One Water LA-Stakeholder Meeting Summary
LA River Informational Meeting
Monday, October 16th, 2017- 1:00PM – 3:00PM
Friendship Auditorium, 3201 Riverside Drive, Los Angeles, CA 90027

The purpose of these notes is to provide an overview of the meeting. They are not intended as a transcript or as minutes. Major points are summarized herein, primarily for context.

INTRODUCTION & MEETING OBJECTIVES

Attendees were welcomed with opening remarks by Adel Hagekhalil from Los Angeles Sanitation (LASAN) and Bill Van Wagoner from the Los Angeles Department of Water and Power (LADWP). Adel acknowledged the tragic loss of an LASAN employee, Vijay Desai, and his passion for improving the quality of life and watershed protection. Both Adel and Bill mentioned the importance of working together to help balance the LA River's Revitalization and the City's Water needs, and also thanked the stakeholders for their attendance and continued participation.

Miguel Luna was the meeting facilitator and he reviewed the agenda, meeting objectives, and introduced each of the presenters. The following presentations were given:

1. **One Water LA** – LA River Low Flow Study & Storage Potential
2. **University of California, Los Angeles (UCLA)** – LA River Watershed Integrated Water Management
3. **The Nature Conservancy** – Ecological Baseline and Flow Scenarios

ONE WATER LA'S LA RIVER FLOWS STUDY

The One Water LA team presented the purpose, objective, study areas, assumptions, and findings of the LA River Flow Study. The objective of the study is to identify considerations, assumptions, and areas of future study necessary to determine optimal flow conditions in the LA River. These conditions would balance the City's water supply needs with the River's water-dependent uses and regulatory requirements. It was mentioned that there is some difference between the numbers in the One Water Study and the other studies being presented today as the studies analyzed different river reaches.

A brief overview on two previous ecological surveys was presented:

- City of Los Angeles Water Integrated Resources Plan (2006); and
- Bureau of Reclamation (USBR) evaluation (2004).

The previous studies indicate that 70% of the current vegetation is invasive and/or non-native and that water demands are impacted by current vegetation. An invasive plant removal program has begun and there is mapping, surveying, and analysis being conducted to further determine the extent of vegetative intrusion.

Hydrologic mile-by-mile modeling along the entire LA River was completed. The three following sites were modeled in more detail due to channel complexity, sufficient bathymetric data, and other available data:

- Los Feliz;
- Taylor Yard; and
- Willow Street

Results of the low-flow hydraulic modeling were presented (slides 14-22)

The Los Angeles River Ecosystem Restoration Feasibility Report (USACE 2015) was briefly discussed. The following assumptions need re-evaluation to assure the most recent data is available: future water demand; infiltration rates; types of habitat; invasive species; and plant palettes (slide 23).

Potential storage options for the LA River and possible locations were also presented to the stakeholders (slides 24-26).

Recommendations based on this study include (slides 28-29):

- Consider the existing data gaps for future studies;
- Establish a realistic water budget under existing and revised habitat conditions (due to stormwater capture, infiltration, evapotranspiration, and more);
- Type and quantity of the habitat of the River and the flow demands;
- Future available flows versus flows for existing conditions and uses for the entire LA River;
- Creation of a predictive, dynamic modeling tool. Includes the spatial and temporal variability of flow;
- Continued Integration of City Departments and outside agencies regarding LA River Studies; and
- Conduct a Collaborative Regional Environmental Study of cumulative impacts for the River. The study would need to take into account the regional efforts along the LA River.

Stakeholder questions and comments:

- Are there any plans to restore native vegetation?
  - Response: LADWP is currently partnering with two other agencies for the invasive species removal program. One with the National Forrest Foundation and one with the Council for Watershed Health. We have secured Proposition 84 funding to develop a sustained eradication effort year round, and replanting efforts are also taking place. Self-restoration is also expected in some areas.

- How is this integrated into the LA County Plan?
  - Response: There needs to be a larger collaborative effort with the County and all groups involved in the river. This will help incorporate all of the separate studies related to the river, and will eventually lead to a more integrated framework.

- How are you addressing public access and recreational usage of the river?
  - Response: The approach discussed today is conceptual. Public access and recreational use will need to be taken into account as decisions are ready to be made. We also need to fill in the data gaps that were discussed today before decisions are made.

- As far as the current uses of the River, such as fishing and kayaking, are those activities specifically incorporated into your work?
    - Response: The specific uses are not, but the purpose of these engineering solutions is to have flows where you would want it in the river. A decision needs to be made regarding the location of the devices and where the flows are needed to help these types of activities. We need future studies to fill in the data gaps, such as who will maintain improvements, locations for access, plant palettes, and more.

- Will the LADWP San Fernando Valley ground water basin remediation for potable water change the flows in the river from infiltration?
    - Response: We are currently in the process of remediating ground-water in the San Fernando Valley. The process started in the northern well field, since they are the biggest producers. The next frontier is to characterize the groundwater quality of the southern part of the basin and to restore our ability to fully utilize our southern well fields. This part connects to the LA River. Once we have the southern well fields back online, it could reduce or eliminate upwelling in the groundwater portion.
- How do we define planning from an integrated perspective? The solutions and long-term projects still rely on a lot of concrete.
    - Response: The One Water LA flow study was done from a water supply perspective to determine the options and recognize an increase of stormwater capture. We wanted to determine future flow impacts to the river from dry weather runoff and stormwater capture. This is just the beginning and we recognize there needs to be a larger cumulative impact study done which needs to take into account all future project plans.

UCLA'S LA SUSTAINABLE WATER PROJECT: LOS ANGELES RIVER WATERSHED REPORT

UCLA presented the approach, scenarios and conclusion of their LA River Study. The study was a three year effort, in partnership with Colorado School of Mines. LASAN has been involved from the beginning and both LASAN and LADWP have been helpful in providing data and making sure UCLA has the correct information.

The purpose of the study was to accomplish the following:

- Identify opportunities to implement integrated water management;
- Meet Water Quality Standards;
- Maximize reuse, stormwater capture, and local water supply;
- Analyze policy and regulatory challenges and opportunities; and
- Analyze economics, costs, and benefits.

The study areas included:

- Ballona Creek / Hyperion Water Reclamation Plant (WRP) / West Coast, Central, Santa Monica, And Hollywood Groundwater Basins;
- Dominguez Channel and Machado Lake / Terminal Island WRP / West Coast And Central Groundwater Basins; and
- Los Angeles River / Donald C. Tillman, LA Glendale, Burbank WRPs / Upper LA River Area Groundwater Basins.

Meeting the water quality standards and requirements is what remained as a constant throughout the study. EPA's watershed model SUSTAIN (System for Urban Stormwater Treatment and Analysis Integration) was used to input different scenarios, and evaluate the implementation of different structures, such as Best Management Practices (BMPs), to treat runoff (slide 5). Thousands of scenarios were looked at to determine what the future of the watershed can look like.

Stormwater runoff impacts due to the City's Low Impact (LID) ordinance was also presented (slide 6). By 2028, there could be a 20.95% reduction due to LID implementation across the LA River watershed. That is an example of a policy that did not involve a high cost to the City for implementation, but provides a large benefit. Different scenarios were also evaluated to determine what the impact of flows along the LA River could be. The flows of the river will be reduced as watershed scale BMP programs (e.g. EWMPS) are implemented and more LID practices are more broadly installed (slide 8). Reductions could increase greatly by adding a retrofit on resale program and increasing incentives for voluntary installation of BMPs. Runoff ratios post implementation of BMPs are similar to those in the 1950s and 1960s (slide 9).

The modeling software also showed the extreme scenario, where the city has full BMP implantation and recycles 100% of the Water Reclamation Plant's recycled water. In this scenario, modeled annual minimum flows in the river were reduced to zero, which is definitely a concern and needs to be considered as we move forward in planning for the LA River.

The LA River Study reached the following conclusions (Slide 13):

- Changes to the current sources of the flow can reduce channel flows to zero, in particular during minimum flows;
- Low flows near the outlet were much lower in the early to mid-20th Century than they are currently;
- Current flow volumes may not be necessary to sustain all beneficial uses and should not be assumed necessary in planning studies; and
- A study need to be conducted to quantify the true minimum flow requirements to support uses and needs including flood control, water supply, habitat, recreation. A habitat study is especially necessary.

Future study needs were also presented to the stakeholders (slides 14-15).

Stakeholder questions and comments:

- Is there a study that shows what the natural flows were with no development?
    - Response: We looked at the rain gauges and we went back as far as the 1950's. There are no studies that show what the natural flows were over much of the LA River's history as there was not much data before the flow gages were installed. We do know that the flows have increased by a large magnitude due to human inputs over the last 50-60 years. That order of magnitude is important to consider in terms of managing our expectations on what the flows should be during the dry season (Ex. what we have now is about 10 times what we had before). Seasonal discharge is something we need to consider moving forward.

- How are these methods going to impact the developments in the City of LA and surrounding areas?
    - Response: This study touched on the impacts to the flows due to enforcement and implementation of LID. There will be another study out in December 2017 that includes overarching policy recommendations for the City, such as a water neutrality ordinance (all new or redevelopment wouldn't add any additional water consumption burden to the city as a whole). The intention is not to stop new development, but if we are adding new development, it's being done in a way that's not increasing water demand.

- Water neutrality is great from a water supply standpoint, but it still does not address what that does in terms of altering the hydrology of the River. Is there enough information to recommend this policy?
    - Response: Yes, but there is a need for another study. Today we presented the extreme, where we maximized stormwater capture and recycled water use. The extreme scenario was presented so that we understand the impacts to the river. Different scenarios can be looked at to determine how to optimize flows among the various uses and needs on the river.

- There is an issue with water neutrality. It is a State constitutional law that allows water for property owner's right to water. There are many decisions and lawsuits that would play into this recommendation. Water is also LADWP controlled through the charter. We need to consider the water that has already been established for many years now.
    - Response: Santa Monica passed a neutrality law about four months ago. The issue was not that the development would not be allowed to use water; it was that they were not allowed to use water more than the pre-existing development. If they did use more water, they would have to pay for retrofit elsewhere in the City. Other places in the State are also doing something similar.

THE NATURE CONSERVANCY'S LA RIVER HABITAT ENHANCEMENT AND OPPORTUNITIES ASSESSMENT STUDY

The Nature Conservancy (TNC) presented their LA River Habitat Enhancement and Opportunities Assessment Study. The study focuses on opportunities for habitat enhancement along two reaches of the soft bottom portion the river. The goals of the study were to:

- Provide an ecological baseline;
- Document historical ecological conditions;
- Complete biological surveys over the course of a year;
- Describe the hydrology and flow scenarios ; and
- Present for opportunities for enhancing habitat.within this section of the rive

The study area is a 2.5-mile stretch in the Glendale narrows portion of the river. It runs from the Los Feliz Blvd Bridge to the G2 parcel.

TNC looked at historical maps to determine what the river was like before there was channelization and development of the flood plain of the Glendale Narrows (Slide 5). TNC presented the historical flow patterns and the historical vegetation of the LA River. A year-long assessment of the plants and animals along the study area of the River was also presented (Slide 12). There is a great number and diversity of plants and animals along the 2.5 mile stretch. Habitat enhancement options were presented (Slide 17-20).

The dry season surface flow over the course of 1932 to 2015 was presented (Slide 13). The hydrology analysis shows the peak flows and the changes that have occurred along the river. These changes included channel deepening and increases in discharge when different water reclamation plants came online. Historically, the amount of flow along the river was much less than what it is today. The variability in flow was also much greater than what we have today. Flow scenarios for potential future conditions for wet weather and dry weather flow was also presented (slide 16).

Summary:

- Dry weather flow was ephemeral and much lower than today;
- Hydrology drives biology: high dry weather flow and channelization support novel vegetation assemblages;
- The existing river features, vegetation assemblages, and concrete mimic some important features of native habitat;
- Many native habitat specialists that historically occurred in the Los Angeles River have been extirpated;
- Generalist species thrive on the river; and
- Habitat enhancement or creation could allow populations of native animals to disperse from adjacent upland and riparian areas (e.g. Sepulveda Dam).

Stakeholder questions and comments:

- Has there been a study done that shows the relationship between increased flows and driving the animals into the residential communities? We are seeing a huge growth in the number of coyotes on the west side.
    - Response: Most of the focus has been on the relationship between having higher flow and what plant species that supports. For example, there are species of willow that have moved to parts of the river where they were not historically found once the hydrology shifted to providing year-round wet conditions,. This species is now found in this section of the river due to the increased flow.

- What is the connection with your work and other upstream water capture and how that would reduce pressure downstream to allow more intensive restoration? Has there been any modeling used that has looked at that?
    - Response: That is not something that we looked at, but what needs to be looked at systemically is the tradeoff between capturing water in one section of the river, and what happens elsewhere. Being very explicit about what we expect to see and how we expect the habitat to change is something important to be considered.

- Has there been a study done or planning to be done on the steelhead salmon?
    - Response: If the funding and the will are there then it could be done. From what we currently know we are unable to use the river for those uses. It all depends on what we prioritize and what we want to see.

- How broad of an area does your study look at? Your study might have underestimated the value of the LA River habitat, including the Sepulveda Basin where we find upwards of 80 native bird species during our annual counts.
    - Response: This study goes into great depth and detail with year-long surveys to determine what species are present. The size of the study area is what was

feasible with available funding. For a more comprehensive study to be done on the entire river or watershed with the same amount of detail would be a much more expensive endeavor, and would give a lot more information. Everything presented today was for the 2.5 mile stretch of the study area. There are more species of birds that we didn't find that are located in the Sepulveda basin and further down the river.

- Is the diversity associated with proximity to the Glendale Narrows?
    - Response: The fact that part of the river is adjacent to a national park brings in more species of animals to certain parts of the river. The 5 Freeway is a major barrier, and certain birds can cross it, but many species of animals have a hard time crossing it.

CLOSING REMARKS

- There needs to be a continuing collaborative approach to the river to balance the different needs in the LA River;
- The city is working collaboratively with state, regional board, and other agencies on the LA River. There will be larger studies done on the river in the future; and
- Next One Water LA Stakeholder Meeting: Anticipated late January 2018