

DATE: Nov. 18, 2013

Josephine R. Axt, Ph.D.; Chief, Planning Division;
U.S. Army Corps of Engineers; Los Angeles District
P.O. Box 532711;
ATTN: Ms. Erin Jones, CESPL-PD-RN;
Los Angeles, CA 90053-2325

Email: comments.lariverstudy@usace.army.mil

SUBJECT: Los Angeles River Ecosystem Restoration Feasibility Study
DRAFT Integrated Feasibility Report
Study/Environmental Impact Statement (DEIS)/Environmental Impact
Report (DEIR)

Dear Dr. Axt,

The Water Committee of the Sierra Club Angeles Chapter has reviewed the Los Angeles River Ecosystem Restoration Feasibility Study and associated reports. Members of our committee have prepared the comments below for your review - a PDF file of this letter and all comments is attached for your convenience to print or share with other reviewers.

Thank you for the time and efforts the US Army Corps of Engineers and the City of Los Angeles have expended to work with the community and prepare the Los Angeles River Ecosystem Restoration Feasibility Study and Environmental Impact Statement/Environmental Impact Report, Draft Integrated Feasibility Report.

Thank you for the opportunity to participate in this vital work of LA DWP.

Regards,

Charming Evelyn
Chair, Water Committee

George Watland
Acting Co-Director

Sierra Club Angeles Chapter
3435 Wilshire Blvd. Suite 660
Los Angeles, CA 90010-1904

Attachment: Sierra Club Water Committee Comments - LA River Ecosystem Restoration Feasibility Study.pdf

ADDENDUM

Comments by the Water Committee of the Sierra Club Angeles Chapter

General Comments by William Goldstein

Alternate 20 restores 719 Acres at a cost of \$1.06B. Alternate 13 restores 588 Acres at a cost of \$444M. A20 softens 80' of river bottom @ Bette Davis Park vs. nothing for A13. Arroyo Seco is an ephemeral stream for most of the year. A20 softens a .5 mile stretch turning it into a riparian marsh and wetland. A13 does not. Overall, it surprised me that staff didn't spend more time on the water-capture opportunity offered by the LA River. 750,000 acre ft. in any given year would serve a lot of families (@ 2 acre ft./family) and would go a long way toward reducing your water bill and mine.

Slowing the release schedule @ Hansen Dam would capture up to an additional 16,000afy. Also, using the planned parklands @ Taylor Yards and the Cornfields as spreading grounds during the rainy season would be a budget-pleaser.

Economics by David Campbell

The Environmental Quality (EQ) evaluation of beneficial and adverse effects of proposed alternatives on the ecological, cultural, and aesthetic effects of the affected natural and cultural resources is the major meat of the Report. This means that the EQ benefits of each alternative will be subjectively evaluated while the dollar costs are best objective estimates. Economic reasoning has a limited role.

Contributions of the effects of alternatives that can be measured in monetary terms (National Economic Development \$) are a small part of the Integrated Feasibility Report. Recreation Benefits and Costs must be in the NED account. Not worth messing with. And, the report mentions jobs that could be created. The NED account only allows "benefits" from hiring unemployed and underemployed workers. This is done by using the difference between the wages paid (a cost) and the opportunity cost of the workers -- zero for the identified unemployed. The Report sort of overstates these benefits by using only numbers of workers. Also, I don't see discounted present values of the costs and benefits.

It sounds like environmental groups have subjectively chosen the higher cost alternative 20 vs. the lower cost alternative 13. I believe that one of the problems benefits of the better but higher cost projects can be that they take longer to implement and to receive the benefits. Thus, the discounted present value of the far in the future EQ benefits is small. One strategy is to look for ways to reduce the costs of #20. Incremental

analysis can help. The report does show different aspects of each alternative. When *negotiating*, can you create a schedule that would proceed with the ones with larger subjective beneficial effects and low costs first i.e high net benefits. Or, come up with ideas for reducing costs or giving up on a couple of the most costly parts. Maybe someone could match up the various parts of 13 and 20 and jiggle them a bit.

The Angeles Chapter of the Sierra Club is pleased with the emphasis on the study's purposes, the detailed information that it contains, and the careful evaluation of reasonable alternatives to restore much of 11 miles of the Los Angeles River. The Chapter sends out a monthly e-Southern Sierran to over 90,000 members and supporters in the area who have supported the general thrust of river restoration as well as specific proposals for many years. As you heard at the even-handed public meeting most of the attendees would love to see all of the measures outlined in Alternative #20 be recommended to the Assistant Secretary and authorized by Congress. One of our members noted that, "It was clear from those speaking at the press conference that this was a *'seminal moment in LA County history'*" as speaker after speaker spoke about the remarkable consensus around local, state, and federal support for Alternative 20." We, *and you*, understand, however, that the difficult process will take a long time. Steve Ellis of Taxpayers for Common Sense warned, "You can potentially risk not getting anything if you reach too high."

Competition for funds from presently authorized and new projects from the limited budget of the Corps is intense. See how few new projects are in the crowded 2013 Water Resources and Reform Development Act that passed the House on October 30. The Reform part of the bill requires the removal of many projects that have been on the list for more than five years. This still leaves loads of **competition** for Alternative #20's estimated Federal contribution of \$500 million. And, any Rio L A authorization will not appear until at least a year from now according to your time-table. Authorization is only a first step; then monies must be appropriated.

Local sponsors will face similar problems in obtaining their *cost-share*, especially for near-term land acquisition. Former Los Angeles Mayor Villaraigosa promised that the City would pay its fair share, but ex-Mayor Richard Riordan forecasts local budget deficits.

Friends of the L A River (FOLAR) began 27 years ago. Since then, access has been allowed in several places, sections have been improved, public support has grown, and progress has speeded up. Nevertheless, it would take another 27 years to complete Alt. 20, or even Alt #13, relying on Federal and local dollars.

The last chapter of Patt Morrison's book Rio L A is entitled, "To see the river as it was." Many steps have already been taken in this direction, some as little as clean-up festivities or bike trails. Each step has encouraged more

people to touch the river. Somehow the process must continue so that others can enjoy and then fight for further restoration.

WHAT NEXT

These comments have illustrated that attempts to obtain authorization and funding for an entire package of these expensive Alternatives in one full swoop are likely to fail. Fortunately the Study does provide for a continual process and mentions that the selected alternative will be "implemented in phases".

The Sierra Club suggests that your synopsis of the final study contain timetables for chunks of these phases so that it is clear that requests for *annual* Federal contributions will be not be large. The restoration of the river piece by piece requires a ranking of the proposed segments. The study staff has already used Bang for the Buck to select the projects for each of the eight reaches of the river. It should now use the environmental quality value versus project costs to develop an EQ/Costs ranking and timetable for the each project in the selected Alternative.

The Corps should meet with FOLAR and a few other groups before November 18 to agree on the urgency of specific projects and a timetable. We don't think that you will be very far apart.

The Corps must attempt to quickly obtain federal and local authorization and funding for a couple of the top-ranked projects. It has spent seven years and \$10 million on the Study. Your time and money should not be wasted. The Study conclusion should insist that the Corps begin restoration soon and finish the first steps quickly. The Final Study Report should make it understood that all the other pieces of the overall plan are waiting in a queue for similar actions.

ARBOR Riparian Transitions (ART)- Alternative 10

Restores x acres of Valley Foothills Riparian and x acres of freshwater marsh habitat Restores riparian corridors in overbank areas in 6 reaches (1, 2, 4, 5, 6, and 8) Daylights fourteen streams (three streams in reach 3, seven streams in reach 4, one stream in reach 5, and three streams in reach 7) Widens the soft river bottom in reach 6 at Bowtie and Taylor Yard by twenty-four feet Small terraced area in reach 6 Restoration of historic wash through Piggy Back Yard.

ARBOR Corridor Extension (ACE) - Alternative 13

Restores x acres of Valley Foothills Riparian and x acres of :freshwater marsh habitat Restores riparian corridors in overbank areas in 6 reaches (1, 2, 4, 5, 6, and 8) Daylights eleven streams (three streams in reach 3, seven streams in reach 4, and one stream in reach 5) Implements a side channel along the right bank behind Ferraro Fields in reach 3 and along the edge of Griffith Park

golf course in reach 4 Widens the soft river bottom in reach 6 at Bowtie and Taylor Yard by five hundred forty-four feet Small terraced area in reach 6 Vegetation on channel walls in reaches 6 and 7 Restoration of Arroyo Seco confluence Restoration of historic wash through Piggy Back Yard.

ARBOR Narrows to Downtown (AND) -Alternative 16

Restores x acres of Valley Foothills Riparian and x acres of freshwater marsh habitat Restores riparian corridors in overbank areas in 7 reaches (1, 2, 4, 5, 6, 7, and 8) Daylights eleven streams (three streams in reach 3, seven streams in reach 4, and one stream in reach 5) Implements a side channel along the right bank behind Ferraro Fields in reach 3, along the edge of Griffith Park golf course in reach 4, and through Piggy Back Yard in reach 8 Widens the soft river bottom in reach 5 by converting from trapezoidal channel to vertical and adds width at the downstream end of the reach, and widens in reach 6 at Bowtie and Taylor Yard by five hundred forty-four feet

in reach 8 creates 500 feet of soft river bottom with 1000 additional feet on a bench at the 2 year flood interval and sloping up another 800 feet to overbank level in reach 8. Small terraced area in reach 6, and additional terracing in reaches 5 and 8 Vegetation on channel walls in reach 6 and in notching at top of channel in reach 5 Restoration of Arroyo Seco confluence in reach 7. Restoration of historic wash through Piggy Back Yard.

Riparian Integration via Varied Ecological Reintroduction (RIVER) - Alternative 20

Restores x acres of Valley Foothills Riparian and x acres of freshwater marsh habitat Restores riparian corridors in overbank areas in 8 reaches Daylights twelve streams (three streams in reach 3, seven streams in reach 4, one stream in reach 5, and one in reach 7) Implements a side channel along the right bank behind Ferraro Fields in reach 3, along the edge of Griffith Park golf course in reach 4, and through Piggy Back Yard in reach 8 Widens the soft river bottom in reaches 2 and 5 by converting from trapezoidal channel to vertical and adds width at the downstream end of reach 5 in reach 6 at Bowtie and Taylor Yard by five hundred forty-four feet, and in reach 8 creates 500 feet of soft river bottom with 1000 additional feet on a bench at the 2 year flood interval and sloping up another 800 feet to overbank level in reach 8.

- Small terraced area in reach 6, and additional terracing in reaches 5 and 8
- Vegetation on channel walls in reach 6 and in notching at top of channel in reaches 2 and 5
- Restoration of Arroyo Seco in reach 7 and Verdugo Wash confluence in reach 3
- Restores freshwater marsh wetlands in Los Angeles River State Historic Park with a terraced connection to the main stem
- Restoration of historic wash through Piggy Back Yard.

Comments by Judith Anderson

Habitat Restoration

Habitat Appendix

Stated, finally, the Goals for the Study. Or is it the goal for the entire ARBOR study? Not clear.

1. Restore Valley Foothill Riparian Strand and Freshwater Marsh Habitat
2. Increase habitat connectivity.

Objective: Restoration of the area to a condition characteristic of the historic, natural riparian river channel, as limited by ... urbanization and ... for flood risk management.

Important species: p. 12,13.

They ignored larger mammals. Mule Deer, mountain lion, bob cat, coyote. Mountain lions have been spotted in Griffith Park. Habitat stressors included horses, homeless, but ignored both feral and unleashed dogs and cats, as well as noise pollution from adjacent freeways and trains, and runoff pollutants. Trash is not simply careless disposal, but the ability of the recessed river channel to catch windblown object which became trash when they entered the channel from shopping carts to door mats. Homeless encampments are not large congregations, but typically solitary. perhaps 100 sq ft in a polygon of x acres?

All of the maps of habitat components, starting with Page 17 figure 6.1.1-1, are "Sample Maps"... Evaluations of the components was problematic since none of the reaches is mapped for all of the components, making it very difficult to find errors, or to compare polygons with habitat descriptions when not all polygons are shown on the maps.

The following comments are all that could be gathered based on an incomplete set of maps in the report: The opening implied that Los Feliz and Harding golf courses were important areas to examine. They do not appear in any polygon. Polygons on the left (eastern) bank are very limited in scope and (for example) ignore connectivity between Taylor Yard and the adjacent Los Angeles River State and City Park with its sample native habitat plantings. There is no polygon for North Atwater Park, and the Annex. Which has a bioswale channel for the urban runoff before it joins the river. On reach 6, no polygon for LA River State park, and none for Marsh Park. There are numerous areas around the Metrolink yard and especially areas to the north which deserve polygons even if they show no existing plant materials.

Of course there is existing habitat on Taylor Yard. The soil was all scraped away on this superfund site to remove contaminants pollutants from Taylor Yard, Inattention led to the deliberate destruction of osprey nests along the river in abandoned buildings on the west side of the parcel. I thought those

nests were supposed to be protected. Nowhere is the continuous flow of water from the Water Treatment Facility in-flow from Glendale even mentioned. Nor the use of some of the treated water on golf courses in Los Angeles. Where is the evaluation of the value of this water in restoring "natural" flows? Higher flows, year-round, are not natural. What are potential impacts if alternate uses for the water are found, as the price of imported water continues to rise, and what are the expected impacts at different flow rates?

The hydrology section fails to describe the interaction with the local water tables except to note that the reason for the soft bottom is that the water table is too high to cover it. There is ample evidence of other high water tables not far to the east in Highland Park. They are still being exploited by bottled water companies. Is there opportunity for infiltration? The report doesn't say.

Figure 6.2.1-5 Proximity to other natural areas...

The tenuous connection between Griffith Park and the Arroyo Seco needs to be protected. The study missed the opportunity to gain another strand of connectivity using Verdugo Wash to the Verdugo Mountains. Although it includes other Federal designations of land, the SMMNRA, ANF, it fails to include congressionally designated wilderness in the NW corner of Angeles National Forest. The San Raphael Hills have been nearly totally isolated from the main Verdugo Mountains. Connectivity issues are being addressed. Connectivity enhancements in the Sepulveda Pass by Cal Trans includes accommodations for species movement across the pass. Beginning studies across I-5 CA 14 S of Santa Clarita.

Page 7

Losses from the construction of a channelized controlled flow river with altered bottom. Should include possible loss of anadromous fish from the Los Angeles River, based on the existence of them in other streams in Southern California; Should include disruption of migration corridors of all land based species – plants, animals. The creation of "islands" increases the possibility of extirpation of species, especially those which are sensitive to disturbances and prefer more secluded habitat (eg. Mountain lion). It means the system now favors those species that are edge adapted. Loss of the top predator reverberates down the remnant ecosystem.

Within the "opportunities" section, there is a reference to "functioning ecological zones." This is neither defined nor mapped, nor described as of any date. The intent of including this term is NOT clear. Is there a goal of restoring the "non-functioning" ones, or ignoring the "functioning" ones?

An independent study of the essential migration corridors crossing Los Angeles County has been completed. This study, its conclusions and recommendations, have been ignored.

Section 3.10

Paragraph 2 describes the land adjacent to and west of Glendale Narrows as having single family and mixed residential housing. On the maps, it looks like it is Griffith Park. Griffith Park is referred to as a "recreational" area. The implication is that it provides little or no habitat suitable for wildlife, birds, reptile, etc. This is not borne out by the independent studies, commissioned by Friends of Griffith Park and others, that have been performed documenting the diversity of species in the Park.

Economics/Social Justice

Page 17 Where is tourism included in the business profile for Los Angeles? Is it included in "entertainment"? Table 3.5, is nearly useless since it is not divided out into the separate segments of the river under study.

Page 19 begins a review of legally required "Environmental Justice" factors. While the statistical analysis of the census tracts, there is very little recognition of the depth of the problem or accommodations within the proposed alternatives, which can ameliorate the injustices that are present today. For example: In calculating the acres per 1000 residents, the entire Santa Monica Mountains National Recreation Area seems to have been included although it is nearly inaccessible to school age children in Los Angeles. Private or agency funded busses are nearly hopelessly overwhelmed by the the task of getting these children into the NRA; financially strapped school districts are not funding school trips. Public transportation to the SMMNRA is very limited - in routes, in schedules, in hours of operation.

There is a reference to a Trust For Public Land study of Los Angeles residents access to parks. Other sections of the study go well beyond the reference to Los Angeles being "park poor." An examination of the actual maps show that there is indeed a case of Environmental INJUSTICE and discrimination against some ethnic (racial and cultural) groups and income levels.

During the period of this study the City of Los Angeles changed its funding procedures for Parks and Recreation Areas within the city. Fewer dollars were provided by the City; staff were cut and hours and services curtailed. Also, new expenses were added for services previously provided by the Department of Water and Power, such as electricity for night use. The City has been increasingly exploiting the open space for commercial enterprises and services such as advertising, and fee based entertainment in areas where all activities are free, such as picnic areas. Recognizing this trend toward increasingly expensive "opportunities" means that the city has been burdening "park poor" and "low income" residents with an undeclared tax on their use of city parkland.

In terms of adding extra open space and recreational opportunities which are free, every single acre becomes even more valuable. If the situation in Los Angeles sounds bad... at 6 acres/1000 residents, add to it the truly pathetic situation in nearby Glendale where there is only 1 acre / 1000. With nowhere to go in Glendale, they add their demands to those of the nearby communities: Burbank and Los Angeles.

The opportunity to open up new acres along the western edge of the city and along Verdugo Wash should be among the highest priorities.

5.1.1

There is a factual error concerning kayaking and fishing in the study area. There is now kayaking in the stretch of the river below the CA 2 crossing. In this stretch there are also more families having picnics, even though there are no tables, bird watching, photography, and nature study.

The map of Marsh Park seems inflated. Perhaps the map includes other land that has been purchased for park purposes but is not open to the public.

At several points the study refers to there being "NO FISHING", or fishing is prohibited, nor not permitted, and not cited. There also are NO SIGNS telling the public that fishing is not allowed. I think that's why there have been no citations.

On page 23 there is a reason given why the public doesn't use the river for swimming: "low water". That's ridiculous. I can give you about a dozen reasons why I would not advise children to learn to swim in the river. Residents know that much of the flow in the river comes from water treatment plants in Glendale and Sepulveda Basin. They don't trust the water as being safe. Perhaps they could, but that is a discussion for another time. Kayakers are advised; others don't even get that information.

They don't trust the bottom. They can see the trash accumulations and may have participated in River clean-up days. Glass, pieces of metal ready to go through the sole of a shoe, makes it unappealing when the bottom isn't visible. There is also a fear, in dodgy weather, when a rainstorm somewhere upstream that you neither hear nor see can unexpectedly put you in trouble. Rescues of unfortunates caught in the river make the evening news during winter storms. The long riprap slopes are not inviting for a quick escape route if you have several children. There are very few restrooms along the bike paths that make it inviting to bring families with small children, and not many trash bins either. There are no areas "designated" as suitable for swimming and wading. The reason is not "low water" but fear.

On Page 23 there is a note of the bicycle route on the western bank, but there are bicyclists on the eastern side of the river also, in the stretch of the river from Los Feliz north to at least the North Atwater Annex park. In some sections they share the bank with the equestrians, or use the flat paved area

below the side, and service roads along the bank. There are also bicyclists who reach the river bottom at the Metrolink property.

It is a true disservice to the public when it is expected to analyze output from "certified" planning software which it a) is unfamiliar with; b) has no access to the data put into it; c) is not informed about the assumptions which are built into the software. Like election results from Florida, the public needs more information on this 'certified' software.

Section 6.1.

Plagued with undefined terms, this section is difficult to evaluate. Examples: "desired ecosystem resources", "reasonable", or "reasonable with respect to Federal Objectives." Where are these Federal Objectives enumerated?

Comments by Dr. Tom Williams

We have reviewed various accessible documents regarding the proposed "Project" and have participated in one public meeting. We request that Environmental Impact Statement/Report - Feasibility Report be revised and reissued at a later date (i.e., January 2014) with a request for additional public comments.

No Scoping Report or Comments are provided to assess the adequacy of the DEIS responses, but presumably it will be in the FEIS. No reference is made to the California's required Mitigation Monitoring and Reporting Program, again presumably it will be in the FEIS.

Adequate analyses of stormflows, stormwater retention, and infiltration/recharge have not been provided for the affected drainage of the Project and their relationships to the overall eastern SFB area and north-central and eastern LACounty drainage areas. Similarly, adequate analyses of groundwater flows, recharges, and discharges and movements and relationships with contaminated groundwater sources and plumes within the project areas or the effected drainages have not been provided nor even referenced.

Considerations were not provided on the regional transportation impacts by removal/limitations of freight transport from the Alameda Corridor and prospects by SCAGs for Alameda Corridor extensions to Palmdale and San Luis Obispo through the Piggyback and Taylor rail yards.

Many assessment sections end with a phrase that everything will be sorted out or mitigated during the "design phase" where the public would not participate. Such comments may be appropriate to an Environmental Assessment but not to an Environmental Impact Statement and Report. Therefore, the Project description, the setting based on an adequate description, and assessment along with confirmed mitigation have not been

presented for public review and therefore comments can not be fully prepared based on the current materials. The Project's description, setting, and assessment are inadequate and incomplete (see also attached detailed review comments).

Throughout the Report and EIS, costs for rights-of-way and remediation of hazardous/contaminated soils and groundwaters are mentioned and assigned to the City of Los Angeles as the responsible sponsor agency. However, the City as the local Project Sponsor has not adequately or completely developed a setting, assigned project activities, facilities, and impacts, considered mitigation of these hazards and their costs/economic impacts and the dislocation of financial resources to these facilities and activities from those that may have much higher returns on recreational and environmental benefits and far less risk of unfunded costs for as yet unknown but certain presence of contaminated soils and groundwater.

Binding contracts or memorandum of agreement or understanding between the City and affected Railroads have not been provided or referenced, and thereby remedial, financial, and other conditions for rail yard usage remain at significant risks of unknown significant impacts to water resources and quality, hazardous wastes remediation, recreational resources and other sectors.

Similarly the allocations of scarce City financial resources for this one project would require deferral or abandonment of funding for operations and maintenance of existing open space and recreational resources and for any new facilities and space elsewhere, where needs remain high. Such financial dislocations, reassignment, or abandonments have real impacts on environmental justice issues within the City's complex and wide ranging culturally and financially diverse communities.

No considerations have been focused on any documented relationship of the current owners of the Taylor and Piggyback yards and facilities nor on the repeated use of trestle for relocated train corridors on both left/right backs and yards in the Project Alternatives areas. A signed MOU or similar binding commitments must be provided to support various unfounded claims.

No consideration has been provided for cumulative effects of this project (and its alternative) in conjunction with the LACo stormwater management system, LACo recycled water programs and local flows, LACityDWP recharge of recycled waters, diversion of recycled brine wastewaters out of the basins, groundwater remediation, and other LACo and LACi projects.

No consideration has been provided regarding recreational and other improvements north of the SR-2 compared to those south of SR-2 and potential effects under Environmental Justice. No considerations of gentrification and low income dislocation and related growth inducements

have been analyzed for the Arroyo Seco, Cornfields, and Mission Road corridor of USC/LACo Medical Center (the Piggyback service area).

As indicated by these general comments and elaborated in detailed comments attached, the DEIS, feasibility report, and Project/Alternatives descriptions are inadequate, incomplete, and based on unfounded conjectures which do not provide the public with the basis for recommending and supporting a "Locally Preferred Alternative".

The available documents are incomplete, inadequate, non-objective, and include many errors, erroneous assumptions, and unsupported conclusions in a vain attempt to justify some as yet ill-defined project.

The documents must be substantially revised and upgraded before complying with minimal requirements for Federal, county, and municipal considerations and decisions.

Please review, revised, and recirculate this DEIS, Feasibility Report, and Project/Alternatives Descriptions.

Thank You for this opportunity to review and comment upon this important Project. We support the overall concept of the restoration of waterways but require full and objective disclosure of impacts and adequacy and completeness of supporting documents.

DETAILED COMMENTS

COMMENT FORMAT - Text A-p./parag. or Appendices A-p./parag. and relevant text contents provided for convenience of reader

City refers to focus-point of following *comments*

Executive Summary - p.xvii - xxxv

All portions of ES must be assumed to be based on the full text or the sections below and their supporting appendices. If the Appendices or EIS-texts are incomplete and inadequate, the dependent higher tiered text and Executive Summary must also be considered as incomplete and inadequate.

xxxv/3 ES.9 Conclusion and TSP Identification

The increased benefits for habitat value, habitat connectivity (nodal and regional), restoration of hydrologic processes, and aquatic ecosystem restoration provided by alternatives 16 and 20, including the increase in RED benefits attained by these two larger alternatives make them **reasonably acceptable and supportable alternatives**. However, these added benefits also come at a **higher relative increase in costs**. Comparing cost to relative benefits gained, for a much smaller increase in costs over Alternative 10, **Alternative 13** includes : ***[elements separately/emphasized below for clarity]***

all the features of 10 and adds side channel restoration and floodplain connection in Reach 3, additional natural river bed in Reach 6, a natural channel confluence in Reach 7 with riparian vegetation lining channel walls, and a **significant increase of 309 percent** in nodal connectivity as well as an increase in regional habitat connectivity.

This alternative provides the **greatest increase in net benefits...for the least increase in cost** while **reasonably** meeting the objectives...meets all of the Principles and Guidelines criteria as an effective, efficient, complete, and acceptable plan.

Comparative adjectives are scattered throughout the EIS without any specific definitions and without reference to any quantitative measures for such usage.

Significance and accuracy of "309" has not been established and requires reference to the pertinent text section.

References between benefits and costs may be appropriate for the feasibility study aspects but opens the entire EIS to fiscal, financial, and economic reviews and comments regarding environmental justice as all LACity residents will pay for the Project but not receive equal benefits and may have more beneficial open space, recreational, and environmental projects and operations and maintenance of existing resources deferred, delayed, or abandoned.

1-12/2 This feasibility study provides an **interim** response...study efforts will determine the feasibility of ecosystem restoration...**There is no sponsor available to investigate flood risk management at this time.**

Current flood control risks are estimated at less than a 25 year flood, elsewhere in the report and EIS. Therefore another project can be assumed sometime in the future to deal with the absence of flood risk management efforts at this time. No estimates nor concept designs for flood risks at 100 year flood are provided, and no consideration of project segmentation is made.

The integrated EIS and feasibility study are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of water-consumptive vegetation and inducement for liquefaction throughout the Project area.

1-16/1 - 1-17/1 **1.4.2 Individual, Local, and Agency Reports**
No groundwater studies are referenced although conducted by federal, state, and local jurisdictions.

The integrated EIS and feasibility study are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of water-consumptive vegetation and inducement for liquefaction throughout the Project area.

1-17/2 **1.4.3 Concurrent Studies**

- None of the boundaries of these studies overlap with this study's project area

No SFB groundwater related studies

The integrated EIS and feasibility study are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of water-consumptive vegetation and inducement for liquefaction throughout the Project area.

1-17/3 - 1-19/5 **1.4.4 Details of Selected Background Reports**

No groundwater studies are indicated at all, although three major SFBasin and groundwater projects (Stormwater Recharge, Recycled Recharge, and Contaminated Groundwater), and the County's/Watermaster's studies and hydrological model would incorporate such groundwater sectors and have been underway for years.

The integrated EIS and feasibility study are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of water-consumptive vegetation and inducement for liquefaction throughout the Project area.

2-2/1 During the dry season, **base flows**...often less than 100 cfs and are entirely composed of discharge from municipal and industrial wastewater treatment plants and urban/irrigation runoff.

In this section and elsewhere similar comments are made without supporting records, models, or references with regard to the amount of groundwater discharge to or recharge from the River channel.

The integrated EIS and feasibility study are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater relationships with the channel flows.

2-4/3 -2-7/1 **Hydrologic connections** may be made naturally...reshape the adjacent floodplain area...**natural connections** support contiguous aquatic and riparian habitat...via restored corridors. **Natural hydrologic connections** also support aquatic processes...**Connections** may also be made through...using river water to feed overbank sites...supporting **other** ecological processes and exchanges. **Hydrologic and hydraulic connectivity**...restore **underlying processes** that support a functioning ecosystem, to reestablish habitat patches and corridors, and to reduce the habitat fragmentation created by urbanization...

The most natural and strongest hydrologic connection within the River valley, channels and floodplains, is the Surface/Ground Water connection which the EIS and IFS fails to provide, discussion, assess, or mitigate.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-7/2 **2.2 DESCRIPTION OF STUDY REACHES** ...eight geomorphically different reaches...defined based on the physical characteristics of channel morphology, bank characteristics, soil exposure, existing habitat, and surrounding land uses. Specific geomorphic criteria include: (1) channel bed type (either soft bed with groundwater/surface water exchange, or concrete)...

One of the few mentions of groundwater in both Sections 1 and 2 but without regard to the relationships of the groundwater above the SR-134, between the SR-134 and the SSR-110, and below the SR-110 of the Project area.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-7/3 ...small temporary dam within the river bed near the upstream end of this reach that was once used to help divert water to the Headworks spreading grounds operated by...LADWP).

A second vague reference to the important of groundwater resources and their relationships to the surface and subsurface conditions of the River valley from the San Fernando Basin to Downtown LA.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-17/4 8. ...inability of surface flows to infiltrate and recharge groundwater aquifers, which is necessary to restore native flow regimes and support native habitat communities;

The EIS does not provide supporting documents, modeling results, or other studies to consider the statement made.

Riparian habitats and habitats and vegetation adjacent to the concreted "impervious" channels may suggest that although relatively impervious leakage does occur or that various section can recharge the underlying groundwater tables and aquifers sufficiently to maintain some trees and related riparian habitats.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-18/2 The primary stressors on the habitats include:...and 4) disruption of natural river to floodplain connections and river/floodplain to groundwater connections.

The most persistent connection and support for riparian, wetland, and aquatic habitats is the groundwater and major studies throughout the Southwest US have demonstrated this connection

which is not considered throughout the EIS and IFS. Furthermore the connection and interplay between the surface and ground water regimes are often not considered along the entire Project reaches, from above-to-below the SR-134 and the SR-110 which connect vastly different surface and subsurface hydrologic regimes.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-18/Figure 2-12 Conceptual Model Depicting the Study Area

Groundwater

In the Figure, groundwater is considered in isolation in the Project vicinity from the regime in San Fernando Valley and that below the U-101 which are all fully connected and dependant.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

2-19/Table 2-1 Conceptual Model Components

Groundwater Elevation of and connections between **groundwater table and river and floodplain habitats**

Impervious surfaces Development has led to primarily impervious surfaces in the uplands adjacent to the river preventing **groundwater interactions** and promoting rapid runoff of precipitation...

Although mentioned herein this table, groundwater is largely and erroneously ignored in EIS text, descriptions, assessments, and mitigation and in supporting appendices and references. Some similarly isolated studies of groundwater for stormwater and recycled water recharges and for contaminated plume migration have not considered the baseflow discharges to the Project reaches and their effects on the proposed Project of this EIS/IFS.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

3-1/2 **3.1 GEOLOGY, SEISMOLOGY, SOILS AND MINERALS** Appendix D also describes geotechnical constraints associated with each alternative as well as provides **recommendations for future stages of study and design.**

3-5/5 Liquefaction is caused when the ground shakes **wet granular soil** and changes it to an unstable **liquid state.** Areas prone to liquefaction have **thick alluvial soils that are poorly consolidated**...in the study area...all lowland areas along the Los Angeles River and tributaries...high liquefaction

potential along the foothills...in Reaches 1-3, in Reaches 4-6,...in Reaches 7 and 8

Wet granular soils usually reflect high groundwater levels which are common along rivers and streams, and as indicated the entire length of the proposed Project. Similarly flood assessment often find that the river-support high groundwater table can pressurize groundwater flows into the assumed "levee protected floodplain" and generate "blowouts" and "soil boils" which is another form of liquefaction which most California geologists are not experienced with.

The integrated EIS and IFS are seriously flawed, inadequate, and incomplete with regard to an overall hydrological and groundwater support of flows and support for floodplain and channel habitats throughout the Project area.

3-25/1 3.4.3 Surface Water Quality Water quality...affected by point source and **non-point** source pollution entering tributaries and the main channel of the River...**Nearly 70 percent of the volume** in the River is from Water Reclamation Plant tertiary-treated effluent discharged outside of storm events (**Ackerman 2003**). Although **groundwater interactions exist (particularly in the Glendale Narrows and Arroyo Seco tributary)**, the majority of storm drain discharges are believed to arise from urban discharges.

Let us assume that the groundwater thereby represents up to 30% of the dry weather flows and perhaps more during storm conditions and at the north and south ends of the Narrows (SR-134 - 110). Such recharges to and discharges from the channel or groundwater would be significant but are not described, assessed, or mitigated elsewhere.

As above, The integrated EIS and IFS...

3-74/1 Piggyback Yard is a modern railroad freight transfer yard. The USACE's HTRW survey found no records of any active or open CERCLA HTRW concerns or actions associated with this property. However, the **City of Los Angeles has indicated that there are remaining HTRW concerns regarding the Piggyback property.** In a **1953 USGS topographic map**, a portion of Piggyback Yard is identified as a railroad maintenance yard, the same identifier used for Taylor Yard. Because **Piggyback Yard and Taylor Yard were in use as railroad maintenance yards at the same time, similar activities likely occurred on both properties.** Also, historical maintenance activities were the source of much of the contamination at Taylor Yard. Therefore, although there is no record confirmation of HTRW issues at Piggyback Yard, **some** HTRW is likely to exist at the site.

As a federal-jurisdiction facility, hazardous waste investigation may not be undertaken unless the facilities are transferred to other jurisdictions.

Earlier maps and aerial photos are available and vital to risk assessments for the project (1894, 1908, and 1909 Illustrated

Map <http://www.bigmapblog.com/tag/los-angeles/>; Pierce's Los Angeles Birdseye View, 1894; no railroad yard is shown; Security Savings Bank Map of Los Angeles, 1908). Other documents clearly indicate Taylor Yard was operational in 1925-35, 20 years before the USGS reference.

Open spaces with no indication of yard, but main line tracks shown, which was traditional depiction of complex rail yards.

Birdseye View Pub. Co.'s Birdseye Map of Los Angeles (1909); full Piggyback Yard development shown but nothing is shown for Taylor Yard.

The proponents/preparers of the EIS have not undertaken an objective and full disclosure of the historic railroad and industrial development and activities along the river and their potential for contaminations of the sites and underlying groundwater.

The integrated EIS and IFS are totally and importantly deficient regarding the historic uses and developments of the two railroad yards, Taylor and Piggyback. Comparisons are erroneous and the EIS has not researched the historical development of the Piggyback Yard even when available within one hour "Google" search of the internet.

p.3-75/2 - 6 **Reaches 7-8** LADWP above-ground transmission lines run along the **right [west] bank of the River until just south of Main Street**, where the lines cross the River and run along both banks for the remainder of this portion of the study area. No...substations are in or near this portion of the study area (City of Los Angeles 1996).

Left (east) and right (west) bank hi-voltage power lines begins just south of the Arroyo Seco Channel confluence and continue south pass US-101 bridge.

Bank : margins of a channel are called right or left as viewed facing in direction of the flow.

http://www.nws.noaa.gov/om/hod/SHManual/SHMan014_glossary.htm

Figures 3-21 and 3-22 show power lines on left/east bank - left when facing downstream/south and crossing to right/west bank at Main.

One small substation is located at the northern edge of the Piggyback Yard on the east side of the Lamar Str. entrance.

No provisions are made for replacement of hi-voltage power line foundations. As all utilities may require replacement/relocation for the Taylor and Piggyback Yards, a thorough inventory of above and below ground utilities must be provided based on reviews of relevant agencies documentation rather than a cursory vehicle survey of the sites.

EIS and feasibility report must be revised and reissued as a supplemental or revised project description, feasibility assessments, project costs, and EIS.

3-24/1 [Flood protection] upgrades within the study area were not found to be **economically justified** in the 1992 review. Therefore, the flood risk management design conveyance capacity remains **far less** than the 1% ACE. **Existing vegetation** within the channel further decreases the conveyance capacity below that of design.

Such statements are arbitrary and subjective as they do not provide any significant informative content EIS. Confusion is created by not saying what the flood protection levels are under the existing design and existing conditions.

p.15-5/ **15. INDEX** methane zone, 5-132

Index in error, TOC-5.18 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES 5-126

Last page of section - p.5-127

TOC-6 COMPARISON OF ALTERNATIVE PLANS 6-1

Many others occurrences of "methane zone(s)" exist as indicated herein. above.

Lack of quality control and proofing is a serious issue for completeness and adequacy; other errors have been noted but limited in comments within the timeframe for public comments.

p.4-7/2 4.4 ALTERNATIVE DEVELOPMENT AND EVALUATION

PROCESS The alternatives formulated during this study...not plans for actual construction, nor...of sufficient design detail to be constructed. Detailed design analysis and preparation of plans...begin following the completion of the Integrated Feasibility Report...***and*** the EIS)...formulated to a level of detail **sufficient to determine economic feasibility** and **potential cost-sharing, technical feasibility, environmental feasibility,** and resource issues associated with implementation...

As presented the conceptual plans do not provide the levels of details for and have avoided risk assignments for serious issues of groundwater hydrology and rising baseflows and water levels, of hazardous materials likely to be encountered with incorporation of railroad rights of way and yards (the Taylor Yard, the east and west bank channels to Cornfields, Arroyo Seco, and Piggyback Yard, and the Piggyback Yard), and of discharge of the southward migrating SFB contaminated groundwater plume into the Narrows. As the City would be required to deal with and pay for the hazardous materials remediation, current plans cannot reasonably assess the potential and magnitudes of cost sharing between Federal, County, and City financial resources.

The technical feasibility and related costs of controlling the SFB plume migration is under study but has not been documented nor assessed by current City and DWP programs. Similarly the relocation of existing railroad tracks to trestled structures for both mainline tracks and yards has not been documented between the City and relevant railroads.

Environmental feasibility requires establishment of a baseline for contaminated soils and groundwaters beneath the Taylor and Piggyback Yards and the left/east and right/west backs beneath the railroad mainline track rights-of-way.

Therefore, the EIS and IFS cannot be considered as complete and adequate at the current levels of documentation and assessments. The IFS must clearly assign the risks and costs of risks realized before approving continued progress along required process.

4-14/5 This measure would provide some incidental water quality and recharge benefits. **Preliminary design** includes excavation of a basin that would have an **impermeable layer of either geotextile or fine materials installed**. The basin would then be planted with wetland vegetation. Average depth of the basin is assumed to be 3-feet and there would be some deeper areas up to 10 feet deep. It was assumed that this measure would provide 25 percent riparian habitat and 75 percent wetland habitat, resulting in one to two structural layers.

Costs were established based on Conceptual Designs not Preliminary Design, although typical EIRs under CEQA typically require at least preliminary designs for complete and adequate assessment. Under NEPA, the CoE typically conducts an Environmental Assessment for conceptual designs and EIS for preliminary or better designs. In this EIS, conceptual design elements have been developed, only, and costs and environmental assessments are based on conceptual designs. Such use renders the EIS and feasibility study as incomplete and inadequate with very high risks of significant financial, fiscal, and economic impacts on the City of Los Angeles.

4-56/2 4.14.3 Alternative 13...restores a total of 588 acres...there would be **six** reaches with restored **riparian corridors** in **overbank areas** (1, 2, 4, 5, **6, and 8**). Restoration features in each reach are described below...

4-57/2 Reach 7 Arroyo Seco/Los Angeles River State Historic Park In **Reach 7**, the Arroyo Seco tributary would be **restored with riparian habitat**...At the confluence on the upstream edge of the River, a backwater **riparian wetland** would be established. Within the River channel itself, the **banks** would be **restructured to support vegetation on the banks**. This reach subplan was the most incrementally cost effective with the most benefits for Alternatives 13 and 16.

Statement on first page is not borne out by the development planned for Reach 7 unless riparian "corridors" is defined differently from "riparian habitats" on the linear banks rather than "overbank areas". The preparers have not clearly and consistently defined and used riparian units.

4-22/1 4.7 COSTS Cost estimates were developed based on the **conceptual designs** developed for the measures, as described above. Appendix C, Cost, describes **assumptions**, unit costs, and price levels developed for the measures and alternatives.

4-22/1 Cost estimates for the **Preliminary Array** ranged from a high of \$3.9 billion dollars for **Preliminary Alternative 1**: Comprehensive, which included \$1.5 billion in estimated tunneling costs (the tunneling estimate did not include LERRD for tunneling) to \$211 million for Alternative Preliminary:

4-22/1 Taylor Yard. These estimates were done for each **preliminary alternative** and each reach. They included construction, mobilization (7.5 percent), tunneling costs if any (without associated LERRD), a 25 percent

contingency for construction, **preliminary engineering**, and design with engineering during construction estimated at 11 percent, and supervision and administration costs of 6.5 percent. The estimate for interest during construction was 6.5 percent.

Use of conceptual designs for the City-financed elements is not appropriate for CEQA, especially when repeatedly conditioned with comments that further design and planning are required and some changes may result in significantly higher levels of construction and costs.

In the same paragraph, the Conceptual Designs are then transformed to Preliminary Arrays and Preliminary Alternatives for cost estimates. The preparers appear to be confused and have not portrayed Preliminary Cost estimates based on Preliminary Designs; all of which cannot be bid nor documented.

Some differences are suggested when citing contingencies for design with engineering during construction and preliminary engineering rather than design.

The levels of design for such a complicated but integrated program are totally inadequate and incomplete, especially for the hydrological and hazardous materials sector, and are not supported by independent studies specific to the Project.

The real estate estimate was **based on the GIS mapping**...and included **business relocations cost** for Verdugo Wash and **Piggyback Yard** and a 20 percent contingency. Operations and maintenance costs were estimated and annualized for each alternative and reach. A matrix displaying the costs of each of the **preliminary alternatives**...

No documents or files were provided for the GIS mapping

No supporting documents, e.g., MOU or MOA between the City and relevant railroads, was provided for relocations of Piggyback (12 sets of track of 2500ft each, = 35,000linft) and the double-sets of track through the Reaches 7 and 8.

4-22/3 **4.8 FORMULATION OF SUB-REACH PLANS** Once the **preliminary array** of alternatives was formulated,...**preliminary array** into sub-reach plans...**preliminary alternatives** incorporated combinations of **measures** that varied substantially...based upon existing geomorphology and **opportunities and constraints**...each alternative represented a combination of alternative **features**,...to ensure that the best possible combination of **features** was identified, based upon **cost effectiveness** and **incremental cost analysis criteria**.

Sub-reach plans would consist of the **measures** included in **each geomorphic reach** of each alternative in the preliminary array...allowed recombination of the sub-reach plans and comparison of **those newly formed hybrid plans to the** 4-23/1 **preliminary plans in the economic analysis** to ensure that the **most efficient plans** were carried forward into the final array.

As a feasibility document and supporting EIS, consistent use of standard engineering and design terms is mandatory and must be based on some CoE glossary for preliminary, conceptual, array, alternatives, measures, opportunities, features, geomorphic/hydrologic/project reaches, hybrid plans, efficient plans, etc.

5-4/Table 5-1 Alternative 16 **Construction Impacts** Construction activities...over **624 days** and the number of daily worker commute trips would be approximately three times as many as Alt. 13. In addition, **existing railroad alignments (left bank) would be raised onto trestles through Piggyback Yard**...require temporary closure of the affected portion of the railroad line and rerouting of traffic using this line...delays for the rerouted rail traffic and for rail traffic on the lines to which traffic is rerouted. This short-term impact would be significant, since it would be difficult to find sufficient capacity on other rail lines to reroute freight, passenger, and **high-speed rail trains** while the trestles are being constructed.

The preparers apparently do not realize that the riverbank mainline tracks branch from the riverbank eastward on north side of Piggyback to serve the San Gabriel Valley UPRR mainline tracks (aka, Alameda Corridor East) and on the south side of Piggyback for Metrolink to the San Gabriel Valley, after passing along trestle through the recreation area and under Mission Road.

No re-routing for the San Gabriel Valley lines can be done without new track works to serve the same corridors. These will not be short-term nor limited in any manner for rerouting.

The existing and/or relocated mainline tracks would not be used for any high-speed rail trains; unfortunately this indicates the level of adequacy of the preparers rather than the impacts of the project.

5-4/ Table 5-1 Alternative 20 **Construction Impacts**...Additional impacts would result from raising an additional railroad trestle (**right bank) through Piggyback Yard**...greater short-term significant adverse impact to rail transportation...by requiring an **additional temporary closure and rerouting of traffic**...short-term significant adverse effects but no long-term effects.

5-72/3**temporary closure of the affected...railroad line and rerouting of traffic** using this line, which would result in delays for the rerouted rail traffic and for rail traffic on the lines to which traffic is rerouted. This short-term impact to rail traffic would be significant, since it would be difficult to find sufficient capacity on other rail lines to reroute freight, passenger, and high-speed rail trains while the trestles are being constructed.

Railroad trestles would be placed on both left and right banks, and the left bank passes by the Piggyback Yard but the only trestle on the west/right bank would be related to the Cornfield channel

north of the Piggyback Yard. Trestles are not required opposite to the Piggyback Yard and 3300ft further north/upstream. Presumed rerouting of mainline rail operations cannot be validated at this time as the railroad's have not provided permission, agreements, or understandings as to the Project's impacts upon their operations and proposed facilities. The IFS only provides that whatever the costs and liabilities are, they are assumed by the City of Los Angeles. Such assignments have far greater short and long term impacts than the EIS implies. These considerations, impact assessments and comparisons are totally inadequate and incomplete.

5-10/6 Alternative 16 (AND) *Construction Impacts* ...restoration measures that would cover a larger portion of the study area in comparison to Alternative 10...include the **relocation of existing railroad tracks to trestles, construction of planter boxes built into channel walls, and channel bed deepening**...Construction impacts would be similar to those occurring under Alternative 10 and 13, but would include **larger footprints of disturbance at Verdugo Wash, Taylor Yard, the Arroyo Seco confluence, and Piggyback Yard**...

5-11/1

- Demolition and excavation of channel walls to construct **vegetated planter boxes**,
 - Demolition and excavation to **deepen channel bed**, and
 - Demolition and excavation of **old railroad features and construction of trestles** for relocating the railroad above the restoration area.
- No descriptions of the bank-side and trestle tracks, especially for the Cornfields channel, has been provided to demonstrate the relocation feasibility compared to those adjacent to the yards.***

5-40/2 5.4.2 Significance Criteria ...thresholds of significance...based on CEQA guidelines....:

- Creation or contribution to runoff that exceeded the capacity of existing or planned stormwater drainage systems or introduced substantial additional sources of polluted runoff,
- Located housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map,
- Increase in the water surface elevation of peak flows in the River,
- Substantial changes to the amount of surface water in the River, including both diminished or increased flow,
- Created pollution, contamination, or nuisance, as defined in Section 13050 of the California Water Code,
- Caused regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or water quality control plan for the receiving water body,
- Reduction in yields of adjacent wells or well fields (public or private),

- Adversely altered the rate or direction of flow of groundwater, or **Relocation of current containers-transfer facilities and rail lines from the Piggyback Yard will require major land use changes from current probably agricultural or open space lands to much more impervious logistics uses.**
- Current channels do not provide 100-year flood protection, and thereby although large financial resources are allocated no improvements would occur.**
- As indicated elsewhere, no reasonable estimates have been provided regarding the migration of the SFB plumes into the Narrows and presence of contaminated soils and groundwater related to the Piggyback Yard and beneath the mainline tracks to be relocated to trestle all of which could result in pollution release of contaminated materials and waters or in extraordinary financial resources.**
- Current contaminated groundwater production may be increased by other groundwater projects which have not been adequately modeled or assessed and which have not been assessed as to how this Project would affect or be affected by their impacts on groundwater resources. As the IFS/EIS have not presented adequate and complete analysis as to protecting groundwater production and to current and future groundwater flow rates and directions/circulation, the IFS/EIS cannot verify protection of groundwater resources and conditions and thereby must assume that unforeseen production reductions and significant changes in flow rates and circulation would occur.**

5-43/6 Water quality pollutant removal mechanisms...include physical and biological...removal of pollutants through adsorption, absorption, filtration, and ultraviolet **disinfection**. Adsorption allows for a pollutant to bind to another substance through adhesion and thereby be removed from the environment...Absorption allows for uptake of a pollutant, when it is incorporated into **vegetation (nutrients)**...Ultraviolet disinfection occurs when ultraviolet rays are used to kill microorganisms (indicator bacteria).

Preparers apparently are not experienced in suspended and attached media bacterial decomposition and clay chemistry, where the bacteria attached to emergent vegetation is vital to surface water treatment and clay adsorption is vital to pollutant stabilization. Disinfection may greatly disrupt natural bioremediations and chemical changes could easily released fix metals and other pollutants.

This assessment is inadequate and incomplete with regard to environmental chemistry and lacks any technical information specific to any reach within the Project.

5-43/7 Alternative 10 **Biological removal includes phytoremediation and bioremediation**. Phytoremediation...using plants to remove, transfer, stabilize, and destroy environmental contaminants...Bioremediation...using

5-44/1 **biologic organisms** to remove, transfer, stabilize, and destroy environmental contaminants...

All bioremediation includes phytoremediation along with zoo- and bact-remediation. Similarly I am unaware of non-biologic organisms. All plants and fungi are biologic organisms. Therefore the statements related thereto are erroneous.

5-44/7 **Alternative 16 (AND) Construction Impacts** In comparison to Alternative 10 and 13, Alternative 16 proposes **additional significant restoration measures** over a larger area of implementation within the project area, with a larger footprint of disturbance at Piggyback Yard. The additional measures include:

- Demolition and excavation of channel walls to create terraced banks in Reaches 5 and 8,
- Demolition and excavation to deepen channel bed in Reach 5, and
- Demolition and excavation of old railroad features and construction of trestles for relocation of the railroad above the restoration area in Reach 8. Hydrologic features, water quality, and groundwater resources would **not be significantly affected** by restoration measures under Alternative 16...over a larger area, increasing the potential for construction impacts; Alternative 10, BMPs would help prevent potential construction impacts.

AND

5-45/1 **Alternative 20 (RIVER) Construction Impacts...**restoration measures over the largest area...Restoration measures...would also include the widening of Verdugo Wash in Reaches 3 and 4 and channel reshaping/widening restoration measures in Reach 2...impacts..., both adverse and beneficial, would be similar...but would be more extensive due to the increased area...

5-45/2 **Operational Impacts** ...Alternative 20 would not significantly affect **hydrologic features, water quality, and groundwater resources**, and would be the same as those under Alternative 16, but would occur over a larger area, again providing an incremental increase in **overall benefits**.

5-73/1 ...under this alternative, existing railroad alignments would be kept at grade but put onto trestles in Reach 8 on the left/**east** bank south of Main Street to Cesar Chavez Avenue through Piggyback Yard, with excavation below the existing grade...raised onto trestles on the right bank between North Spring Street and North Broadway....to provide right-of-way for additional channel capacity and space to implement other restoration measures. This would require **temporary closure of the affected portion of the railroad line and rerouting of traffic using this line**,...result in delays for the rerouted rail traffic and for rail traffic on the lines to which traffic is rerouted. This short-term impact would be significant, since it would be difficult to find sufficient capacity on other rail lines to reroute freight, passenger, and high-speed rail trains while the trestles are being constructed.

Throughout the IFS/EIS, no soil sampling/analyses have been provided for the walls and banks of the channel where railroad have been located for 100 years. Many, most railroad rights of

way (RR-ROW) are known to have been contaminated by leakage and spills and it only takes one quart in one cubic yard to make it a hazardous waste. General presumption is that the RR-ROW is contaminated until proven clean.

Conversion of channel walls may be done without problems if no RR-ROW is associated with it, but the IFS/EIS has not demonstrated any evidence to prove the character of the soil or even the groundwater beneath it. This represents an unfunded, unknown risk to the public and the environment of the City of Los Angeles. No evidentiary/factual basis is provided for claims of "no significant effects" in the text and related appendices. Further comparisons of alternatives cannot be undertaken without definition of such risks to water quality, mobilization/exposures to hazardous materials, air emissions, financial/fiscal conditions, and environmental justice.

Closure, rerouting, and delays for the mainline railroad tracks generally indicates that the preparers are unfamiliar with laws and regulations and court/case histories when dealing with the mainline railroads. Absence of any reference to or supporting documentation of agreements with the railroads clearly indicates the inadequacy and incompleteness of the IFS/EIS. The railroad will not allow such delays or disruption and will require many measures herein not discussed, not assessed, and not funded.

5-54/6 Alternative 16 Local wildlife movement within the study area would be additionally improved by **restoration of a natural hydrologic connection** at Piggyback Yard...to reconnect the river to the historic floodplain. Due to the large size of the restored Piggyback Yard habitat (approximately 90 acres) **[3.9Msqft 1000x 3900ft, but other areas refer to 100+acres]**, the connection to the River...allow the **site to serve as a source population** for other restored habitat areas along the river and minimize the risk of local extinction in smaller areas. The restored channel bed...provides a habitat corridor that connects to other habitat areas in the study area, which promotes wildlife movement and prevents inbreeding depression.).

5-72/3 ...existing railroad alignments...kept at grade but placed onto trestles in Reach 8 on the left bank south of Main Street to Caesar Chavez Avenue through Piggyback Yard, with excavation below the existing grade...trestled...for additional channel capacity and space to implement **other restoration measures.**

Wildlife movement maybe "improved" but in no manner can the restored hydrologic connection be considered as "natural" under a maze of railroad trestles and overlying train traffic and assumed container transfers.

If the entire Piggyback site is restored, trestle would still encircle three sides of the site with the 60,000+ vehicle I-5 and Mission Road along the fourth side. The 3-4 line trestles would be massive structures with considerable noise issues for the "wildlife".

This paragraph and related comparisons and "natural" and "habitats" involving the Piggyback Yard, Taylor, Cornfields, and Arroyo Seco "habitats" and bank side mainline railroad tracks (2-6 sets of tracks) are totally without supporting documentation and expert analyses.

5-112/1 **5.14 CUMULATIVE IMPACTS**

5-113/3 Boyle Heights Community Plan In the City of Los Angeles, the **Boyle Heights Community Plan**, which includes portions of **Reaches 7 and 8**,...promoting new businesses, **preserving existing industrial uses**, preserving and creating affordable housing, and **promoting new and expanded park and recreational opportunities**...

BHCPlan does not include Reach 7 and large parts of Reach 8, northern border is the north boundary of Piggyback Yard.

No reference is made for the NELA Community Plan nor USC/LACounty Medical Center Master Plans.

The IFS/EIS are totally deficient, inadequate, and incomplete with reference to all cumulative impacts, especially with regard to groundwater resources, contaminations, and conditions and to presence/absence and conditions of methane, hydrogen sulfides, and other hazards, liquefaction within the Project area and the individual reaches.

5-117/1 **Cornfield-Arroyo Seco Specific Plan** The Cornfield-Arroyo Seco Specific Plan will guide the future development of the Arroyo Seco area within and adjacent to Reach 7...The specific plan area would encompass the **River channel for several miles**...

Reach 7 only is 1.1miles of the River and the total River frontage of the CASP is 1.4 miles. The proposed Project and any channel connecting the River and Cornfields would be in conflict with the Urban Village zoning along the west side of the west/right bank railroad tracks to become trestles.

The IFS/EIS are in error(s) and totally deficient, inadequate, and incomplete with reference to all cumulative impacts related to landuses in this specific Reach and location.

5-117/5 **5.14.2 Cumulative Impact Analysis** ...discusses the impacts of the alternatives when considered cumulatively with impacts of other **past, present, and reasonably foreseeable future actions**...

The IFS/EIS does not discuss the LA City's stormwater recharge ("Prop O"), floodplain, contaminated groundwater, or recycled recharge projects, nor the bridge replacement programs, and therefore both are totally deficient, inadequate, and incomplete with reference to all cumulative impacts within the Project area.

5-121/3 **Cumulative Impacts- Transportation** The restoration measures...**could result in cumulative impacts** to current and planned

rail operations. Various commuter and passenger rail projects, such as the Metrolink's Metro Gold Line extension and the **State-sponsored high-speed rail**, include routes that overlap several project reaches. In addition, both Union Pacific and **BNSF** maintain both **active rail lines and storage tracks** along both sides of the River.

Railroads will not be adversely impacted with required mitigations that will be required of the Project or the Project would be abandoned perhaps after a few year of litigation. Federal jurisdiction of the railroads will require that the City agree to all measures presented by the railroads and pay appropriately for such measures and railroad overheads.

Current high-speed rail alignments would not involve the Project area or rights-of-way as the its trackwork may go underground from the east of Reach 5 to near Main/Alameda, fr west of Reach 8.

BNSF is not involved in tracks within the Project area.

This is the first and only mention of "storage tracks" in the entire IFS and are largely restricted to Reaches 6, 7, and 8; although these tracks will require additional trestles, this sole mention appears an error.

5-122/3 **Public Health and Safety, Including Hazardous, Toxic or Radiological Waste** The study area for public health and safety includes the River channel, and the immediate vicinity...Implementation of River restoration measures could result in **less-than-significant potential cumulative impacts**..., **HTRW**, **methane zones**, and...associated with the project.

The IFS/EIS do not provide adequate and complete information regarding the presence of contaminated soils, movement of contaminated groundwater plumes, and ground methane within and adjacent to the Project area. Without such information, no analyses nor assessment can be considered adequate, complete, or reliable, and no claim of "less than significant" or "potential cumulative impacts" can made supported.

6-36/6 **Alternative 16 (AND)** Impacts...include those identified under Alternatives 10 and 13...more extensive compared to Alternative 10 due to more extensive implementation of proposed restoration measures...Short-term, significant impacts to transportation and circulation would occur as a result of having to **temporarily close railroad lines** that **pass through Piggyback Yard** to allow them to be placed onto trestles...passenger and freight trains to be rerouted during the construction phase, leading to delays in rail service and disruption of delivery schedules.

As mentioned before, railroads will be fully compensated by the Project Sponsor for all impacts plus overheads, and other financial packages before any activities occur.

Mainline railroads pass along the north, west, and south boundaries of the Piggyback Yard but do not enter the Yard, strictly speaking,

only storage tracks lie within the Yard and if trestle would cover most of the area. Since the railroad Yard activities require wheeled access for transfer the proposed Project will be required relocate and compensate for any and all disruptions for the entire Yard, perhaps to Colton or Palmdale. Therefore any alternative requiring access to the Yard will require relocation of the entire yard but retaining trestled railroad tracks along the north, west, and south perimeter of the Yard.

6-31/1 **6.4.3 HTRW** ...known contaminated sites within the study area that cannot be avoided by the project...San Fernando Valley Superfund Site, and Taylor Yard G1 and G2...high impact sites. In addition, contamination is **possible** at the Piggyback Yard site based on **historical uses, posing a potentially high impact to the project** since the **extent of this potential contamination is unknown**. Localized groundwater contamination may also be encountered during construction...non-Federal sponsor [**=LA City**] would remediate or ensure the remediation of soil contamination to the standard required for the restoration project prior to construction of restoration features at the affected sites. Because it is **infeasible to remediate groundwater contamination prior to construction**, the sponsor would be responsible at **100 percent non-project cost for addressing contaminated groundwater**...

The entire Piggyback Yard must be considered contaminated as it was operating at least in 1909 and well before the Taylor Yard, 1915-1925 and included many of the same activities. In addition, numerous gas plants along the railroads received coal as feedstock for their typical coal gasification activities which also produced large amounts of hydrocarbon contaminants and products used by the railroads.

The IFS/EIS is totally inadequate and incomplete and erroneous in their discussions of the history of the Piggyback and Taylor Yards and therefore the risks of contaminated soils and underlying groundwater.

6-31/1 The sponsor understands its responsibility and has **directly committed** to undertaking or ensuring the **necessary HTRW remediation**...including providing sites to be cleaned to be compatible with the restoration land use necessary and **addressing** groundwater contamination during dewatering activities.

The IFS/EIS provides no references or documentation in support of these statements. As the IFS/EIS do not provide any integration with existing contaminated groundwater studies in the SFB or with railroad programs and greatly understate the risks of contaminated soils and groundwater in Reach 5-8, the commenters cannot and the Public should not accept vague statements.

APPENDIX A Design

Appendix A p.50/2 A concrete reinforced **naturalized** channel...constructed on the **left/east and right/west banks**...and extend 50 feet towards the center of the channel.

p. A-50/2 **Naturalized** channel locations...excavated at a depth of 12 feet and width of 50 feet towards the channel centerline...behind the locations of the proposed retaining walls and...allow temporary access for construction of the retaining walls.

No concrete planter boxes, concreted rubble-filled trenches, and trestled concrete channels can be considered to be "naturalized", transformation to natural state or conditions, especially as the channel would retain more than 100ft, half the width of existing channels.

This and similar wordings appear to be reflecting a bias approach for exaggerating the restoration and minimizing the remaining artificial nature of the flood channel.

Similarly, such statements and avoidance elsewhere that the channel does not provide the standard 1%/100-year recurrence protection afforded by such channel elsewhere casts suspicions that the entire document is inadequate and incomplete and does not provide the Public with a full disclosure document.

In addition, the IFS/EIS does not indicate, here and elsewhere, that the sidewall reconstructions will be close to the existing groundwater table surface and that as elsewhere in Reaches 7 and 8 and perhaps Reach 6 such proximity exposes workers and air quality to hydrogen sulfide gases emanating from the oil-field contaminated groundwater known to be in the area and discharging to the channel through flapped weepholes in the channel bottom.

A-p.51/ **Figure 4.16 Cross-Section 7, Interstate 6 [sic, I-5] to Main Street**

A-p.52/2 Preliminary Channel Design..."Arroyo Seco Cross-Section,"...design...remove 4 feet and 24 feet off the top of the **existing left/south** and **right/north [channel passing from east to west]** retaining walls...; the **left/south bank** would be widened...**the right/north bank** widened...

A-p.54/2 **Preliminary Channel Design...**"Cornfields Cross-Section,"...design...create...wide channel...**[west to east/LA River]** The **left/north and right/south banks** of the channel...**[Looking downstream which is opposite of that used for the LA River]**

A-p.58/ **Figure 4.19 Cross-Section 8a, Main to First Street, bottom C-Section Single-Track/Left-Side Trestle shown but mentioned p.56/2** "...existing **railroad [singular?]** would be impacted; the **railroad** would need to be elevated on **a trestle** above the proposed wetland area **[or channels]**. Construction of the trestle would avoid realignment of the current railway...

A-p.59-60 and p.61/**Figure 4.20 Cross-Section 8b, Main to First Street**
A single set of references should be used - e.g., north, south, east, and west should be used throughout the IFS/EIS without the more complicating terminology of left/right banks which are not in common use by the Public, the target reviewers of the IFS/EIS. Trestles when mentioned and depicted are shown as single track and assumed to be only on left-side rather than two sets on both sides. No description is provided of a full "Typical Trestle" with dual track sets and maintenance walkways has been provided anywhere in the IFS.

No provision is made for the various junctions, spur tracks, sidings, and the Piggyback Yard with many yard tracks. No provision is made for container loading/unloading in Yards.

No mention and depiction is made of dual-plus track sets on both side of channel and extent of trestle along the channel and adjacent to fences.

The IFS/EIS are inadequate and incomplete with regard to all trestle works, their designs, and thereby their costing and degree of mitigation.

A-p.67/5 - Alt 13. Existing railroad **tracks** within the Piggyback Yard parcel would be elevated on **trestles** to allow flow through and **connection of the riparian zone and marsh habitat** to the main channel.

A-69/5 Alternative 16 ...channel would be constructed through the Piggyback Yard,...Existing railroad tracks within the Piggyback Yard parcel would be elevated on trestles to allow...connectivity to the riparian zone, channel, and marsh habitats [**beneath the trestles**].

More than 12 sets of tracks x 2500ft occupy the Piggyback Yard renders this option impractical if not impossible.

Tracks-On-Trestle does not replace the function of container transfers to/from stacks/trucks <> rail cars.

Project and sponsor cannot practically place all operations on trestles therefore the yard would cease to existing and all functional facilities would require relocation to other areas.

None of this has been documented in agreements of the City or County with the railroads.

None of the impacts of indirect relocated functions, operations, and facilities has been assessed.

A-70/1 Elevate railroad (Reaches 7,8)

Reach 7 1000+ feet >4,000ft

SR-110 3 right 2 left

SR-110-Broadway-Cardinal 2-5 right 2 left

Reach 8 2000ft >8000ft

Cardinal - Chavez 2-5 right 2-6 left

Chavez - First 2-4 right 2 left

All Union Pacific, Metrolink, AmTrak, and MTA/LOSSAN

20+ Yard Rail Sidings

Total trestling of the channel openings require a doubling or more of the lineal measurements and thereby the costs, which also excluded railroad standards, transfer of rail/new rail, overheads, and acceptance, without claims.

The measurement and unit costs bases are in error but would probably not be done by Sponsor contractors anyway. Railroads would have full control of all related activities and would charge accordingly.

A-71/4 **Reach 7** – Storm drain outlets...to create **freshwater marsh habitat** on the overbank area of the channel, and include **one [large] storm drain on the left bank**, and **two [large] storm drains on the right bank**...rebuilt in this reach to provide habitat features and flow regimes supportive of **in-stream biota**. **Existing railroad tracks on the right bank** would be **elevated on trestles** to allow flow through and main channel hydrologic connection to the riparian zone, channel, and marsh habitats.

Construction of freshwater marsh must have perennial water sources other than high groundwater tables. IFS/EIS does not document the flows and persistence of flows for these drains.

Statements increase the trestling of the bank on the east side of the channel without trestles being reflected in measurements and costs.

Trestling is not required on the east side without basis for selecting east or west for trestles.

Other smaller drains exist on both sides; no criteria are provided to select the drains to be "naturalized".

Unclear meaning as to "in-stream biota", sedges or snails or fish?

A-71/8 **Reach 8** The main channel...reconfigured to take advantage of the Piggyback Yard parcel...1,000-foot-wide bench...would include marsh vegetation. A channel...through the Piggyback Yard...supportive of marsh habitat. Existing railroad tracks **within** the Piggyback Yard parcel would be elevated on trestles to allow flow through and main channel hydrologic connectivity to the **riparian zone**, channel, and marsh habitats.

Statement suggests a few tracks rather than 20+ Yard Rail Sidings of 1000-2500ft in the Yard and the need for full relocation of the entire Yard rather than 40,000ft of trestles. Trestled siding track could not function without yard equipment and supports for cranes, gantries, lifts, trucks, etc. and 3.5M sq ft of trestles.

Continuing and persistent underestimating of the effects in the Piggyback Yard renders all aspects for Alternatives 13-20 in the IFS/EIS totally inadequate and incomplete and in error for design and costing.

Appendix C Costs

C - 3-13/Reach 7 Line 1 Lengths 1000ft x \$5000

C - 3-15/Reach 8 Line 1 Lengths 4806ft x \$5000

C - 3-18/ Unit Costs/All Reaches Line 35 Railroad Trestle LF
\$5000...Engineers estimate for placing an elevated railroad trestle

Piggyback Yard 20+ Yard Rail Sidings of 1000-2500ft

**90-100+ acres = 3.5M sqft 1000+x3500ft - 3000+ft E-W x 2200+ft
N-S, or 2600ft NW-SE x3400ft NE-SW**

**Statement suggests a few tracks rather than 20+ Yard Rail Sidings of
1000-2500ft in the Yard and the need for full relocation of the
entire Yard rather than 40,000ft of trestles. Trestled siding track
could not function without yard equipment and supports for
cranes, gantries, lifts, trucks, etc. and 3.5M sq ft of trestles.**

**Continuing and persistent underestimating of the effects in the
Piggyback Yard renders all aspects for Alternatives 13-20 in the
IFS/EIS totally inadequate and incomplete and in error for design
and costing.**

C - 4-1 O&M Line 35 0% No O&M Costs Anticipated

C-7/3 Line PS-12 No design currently for the storm drains or the **new
railroad trestles**. Scope for these...not anticipated to grow, but if it did
costs would increase significantly.

C-7/5 CE-12 High risk or complex construction elements, site access, in-
water, unique construction methods, Special equipment or subcontractors
needed,

Construction of the railroad trestles is a more difficult construction task. The
railroad companies would need to be heavily involved and special contractor
would be likely. Cost estimate assumed a sub- for this work, and has
conservative unit cost. Therefore impact would be marginal, but risk is still
high of something not going as planned.

**As the trestles will form part of the relocation package for all
railroads, Zero O&M for trestle cannot be justified, especially
since the existing rights-of-way have virtually zero costs and
high accessibility while trestle in water require maintenance
without similar accessibility.**

**The assumed ZERO-O&M reflects a totally inadequate and incomplete
approach to the entire railroad relocation activities and total
absence of experience with national Main Line railroads.**

**Without a clear MOU/MOA with the relevant railroads, risks for
increased costs and very significant increases are assured and
100% realizable.**

**Furthermore the construction of the trestle is different from track
relocation or installation of new track (anticipated).**

**Most likely, railroads would assume all control of any works for their
rails, with full and complete payment by the appropriate Project
participants.**

**Project participants shall be required to fully compensate the
railroads for any operations delays or disruptions of mainline and
yard railroads.**

APPENDIX K HTRW SURVEY REPORT

This entire section is totally incomplete and inadequate with regard to the known presence and migration of the SFB contamination plumes into the northern Reaches 1-3 and those beneath the Taylor Yard and Reaches 4-6. For Reaches 7-8, the preparers appear totally unaware of extensive contaminated groundwater and hazardous soil contamination from railroad, lumber, and coal gasification facilities dating back to 1870s throughout Reaches 7-8, north of US-101. Hydrogen sulfides in the groundwater from Broadway to US-101 and from Alameda to the River reached levels of >100mg/L during RTD/MTA construction of the Red Line facilities.

Similarly, the preparers are unaware of the numerous shallow oil fields beneath Reaches 7-8 and extensions of productive formations beneath Reaches 5-6, and of the DPW encounters with H2S and methane during sewer excavations.

K-13/2 The Piggyback Yard site is a REC because of additional information obtained from the 1953 historical USGS topographic map of Los Angeles, which shows this property and Taylor Yard under use for **similar purposes in the mid-20th century.**

K-16/4 Piggyback Yard is...non-mapped HTRW REC property that impacts the restoration project, because the extent and presence or existence of HTRW is unknown...has **historic similarity with Taylor Yard,**...

In a one-hour internet search, the Piggyback Yard was clearly depicted in 1909, although nothing was depicted in the Taylor Yard area. A more professional search of archives and historic aerial photos may provide far more adequate and complete The supporting documents and EIS text are totally wrong in the historic context of Taylor Yard compared to the larger, earlier, and probably dirtier contamination of soils and underlying groundwater.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-13/4 The **AAI search and results for this report** indicate **no HTRW concerns for the Piggyback property.** That is, **no records were found** of any active or open environmental regulatory CERCLA **related HTRW concerns** or files or actions associated with this property...information **found for this property** listed only a few minor reported regulatory actions...spills of hazardous materials from within railcars unloaded at this property. The spills were remedied to the satisfaction of the local California environmental regulatory authorities and no further regulatory action was required...much of the existing surface at this property is asphalt

paved...there are no maintenance facilities or related buildings on this property, nor are there any activities that involve the use, treatment or storage of large amounts of hazardous materials.

Such a mechanical search indicates the lack of judgment and experience on the part of the preparer not the records. Historic records do exist and are well known for coal gasification plants as shown by chimneys in the 1909 depiction and 1920-30's aerial photos that showed the sites in Reach 8 and probably Reach 7 and maybe Reach 6.

LACity and LACounty maps and records also show the owners and uses and sometime building measurement from which reasonable interpretations maybe made regarding the potential/risk of contamination from coal gasification plants (many coal-tar hydrocarbons and PAHs), oil/lubricant/brake fluids depots (PCB, hydrocarbons, etc.), timber tie yards (creosotes, PCPs, etc), and steam generation (asbestos and mercury). The search conduct is obviously flawed and limited so as to purposefully underestimate the probabilities and risks of high and locally assigned unfundable costs for remediation.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-13/5 However, some concerns still remain regarding HTRW for the Piggyback property that has been noted by the project Sponsor (City of Los Angeles). Much of the additional information regarding such concerns for this property was obtained during discussions that occurred during the follow up AFB meetings. The most important information was obtained during a recent search of the USGS historic topographic map collection. This search revealed the presence of a railroad maintenance yard shown on the historical 1953 topographic map...This cluster of buildings is also labeled on the map as "Union Pacific Maintenance Yard"...The map reveals evidence that both maintenance yards were **active on or about 1953**. Further review of historic topographic maps **after 1953**...This indicates that the maintenance yard did not exist sometime after 1953.

K-14/1 ...recent findings from the historic USGS 1953 map...HTRW is still present at Taylor Yard, **it is possible that HTRW may still exist at Piggyback Yard**...historical maintenance activities at Taylor Yard contributed to the majority of its present HTRW contamination. Because Piggyback Yard and Taylor Yard **were in use at the same time**, similar activities **most likely occurred** at both of these properties...**historical similarities**...Piggyback Yard is likely to contain **some amount** of HTRW contamination and is therefore carried forward as a REC.

Refer to pictures of 1894, 1906, 1908, and 1909 Illustrated Map <http://www.bigmapblog.com/tag/los-angeles/> Pierce's Los Angeles Birdseye View (1894); no railroad yard is shown Map of Los Angeles railway systems (1906)

Security Savings Bank Map of Los Angeles (1908); no indication of yard, but main line tracks shown
Birdseye View Pub. Co.'s Birdseye Map of Los Angeles (1909); full Piggyback Yard development shows yard and half-roundhouse and many others yard tracks but nothing is shown for Taylor Yard. Piggyback Yard is more likely to have more contamination than at Taylor as it preceded Taylor by more than ten years and has adjacent coal gasification plants which received coal from rail siding and provided hydrocarbon products for the rail operations and construction (creosote for all timber products) activities. This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-14/4 Piggyback Yard is one additional non-listed and non-mapped HTRW REC property that impacts the restoration project, because the extent and presence or existence of HTRW is unknown...has **historic similarity with Taylor Yard**, which is presently contaminated with HTRW...

As the Piggyback Yard preceded Taylor Yard and had similar but additional industrial process nearby and larger cooling ponds, we must assume that the now-covered soil is thoroughly contaminated and contamination has reached the high groundwater table in the area.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-16/1 The Sponsor [**LA City**] is responsible for 100% costs for the response of any HTRW contamination for these **two properties** such that it meets the future land use requirements for this LAR project. **The Sponsor has committed to undertaking necessary remediation and providing "clean sites" prior to construction of the LAR restoration project.**

These costs would not be cost shared as part of the restoration project.

LACity shall be responsible for the two properties and all track relocations and underlying contaminated soil removal and treatment for both west/right and east/left mainline rail tracks to trestles.

The cost estimates are totally erroneous and based on no facts in evidence. The entire approach especially to the Piggyback Yard is to downplay contamination and assume cleanliness rather than estimating: 400K sq yd x 5 yd deep = 2M cu yds of contaminated soil x \$600/cuyd = \$1.2B which the City would have to pay before any Project work would commence.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-16/1 It is likely that this response will consist primarily of excavation-removal/hauling efforts directed towards remediation of soil and soil vapors. This is the most direct and effectively remediation method... There are other remediation methods...are not suitable for the short time frame needed to construct the habitat.

No MOU/MOA has been provided therefore no probabilities can be assessed, as the relevant railroad would be expected to take charge of any work within their areas and rights of way.

The entire approach especially to the Piggyback Yard is to downplay contamination and assume cleanliness rather than estimating: 400K sq yd x 5 yd deep = 2M cu yds of contaminated soil x \$600/cuyd = \$1.2B which the City would have to pay before any Project work would commence.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-18/1 6.0 GROUNDWATER CONDITIONS 6.1 Summary of Groundwater Conditions and Related Discussion The groundwater exists in the form of an unconfined aquifer throughout most of the project study area...contains both shallow and deep groundwater portions that differ in general quality...shallow portion...to approximately 100 feet below ground surface, while the deeper part extends from 100 feet below ground surface to approximately 200 feet....co-mingled and widely contaminated with known HTRW...VOCs and Chromium metals...officially known as the SFVSS, a Federal CERCLA Superfund site.

The statement that the groundwater resources are both unconfined but separable into two components appear to contradict each other. Furthermore, no mention is made for 1994 and later updates of the SFBGroundwater Model which extends to at least SR-2 bridges within the Project area.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for groundwater contamination and remediation for Reaches 1-5 if not further.

K-18/2 Groundwater contamination, unlike soil contamination, cannot be effectively addressed prior to construction in order to provide complete remediation at groundwater contaminated areas/properties...would be the responsibility of the Sponsor at 100% non project cost.

Groundwater is commonly contained and remediated and depending on the construction schedule additional wells and pump/treat systems could be employed.

This entire section reflects the practicality of incorporating the costs of complete remediation to say <10ppm TPH.

The sections dealing with groundwater, surface water, soil contamination, and groundwater contamination are totally incomplete and inadequate with apparent bias for promoting the

Project without consideration of risks and costs for the Project and especially for Alternative 13-20.

K-18/4 Open bottom areas and weep and drain holes exist within the LAR channel/levee...built into the channel/levee for...relieving and draining this structure of surrounding...ground water...provided a continuous and open pathway for discharge of groundwater, including any uncaptured HTRW contaminated groundwater from the SFVSS that might or might have already migrated into the LAR.

Those downstream of SR-110 have provided discharge for high contamination levels of H2S arising from beneath the west side floodplain of Reach 8 and perhaps other locations in Reaches 6-8. Simple inspection of the channel floor discharge ports will show white deposit of CaSO4, sulphate where the H2S reaches aerated water.

Such "sour water" would adversely impact any open excavations near the groundwater table and any dewatering discharges as was the case with the Red Line Phase One excavations in Reach 8

The sections dealing with groundwater, surface water, soil contamination, and groundwater contamination are totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for the Project and especially for Alternative 13-20.

K-18/5 ...very likely that some portions of the edge of the SFVSS HTRW contaminated groundwater plume are or have already discharged into the river on a continual basis... 19/1 of certain project features such as wetland and open bottom areas should not interfere or promote migration of this plume since some of it is or has already migrated into the LAR. The construction of unique habitat features should not interfere with or alter the existing pathways of migration of contaminated groundwater beneath the Study area.

The discharge to the river can be viewed separately from the continued southward migration from the SFB into the Narrows and eventual discharge to Reaches 6-8. As recognized elsewhere the two-part groundwater table contamination has not been monitored and migrating contaminant plumes have not been fully documented along with groundwater regimes.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-19/1 ...certain project features such as wetland and open bottom areas should not interfere or promote migration of this plume since some of it is or has already migrated into the LAR...construction of unique habitat features should not interfere with or alter the existing pathways of migration of contaminated groundwater beneath the Study area.

K-19/2 Wetlands are **known to naturally degrade HTRW contaminants**,...presence of this particular feature and the combinations of active responses should further reduce migration of HTRW contamination plumes into the LAR after the project is built.

K-19/3 **Planned irrigation**...could result in leaching **contaminants** to the underlying shallow groundwater system...potential adverse impacts to the existing groundwater system associated with the infiltration...minimized by limiting irrigation and surface runoff...minimize infiltration and leaching of soil contaminants...threat to the underlying shallow groundwater system...eliminated by the **complete removal** of contaminated soils beneath areas that will experience irrigation, surface runoff and erosion.

K-20/2 The REC for the **one** Piggyback Yard property exists based on the **historical similarities** between this property and the Taylor Yard property, which is currently a high impact HTRW site with existing known amounts of heavy HTRW contamination. The presence and extent of the HTRW contamination at Piggyback Yard is unknown at this time because it has **never had cause to or has never before been formally investigated**...full impact of HTRW at this site on this project will continue to remain unknown until such time a formal investigation is undertaken.

No analysis or modeling has been conducted for the IFS/EIS, therefore none of this can be justified or documented. Without a good groundwater model, effects of surface water recharging of groundwater and groundwater discharging to surface water cannot be assessed or analyzed.

K-19/5 7.1 Extent of HTRW impacts

This appendix identifies 23 properties that are impacted by HTRW and contamination within 500 feet of the project footprint. Three of these properties are of high HTRW impact to the project. Nineteen are low impact. **One is of unknown impact [Piggyback]** but has historic use characteristics similar to high impact sites.

K-20/2 The REC for the **one** Piggyback Yard property exists based on the **historical similarities** between this property and the Taylor Yard property, which is currently a high impact HTRW site with existing known amounts of heavy HTRW contamination. The presence and extent of the HTRW contamination at Piggyback Yard is unknown at this time because it has **never had cause to or has never before been formally investigated**...full impact of HTRW at this site on this project will continue to remain unknown until such time a formal investigation is undertaken.

K-20/2 Any **HTRW impacts for Piggyback Yard are assumed to be the same as that existing for Taylor Yard at this time.**

Further...investigations and studies...will need be undertaken before the impacts are ascertained fully.

K-20/3 The extent of the undefined portions of the known residual groundwater and/or soils contamination at **all 23 properties** is not known at this time...There is a possibility that future activities related to construction and maintenance of the habitat project will encounter portions of both **known or undefined** but known residual groundwater and/or soils

contamination...water discharge from these activities will need to be approved and permitted prior to release according to the Los Angeles RWQCB water quality standards...This is a Recognized Environmental Condition...and is in turn a HTRW impact to the Corps of Engineers Los Angeles River Ecosystem Restoration project study area.

This entire section like other references do not reflect responses to comments previously given for the historic relationship of the Piggyback and Taylor Yards is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

K-21/5 There is insufficient information from the search/inquiry to determine the **true extent or level** of contamination, or severity of the HTRW impact...recommended actions...more rigorous review of...environmental reports or data case files...visiting and obtaining the files from the LARWQCB and DTSC for the listed REC sites....also likely involve more intense discussions with regulatory agency personnel or scientists about the severity of the HTRW contamination...site visit...to gain a clearer understanding of the nearby topography and features of each site.

This entire section is totally incomplete and inadequate with apparent bias for promoting the Project without consideration of risks and costs for Alternative 13-20.

This hasn't been done - totally inadequate setting and impacts assessment and assignment of costs and liabilities.