US ARMY CORPS OF ENGINEERS
LA River Ecosystem Restoration Feasibility Study
Los Angeles, California

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February 2012

US Army Corps of Engineers
BUILDING STRONG®
The LA River Ecosystem Restoration Feasibility Study (Study) is a 50%-to-50% cost-sharing partnership of the Army Corps and City of Los Angeles.

The Study was initiated in 2006 and is in its Alternative Formulation (F4) phase--nearing completion (expected in late 2013).

The total Study cost is approximately $9.7 million and approximately $1 million is needed to complete it.

The Study covers an approximately 10-mile stretch of the LA River--from Griffith Park to Downtown LA.

Once completed, the Study will recommend a plan of action for restoring ecological value through this urban corridor with a focus on changes to the river's channel that will accommodate wildlife habitat proliferation and connectivity.
The Corps Ecosystem Restoration Mission

- Significant aquatic ecosystem restoration opportunities
  - Terrestrial restoration (not a Corps mission)
  - Hydrologic connections necessary

- Sustainability & connectivity are vital
Corps Restoration Project Examples

- **Trinity River (Fort Worth, Texas):**
  - Restores an 88 mile stretch of the river/creates parks/wetlands/habitat for fish and other wildlife and flood storage. The total cost exceeds $1 billion; the local sponsor is the Trinity River Vision Authority; the study was reinitiated in the ‘90s and project completion is anticipated in 10-15 years. See: [www.trinityrivervision.org/projects](http://www.trinityrivervision.org/projects)

- **Sonoran Preserve Master Plan (Phoenix, Arizona):** Two projects of the Plan are underway with local sponsor, City of Phoenix:
  - 40 years in the making, the Rio Salado project will restore a 5-mile stretch of the river/create parks/wetlands/habitat for birds. The total cost was $100 million; the project was initiated in 2001 and was completed in 2005. See: [http://phoenix.gov/recreation/rec/parks/preserves/locations/riosalado/index.html](http://phoenix.gov/recreation/rec/parks/preserves/locations/riosalado/index.html)
  - The Tres Rios project will restore a 7-mile stretch of the river/create parks/wetlands/habitat and a levee improvement. The total cost is $270 million; the project was initiated in 2000. Completion is anticipated in 2013. See: [http://phoenix.gov/tresrios/index.html](http://phoenix.gov/tresrios/index.html)
Los Angeles River Ecosystem Restoration, CA

Key Sites:
1. Headworks
2. River Glen-Verdugo Wash
3. Bowtie (WRDA Demonstration Project)
4. Taylor-Yard-Rio de LA State Park
5. Arroyo Seco Confluence
6. Cornfields-LA Historic Park
7. Piggyback/Mission Yard

Most Ambitious Potential Project Area

ARBOR Area
Alternative with Restoration Benefits and Opportunities for Revitalization
Restoration Objectives
(Developed from Problems & Opportunities)

- Restore riparian habitat
- Establish habitat connectivity
- Restore aquatic habitat
- Restore more natural hydrologic and hydraulic processes in the alternative reach
- Provide recreation where appropriate

Other objectives that are considerations for success of those above:
- Decrease peak discharges
- Improve water quality
- Improve infiltration and recharge
Constraints

- No increase in flood risk
- Existing infrastructure
- Purposes of the existing Corps Project
- Competing land use
- Water availability
- Land availability
- Hazardous, toxic waste
- Levee regulations
- Cultural/historic sites
First Alternatives Array

- Objectives and subsequent alternatives from:
  - Los Angeles River Revitalization Master Plan
  - Ecosystem Restoration Feasibility Study
  - Charette Workshop

- Qualifying Screening Criteria & Objectives reduce First Array
Second Alternatives Array

- Reduced number of alternatives to 19
- Refined and simplified measures using:
  - Eight geomorphic reaches
  - Additional input from City and Corps leadership
  - Habitat Evaluation Team
  - Containing 25 locations for 28 measures
Progress since Formulation of Second Array

- Developed GIS for Alternatives
- Completed habitat evaluation and mapping
- Updated floodplain mapping (under review)
- Created physical utilities list
- Real estate analysis for each alternative
- Developed descriptions, draft typical designs, and preliminary construction costs
CHAP

- Focus on multiple species, habitat, and ecosystem function
- Based on GIS, verification transects, and verification by local experts.
- Existing conditions
- Study Area is 973 acres
- Alternatives Results
  - Restored Acres range from 231 to 713
  - Increase in Annualized With Project Habitat Units range from 1506 to 7973.
GIS Map Example
Draft Construction Cost Estimates

► Average cost of the comprehensive alternative is approximately $75M per mile

► Range = $25M - $190M per mile, and depends on the level of construction, concrete removal, and associated features

► Other alternatives that incorporate fewer measures would cost comparatively less
Near Term Next Steps

- Finalize initial costs, and habitat benefits, & design (March)
- Economic analysis & selection of the Final Array (April)
- Analyze Final Array & recommend a plan (May)
- Flood & mitigation analysis
- DEIS/EIR development will be ongoing
- Total Project Cost Summary & Risk Analysis
- Alternatives Selection Draft Document (June 2012)*
- Alternative Formulation Briefing (AFB) (December 2012) includes 5 levels of review
 Longer-term Next Steps

- What we need from you
  - Your input and support is critical to eliminating non-viable alternatives and determining the selected plan

- Considerations
  - The final, recommended project will need to compete for national taxpayer $ with projects across the country
  - Examples: Everglades, Louisiana Coast, Rio Salado-Tres Rios, Phoenix, Bay Delta, Central Valley, CA
  - 65 Federal /35 local % cost share (Federal share is for ecosystem components with minimal recreation)