the Department of Oil and Gas documents did not reveal the presence of shallow oil wells in the area of Reaches 7 and 8. Productive formations, sedimentary rocks that produce oil and gas, exist throughout the Los Angeles Basin. The presence of methane and hydrogen sulfide in underground excavations is not uncommon in the Los Angeles Basin given the geologic conditions and the long history of oil production. These conditions are problematic in underground work, but have not been a significant issue in open excavations. The existing Los Angeles River is an open channel and the proposed modifications will remove portions of the existing concrete lining. Methane and hydrogen sulfide that is present within the underlying bedrock is expected to emanate slowly over broad areas and is further defused as it passes through the overlying alluvial sediments that occupy the river channel. Eventually these gasses are dissipated to the atmosphere. This process has occurred for millenia and is expected to continue in the future.

96. Review of aerial photographs, historic topographic maps, site visits, personnel interviews and other investigation procedures are tools utilized in the early stages of investigation to determine previous land use and the possible impact to the property. They also assist in planning of more focused and detailed investigations. In themselves they are not definitive. The history of railroad activities at Taylor yard and LATC was evaluated by the Corps, utilizing the conditions illustrated on historic USGS topographic maps that span the period of time from 1894 to the present. From 1894 to 1928 LATC grew from a single rail track to the Southern Pacific Rail Road Shops consisting of shop buildings, extensive sidings and a roundtable. During this same time period Taylor Yard had grown to become an extensive rail yard with numerous sidings and shop buildings. By 1953 both yards were nearly identical with shop buildings, rail sidings and roundtables, and both are described as Southern Pacific Rail Road Shops. The only noted difference was the presence of above ground oil tanks at Taylor.

97. The IFR indicates that HTRW contamination is likely. It does not conclude there is no contamination based on the records review.

98. See response 95.

99. The IFR indicates that HTRW contamination at LATC is likely. The order of magnitude cost estimate for remediation is provided in the IFR. Your estimate is noted.

100. The Draft IFR bases its rough cost estimate on likely contamination from historic uses and potential methods of remediation consistent with the use of the land for ecosystem restoration purposes. Prior to construction, the City would perform or ensure the performance of investigations to characterize the existence and extent of contamination at the site.

101. Your comment is acknowledged; however, no contradiction exists as the shallow and deep components are both in an unconfined condition and are consistent with the SFVSS model. The groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of the alternative plans.

102. Your comment is acknowledged; however, the project does not require remediation of any and all groundwater contamination within the region; the groundwater contamination encountered during construction will require proper handling, treatment and disposal. Remediation of groundwater contamination unrelated to project implementation is beyond the scope of the project alternatives. It is the Corps' opinion that the groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of the alternative plans.

103. The implied geochemical reactions of anhydrous calcium sulfate, H₂S and water are not relevant to the section of this report. The intent of the discussion presented was to show the existing connection between surface waters and groundwater through the current engineered pressure relief system. This interchange existed prior to construction of the existing flood control channel and will occur if and when the concrete surface linings are removed.

104. Your comment is acknowledged. The groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of their impact to and from the alternative plans. The analysis in the report quoted in the comment is not dependent on project specific modeling. We do not anticipate any significant changes in the groundwater regime based on the alternatives. Therefore, development of detailed groundwater modeling is not necessary for this study.

105. Your comment is acknowledged. The groundwater conditions discussed in the IFR and its appendices are adequate with respect to the evaluation of their impact to and from the alternative plans. The analysis in the report quoted in the comment is not dependent on project specific modeling. Detailed modeling is not required to recognize existing basic groundwater/ surface water interaction within the ARBOR reach.

106. Your comment is acknowledged. Known and suspected HTRW contamination within the study area is assessed at a feasibility level without bias for any action alternative, with order of magnitude cost estimates provided for the sites within the project alternative footprints. The City will further assess distribution and levels to develop fully detailed remediation plans. The non-Federal sponsor will ensure remediation of HTRW at 100% non-project cost.

107. Your comment is acknowledged. Known and suspected HTRW contamination within the study area is assessed at a feasibility level without bias for any action alternative, with order of magnitude cost estimates provided for the sites within the project alternative footprints. Prior to construction, the City will perform, or ensure the performance of, investigations to characterize the existence and extent of hazardous substances. The Draft IFR is clear in stating the requirements for remediation of contaminated lands prior to project construction and for

appropriate handling, treatment and disposal of contaminated groundwater encountered during construction at 100% non-project cost.

Silver Lake Reservoirs Conservancy

See GR-A.

Studio City Neighborhood Council

See GR-A.

Studio City Residents Association

See GR-A.

The City Project

1. See GR-A.
2. The primary purpose of the project is ecosystem restoration. While a secondary purpose of the project is to provide recreational opportunities consistent with the restored ecosystem, larger scale park and green space elements are beyond the project's scope.
3. Relevant information provided in your comments has been incorporated into the report. In some cases, similar references were already included in the socioeconomic sections (3.13 and 5.13) and a discussion of other social effects are found in Appendix B.
4. The Corps and the City of Los Angeles take compliance with all applicable federal, state, and local laws seriously. This includes the Executive Order concerning environmental justice. The environmental justice analysis has been updated to reflect the most current census information. The discussion of environmental justice has been expanded to more clearly address benefits to EJ communities. Also see Table 6-7 for comparison of social issues by alternative.
5. In reference to the listed steps: 1) The NER Plan and the Recommended Plan (the Locally Preferred Plan) are discussed in detail in Chapter 7. 2) An EJ analysis focuses on disproportionate adverse effects. However, additional text has been added showing the beneficial effects of the project alternatives as well in Table 5-46. 3) See Chapters 3 and 5 for analysis of alternatives. 4) Final decisions made by elected officials; opportunities to provide public comment throughout process - see Chapter 8 for details. 5) See response to point 2 above.
6. The Corps and the City of Los Angeles take protection and preservation of Native American cultural resources very seriously. As stated in the IFR, "The USACE contacted the California Native America Heritage Commission for a search of the Sacred Lands Inventory file to determine if there is any record of sensitive sites or traditional cultural properties that may be present and to obtain the most current list of Native American contacts for consultation. The Native America Heritage Commission responded that there were Native American cultural resources present and provided a list of tribal contacts for the USACE for consultation on these resources. The USACE contacted tribal representatives by letter in September of 2012. To date no responses have been received by the USACE. The USACE will continue efforts to inform and consult with tribal representatives regarding any cultural concerns that they might have. A copy of the draft EIS will be sent to the tribal contacts for their review and at each stage of the Section 106 process they will be invited to comment and participate." Furthermore, the IFR also states that "Focused, site-specific consultations would be conducted with Native American individuals and tribes and other ethnic communities to determine whether there are particular areas where there may be traditional cultural concerns."

7. A memorandum on health considerations has been added to section 5.11, Public Health and Safety, in the IFR.
8. Thank you for your suggestion to promote economic vitality through green jobs programs for diverse local youth and other residents, which will be considered by the City. It should be noted that the project's principal objective addresses habitat restoration, not job creation.
9. The primary purpose of the proposed project and alternatives considered in this Study is to restore approximately 11 miles of the Los Angeles River from Griffith Park to Downtown Los Angeles by reestablishing riparian strand, freshwater marsh, and aquatic habitat communities and reconnecting the River to major tributaries, its historic floodplain, and the regional habitat zones of the Santa Monica, San Gabriel, and Verdugo mountain ranges while maintaining existing levels of flood risk management. A secondary purpose is to provide recreational opportunities consistent with the restored ecosystem. The analysis includes an examination of whether or not there are disproportional adverse effects of the alternatives; this is different than assuring equal benefits or access to new improvements.
10. Comment noted. Also see response to number 6 above.
11. A number of habitat and riverbank improvements have been examined – see Chapter 4 of the IFR.
12. Comment noted. The project purpose relates to restoring a portion of the Los Angeles River and, secondarily, providing recreational opportunities consistent with the restored ecosystem. New multi-use walking and biking paths would be constructed as part of the project. Providing transportation improvements for access is beyond the scope of the project and should be addressed in other planning venues.
13. The Corps and the City of Los Angeles have been and remain committed to extensive public outreach effort on this project. See Chapter 8 (Public Involvement) in the IFR, including efforts aimed at environmental justice communities. Continued opportunities for public input will be offered as the project moves forward.

The Nature Conservancy

1. Thank you for your comments. We have incorporated relevant information regarding the Mediterranean biome into the IFR in Section 2.1.1 under Technical Recognition. Please see GR-A for a detailed overview of the evaluation and selection of the recommended plan.
2. The Corps agrees that other areas in the watershed play a role in the ecological function of the LA River system. It is true that these areas would require separate studies, which could build upon restoration activities in the LA River Ecosystem Restoration project to design a more comprehensive system.
3. Benefits are discussed in detail in the CHAP Appendix G. Because this is an ecosystem restoration project, the focus is on benefits afforded by restoration, including restoration of habitat. The benefits are based on habitat and potential for supporting species, not specifically on occupation. In this case native fish species may need to be reintroduced by other agencies/entities. Benefits are quantified via the CHAP analysis, as described in Appendix G. Other benefits, including those to recreation and economic development are also discussed in Section 6.5 - and are considered in decision making. The benefits of restored connectivity are also discussed in Section 6.3.1 as well as Section 5.5. Ultimately, the benefits to habitat vs. the costs of the project are the driving factor in the final decision.

This report is drafted at a feasibility level. Any design details that would be required to facilitate restoration of fish populations would be specified and incorporated during the detailed design phase of the project.

4. Alternatives are not formulated for particular species. Per Corps guidance, alternative formulation for restoration is based on the historic habitats that occurred in the area prior to human intervention. Based on an assessment of historic conditions, riparian and marsh communities were known to be present along the river within the study area. Therefore, these habitats are the focus for restoration. The CHAP habitat evaluation team determined what habitat conditions and habitat elements might exist both with and without project 50 years into the future, and identified the types of species that could use those habitats.

Species that may inhabit these vegetation communities, including those that may already exist on the river, are expected to use the restored communities as well. Threatened and endangered species known to occur in the vicinity would also have the potential to occur in restored areas.

The document describes species generally and provides sufficient information to evaluate impacts of the proposed project to various guilds. Section 5.5.3 provides a discussion of impacts to wildlife for each alternative as well as impacts to wildlife movement. Biodiversity is discussed in several locations in the report, including in the habitat evaluation model (CHAP) included in Section 4.9.1.

5. The value of regional habitat areas was considered in that the Corps qualitatively addressed the value of connectivity to these areas and the importance of this connectivity. The focus of the study is not to determine the specific value of lands outside of the project limits or evaluate their specific resources, but to identify how and where the project would improve the ability for wildlife to move to and from those areas. The purpose of the report is to evaluate the impacts of the proposed project, which is provided in Section 5, and sufficient information is present to determine impacts to regional connectivity. Per public comments, the Corps also quantitatively valued connectivity, as described below. The Corps recognizes the value of these regional areas, which is why connecting to them is a primary objective of the study. Also refer to Response 4. See GR-B.

6. The interpretation that “the channel construction, according to the Report, was based on originally defective design criteria” is incorrect. The H&H Appendix instead states the criteria used for the original design is different than what we use today. It is true that one of the major constraints for the ecosystem restoration study is that the proposed features will not reduce the flood risk management levels afforded by the existing channel. The Corps plans to adopt a course of action that allows for ecosystem restoration while not reducing the current conveyance of the Los Angeles River. You are correct that additional engineering features may need to be included at critical locations if concrete is removed from the channel. These will be designed during the detailed design phase of the study. Vegetation could elevate flood risks if allowed to grow unchecked. Therefore, the study will also include an Adaptive Management Plan, a Monitoring Plan, and an O&M Plan to address these issues. The project will be designed to avoid impacts to flood risk management. This is true for any other modifications in the future downstream of the proposed LA River project.

7. The descriptions will be revised to reflect these corrections.

8. The description will be revised to reflect these corrections.

9. These categories are based on habitat types generated by the Northwest Habitat Institute for the CHAP analysis, which are cross-walked with other more local vegetation community naming conventions. The habitat type is categorized broadly and it is recognized that there is more diversity within each category.

10. Refer to Response 9. The difference in categories was based on the plant species and habitat elements that were observed in each area. The section of the report is a summary of the cover type mapping more completely described in Appendix G. "Pasture agricultural" refers to areas considered pasture and mainly covered with Bermuda grass and utilized as pastures while low density urban includes a mix of uses and cover as described in the report.

11. While authorization allows the Corps to remove vegetation to maintain flood capacity, in practice vegetation management in the channel has been subject to both funding constraints and a minimization of impacts to native species that have come to inhabit the vegetation when that limited funding is available. Recent practices have been limited to removal of non-native invasives in select areas, as determined by funding availability. This allows the Corps to provide flood capacity while minimizing impact to native habitat and species. The referenced text will be revised to reflect this more specific response. The Corps will conduct more detailed H&H analysis and determine the level of vegetation that can be maintained within the river. Vegetation maintenance by both the Corps and the City may be required to maintain the LACDA (by the Corps) or to comply with ecosystem restoration project constraints (City).

12. Cover type mapping and descriptions are included in Appendix G, which includes more details pertaining to existing habitat. The Corps recognizes that the discussions in Section 3.5.4 and 5.5.4 do not include an exhaustive list and inventory of species. The document describes species generally and provides sufficient information to evaluate impacts of the proposed project to various habitat types. Section 5.5.3 provides a discussion of impacts to vegetation and wildlife for each alternative.

In compliance with CEQA, special status species were considered in the preparation of Appendix H in the following manner: In preparing the biological resources section of the EIS/EIR/IFR, we reviewed information from several sources, including the CNDDDB for the USGS quads that cover the ARBOR Reach and tributaries, the USFWS and CDFW species list for the Los Angeles County area, and the California Native Plant Society list (focusing primarily on 1A and 1B plant species from the CNPS list). Once the list was narrowed to those species that could potentially be found in habitats that occur in riparian areas in southern CA waterways, the list was further refined based on habitats that were identified in the CHAP appendix. Sensitive species that were determined to be likely to occur in the study area were discussed in Sections 3.5.4 and 5.5.4 of the Draft IFR. All other species with the potential to occur in historically-occurring habitats were listed in the tables in the Appendix H. The comment letter specifically mentioned *A. pulchra pulchra*. This species requires loose soils in chaparral or pine-oak woodlands, a habitat type that may well occur in the watershed but not in the study reach. This species was identified as being "Not Likely to Occur" and has been added to the appendix.

13. Refer to Response 12 and 17.

14. The list of 28 species included in the main body of the report includes those species that have been identified in the region and which may be found in riparian, wetland, aquatic, grassland, or urban areas during any part of their lifecycle. Other sensitive species were listed in Appendix H.

15. The text has been revised to accurately identify the presence or absence of sensitive bird species.
16. The references were examined and text revised as appropriate.
17. The text has been revised to clarify that wildlife movement is being studied by other entities (not part of this feasibility study), and that while the movement of specific species is not yet well known, it is generally diminished due to installation of urban infrastructure.
18. The Corps recognizes that the narrative does not include an exhaustive list of species. Providing an inventory of all species occurring in the study area, or with potential to occur in the study area, is not the focus of the Report. The document describes species generally and provides sufficient information to evaluate impacts of the proposed project to various guilds. Section 5.5.3 provides a discussion of impacts to wildlife for each alternative as well as impacts to wildlife movement.

Plant species were accounted for in the CHAP via the inventory of habitat types and habitat elements. Despite the exclusion of invertebrates, CHAP was independently peer reviewed and found by the Corps Ecosystem Center for Expertise to be sufficient for capturing habitat benefits at the level needed in order to compare the final array of alternatives. It is expected the restored habitats in the final array of alternatives would provide for a similar diversity of invertebrates, and would therefore not influence the decision on the recommended plan.

The River Project

1. Policy requires that the Corps consider potential climate change impacts when undertaking long-term planning, setting priorities, and making decisions affecting its resources, programs, policies, and operations. Per this requirement, the IFR has incorporated climate change in the existing conditions chapter in Section 3.2, in the impacts chapter in Sections 5.2 and 5.4, and in the Hydrology and Hydraulics Appendix (E), Section 9. Because it is difficult to quantify resilience of restoration measures to climate change, the Corps intends to design all restoration features with climate change resiliency built in.
2. The Corps addressed flood risk management in several areas of the IFR and appendices. Maintaining flood risk management is the major constraint of the study. All existing and future engineering for the IFR-EIS is predicated on the requirement that no changes will be made to flood conveyance capacity. Flood risk management was not included as an objective of the study, but future studies for flood risk management are not precluded by the action alternatives.
3. Changes to upstream watershed conditions will likely continue to occur over time. However, quantifying those changes poses difficulty when trying to make meaningful predictions. Further, the scope of the IFR is determined by Corps ecosystem restoration goals.
4. Local and regional water resources are considered in our water budget for the ecosystem restoration. Water conservation, recharge and similar efforts are beyond the scope of this study.
5. The study scope did not affect consideration of widening the river. As discussed in the IFR, widening throughout the study reach was considered conceptually, but dismissed due to extremely high costs (over \$7 Billion in real estate costs alone, without construction costs), substantial displacement of residents, and major impacts to critical infrastructure. The study team examined lands throughout the study corridor for their inclusion in project alternatives and identified locations where widening could occur.
6. Following construction, operation will be guided by a Monitoring and Adaptive Management Plan and Operation and Maintenance Plan to ensure that proper operation, maintenance, and

adaptive management are implemented. Concerns regarding proper implementation are noted. It is inaccurate to refer to the restoration features as landscaping or an economic development plan. The study alternatives provide restoration features that reestablish lost and degraded river functions and habitat within the challenging constraints presented.

7. Comment noted. The LACDA project continues to provide flood risk management to the Los Angeles region. No requests for deauthorization have been made by the sponsor. The proposed restoration project and the LACDA within the study area would be designed to have complementary O&M plans.

The Trust for Public Land

See GR-A. Thank you for the information provided; it will be reviewed and incorporated as applicable. The public comments influenced the Sponsor request for the LPP and the Corps approval of the LPP as the Recommended Plan, which includes more restoration and a larger recreation plan that takes advantage of the additional features of the larger plan.

Theodore Payne Foundation

See GR-A.

TreePeople

See GR-A.

UC Berkeley, Dept of Landscape Architecture and Environmental Planning

1. Noted. See GR-A regarding costs.
2. Regarding the comments relating to connectivity, these outputs were considered in the evaluation and comparison of alternatives which led to the identification of Alternative 13 as the NER and tentatively selected plan. Further, in response to Independent External Peer Review comments, connectivity benefits were quantified in greater detail, combined with habitat outputs from the CHAP model and subject to additional cost effectiveness and incremental analyses. See Response GR-B. Such analysis substantiated that the incremental costs per output are significantly higher for Alternative 20, and therefore, when also factoring in the key consideration of reasonableness of cost, there was not sufficient justification to select a larger scale plan as the NER Plan.

Following public review, a detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

However, as noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan. See GR-B. It should also be noted that the habitat units generated by CHAP did not capture all benefits associated with ecosystem restoration. No one model captures every element for consideration. The CHAP assessment was used to identify the final array of alternatives. Additional comparisons were made to assess restoration of hydrologic and hydraulic function and nodal (local) and regional habitat connectivity.

3. Alternative 20 is both a cost effective and Best Buy plan, which is why it was one of the four plans carried forward in the Final Array. While Alternative 20 is a Best Buy Plan, it provides diminishing returns, i.e., the incremental costs per output for this plan are substantially higher than for Alternative 13. Hence, this plan is significantly less efficient than Alternative 13. Alternative 13 was identified as the NER Plan in the Draft IFR, because it was the alternative that meets study objectives while providing the greatest increase in net benefits with the least increase in cost among alternatives in the final array.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets the criteria for selection of the NER plan. Accordingly, Alternative 13v has been identified as the NER plan.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

4. The alternatives that required tunneling were evaluated in an early iteration of the CE/ICA analysis. This analysis showed that the incremental output associated with including plans that added tunneling was minimal, while the costs were very high (over \$2 Billion for the smallest tunneling plan). Accordingly, it was apparent that there was no justification for carrying forward the plans requiring tunneling for further consideration. While the incremental costs for

Alternatives 16 and 20 relative to Alternative 13 are lower than the incremental cost of plans that includes tunneling relative to Alternative 20, this does not change the key conclusions of the analysis. Specifically, Alternative 13 was identified in the Draft IFR as a more efficient plan than Alternative 20, based upon incremental costs per output, and the differential in costs between Alternative 13 and 20 is very large. Therefore, the fact that the tunneling plans were not carried forward throughout the CE/ICA analysis did not impact NER plan identification.

See responses 2 and 3 above for a discussion of the identification of Alternative 13v as the NER Plan and the identification of Alternative 20 as the Recommended Plan.

5. Recreation is an essential part of a healthy and vibrant community, particularly where urban conditions prevail. However, the project is primarily one for ecosystem restoration. Under Corps policy, Recreation included as part of ecosystem restoration projects must be compatible with the ecosystem restoration purpose of the project and appropriate in scope and scale to the opportunity provided by ecosystem restoration projects. Recreation development should not require additional lands, and should be ancillary to restoration benefits. As such, recreational value did not factor into the CE/ICA.

6. Comment noted.

7. As stated in the IFR, there is no sponsor available to study flood risk management at this time. The lack of an available sponsor is unrelated to the Corps' current operation and maintenance responsibility for the channel in the restoration study area. As described in the H&H Appendix, the flood risks vary along the project reach. This is due to several factors including: vegetation in the channel, the original design was based on a smaller design event than would be used today, the amount of urbanization was not anticipated to be so vast, and updated hydrologic and hydraulic criteria. It should be noted that the Corps studied flood risk management along the Los Angeles River recently in the 1990s as part of a review of the LACDA. That study resulted in channel improvements, consisting primarily of floodwalls along the lower Los Angeles River and the Rio Hondo Diversion Channel. Although the 1992 report identified the potential flood conditions along the upper Los Angeles River, no improvements to the upper Los Angeles River, including the ARBOR reach, were economically justified at that time.

Although the current study does not have flood risk management as one of its objectives, one of the major constraints for this study was there would be no adverse impacts to the current flood risk management along the Los Angeles River. As such, any modifications to the channel will entail detailed engineering analyses to ensure the project will not adversely impact channel capacity or structural stability of the existing channel. The Recommended Plan will not increase flood risks nor residual flood risks for all reaches of the Los Angeles River.

UC San Diego

See GR-A.

Union Pacific Rail Road

1. Thank you for your comments on the Los Angeles River Ecosystem Restoration Feasibility Study. We will change the reference to the subject facility to the "Los Angeles Trailer and Container Intermodal Facility" or LATC throughout the Final IFR in accordance with your comment.

2. Union Pacific's opposition to action alternatives 10, 13, 16 and 20 because they would require the conversion of the LATC property from its current use to riparian/wetland is noted. We are also in receipt of your letter of March 28, 2014, which indicates that it is possible that Union Pacific could reach a sale or exchange agreement with the City of Los Angeles. The Corps does not agree that the NEPA/CEQA analysis in the IFR is flawed, that the Draft IFR includes inappropriate assumptions about the feasibility of relocating the LATC, or that the Draft IFR fails to evaluate relevant factors. Each of Union Pacific's detailed comments are addressed in the applicable impacts sections of Chapter 5.

3. We appreciate the information on the LATC's current operations and improvements.

4. Comment noted. We are aware of the Surface Transportation Board's role in rail regulation.

5. The Corps disagrees that the Draft IFR identifies all impacts listed in the comment as significant and adverse. Each of these resource impacts is addressed below in responses 6 and 7.

6. Effects on rail operations other than LATC: Under all action alternatives, the LATC yard would be required for project features. The alternatives differ regarding the types of site modifications that would occur. As described in the IFR, existing rail lines along the river channel would be trestled at grade in Reach 8 under Alternative 16 and in Reaches 7 and 8 under Alternative 20, with excavation below existing grade to reconnect the river to its historic floodplain in Reach 8 and provide a terraced connection in Reach 7. Every effort would be made to construct the trestles with a minimum of disturbance to rail operations, with only short term impacts. The Draft IFR discussion of trestling was not intended to imply tracks would be relocated or closed for significant periods. Rerouting of mainline rail is not proposed. The Final IFR has been revised to more appropriately convey the fact that the intent is to minimize delays to rail transportation, although some delays may occur. Impacts to rail lines that would be trestled are not anticipated to be significant and adverse. References in the Draft IFR table cited and elsewhere in the IFR have been revised to clarify the impacts to rail lines during trestling. As stated in the IFR, the project would coordinate with railroad stakeholders to ensure continuous operation and appropriate safety measures. Trestling the rail lines would be part of the City of Los Angeles' provision of LERRD for the project and the City would negotiate appropriate relocation agreements. With respect to spur lines and rail capacity, the only permanent impacts would be to the LATC site. As discussed in the Final IFR, following public review, further detailed cost analysis was performed, which identified a more cost effective variation on Alternative 13 (referred to in the IFR as "Alternative 13v" for "variation"). Alternative 13v is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco; this variation is within the spectrum of alternatives evaluated in the Draft IFR. This variation would require trestling along the right bank of the channel in Reach 7 but not the left bank in Reach 8. This variation is identified as the NER plan in the Final IFR. However, Alternative 20 is the Locally Preferred Plan and the Recommended Plan in the Final IFR. Alternative 20 requires trestling on both sides of the river.

7. With respect to socioeconomic and environmental justice impacts, some portions of the comment are in error. The Draft IFR did not conclude that all jobs at the LATC site would be permanently eliminated or that the impacts to environmental justice communities within the study area would be disproportionately significant and adverse. Rather, the Draft IFR indicated that if all or most LATC jobs were held by members of environmental justice communities in the

census tracts around the LATC, and if all or most employees could not retain their positions at a replacement facility within the region, there was potential for disproportionate impact to environmental justice communities. However, analysis has not shown that all jobs would be eliminated from the region or that all jobs are held by members of environmental justice communities around the LATC. As emphasized by Union Pacific, the LATC functions are a critical component of Union Pacific's domestic intermodal traffic network. Based on the assumption that these functions are critical as represented, it is anticipated that these functions would be relocated elsewhere. Extensive comments from City residents, stakeholders, and other agencies received during the comment period have emphasized the significant positive impacts for environmental justice communities from the implementation of the project alternatives, in particular Alternative 20, the Recommended Plan. Comments pointed to increased public health benefits, job creation (both directly from construction and indirectly from redevelopment), increased community cohesion and other factors. Elaboration on the potential impacts, both positive and negative, to environmental justice communities is included in the Final IFR. While the Draft IFR acknowledges the conflict with the Industrial land use designation caused by the inclusion of the LATC site in project alternatives, the IFR adequately discloses these impacts, and alternatives that met the purpose and need while avoiding the LATC site were not identified. Additional discussion is provided in Response 8, below.

Air Quality: The construction schedule for all alternatives has been revised to further reduce effects on air quality. Air quality impacts during peak construction periods for all alternatives would have less than significant impacts for NEPA but all alternatives except for Alternative 13v would exceed applicable state localized significance thresholds under CEQA. Air quality parameters are expected to return to pre-project levels upon completion of construction. Various comments from agencies and the public also noted the potential for beneficial impacts to air quality from the constructed project. In addition, the Corps is coordinating with the South Coast Air Quality Management District, which recommended consideration of additional measures to further attenuate air emissions during the construction phase.

The comment correctly notes that the Corps identified Alternative 13 as the TSP in the Draft IFR and that the City Council voted to support Alternative 20. In a letter dated April 10, 2014, the City of Los Angeles requested that Alternative 20 be the Recommended Plan. Based on that letter, the Corps requested a policy waiver for the consideration of that alternative as the LPP and Recommended Plan in the Final IFR. By memorandum dated May 27, 2014, the Assistant Secretary of the Army (Civil Works) (ASA(CW)) granted the requested LPP exception and authorized the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report.

8. The Corps disagrees that the study fails to consider feasible, reasonable alternatives. The study undertook a sequenced search for feasible alternatives. Through the formulation and comparison process, alternatives were eliminated for failure to meet the purpose and need and objectives, excessive and unreasonable cost, inconsistency with key project constraints, and similarity to other alternatives included in the reasonable range of alternatives evaluated in detail in the IFR. The Draft IFR includes an extensive discussion of the alternative formulation and comparison process in Chapter 4, in addition to the brief discussion in the Executive Summary cited in your comments. As explained in the IFR, the Corps and City followed a robust process. The Corps, City, other agencies, and stakeholders originally assembled various ecosystem

restoration management measures, the “building blocks” of alternatives, to create 19 alternatives, which were then divided into geomorphic reaches and reassembled to develop 152 different combination plans. As further described in the IFR, most of the initial and many of the recombination plans were infeasible due to their reliance on technically challenging, extensive and expensive engineering interventions, such as the creation of underground detention/retention basins or very large bypass culverts or tunnels. The cost of tunnel construction was estimated to exceed \$1.5 Billion. The plan formulation effort also examined deepening of the entire channel, found to be inconsistent with restoration and to substantially impact utilities and bridges throughout the corridor; and modifications to upstream dams, determined to be too far upstream to significantly affect flow reduction. Without removing high velocity peak flows from the river channel, channel widening is necessary to meet the restoration purpose without violating the major project constraint of maintaining existing levels of flood risk management. The study team considered a conceptual alternative limited to the existing LACDA right of way and found it would not meet the restoration purpose, as high velocity flows would not be reduced sufficient to sustain habitat during high flow events and it would violate the constraint of maintaining existing flood risk management levels. The study also considered the conceptual alternative of channel widening throughout the study area and eliminated it for excessive cost of over \$7.6 Billion for land alone. The combination alternatives were assessed for ecological outputs using the CHAP model and their costs were analyzed as disclosed in the IFR. The Corps uses IWR Plan to assess cost effectiveness and conduct incremental cost analysis. The IWR Plan results included the LATC site starting with Best-Buy Alternative 9 as described further in Chapter 4 of the IFR. Best Buy Alternatives smaller than Alternative 10 were eliminated for failure to meet the purpose and need and objectives, as they did not include restoration in all reaches and failed to restore habitat connectivity throughout the study area and to regionally significant ecological areas. Real estate considerations, including impacts to commercial facilities, businesses, and residences, were a major area of investigation for the study. Private lands were included only if restoration benefits in that reach could not be accomplished any other way. Opportunities for restoration of a southwestern riparian ecosystem (as opposed to restoration of only riparian plant communities and habitat) are exceedingly rare in the Los Angeles watershed, but are present within the study area at critical opportunity areas at Taylor Yard and LATC.

Although initial plans were developed that excluded the Taylor and LATC parcels, they did not meet the restoration objectives for restored habitat and habitat connectivity. The inclusion of the Taylor Yard and LATC properties provided the only opportunities in the study area to substantially widen the channel and increase habitat to meet project objectives. Corps planners and reviewers searched extensively for sites that would meet the project needs to ensure the “hard look” required by NEPA. The river banks are flanked by freeways, major utility corridors, and rail lines in most portions of the study area. In addition, residential communities occupy other parcels close to the river’s banks. As the comment letter notes, the LATC is the largest single-owner property adjacent to the Los Angeles River. Even if technically feasible, to obtain land similar in size to the LATC along the river would require uprooting entire neighborhoods.

Therefore, no alternatives excluding LATC were identified that meet the purpose and need and project objectives, as discussed in the Draft IFR. Alternatives must meet the needs the federal action is intended to serve. *Environmental Defense Fund v. U.S. Army Corps of Engineers*, 492 F.2d 1123 (5th Cir. 1974); see also *City of Angoon v. Hodel*, 803 F.2d 1016, 1021 (9th Cir.

1976) (“When the purpose [of a project] is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved.”) The alternatives presented for detailed consideration constitute a reasonable range of alternatives as required by NEPA. Union Pacific does not identify any reasonable, feasible alternatives meeting the purpose and need that the Corps failed to consider. As noted above, following public review, further detailed cost analysis was performed, which identified a more cost effective variation on Alternative 13. Alternative 13v is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This variation is identified as the NER plan in the Final IFR. This variation is within the spectrum of alternatives analyzed in the Draft IFR, as discussed in Section 4 of this Final IFR.

9. Unrealistic assumptions: Union Pacific’s position of the inclusion of the LATC site in a proposed project is noted. However, we disagree that the existing rail yard location is the only possible site in the greater Los Angeles region where such a rail yard is feasible. The Corps further disagrees that the mere assertion that no suitable site is available is substantial evidence of its accuracy. The analysis in the IFR is based on available information, and Union Pacific has not provided factual information to contradict the analysis.

We agree that NEPA requires a “full and fair discussion of significant environmental impacts” as part of an EIS, including direct and indirect impacts. The impacts of including the LATC site in the project alternatives are analyzed in sufficient detail in the IFR. The impact analysis considers direct, indirect, and cumulative impacts. The provision of LERRD, including the LATC site, is a sponsor responsibility. The ecosystem restoration project would not prescribe a specific location for the LATC functions. The analysis does conclude that the impacts from conversion of industrial land at LATC would be significant and adverse with respect to land use. The Corps acknowledges and describes this impact in the report. The Corps believes that the assumption that LATC functions can be transferred to another location within the Los Angeles region is supported. The Los Angeles region is large. The analysis assumes that the LATC function would still be needed within the greater Los Angeles region, whether established at a new site or co-located at an expanded alternative facility. The Basin has several rail yards, and new or expanded rail yards have been proposed in the last decade. The City is experienced with complex real estate transactions and facility siting considerations. The analysis in the IFR assumes that the LATC functions would be reestablished in an industrial zone, of which Los Angeles County alone has 17,922 acres of such zoning. The IFR will clarify the indirect impacts associated with relocating the LATC’s industrial use within an industrial zone within the Greater Los Angeles region; additional CEQA analysis would analyze site-specific impacts associated with a specific relocation scenario at the appropriate time.

10. In fact, Union Pacific’s comment letter acknowledges that an alternative site could be identified and expresses concern over a permitting and construction time frame. The Corps recognizes that Union Pacific’s relocation to a new site could take time. The Corps and City of Los Angeles will develop a construction sequencing schedule that takes into account the logistical issues identified.

11. See Response 7 above.

12. Site screening: We appreciate your concerns regarding site screening. The discussion included in Appendix H briefly describes the reasons various sites were dismissed from further

consideration. As you note, some sites were identified as posing particular challenges in relocation of services. However, we disagree that the LATC site should be treated similarly to these sites. As noted in the IFR, private sites were excluded except when critical to meeting study objectives. The CSY site identified as having comparable circumstances is only 25 acres. Moreover, the functions at that site serve the immediate area. By contrast, the LATC site is one of only two large single owner parcels in the historic floodplain adjacent to the river. As further discussed in the IFR, under Corps policy, sites with known or suspected HTRW contamination are to be avoided whenever practicable to do so. However, in this case, the Corps determined avoidance was impracticable because of the substantial constraints within the study area. As discussed above, the Corps searched diligently for other sites that would meet the need, but no other site provides the same restoration potential at the downstream end of the project. The inclusion of the LATC site provides the only opportunity within the study area to remove concrete from the bottom of the river channel. Agencies, stakeholders and the public overwhelmingly supported Alternative 20, often specifying that the hydrologic and hydraulic reconnection of the river to the LATC site was critical to the project objectives and effective river restoration. We appreciate your concern that a site of appropriate size and proximity be identified for the replacement of LATC operations. The City of Los Angeles has expressed its continued commitment to work with you on the resolution of site identification and a negotiated transaction for site acquisition.

13. Comments on the Draft IFR are addressed in the Comment Appendix of the Final IFR.

14. Opposition to project and request for recirculation of Draft IFR: The Corps and the City do not agree that recirculation or supplementation of the Draft IFR is required at this time. Under NEPA, an agency shall respond to all comments submitted in the Final EIS, discussing at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised. 40 CFR 1502.9(b). A supplement to a draft EIS is to be prepared when the agency makes substantial changes in the proposed action that are relevant to environmental concerns, or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. 40 CFR 1502.9. Neither of these circumstances is present here. Our responses to your comments address your views, but no significant new circumstances or information has been identified, nor does the Corps plan to make substantial changes to the proposed actions addressed by the Draft IFR in the Final IFR that are relevant to environmental concerns. The discussion of effects related to the LATC site will be clarified, but no substantial new information has been identified. We appreciate your input on the Los Angeles River Ecosystem Restoration Feasibility Study. As requested, your comments have been shared with decision-making bodies of both the Corps and City and will be included in the Final IFR submitted to the Chief of Engineers.

Union Pacific Railroad 2nd Letter

Thank you for your letter regarding the Los Angeles River Ecosystem Restoration Feasibility Study. Your comments are noted. We appreciate your acknowledgement of your long history of cooperation with the City of Los Angeles and acknowledgement that a sale or exchange with the City could be reached in the future for a site that is compatible with the use and needs associated with the existing site. As you know, the ecosystem restoration project would be implemented in phases over time, dependent on appropriations, construction scheduling and other considerations. The City has an established reputation of working effectively with railroads. We appreciate your

willingness to continue dialogue with the City to meet the purpose of the restoration study and Union Pacific's own needs.

Urban Rivers Institute

See GR-A.

Urban Waters Federal Partnership

1. Opportunities for complementary projects in the future remain a viable avenue for the City to continue to explore as resources allow if funding sources other than the Corps become available. If the City were interested in exploring expanded opportunities in and along the River beyond the recommended plan, this could be pursued through the Section 408 modifications to completed projects permitting process.
2. See GR-A.
3. The Corps recognizes that real estate costs are significantly higher within the Los Angeles area relative to other parts of the country. In recognition of those costs, the City offered to voluntarily waive reimbursement of the costs of lands, easements, rights of way, relocations, and disposal sites exceeding its statutory share of total ecosystem restoration costs. While all of the plans in the Final Array are Best Buy Plans, and are, therefore, effective and efficient, Alternative 13 was identified in the Draft IFR as more efficient than Alternative 20 in providing ecosystem outputs. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Following public review, a more detailed cost analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as "Alternative 13v" for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

4. It is recognized that Alternative 20, as the largest of the final array of plans, will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment. As noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan.

5. With an updated cost of \$694 million, the NER Plan (Alternative 13v) represents a very significant investment in ecosystem restoration along the LA River, and also generates substantial habitat and connectivity benefits. However, as noted above, the Corps is recommending Alternative 20 as the Locally Preferred Plan, in recognition of the additional benefits provided by this plan.

6. In addition to the ecosystem restoration plan, a complementary recreation plan is also included. This will allow the public to access and appreciate the restoration project without negatively impacting restoration outputs.

USC School of Architecture, Landscape Architecture

See GR-A and GR-B.

USC School of Architecture, Landscape Morphologies Lab

1. See GR-A.

2. See GR-B.

3. Alternative 10 is the least cost of the four alternatives in the final array, and minimally meets the planning objectives. As shown in Table 6-4 it provides a minor improvement to nodal (local) connectivity. Therefore, the incremental increases in nodal (local) connectivity beyond that alternative were displayed in the report for comparison.

4. The feasibility study evaluated a range of restoration alternatives. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Following public review, further analysis was performed that included a more detailed cost analysis using Mii software, real estate cost updates, and further modified contingencies based upon a full cost risk summary analysis. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. This

alternative is within the spectrum of alternatives considered in the Draft IFR. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

Alternative 13v provides the greatest amount of ecosystem restoration output for the investment cost; in other words, for the total project cost of \$694 million, there is no other plan of similar cost that produces more restoration output. Therefore, Alternative 13v is identified as the NER Plan. However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan. The Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final Integrated Feasibility Report and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public.

5. Thank you for the information; a similar analysis of connectivity has been conducted and is included in the Final IFR.

Valley Industry & Commerce Association

1. See GR-A.
2. The recommended plan will involve the conversion of some lands that are currently zoned industrial to accommodate the project's ecosystem use. This activity is a responsibility of the non-Federal sponsor (City of Los Angeles), which must provide all lands for the project. The City of Los Angeles will work closely with any business that needs to be relocated as a result of the project to relocate within the region, per the requirements of the Uniform Relocation Act. Preservation of industrial land is a priority of the City as expressed in its industrial land use policies; therefore, this will be considered by the City as the project moves forward.
3. This is an important issue throughout the Los Angeles Watershed; however, the issues of recycled water, increased capture, and use of stormwater are outside of the scope of Corps ecosystem restoration. It is the City's desire to use recycled water, when feasible for construction and maintenance of the completed project to support habitat.
4. Preferences for funding are noted.

Walk Bike Glendale

See GR-A.

Wild Heritage Planners

See GR-A.

Petitions

Restore the LA River Petition

See GR-A.

LA River Revitalization Corporation Petition

See GR-A.

St. Sebastian Catholic Church Petition

See GR-A.

Individuals

Agner, Herb

See GR-A.

Aguilera-Gonzalez, Emiliana

1. Wildlife, including coyote, bobcat, and mountain lion currently reside in Griffith Park and often make their way to the river. For this reason, the alternatives were designed with the intent of enhancing their movement through (rather than to) urban LA, as opposed to the existing condition where they may enter the river with no outlet or corridor to adjacent wilderness areas, prompting them to enter local neighborhoods. The wildlife connectivity measure you reference was considered as a means to allow existing mammals to safely transit the area. This measure was evaluated and found in many cases not to be effective. However, the restoration design will include slopes and vegetation suitable for wildlife passage. Only by improving connectivity along the river through the use of wildlife tunnels/bridges and other such methods, can safety for wildlife be enhanced by providing a means to get to other natural areas through enhanced corridors and habitat nodes.

While turf reinforcement mats are currently considered for erosion control, specific designs will be determined during the detailed design phase prior to construction. The Corps will continue to evaluate options for erosion control to minimize impacts to wildlife.

2. The Corps would cut a slot into an existing drain so all flow up to a certain amount would now flow through the slot into a wetland area. If the water level continued to rise, it would exceed the height of the slot and flow into the river as it did before. The diversion will be effective whenever there is flow in the storm drain, which will include urban runoff.

3. There are a number of excellent references on the history of the Los Angeles River which provide the thought processes that went into the design for the Los Angeles River channel. The design process for the Corps has progressed over time, and we now strive to include ecosystem restoration features into our projects. Fencing has a negative impact on wildlife migration so the

intent is to limit it as much as possible. However, there are some adjacent uses that may still require fencing. The Corps will also incorporate appropriate fencing wherever safety is paramount.

4. Thank you for your comment. The Los Angeles River is still the primary feature in the flood risk management for the City of Los Angeles. One of our main constraints is that proposals cannot affect the current level of protection afforded by the channel.

Alas, Kevin

See GR-A.

Alexander, Peter

See GR-A.

Alpern, EstherLee

The authority under which the study is being conducted is for ecosystem restoration. That Corps authority allows for integration of passive recreation features, such as multi-purpose trails, where they do not conflict with restoration. Active recreation elements, such as ball fields, are not compatible with restoration and are beyond the scope of an ecosystem restoration project.

Amsden, Liz

See GR-A.

Anderson, Carolyn

See GR-A.

Anderson, Michael S.

1. Comment noted; this task force was a precursor to the LARRMP. We will add a reference to this task force in the earlier reports section.
2. Comment noted. A more recent multiple objective feasibility study was completed for Taylor Yard in 2002. Taylor Yard studies were examined and documented as part of the planning process in Section 1.4 of the main IFR.
3. As an ecosystem restoration project, this project is not formulated for flood risk management improvements. Although some increase in flood storage may occur due to excavation of substrate, this result is incidental to the overall goals and objectives of the study.
4. The study you refer to focused on using the entire Taylor Yard site as a detention basin with incidental ecosystem enhancement and recreation. The area at Taylor Yard is not large enough to provide significant flood relief for the entire lower Los Angeles River. The goal of the Taylor study was to reduce peak flows and provide some flood risk benefits as far downstream as possible. Since that time, portions of Taylor Yard have been sold and are in use for alternate purposes including the Rio de Los Angeles State Park and a school, along with private development. As part of the current ecosystem restoration study, we looked for opportunities for

peak flow reduction in concert with restoration. The parcels of Taylor Yard we included in our study may still offer some lesser incidental peak flow reduction, but it will not be on the order of what could have been achieved using the entire Taylor Yard.

Antos, Mike

See GR-A.

Appleton, Steven

1. Public coordination occurs throughout the NEPA/CEQA process and through some permitting processes. Continued opportunities for public input will be offered as the project moves forward.
2. Construction phasing will be dependent on several factors including those mentioned in the comment.
3. Your comment noted several different proposals for site specific projects; we agree that some of these proposals may be outside the scope of this study but could be implemented by others in the future. In regards to your recommendations pertaining to acquisition of the "Bimbo Bakery Parcel," greening of Blimp Street, and tunnel or bridge connections to Elysian Park, the acquisition of properties only for recreation is beyond the authority of the Corps for a restoration project, and any recreation elements must be on lands acquired for the restoration. A pedestrian/wildlife bridge between the river channel and Elysian Park is a creative idea; however, it may not be used by wildlife due to exposure and size of the structure. A bridge of sufficient size would likely be impracticable.
4. Fencing will be designed in accordance with Corps and sponsor safety requirements, and in consideration of aesthetic values as well as wildlife movement. The non-Federal sponsor would have an opportunity to select (and provide additional funding for) fencing materials or designs that exceed Corps standards. For the feasibility study, it was assumed that existing chain link fencing that occurs in several locations along the study area would be replaced in kind. However, modifications may be made during the design phase.
5. The recreational plan as proposed will allow connection and trails and will try to maximize public access without detracting from the ecosystem restoration outputs of the project to the extent it does not conflict with the ecosystem restoration outputs and function of the project. Accessibility needs differ between flood risk management facilities and recreational sites; final design plans will include evaluation of best safety measures for protection of facilities and access to recreation. Safe and compatible access will be considered as detailed design is completed. Assuming you were referring to Executive Order 12898 (Environmental Justice), the recreation plan includes trails and access points along the river.
6. Recreational features that fall within the footprint of this project and which are affected by the project or where use patterns are affected by the project will be constructed or repaired in compliance with applicable building codes and health and safety regulations.
7. Widening of channel walls in some reaches to increase the channel width and allow additional habitat in the channel was included in some of the alternatives considered; where a vertical wall is used, it is typically used only on one side of the channel at a time. However, you are correct that the sentence referring to Reach 6 on page 67 of the Design Appendix is a typographical error, and it will be corrected.
8. Concur. It should be referencing the Taylor Yard section, not the West bank.

9. Thank you for reporting your observation. Hydraulic modeling and detailed design will consider sediment transport and possible impacts to restored areas. More detailed designs to be completed in the Preconstruction Engineering and Design phase will identify if there are springs within Taylor Yard that are viable for providing project water.

10. Wetland restoration will be completed with vector control in mind, and necessary coordination will occur during design, implementation and operation.

11. Noted.

Aronson, Robert

See GR-A.

Babila, Phyllis

See GR-A.

Bander, Falcia

In terms of modifying the river banks to allow public access, presumably this relates to a desire for public access to the river for recreation purposes. The recommended plan includes a recreation plan that complements the ecosystem restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function, preventing recreation visitation adversely impacting the restored areas. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

Banner, Michael

See GR-A.

Barden, Lane

See GR-A.

Barker, Urte

See GR-A.

Barnett, Geoff

See GR-A.

Barngrove, Sally

This feasibility study is evaluating ecosystem restoration alternatives in and along an 11-mile stretch of the Los Angeles River from Griffith Park to downtown Los Angeles. None of the alternatives evaluated included features in the vicinity of Devil's Gate Dam.

Baron, Vic

See GR-A.

Barretto, Brandon

See GR-A.

Bartosouf, Alek

See GR-A.

Bates, Russell

See GR-A.

Battin, Susanna

See GR-A.

Belden, Edward

See GR-A.

Benoit, Jay

See GR-A.

Bevilacqua, Anthony

See GR-A.

Bilson, Renne

See GR-A.

Bise, Ava

See GR-A.

Bossone, Lynn

See GR-A.

Bouville, Fabienne

See GR-A.

Bowers, Paul

See GR-A.

Bowling, William

See GR-A.

Brenner, Maya

See GR-A.

Brotman, Daniel

See GR-A.

Brown, Lynn

See GR-A.

Brown, Syd

See GR-A.

Brye, Steve

The commenter correctly assumes that the study alternatives do not involve restoration of the entire LATC parcel. No assumptions are made regarding the most appropriate use of the other portions of the parcel not included in the project. The suggestion to utilize such lands for a higher education institution/purposes is noted.

Budzik, Mike

See GR-A.

Cabrera, Mirella

See GR-A.

Camacho, Maria

See GR-A.

Campbell, Alice

Thank you for your comment. The proposed project alternatives are for the purposes of restoration, not beautification. The appendix cited is consistent with the main IFR document and evaluates the hydrologic and hydraulic conditions and impacts of the project alternatives. The maintenance of existing flood risk management function is a major constraint of the restoration formulation, so it is discussed throughout the study documents. The Corps of Engineers and the City of Los Angeles are aware of the flood risks near the area to which you are referring. In fact, in 1992, the Corps of Engineers performed a flood risk reevaluation study for the entire Los Angeles County Drainage Area (LACDA) to consider changed conditions. The study resulted in channel improvements, consisting primarily of floodwalls along the lower Los Angeles River and the Rio Hondo Diversion Channel. Although the 1992 report identified the potential flood conditions along the upper Los Angeles River, no improvements to the upper Los Angeles River, including the ARBOR reach, were economically justified at that time. Flood risk management is not within the scope of the current Ecosystem Restoration Feasibility Study.

The City of Los Angeles is in the process of requesting a LOMR (letter of map revision) to FEMA that would identify the flood risks and flood zones along the Los Angeles River. That effort should be complete before any construction has begun for the current Ecosystem Restoration study. A major constraint of the current Ecosystem Restoration study is that the proposed features will not have an adverse impact on the level of protection currently afforded by the Los Angeles River channel.

Contamination on lands to be included in the restoration project would, as described in the IFR, be remediated prior to project construction. The costs of the remediation would be at 100% non-project cost. The City is responsible for ensuring the remediation of the lands to support the ecosystem restoration features. Where groundwater contamination is present and would be encountered during construction, the City shall ensure the proper handling, treatment and disposal of the contaminated groundwater at 100% non project cost.

Recreation is a minor component of the proposed project alternatives, constituting less than 1 percent of total project cost.

Camphuis, Kay

See GR-A.

Carpenter, Cathy

See GR-A.

Carrillo, Juliette

See GR-A.

Casillano, Matthew

See GR-A.

Chauser, Lee

Thank you for your comment.

Chesler, Stewart

Comment Noted. The array of alternatives in the Draft IFR included Alternatives 10, 13, 16 and 20; as noted elsewhere, a more cost effective variation on Alternative 13, utilizing the Reach 7 plan from Alternative 20, was identified through subsequent cost analysis. Alternatives smaller than Alternative 10 were dismissed from further consideration for failure to meet the project purpose and objectives. The LATC site is one of only two large single-owner parcels available along the river corridor within the study area where substantial river widening can occur.

Colacion, Edward

See GR-A.

Conway, Rebecca

See GR-A.

Crane, Rebecca

See GR-A.

Cruz, Ray

Thank you for your comment. An aerial tramway is outside the scope of the feasibility study and the Corps mission for ecosystem restoration.

Dawson, Robert

See GR-A.

de Zamaroczy, Nicolas

See GR-A.

de Zamaroczy, Nicolas

See GR-A.

Deptula, Anthony

See GR-A.

Deutsch, Lauren

See GR-A.

Devereaux, Toni

See GR-A.

Dillard, Joyce

1. The Corps of Engineers and the City of Los Angeles are aware of the flood risks along the Los Angeles River. In fact, a 1992 study by the Corps of Engineers identified the floodplains for all areas along the Los Angeles River. A major constraint of the current Ecosystem Restoration study is that the proposed features will not have an adverse impact on the level of protection currently afforded by the Los Angeles River channel. As such, any modifications to the channel will entail detailed engineering analyses to ensure the project will not adversely impact channel capacity or structural stability of the existing channel. The selected plan will not increase flood risks nor residual flood risks for all reaches of the Los Angeles River.
2. We do not concur that recreation and flood risk management are inherently incompatible. Final design plans will include necessary safety measures to ensure continued protection of the public and flood risk management facilities, while providing reasonable access for compatible passive recreation.
3. Dates will be investigated and corrected if necessary.
4. Comment on the LARRMP noted.
5. Thank you for your investigation of this Study. The additional projects mentioned will be added to the cumulative impacts analysis as appropriate.
6. The ecosystem restoration study has been developed with the understanding of numerous constraints that are present in an urban environment.
7. Evaluating the potential effects of any such developments (which are not currently proposed) on ecosystem restoration would be the responsibility of those project proponents.
8. Although Repetto Hills and Ascot Hills were not specifically mentioned in the IFR, the proximity of adjacent undeveloped or open space areas was determined to be a key benefit as the project will allow greater access to and from these areas. Ecosystem restoration for wildlife values is the primary objective of this project. Compatible recreation elements are a secondary objective. With or without a "Significant Ecological Area" designation, the project area would

not be a “front for development,” as any future proposals within its boundaries would need to be compatible with restoration objectives.

9. Cost estimates have been developed using the best available data, and reflect the best estimates that can be made at the current level of design.

10. Contamination on lands to be included in the restoration project would, as described in the IFR, be remediated prior to project construction. The costs of the remediation would be at 100% non-project cost. The City is responsible for ensuring the remediation of the lands to support the ecosystem restoration features. Where groundwater contamination is present and would be encountered during construction, the City shall ensure the proper handling, treatment and disposal of the contaminated groundwater at 100% non project cost.

11. No claims are made that this project alone would result in sustainable economic development for the region, although it is anticipated that visitors and recreation trail users (as well as construction) would provide some economic lift.

12. The Corps identified Alternative 13 in the Draft IFR as the NER plan. As noted elsewhere, a more cost effective variation on Alternative 13 (Alternative 13v), utilizing the Reach 7 plan from Alternative 20, was identified through subsequent cost analysis.

See GR-A.

13. The alternatives have been designed to be primarily self-sustaining, within the available and anticipated water budget. Maintenance that is required (such as removal of non-native vegetation as well as mosquito abatement, if required) has been identified and accounted for in project cost estimates, and the non-Federal sponsor has agreed to take on that responsibility.

14. All local cities and agencies, as well as the general public, have been made aware of the proposed project, and received a copy of the Draft IFR.

15. A Health Impact Assessment has been included as part of the Final IFR in Section 5.11.3. The HIA did not identify any unmitigable effects to public health and safety arising from the proposed project.

16. Public health and safety remain a paramount concern of the U.S. Army Corps of Engineers and the City of Los Angeles.

17. The IFR describes the estimated project costs. Future appropriations will be required to fund the implementation.

Dillon, Raquel

See GR-A.

Din, Stephanie

See GR-A.

Dragert, Tobi

See GR-A.

Egeler, David

See GR-A.

Epstein, Scott

See GR-A.

Erasmus, Rocio

See GR-A.

Ferruffino, Chantelly

See GR-A.

Field, Corey

See GR-A.

Fine, Jocelyne and Steve

See GR-A.

Ford, Chris

See GR-A.

Forster, Peggy

See GR-A.

Fourier, Jason

See GR-A.

Franco, Veronica

See GR-A.

Freilich, Lawrence

See GR-A.

Frimmer, Justin

1. See GR-A.
2. The Los Angeles River and associated structures provide a necessary flood risk management function for all communities within its watershed. Simply tearing out all of the concrete without adding a suitable area for flood water conveyance is not an acceptable alternative and acquiring land is extremely expensive. Significant water flows in the river only during storms. The rest of the year, the flow of water in the river is dominated by releases from Tillman Treatment Plant.

The study seeks to restore natural processes and functions within existing constraints, including maintaining existing levels of flood risk management.

Frye, Lauren Lajoie

1. Thank you for your letter. The initial study area included 32 miles of the river within the City. The study process resulted in narrowing that area to the ARBOR reaches described in section 1.2.1 of the IFR. Further studies could address other areas within the watershed, however, that is beyond the scope of this study.
2. Restoration opportunities throughout the entire 32 miles of the LA River within the City of Los Angeles were evaluated and, during the preliminary analysis phase, choices were made to focus on areas that could be most easily connected to the river's most extensive existing riparian habitat corridor—the 11-mile Glendale Narrows stretch. Other areas were deemed infeasible, because of infrastructure barriers, including the Sepulveda Dam, narrow all-concrete box channel configuration of the channel through Studio City, all-concrete character of the channel upstream of the Basin and because the Basin itself already hosts rich riparian habitat with nearby large multi-purpose open spaces, including the Sepulveda Basin Wildlife Refuge. Additionally, the scope of the study had to be limited, because it was not feasible to cover so much territory with the available resources. Restoration, runoff management, and peak flow reduction in the river's watershed will be important to LA River restoration, but the detailed strategy planning must be addressed by other complementary efforts.
3. The Blue Boulevards concept you propose is in line with identified goals of the City of Los Angeles for stormwater capture, treatment, and beneficial reuse of runoff. The alterations you suggest fall outside of the jurisdiction of the Corps and purpose of this feasibility study.

Funaro, Charles

See GR-A.

Gallardo, Ruth

1. See GR-A.
2. See GR-B.

Garlington, Todd

See GR-A.

Garrison, Elizabeth

See GR-A.

Gedeon, Geza

Thank you for your comments. The Corps appreciates your desire to reach the general public, to allow them to learn the distinctions among the various, complex alternatives, and to make more informed comments. The Corps and City of Los Angeles made the IFR document publicly

available on the Corps' website on Friday, September 13, 2013, and delivered copies of the document to libraries and agencies by September 20, 2013, noting a close to the public comment period on Tuesday, November 5, 2013 (45 days from September 20). The availability of the document was heavily publicized through news releases and press reports, and the Corps began to receive comments almost immediately. The Notice of Availability (NOA) was published in the Federal Register on October 4, 2013, which extended the public comment period an additional 2 weeks to Monday, November 18, 2013. By November 18, the document was available to the public for review and comment for over 9 weeks. Due to extremely tight project deadlines, the Corps was not able to grant an extension beyond the end of Public Review on Monday, November 18, 2013. The public will have an additional opportunity to comment on the Final IFR during a 30-day review period. Thank you for the information on the neighborhood councils.

Gill, Jennifer

See GR-A.

Giroux, Helen

See GR-A.

Gleason, Patricia

See GR-A.

Gomez, Horacio

1. See GR-A.
2. While benefits such as enhancing public accessibility and creating green spaces are important, they are not the primary purpose of the project. The primary purpose of the project is ecosystem restoration. The recreation plan complements the restoration plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. Subsequently, a decision was made to support the recommendation of Alternative 20 as the Locally Preferred Plan. The recreation plan was adjusted to be compatible with the ecosystem restoration features included in Alternative 20. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite. The IFR recognizes the various social benefits, including providing recreational resources to lower income and minority population, public health, and community connectivity.

Gonzalez, Jay

See GR-A.

Goodman, Howard

See GR-A.

Gray, Evelyn

See GR-A.

Griffin, Linda

1. See GR-A.
2. This study is the Los Angeles River Ecosystem Restoration Feasibility Study and not the LA River Revitalization Master Plan, which is a City of Los Angeles plan.

Haagenson, Kathleen

See GR-A.

Hall, C. Andrew

See GR-A.

Hanna, Mark, PhD, PE

Water quality improvement is considered an ancillary problem/opportunity and is not an objective of the Study. It was considered as an objective initially because of public concerns about the River's poor water quality, but was not carried forward for several reasons. While water quality improvement objectives would be focused on improvement for aquatic organisms and restoration purposes (not human use or consumption), the existing riparian and freshwater marsh habitats and the associated wildlife have been sustained and are viable under the current water quality conditions. Certain measures evaluated in the study will incidentally improve water quality through natural processes such as 1) increased acreage of riparian and freshwater marsh, 2) daylighting storm drains and planting wetlands at their confluences, and 3) creating side channels that remove water from the River, direct it through created wetland and riparian areas, and return this naturally treated water to the River. While it is recognized that water supply is an important issue in Southern California water conservation, recharge and similar efforts are beyond the scope of this study. Incidental recharge benefits may occur with restoration but are not quantified.

Hardin, Cindy

See GR-A.

Hatrick, Adrienne

See GR-A.

Hauck, Adam

See GR-A.

Hays, Sarah

See GR-A.

Hedge, Joanne

See GR-A.

Hernandez, Eugene

Comment Noted.

Hess, Peter and Marguerite

See GR-A.

Hidalgo, Kimberly

See GR-A.

Hildebrand, Charlotte

See GR-A.

Hopkins, Alexandra

See GR-A.

Horne, Mark

See GR-A.

Hough, Jessica

See GR-A.

Hrenda, Cathy

See GR-A.

Hudnut, Alec

See GR-A.

Husseini, Salah

See GR-A.

Hutchins, Michele

See GR-A.

Hutson, Clifford

See GR-A.

Jackson, Malcolm

See GR-A.

Javier, Linda

See GR-A.

Jessler, Darynne

See GR-A.

Jocoy, Christine

See GR-A.

Juergens, Kate

See GR-A.

Kammerer, Carolyn

See GR-A.

Kaplan, Fred

See GR-A.

Kapoor, Daveed

See GR-A.

Kasperkovitz, Chrisian

See GR-A.

Kaye, Dessa

See GR-A.

Keiner, Scott

See GR-A.

Kelley, Celeste

See GR-A.

Kirschbaum, Saran

See GR-A.

Klengler, Joan and Inglof

See GR-A.

Kugelman, Francie

See GR-A.

Kuppers, Fred and Sheri

See GR-A.

Lamm, Jim

See GR-A.

Lange, Trent

See GR-A.

LaValley, Tim

See GR-A.

LeBoeuf, Elaine

See GR-A.

Legras, Larry (and family)

See GR-A.

Lerner, Erik

1. See GR-A.

2. The recommended plan includes a recreation plan that complements the restoration features. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function, preventing recreation visitation from adversely impacting the restored areas. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

Lester, Ely

See GR-A.

Lindsey, Philippe

See GR-A.

Lizama, Dalma

See GR-A.

Lloyd, Grace

See GR-A.

Lundy, Ian

See GR-A.

MacAdams, John

See GR-A.

Magali

See GR-A.

Marks, Marilyn

See GR-A.

Mather, Evan

See GR-A.

Mayreis, Rex

See GR-A.

Mazzoleni, Ilaria

See GR-A.

McCain, Brain

See GR-A.

McCreary, Diane

Thank you for your comment. The Corps of Engineers and the City of Los Angeles are aware of the flood risks near the area you are referring to. In fact, a 1992 study by the Corps of Engineers identified the 1% annual chance exceedance floodplain for all areas along the Los Angeles River. A major constraint of the current Ecosystem Restoration study is that the proposed features will not have an adverse impact on the level of protection currently afforded by the Los Angeles River channel. The upstream limit for the current project is near Bette Davis Park just east of the Warner Brothers Studio lot. It will not have any impact on the Los Angeles River next to your property.

McQuiston, J.H.

1. Thank you for your comment. The Corps appreciates the anecdotal evidence provided by the commenter and would encourage documenting as much local knowledge as possible for historic purposes.
2. The Corps of Engineers and the City of Los Angeles are aware of the flood risks along the Los Angeles River. In fact, a 1992 study by the Corps of Engineers identified the floodplains for all areas along the Los Angeles River. A major constraint of the current Ecosystem Restoration study is that the proposed features will not have an adverse impact on the level of protection currently afforded by the Los Angeles River channel. The City of Los Angeles is in the process of requesting a LOMR (letter of map revision) to FEMA that would identify the flood risks and flood zones along the Los Angeles River. That effort should be complete before any construction has begun for the current Ecosystem Restoration study.

3. The Corps understands that a multi-objective project has a high value. During the detailed design phase, the Corps will further evaluate how much vegetation can be allowed in the channel while still maintaining the current level of flood protection.
4. Public safety is addressed in Section 5.12.3 of the report.
5. The Operations and Maintenance plan for the restoration project will include regular maintenance of all the proposed features including maintenance required to address potential effects of increased public access such as dumping, trash, and debris.
6. Local and regional water resources are considered in our water budget for the ecosystem restoration. Water conservation, recharge and similar efforts are beyond the scope of this study.
7. The basis for the study area is described in Sections 1.1.2 and 1.2.1. The alternative analysis considered historic and existing habitat configuration within this reach of the river that included their linkages and connectivity. That alternative analysis is described in detail in chapter 4 of the IFR.
8. Recreation and public access are described in Section 3.9 of the IFR and in Appendix B Economics. There are some large regional parks, such as Griffith Park in the study area. However much of Los Angeles is considered park deficient and has less than 3 acres of park space per 1,000 residents. This includes reaches 7 and 8 of the study area.
9. Your cost concerns are noted.

Medberry, Mike

See GR-A.

Medford, Roberta

See GR-A.

Mehta, Michelle

See GR-A.

Melchiorre, Marion

See GR-A.

Mendelson, Jodie

See GR-A.

Menzies, Leila

See GR-A.

Mersola, Jr. Michael (PLG Estates)

See GR-A.

Milam, Ron

See GR-A.

Miller, Blair

See GR-A.

Mills, Melissa

See GR-A.

Mischke, Gerald

See GR-A.

Montealegre, Andrew

See GR-A.

Morales, Ashley

See GR-A.

Morton, Patricia

Thank you for your comment. The recommended plan includes a recreation plan that complements the restoration features. The recreation plan features are integrated into the ecosystem restoration plan and designed to avoid impacts to the restored habitat within the river while allowing for passive recreation to occur.

Moyer, Harlan and Virginia

See GR-A.

Myers, Kalisa

See GR-A.

Nachtrab, Tom

See GR-A.

Nemtsov, David

See GR-A.

Ng, Carol

See GR-A.

Nicholson, Sonia

See GR-A.

O'Brien, Frank

1. Only those water bodies within the ARBOR area of consideration were included as part of the project area.
2. Noted, the figure was intended to show historic conditions, not specific to all sites.
3. Noted.
4. The CE/ICA analysis was an important component in identifying the best buy plans, the plans in the final array, and the NER plan. However, the CE/ICA was not the only consideration. The NER plan selection specifically considered additional benefits not captured by the CHAP model, including ecosystem benefits relating to nodal (local), hydrologic and regional connectivity associated with adding different plan features. Per Corps policy, regional economic development effects from project construction and post construction redevelopment, other social effects, resource significance, and reasonableness of cost are also considered in plan selection. While it is true that it is not possible to fully evaluate and capture all plan benefits and costs in our analysis, we believe that the analysis reasonably captures the primary benefits and costs necessary to support the identification of the NER Plan. The NER plan in the Final IFR is Alternative 13v and reflects further detailed cost analysis performed following public review. Alternative 13v replaces the Reach 7 plan in Alternative 13 with the Reach 7 plan from Alternative 20 and is a more cost effective plan than Alternative 13. The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan. However, in recognition of the additional benefits provided by Alternative 20 and strong support by federal, state and local agencies as well as various stakeholders and the general public, the Corps is recommending Alternative 20 as the Locally Preferred Plan.
5. Comment noted. Numerous alternative components were considered which were within the scope and purview of the Corps.
6. The analysis captured benefits of the alternatives either with the CHAP model, or through quantitative and qualitative assessment of connectivity. We feel that we have captured most of the benefits provided by the alternatives.
7. See GR-A.
8. Due to the complexity involved, it would not be possible to capture all of the potential ecosystem benefits in a single model. The CHAP model used for this study assessed habitat

restoration output within the project area. Also, as noted above, the evaluation and comparison of the final array of alternatives and identification of the NER Plan factored in considerations outside the immediate project area, most notably the regional connectivity benefits associated with implementing restoration in key areas. In addition to efficiency, which is measured by the CE/ICA analysis, the recommended plan identification also factored in plan effectiveness, completeness and acceptability, in accordance with Corps planning regulations.

Ocas, Beverly

See GR-A.

Olson, Carl

Thank you for your comment. Water conservation efforts are outside the scope of this study.

Olson, Eraina

See GR-A.

O'Neill, William

See GR-A.

Oswald, Ben

See GR-A.

Otto, Harry

See GR-A.

Padilla, S. David

See GR-A.

Paravecchio, Robin

See GR-A.

Pardinas, Ilka Erren

See GR-A.

Paredes, Daniel

1. See GR-A.

2. Although we cannot include your requested recommendations on local hires as a commitment in our feasibility report, it is anticipated that the local professional and skilled labor force will be eligible for the design and implementation of the project through competitive selection.

Parke, Andrew

See GR-A.

Pearce, Richard

See GR-A.

Pedersen, Karen

See GR-A.

Perez, Gladys

See GR-A.

Petteway, Susan

See GR-A.

Phan, Marjorie

Addressing local and regional transportation is beyond the scope of the Corps Authority. However, local and regional transportation projects and planning efforts that will connect or potentially have an impact on better access to the LA River include the Juan Bautista de Anza National Historic Trail; the existing LA River Bikeway and Greenway System and future plans to expand it along the entire 51 miles of the LA River on both sides (102 miles total of trails and bikeway) through the LA River Greenway 2020 Campaign; the Glendale Riverwalk Project which is currently underway; Union Station Master Plan; both the City of Los Angeles Bike Plan 2010 where the LA River is included in the Green Network, and LA County's Bicycle Master Plan 2012; the City of Los Angeles' General Plan Update, specifically the Mobility Element (formerly the Transportation Element) and the Health and Wellness Chapter, Mobility 2035 Plan where the LA River is identified as an opportunity for bikeway and pedestrian linkages: "The Los Angeles River plays a significant role in Los Angeles' environmental, non-motorized transportation and recreational identity" (http://planning.lacity.org/Cwd/GnlPln/MobiltyElement/Text/MobilityPlan_2035.pdf).

Phillips, Grace

See GR-A.

Phillips, Shane

See GR-A.

Piane, Marge

See GR-A.

Pierola, Antonio

See GR-A.

Plamondon, Anthony

See GR-A.

Pollock, Mikaela

See GR-A.

Pryor, Larry

See GR-A.

Ragosine, Dorrit

See GR-A.

Rahman, Abir

See GR-A.

Ramseyer, William

See GR-A.

Rand, Jae

See GR-A.

Rapp, Eric

See GR-A.

Raquedan, Inah

See GR-A.

Renaker, Mary

See GR-A.

Rene-Weissman, Elaine

The Corps is aware of the potentially significant features of the Los Angeles River. We will comply with Section 106 of the National Historic Preservation Acts (36 CFR 800). This consultation and review process will involve consultation and coordination with the SHPO, Tribal organizations and individuals, and interested parties. If any cultural resources are found eligible for listing on the NRHP and if those elements will be adversely effected by the project, mitigation measures will be developed and implemented. The development of mitigation measures would include efforts to design features that would blend into the historic setting of the Los Angeles River.

Rene-Weissman, Elaine

See GR-A.

Revkin, Dr. Cheryl

See GR-A.

Reyes, Christine

See GR-A.

Risemberg, Richard

See GR-A.

Rivas, Armando

See GR-A.

Rizzo, Christina

See GR-A.

Roberts, Buddy

See GR-A.

Robin, Lauren

See GR-A.

Robinson, Kathleen

See GR-A.

Robledo, Damian

1. See GR-A.
2. While some of the goals of the RIO Plan are outside the scope of this study, the alternatives considered in the IFR are consistent with the RIO as well as the LARRMP.
3. Accessibility needs differ between flood risk management facilities and recreational sites; final design plans will include evaluation of best safety measures for protection of facilities and access to recreation. Safety ramps are included in the plans.
4. The Corps estimates for remediation of contaminants were based on a robust data search and use of best available sources. Inevitably, additional sources of information may be indicated by reviewers, but researchers cannot be aware of all such sources. Estimates reflect a good-faith effort to fully account for all possible contamination and develop realistic costs. The costs of remediation are non-project costs.

As stated in the IFR, the Corps prepared an HTRW survey report for the proposed project as required by Engineering Regulation 1165-2-132 that includes a review of over 100 HTRW sites in the vicinity of the proposed project. The HTRW survey report is presented in Appendix K of the IFR. A search of Geotracker (www.geotracker.waterboards.ca.gov) was performed on March 26, 2014, to determine if additional information has become available regarding contamination at the sites presenting the highest probability for impacts associated with the project: San Fernando Valley Superfund Site, Taylor Yard sites G1 and G2, and the LATC site. The findings of the Geotracker search were consistent with the analysis presented in the Draft IFR. In addition, Section 5.7.3 of the Draft IFR describes additional measures that would be taken to ensure that known or unanticipated soil or groundwater contamination is identified and addressed properly. The City would undertake all appropriate inquiries prior to land acquisition and would adequately investigate City-owned lands. The City is responsible for ensuring that all lands provided for the project are remediated to the standards required for the uses of the ecosystem restoration project as determined by the local regulator and with input from USACE. The City may undertake the remediation or ensure the remediation is undertaken prior to providing such lands for construction of project features. Prior to providing a parcel for project construction, the City must ensure that it is either shown to be free of contamination through adequate site investigation or that it has been remediated to regulator and USACE satisfaction to the standards necessary to support the ecosystem restoration project. Additionally, the non-Federal sponsor will ensure proper handling, treatment and disposal of any contaminated groundwater encountered during construction, including dewatering activities, at 100 percent non-project cost. These measures are also described in Appendix K.

5. ADA requirements will be integrated into design where necessary, as noted in Section 5.9.1.

Rock, Dave

See GR-A.

Rose, Sara

See GR-A.

Rossmann, George

See GR-A.

Rouge, Robert

Comment noted.

Saccacio, Anthony

See GR-A.

Sandoval, Barbara

See GR-A.

Savage, Kathryn

See GR-A.

Scarcelli, Ernest

Comment noted.

Schmitt, Marilyn

See GR-A.

Shabanian, Victoria

See GR-A.

Shipman, Margaret

See GR-A.

Shorr, Gil and Herschel

See GR-A.

Sinclair, Duncan

See GR-A.

Siskind, Nicole

See GR-A.

Smith, Jerry

1. Much of the community has indicated an interest in utilizing the river for additional recreation. Safety design is integrated into all Corps facilities.
2. Safety and security of visitors to the LA River is a serious consideration of the Corps, and all restoration designs will have policy-guided safety measures implemented. Safety issues related to encampments or illegal behavior will continue to be under the purview of local police jurisdictions.
3. Comment noted. As stated in the Cumulative Effects analysis (Section 5.14), "All of the proposed alternatives include efforts to provide additional environmental restoration. These are likely to decrease potential growth, rather than induce growth, since these lands would be converted to open space. The conversion of lands from high density uses to open space may have the effect of decreasing the potential for growth.... Where larger-scale restoration measures are suggested such as at LATC (Piggyback Yard), these measures would convert industrial and rail facilities into restored habitat and remove them from the potential of being developed into higher density commercial or industrial uses or converted into housing developments. Conversely, it is possible that large scale restoration would attract a greater number of residents to the surrounding areas, particularly as a result of the area becoming a desirable place to live due to its proximity to restored open space. "
4. Comment noted.
5. The purpose of this project is ecosystem restoration, not water conservation.

Squires, Kathy

We hope you enjoy visiting the LA River. Restoration amenities, however, will likely not be available for some years to come. Implementation of the proposed project would begin after congressional authorization, development of detailed plans and specifications, and land acquisition have taken place, and after necessary funding has been appropriated.

Stemwedel, Peter

See GR-A.

Stephenson, Rhoads

See GR-A.

Stilwell, Carl

See GR-A.

Stowell, Dan

See GR-A.

Strick, Nancy

The Recommended Plan includes a recreation plan that complements the restoration features. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river, increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite.

Additionally, the restoration of the ARBOR reach may induce participation in additional recreation activities which do not currently exist, or which see low participation levels. These might include activities such as kayaking, wildlife viewing, new areas for bird watching, environmental education, stewardship training, or even visits to the ARBOR reach specifically to view the ecosystem restoration features.

Sullivan, Dr. Robert

See GR-A.

Suntree, Susan

See GR-A.

Suri, Chris

See GR-A.

Szuhay, Daniel

See GR-A.

Taylor, Tony

Thank you for your comment. Improving water quality is not an objective of this study although it is an incidental benefit. Restoration objectives cannot be fully realized by only improving water quality and removing trash.

Taylor, Tony (second letter)

Thank you for your comment.

Teutsch, Carol

See GR-A.

Thomas, Aaron

See GR-A.

Thompson, Eddie

See GR-A.

Thompson, Kalee

See GR-A.

Thorne, David

See GR-A.

Thraves, Jill

See GR-A.

Thronson, Frances

The primary purpose of the proposed project and alternatives considered in this study is to restore approximately 11 miles of the Los Angeles River from Griffith Park to Downtown Los Angeles by reestablishing riparian strand, freshwater marsh, and aquatic habitat communities and reconnecting the River to major tributaries, its historic floodplain, and the regional habitat zones of the Santa Monica, San Gabriel, and Verdugo mountain ranges while maintaining existing levels of flood risk management.

Tokash, Jennifer

See GR-A.

Tornborg, Kay (Flora Thorton)

See GR-A.

Trisolini, Katherine, Associate Professor of Law, Loyola Law School

1. See GR-A.

2. Policy requires that the Corps consider potential climate change impacts when undertaking long-term planning, setting priorities, and making decisions affecting its resources, programs, policies, and operations. Per this requirement, the IFR has incorporated climate change in the existing conditions chapter in Section 3.2, in the impacts chapter in Sections 5.2 and 5.4, and in the Hydrology and Hydraulics Appendix (E), Section 9. Because it is difficult to quantify resilience of restoration measures to climate change, the Corps intends to design all restoration features with climate change resiliency built in. Because all restoration measures are designed to consider climate change resiliency, and because the nuances between levels of restoration are difficult to quantify, including them in the CHAP would provide little meaningful cost-benefit analysis.

Umbdenstock, Linda

See GR-A.

Unwin, Dr. Stephen

See GR-A.

Uribe, Oscar

See GR-A.

Valencia, Nestor

The initial study area included 32 miles of the river within the City. The study process resulted in narrowing that area to the ARBOR reach as explained in the IFR in section 1.2.1. Further studies could address other portions of the watershed; however, that is beyond the scope of the present study.

Van Hook, Chris

See GR-A.

Villasenor, Vernon

See GR-A.

Walker, Alissa

See GR-A.

The Corps is not responsible for water allocation or supply within the river. The City would be responsible for ensuring the provision of water sufficient to support the restoration features. The study includes a water budget in Section 4.14.7.

Ward, Kay

See GR-A.

Warner, Tim

See GR-A.

Watts, Chris

See GR-A.

Weisman, Sharon and Bill

See GR-A.

West, Carolyn & David Petzold

See GR-A.

West, Carolyn (second letter)

Thank you for your comments. Below are responses to your questions:

1. The report refers to the banks of the river looking downstream. The right side would be the South side of the River in that reach.
2. Modifications to the channel in that area under Alternative 20 includes changing the trapezoidal channel wall to a vertical wall in a reach adjacent to the 134. This would widen the bottom of the channel in the reach and additional vegetation would also be added between the river and the 134 and overhanging the river bank.
3. Restoration measures include installation of habitat corridors and planting along the bank of the river in this area. That would include the installation of trees and shrubs.
4. Existing trails will be maintained as they are currently. If they are to be disturbed during construction it will be temporary, and any trails affected will be replaced or repaired. Maps of the recreation plan are found at the end of Chapter 6 of the report.

West, Carolyn (third letter)

1. The Draft IFR and technical appendices were made available for public coordination per NEPA regulations. Additional data requests were not supported except through formal coordination with other regulatory agencies. A list of acronyms is available at the beginning of the document. Terms are defined as needed within document.
2. The Draft IFR and technical appendices were made available for public coordination per NEPA regulations, including proper public notification. The IFR was available to the public for comment for approximately 9 weeks.
3. The modification in Reach 2 included in Alternative 20 involves changing the channel configuration from trapezoidal to a vertical wall; right side only (looking downstream). This extends from a point about 1200 feet upstream of Riverside Drive to about 500 feet downstream

from the 5 Freeway. This effectively changes the bottom or bed width from 180 feet wide to about 235 feet wide, to allow additional native habitat to establish in the widened channel. Vegetation would be allowed to grow in the channel only to the extent it does not increase the flood risks. Where a vertical wall is included in plans, it is included on one side only, and appropriate safety measures, including fencing and ramps, would be incorporated in the design.

4. Seasonal non-motorized boating is currently allowed within the non-concrete bottom portion of the river from Fletcher Bridge to upstream of the Riverside Drive crossing, when consistent with the flood risk management project operation and maintenance. That program is managed by the Mountains Recreation and Conservation Authority on behalf of the City of Los Angeles, in consultation with the Corps and the County of Los Angeles.
5. Information on proposed features at Verdugo Wash included in Alternative 20 may be found in Chapter 4 of the Final IFR.
6. All existing and planned activities that overlap with the selected alternative in footprint and timing will undergo coordination to ensure a cohesive design and streamlined construction period.
7. During the construction period, a number of Best Management Practices (BMPs) will be utilized to avoid or reduce the generation of dust. These are listed in Section 5.2.4.
8. The selected alternative is not expected to increase mosquito populations above existing conditions, and operation of the project will include the ongoing monitoring of pest populations and coordination with vector control agencies as needed to provide treatment (Section 5.11.3). Additional language has been added regarding the project's impact on rodent populations (Section 5.11.3).

West, Carolyn (fourth letter)

The Corps will continue to coordinate with the City's Recreation & Parks Dept. during the pre-construction engineering and design phase to address any potential issues such as those described in your comment.

Weston, Janis

See GR-A.

Wexman, Todd

See GR-A.

White, Lisa

See GR-A.

Wilhelm, Nicholas

See GR-A.

Wilson, Ed

See GR-A.

Wolfe, Kim - lariverannex.com

Specific requirements/regulations dictate what additional study and approval may be required for future modifications to any authorized project. Future decision makers will utilize all of the information that has already been generated. However, as more time passes, more changes may occur to the baseline condition, such as environmental resources, the economic climate, and possibly laws and regulations. All of these factors would need to be considered in a new study or study update, and would need to be documented in a new or supplemental environmental document. Major changes or additions would require Congressional authorization.

Wolff, Pat

See GR-A.

Wright, Anja Stadelmann

See GR-A.

Yonai, John

See GR-A.

Young, Jennifer

1. See GR-A.
2. There are no plans to reclaim water, as the goals and objectives of this project are to restore aquatic and riparian habitat. Some water reclamation may occur as groundwater seepage in soft-bottom areas.

Zaide, Karen

See GR-A.

Zell, Jennifer

See GR-A.

Public Meeting Comments

1. Dodge, Marian

See GR-A.

2. Lopez, Humberto

See GR-A.

3. Friedman, Laura

See GR-A.

4. Smith, Kathleen

See GR-A.

5. Schnieder, Richard

See GR-A.

6. Linton, Joe

See GR-A.

7. Williams, Tom

See GR-A.

8. Morgetti, Karen

A. Thank you for your comments. Regarding your comments about access bridges, the following describes recreation facility access and pedestrian bridges included in the recreation plan.

Taylor Yard/Rio de Los Angeles State Park: As shown in the Reach 6 map depicted on Plate 8 to the Recreation Appendix, access is planned on the eastern edge of Taylor Yard. The access point is proposed near the southwest corner of the State Park property, which would be accessible due to the existing underpass. This would provide more convenient movement between Taylor Yard and the State Park. The Taylor Yard Bridge noted on the map is not a component of this project, but is currently in the planning stages at the City of Los Angeles.

Griffith Park Connections: In Reach 1, upgraded and new trails will improve connection of Griffith Park and the river. In Reach 4, new multi-use pathway will be placed along Griffith Park. As part of a separate project, the City of Los Angeles is seeking to place a non-motorized use bridge across the river in order to connect both banks and Griffith Park. This is the Atwater Bridge (La Kretz Crossing) in Reach 4.

B. Regarding your point relating to the cost/benefit analysis, while largest plans will generate the greatest benefits to the regional economy, both from project construction expenditures as well as anticipated post-construction redevelopment, the primary focus of the project is ecosystem restoration. The NER plan was identified based upon an evaluation of ecosystem

outputs relative to costs. The increased benefits for habitat value, nodal (local) and regional habitat connectivity, hydrologic connectivity, and aquatic ecosystem restoration provided by Alternatives 16 and 20, including the increase in Regional Economic Development (RED) benefits attained by these two larger alternatives, provided justification for their inclusion in the final array of alternatives considered. However, these added benefits also come at a significantly higher cost.

Following public review, a more detailed analysis was performed. This analysis identified a more cost effective variation on Alternative 13 (referred to in this IFR as “Alternative 13v” for variation) that is identical to Alternative 13 except for Reach 7, where it includes the reach plan included in Alternative 20 that provides 10 acres of marsh and a terraced bank connection to the Los Angeles State Historic Park as well as daylighting three streams and restoration of the lower Arroyo Seco. The analysis found that the Reach 7 plan included in Alternative 20 provides greater benefits than the Reach 7 plan included in Alternative 13, at lower cost.

The NER plan should be the justified alternative and scale having the maximum excess of monetary and non-monetary beneficial effects over monetary and nonmonetary costs. This plan occurs where the incremental beneficial effects just equal the incremental costs, or alternatively stated where 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 environmental benefits while passing tests of significance of outputs, cost effectiveness, efficiency, acceptability, and completeness. Compared to the rest of the alternatives, Alternative 13v is the plan that more than minimally meets these criteria. Accordingly, Alternative 13v has been identified as the NER plan.

However, the non-Federal Sponsor requested that Alternative 20 be recommended instead of the NER Plan, and the Corps requested that the Assistant Secretary of the Army (Civil Works) grant an exception to allow the Corps to recommend Alternative 20 as the locally preferred plan (LPP) instead of recommending the NER Plan. The ASA(CW) granted the requested LPP exception and permitted the Corps to recommend the LPP in the Final IFR and in the Chief of Engineers Report, in recognition of the additional benefits provided by this plan and strong support by federal, state and local agencies as well as various stakeholders and the general public. The features of the Alternative 20 recreation plan include trail improvements, pedestrian bridges, trail access points and wildlife viewing points. The recreation plan includes a separate benefit/cost analysis to show economic justification and federal interest in the recreation features.

9. Murphy, Deborah

See GR-A.

10. Golding, Arthur

See GR-A.

11. Jones, Andrew

See GR-A.

12. Higgins, Lila

See GR-A.

13. Appleton, Steven

See GR-A.

14. Cortes, David

See GR-A.

15. Madrid, Jorge

See GR-A.

16. Gedeon, "Blue" Geza

See GR-A.

17. Brown, Russell

See GR-A.

18. Barden, Lane

See GR-A.

19. Murphy, Edward

See GR-A.

20. Stefani, Giulia Good

See GR-A.

21. Sourial, Jill

See GR-A.

22. Sheedy, Keenan

See GR-A.

23. Jones, Susan

See GR-A.

24. Brownson, Omar

See GR-A.

25. Hans, Gerry

See GR-A.

26. West, Carolyn

Some alternatives considered the widening of the south bank of the river within Reach 2 by modifying the channel wall from trapezoid to vertical. See response to written West letters.

27. Oinuma, Colleen for Congressman Adam Schiff

Thank you for your comments. Please reference response to written congressional letter under federal representatives above.

28. Lombardi, Sergio

See GR-A.

29. Khan, Mohammed

See GR-A.

30. Vargas, Brenda for Congressman Xavier Becerra

Thank you for your comments. Please reference response to written congressional letter under federal representatives above.

31. DeRosa, Charles (LA Kayaking Club)

See GR-A.

32. Tachiki-Chin, Kim for Congresswoman Lucille Roybal-Allard

Thank you for your comments. Please reference response to written congressional letter under federal representatives above.

33. Tachiki-Chin, Kim for Pauline Louie

See GR-A.

34. Maulano, Lucia

See GR-A.

35. Hedge, Joanne

See GR-A.

36. Reyes, Ed

A. Comment noted.

B. This is an important issue throughout the Los Angeles Watershed; however, the issues of recycled water, increased capture, and use of stormwater are outside of the scope of the ecosystem restoration study. It is the City's desire to use recycled water, when feasible for construction and maintenance of the completed project to support habitat.

C. Comment noted.

37. MacAdams, Lewis

See GR-A.

38. Nunez, Irma Beserra

See GR-A.

39. Lester, Ely

See GR-A.

40. Moreau, Jack

See GR-A.

41. Drennan, Michael

See GR-A.

42. Bleitz-Sanburg, Dana

See GR-A.

43. Huerta, Denita

See GR-A.

44. O'Brien, Frank

See responses to individual O'Brien letter.

45. Benson, Mary

See GR-A.

46. Schlick, Alison

See GR-A.

47. Collins, Craig

See GR-A.

48. Morrison, William Rodriguez

Thank you for your comments and interest in the Feasibility Study. The plan that is recommended and authorized by Congress will be cost shared between the Federal government and the non-Federal sponsor (in this case, the City of Los Angeles). The Federal cost sharing portion of the project will be funded through annual appropriations, passed by Congress and signed into law by the President. The non-Federal sponsor is responsible for providing a Self-Certification of Financial Capability to establish that it will be able to meet its cost sharing obligations for the project. This is included in the Final IFR.

49. Barnett, Karen

- A. Flood conveyance is the top priority for the LA River channel. Hydrologic and engineering analysis ensure that the channel will continue to convey floodwaters. There will be no change to flood levels, and therefore, no changes to FEMA flood zone mapping.
- B. The non federal sponsor is responsible for operation and maintenance of the project after construction. The non-Federal responsibilities are described in Section 7.2.2 of the Integrated Feasibility Report.
- C. This project is not intended specifically to replenish aquifers or groundwater tables. As an ecosystem restoration project, the goal is to increase habitat value throughout the study area.

50. Landregan, Stephanie

See GR-A.

Public Meeting Comment Cards

Banner, Michael

See GR-A.

Brown, Lynn

Thank you for your comment in support of the proposed plans for the Los Angeles River. The Recommended Plan includes a recreation plan. The recreation plan features are integrated into the ecosystem restoration plan; however, these features are formulated as separable components of the plan. The features of the recreation plan are designed to capitalize on the areas where substantial ecosystem restoration is proposed and are designed to prevent interference with restoration of ecologic function. Plan features and benefits include: improved quality and quantity of trails for multiple user groups along the river (including equestrian), increased connectivity of each side of the river's recreation resources, increased public safety through better signage and trail development along the river, improved viewing and lines of sight along the river, especially in areas of substantial restoration via the ecosystem restoration plan, opportunity for interpretive signage and environmental education, and improved public health by providing opportunities for exercise and psychological respite. The proposed recreation features have been developed at a feasibility level. However, it is anticipated that unpaved multiuse trails will be open for equestrian use as feasible (e.g., as long as safety of people, horses, and wildlife can be safely accommodated simultaneously without negative effects on the restoration features).

Burman, Tsilah

See GR-A.

Cheng, Suellen

See GR-A.

Hernandez, Mike

See GR-A.

Kumamoto, Alan

See GR-A.

Kumamoto, Joanne

See GR-A.

Lambarri, Ally

Thank you for your participation. Youth are definitely encouraged to participate in the process.

Lowry, Mike

Habitat units used in the analysis are described in Section 4.9 of the report. Habitat units were based on an assessment of habitat and quantity. The inclusion of neighboring communities did not factor into the habitat outputs analyzed. However, the overall process does consider

Environmental Quality, Regional Economic Development, and Other Social Effects, which is where the inclusion of benefits to neighboring communities would be considered.

McQuiston, J.

This is an important issue throughout the Los Angeles Watershed; however, the issues of recycled water, increased capture, and use of stormwater are outside of the scope of Corps ecosystem restoration. It is the City's desire to use recycled water, when feasible, for construction and maintenance of the completed project to support habitat.

Rankell, David

Comment noted.

Reagan, Rourk

See GR-A.

Sanburg, Delmer

See GR-A.

Sebahar, Thomas

1. Your concerns are noted. Groundwater pollutant potential is addressed in the Evaluation of Alternative Plans and Environmental Consequences Section 5.4.3 of the report.
2. The selected alternative is not expected to increase mosquito populations above existing conditions, and operation of the project will include the ongoing monitoring of pest populations and coordination with vector control agencies as needed to provide treatment (Section 5.11.3).
3. Your cost concerns are noted.

Shankar, Cheri

See GR-A.

Stephenson, Roads

See GR-A.

Taylor, Ric

See GR-A.

Teran, Alexia

1. No taxes are proposed by the study, but identification of specific funding sources for the non-Federal share is not part of the analysis in the study. Project funding will be accomplished in phases over many years, with Federal funding subject to appropriations. The first step is project

authorization. The next step is project financing. Upon authorization of the project, the City, as non-Federal sponsor, will work with its partners in the public, private, and nonprofit sectors to develop a financing plan that balances the investment in this project with those of other public priorities. Project authorization does not obligate any local funds. Project authorization will identify the details of the project, which can then be matched with appropriate funding sources.

2. The Corps is supportive of educating the public in the importance of clean watersheds.

Walnum, Ann

See GR-A.

Wendlandt, Wendy

See GR-A.

Wilhelm, Nicholas

See GR-A.

Yesayan, Erik

See GR-A.

Zuniga, Rubi

The commenter refers to “Proposition 20” instead of Alternative 20, but for the purposes of the response, these are assumed to be the same. Project funding will be accomplished in phases over many years, with Federal funding subject to appropriations. The first step is project authorization. The next step is project financing. Upon authorization of the project, the City, as non-Federal sponsor, will work with its partners in the public, private, and nonprofit sectors to develop a financing plan that balances the investment in this project with those of other public priorities. Project authorization does not obligate any local funds. Project authorization will identify the details of the project, which can then be matched with appropriate funding sources.