

TECHNICAL WORKING GROUP MEETING #1

JUNE 11, 2024

10:00 AM – 2:00 PM

CALIFORNIA ENVIRONMENTAL FLOWS FRAMEWORK

LOS ANGELES RIVER

MEETING LOCATION: LOS ANGELES RIVER CENTER AND GARDENS
570 W AVE 26, LOS ANGELES, CALIFORNIA

Meeting attendees

Name	Affiliation	In person/virtual
Fatema Akhter	LA Department of Water and Power	In person
Steve Appleton	LA River Kayak Safari	In person
Jon Avery	US Fish and Wildlife Service	Virtual
Shelly Backlar	Resource Conservation District of the SM Mountains	In person
Brian Baldauf	Mountains Recreation & Conservation Authority	In person
Eric Batman	LA County Public Works	Virtual
Edward Belden	LA Bureau of Engineering	In person
Derek Booth	Stillwater Sciences	In person
Max Bracey	Heal the Bay	In person
Tim Brick	Stewards of the Arroyo Seco	In person
Isaac Brown	Stillwater Sciences	In person
Nate Butler	Stillwater Sciences	In person
Cara Campbell	LA Department of Water and Power	In person
Jason Casanova	Council for Watershed Health	Virtual
Candice Dickens-Russell	Friends of the Los Angeles River	In person
Mas Dojiri	LA City Sanitation	In person
Joe Edmiston	Santa Monica Mountains Conservancy	Virtual
Monica Eichler	US Army Corps of Engineers	In person
Kyle Evans	California Dept of Fish and Wildlife	In person
Conner Everts	Southern California Watershed Alliance	In person
Hannah Flynn	Stillwater Sciences	In person
Mark Gold	Natural Resources Defense Council	Virtual
Jesus Gonzalez	LA Department of Water and Power	In person



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Name		Affiliation	In person/virtual
Ben	Harris	LA Waterkeeper	In person
Chad	Hecht	Center for Western Weather and Water Extremes	In person
Nathan	Holste	Bureau of Reclamation	Virtual
John	Huynh	LA Department of Water and Power	In person
Wendy	Katagi	Stillwater Sciences	In person
AJ	Keith	Stillwater Sciences	Virtual
Melissa	Lane	Stillwater Sciences	In person
Esther	Lofton	University of California Agriculture & Natural Resources	Virtual
Mitul	Luhar	University of Southern California	In person
Ron	Mayuyu	City of LA Sanitation and Environment	In person
Chris	Medak	US Fish and Wildlife Service	Virtual
Jessica	Medrano	Stillwater Sciences	In person
Thuan	Nguyen	LA County Public Works	In person
Nathan	Nunez	Nunez and Nunez Consulting	In person
Chisom	Obegolu	City of Glendale	In person
Alyssa	Obester	California Department of Fish and Wildlife	Virtual
Bruce	Orr	Stillwater Sciences	In person
Erik	Porse	University of California Agriculture & Natural Resources	Virtual
Matt	Qassis	LA Department of Water and Power	In person
Ernesto	Rivera	LA County Public Works	In person
Alex	Robinson	University of Southern California	In person
Rowan	Rodrick-Jones	Stillwater Sciences	In person
Christian	Romberger	California Dept of Fish and Wildlife	In person
Susie	Santilena	City of LA Sanitation and Environment	In person
Bill	Saunders	LA County Public Works	In person
Daniel	Schultz	State Water Resources Control Board	Virtual
Nancy	Shrodes	Heal the Bay	Virtual



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Name	Affiliation	In person/virtual
Ryan Thiha	City of LA Sanitation and Environment	In person
Jane Tsong	Watershed Conservation Authority	Virtual
Melissa Turcotte	LA County Public Works	In person
Maddy Uetrecht	Stillwater Sciences	In person
Samuel Ward	Stillwater Sciences	In person
Pat Wood	LA County Public Works	In person

Agencies, Organizations, and CEFF Terminology

Acronym	Meaning
CDFW	California Department of Fish and Wildlife
CEFF	California Environmental Flows Framework
FoLAR	Friends of the Los Angeles River
LABOE	City of Los Angeles Bureau of Engineering
LACPW	Los Angeles County Department of Public Works
LADWP	Los Angeles Department of Water and Power
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	City of Los Angeles Sanitation and Environment
LLAR	Lower Los Angeles River
MRCA	Mountains Recreation & Conservation Authority
NRDC	Natural Resources Defense Council
RCDSMM	Resource Conservation District of the Santa Monica Mountains
S.AS	Stewards of the Arroyo Seco
SCCWRP	Southern California Coastal Water Research Project
SDMP	Structured Decision-Making Process
SMMC	Santa Monica Mountains Conservancy
SWRCB	State Water Resources Control Board
TNC	The Nature Conservancy
TWG	Technical Working Group
UCANR	University of California Agriculture and Natural Resources
ULAR	Upper Los Angeles River
USACE	US Army Corps of Engineers
USC	University of Southern California
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
WCA	Watershed Conservation Authority



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Action items and comments

No.	Action Items from TWG#1	Status
1.	Expand LA River CEFF project to include Arroyo Seco and other LA River tributaries	Pending
2.	Compare biodiversity management goals identified in LA River CEFF Section B with the beneficial uses listed in the Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.	In Process
3.	Solicit input from USFWS on the species we are using as focal/umbrella species.	In Process
4.	Include extreme storm events beyond 10 th /90 th percentiles and multi-year cycles in CEFF analysis.	Pending
5.	Include a study of substrate type in the CEFF analysis.	Pending
6.	LA River CEFF team will provide targeted outreach briefings to local, state, and federal regulatory agencies early and frequently in the project.	In Process
7.	USACE will send relevant cultural and tribal LA River assessment information, CEQA documents recommendations for LA River.	Pending
8.	Include the recent USFS leadership actions, where applicable to project themes, goals, and metrics.	In Process
9.	Review the SCCWRP LA River Environmental Flows Project's stakeholder engagement process particularly with regard to cultural resources.	In Process



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No.	Action Items from TWG#1	Status
10.	Add the following to the plans considered as part of CEFF: • USFWS biodiversity management goals; • Sepulveda Basin Wildlife Reserve Wildfire Resilient Habitat Plan; • 30x30 visioning documents and appendices; • LA River Cultural Resources Assessment; • LA River Ecosystem Restoration 2022 update; • LA Ecosystem Restoration Feasibility Study; • Heal the Bay LA River Report Card; • Million Trees LA; • Lower LA River Revitalization Plan; • LARWQCB tribal/cultural beneficial uses designation; • FEMA flood management goals.	Completed; plans added to project list, evaluation in process
11.	Collect further information regarding these identified management goals: • Developing water/stream trails compatible with biodiversity goals; • Developing a recreation goal about aesthetics, including sounds or lack of sounds (traffic) along the river; • Management goal about regarding the river as a destination among local communities; • Increasing access to the river while retaining “wildness;” • Increasing sources of real-time flood management data; • Involvement of indigenous communities in river management; • Include a water quality goal regarding reducing solar/heating/increasing solar reflectance in the channel; • Tree canopy for urban cooling; • Evaluate potential of aging quarries to address water supply, flooding, and other management goals; • Creating floodplain analogs.	Project Team will investigate further with TWG participants

Overview

The purpose of this meeting was to kick off the Technical Working Group (TWG) involvement in the Los Angeles River California Environmental Flows Framework (CEFF) C process, provide necessary background information, share management goals identified by Stillwater Sciences (Stillwater) and identify missing goals, discuss Structured Decision-Making Process (SDMP) options for CEFF C, and to hold space to brainstorm, ask questions, and make comments related to the topics above.



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Meeting Notes

Part I: Introductions

Welcome by Wendy Katagi, Stillwater Sciences

Wendy Katagi, Stillwater Sciences: We are here today to incorporate TWG voices and push forward as one unified voice. Today's goal is to maximize stakeholder input and expertise building upon valuable work completed by TWG members: LASAN's water monitoring program; biodiversity actions that the City has been championing as a global leader, Taylor Yard and other restoration work with USACE, FoLAR, and other critical partners; tribal leadership.

Using our community-based approach, Stillwater Sciences has been working with City of Los Angeles, Los Angeles County, and LA River watershed nonprofits for decades on projects including watershed management, planning, endangered species, water resource work. Additionally, Stillwater has been involved with SCCWRP's environmental flows work as part of the project's technical advisory committee.

This project's CEFF process involves bringing the TWG together to evaluate and balance the multiple water needs in the watershed. The output of this process will be recommendations for environmental flows that are aligned with the TWG's collectively agreed-upon goals. This information will be provided to the State Water Resources Control Board and local decision-makers.

Today the TWG will explore management goals and the visioning process together.

Opening Words

Jesus Gonzalez, LADWP: This project is essential to provide opportunities for LA River stakeholders to share goals and solutions across disciplines. The City of Los Angeles is currently making large investments in projects across the river, developing water supplies, and improving the environment. Before we make these investments, we need to make sure to provide an impartial opportunity for all stakeholders to have a voice and share their ideas. Gonzalez noted that while this project leverages the work previously completed as part of the LA River CEFF A identification of biodiversity/habitat and recreation goals, iterations of the analysis are likely with new information. He emphasized that City of LA is invested in this LA River CEFF process and the TWG input.

Introduction to CEFF, Project Process and Timeline by Nate Butler, Stillwater Sciences

See attached slides 13-46.

Discussion

Mas Dojiri, LASAN: Asked about the relationship between the biodiversity goals and the beneficial uses of the Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties ("LARWQCB Basin Plan").

Stillwater Sciences response: There is overlap between the project's biodiversity goals and some of the Basin Plan's beneficial uses, but the biodiversity goals are not necessarily the same as the Basin



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Plan's beneficial uses. Stillwater Sciences will complete an explicit comparison between the LA River CEFF Section B identified biodiversity management goals and Basin Plan's beneficial uses. (ACTION ITEM)

Jon Avery, USFWS: Asked if the project has a formal list of species-specific primary biological goals that can be shared?

Stillwater Sciences response: We have a species list we have developed, but we do not have a list we can share right now. We have taken a combined approach of focal species and guilds, with specific species being considered for the guilds. The project team will follow up with USFWS to solicit input on the species we are considering. (ACTION ITEM)

Steve Appleton, LA River Kayak Safari: Commented that in addition to the flow rates, the LA River's morphology is an important factor to be included in the LA River CEFF C analysis. Appleton asked about whether existing and/or planned morphology would be considered in LA River CEFF scenarios. The gross quantity of water discharged to the river is important for recreational use, like kayaking; however, the morphology and sediment transport within the river are essential for habitat and may be excluded if only flows are examined. Appleton was interested in how much designing with nature / nature-based solutions / design and engineering thinking can be used in CEFF decision making, beyond just historic flows. Will channel form and morphology be considered?

Stillwater Sciences response: Because some management goals may be difficult to achieve given the channel's current shape, an examination of river morphology will be included in future CEFF steps. River morphology is a particularly valid consideration in LA River CEFF Section C when identifying which management actions in the watershed achieve identified management goals.

Ben Harris, LA Waterkeeper: Urged attendees to consider how the LA River CEFF process can be durable and adaptable as opportunities and conditions evolve and new management goals and questions arise in the future.

Edward Belden, LABOE: Asked for details as to how the California Natural Flows Database (CNFD) considers duration in the flow metrics.

Stillwater Sciences response: The flows and the flow metrics in the CNFD are broken down into 10th/50th/90th percentiles to represent dry, median, and wet water years, so there is a range of values for many flow metrics rather than a specific number or threshold, in some cases.

Mitul Luhar, USC: Asked about considerations for extreme events beyond these percentiles, and multi-year conditions, such as drought, and how suitability criteria might change depending on the context.

Stillwater Sciences response: Extreme events can be incorporated into the LA River CEFF (ACTION ITEM).



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Eric Batman, LACPW (In Zoom chat): Asked a question about when flooding and water supply would be addressed in the CEFF process alongside the previously defined biodiversity/habitat and recreation goals.

Edward Belden, LABOE: Made a comment about historical flows seeming to not be enough to meet biodiversity goals and asked whether bringing in water from other sources would be considered to meet biodiversity goals.

Stillwater Sciences response: Responded with appreciation, responded that flooding and water supply would be part of the CEFF C discovery process later in the LA River CEFF process. Additionally, noted that Batman's question about bringing in water could be explored during the LA River CEFF discovery process, and would need to be considered alongside other ways to achieve goals that do not require bringing in additional water, such as a channel form change.

Mas Dojiri, LASAN: Suggested that the project include a study of substrate type as an element of analysis in the CEFF process, stressing its necessity in developing watershed recommendations.
(ACTION ITEM)

Chris Medak, USFWS (In Zoom chat): Asked whether biodiversity goals would be discussed in more detail in this meeting.

Stillwater Sciences response: Yes, this will be later in the presentation.

[LA River CEFF Overview by Isaac Brown, Stillwater Sciences](#)

Refer to slides 47-73.

Questions and comments were held until the next section. See discussion below.

[Structured Decision-Making Process \(SDMP\) Discussion led by Wendy Katagi, Stillwater Sciences](#)

See attached slides 74-76.

Discussion

Mas Dojiri, LASAN: Emphasized the importance of including regulators, specifically SWRCB and LARWQCB, early in the process to understand their requirements upfront and avoid issues later
(ACTION ITEM)

Edward Belden, LABOE: Agreed with Mas Dojiri and suggested a presentation to regulators SWRCB and LARWQCB may encourage their engagement in the TWG and CEFF process.

Mark Gold, NRDC (in Zoom chat): Strongly agreed with Mas Dojiri, noting that the SWRCB and LARWQCB both need to be very involved.

Chisom Obegolu, City of Glendale: Agreed with both Mas Dojiri and Edward Belden. Obegolu emphasized the importance of a consistent understanding of priorities across stakeholders. Indicated his support of an integrated solution, adaptive management, and iterative processes.



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Ben Harris, LA Waterkeeper: Recommended that the TWG discuss how to balance priorities and address tradeoffs early in the process.

Jon Avery, USFWS: Recommended that the project identify focal species within a guild to inform biodiversity goals, referencing his regulatory experience. Using guilds alone, without umbrella species, can introduce a fatal flaw because they create a wide variety of flow needs for the species within a guild that it becomes “gray” and confusing to take action, especially with the inclusion of generalist and common species. On the other hand, only identifying goals for a single species with narrow life history function (e.g. steelhead trout) can be problematic as well. Keep the guilds, but utilize focal species to make sure that needs do not get lost. Picking a set of umbrella species that are a subset of what is naturally occurring along the river. Additionally, Avery addressed Eric Batman’s previous question about biodiversity goals that are not met by historical natural flows, commenting that it is likely that all LAR CEFF goals will be a subset of what was provided by the historic natural flows. The LA River’s historic flow regime is often poorly understood; historic natural flows were substantial more substantial than many people realize. Emphasized that it is important for the TWG to understand this. **(ACTION ITEM)**

Tim Brick, S.AS: Emphasized the importance of representing the river as a river within the CEFF process and visual *vocabulary*, and not as a flood control channel. Noted the San Gabriel Mountains and Arroyo Seco are missing from the discussion and that the headwaters in Arroyo Seco is essential to bringing back steelhead. Brick highlighted the need to take a watershed approach, expand the thinking to beyond the LA River mainstem, and include the consideration of strategies such as floodplain buyback and storage programs. The LA River tributaries will be critical for achieving the biodiversity, flood, and habitat goals in the LA River mainstem. **(ACTION ITEM)**

Jane Tsong, WCA (In Zoom chat): Agreed with Tim Brick and suggested changing the main diagram to emphasize other elements of the watershed connected to the river.

Part II: Management Goals Breakout Groups Session

See attached slides 77-83.

Water quality / Recreation breakout group

Steve Appleton, LA River Kayak Safari: Recommended a recreation management goal of developing stream trails compatible with biodiversity management goals. **(ACTION ITEM)**

Mas Dojiri, LASAN: Discussed the importance of developing metrics to monitor conditions. Mentioned the California Stream Condition Index (CSCI) and Algae Stream Condition Index (ASCI) as two metrics that would be helpful to assess conditions in the river. The breakout group acknowledged that CSCI and ASCI are already being monitored in the watershed, so we just need to determine how these monitoring results can be best linked to a goal.



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Mas Dojiri (LASAN), Steve Appleton (LA River Kayak Safari), Candice Dickens-Russell (FoLAR), and other group members: Group discussion about the inclusion a recreation management goal about aesthetics, including sounds along the river or lack of sounds (traffic). **(ACTION ITEM)**

Candice Dickens-Russell, FoLAR: Recommended a recreation management goal that the river is a destination in communities. Discussion followed about how other plans say similar things, but it would be good to express this as a goal. **(ACTION ITEM)**

Edward Belden, LABOE: Discussed the possibility of developing a water quality management goal about reducing solar heating/increasing solar reflectance in the channel to improve water temperatures in the river. **(ACTION ITEM)**

Nate Butler, Stillwater Sciences: Additional management goals will be accepted after the meeting concludes.

Water supply breakout group

Ben Harris, LA Waterkeeper: Shared the management goal of capturing and infiltrating stormwater at Sepulveda Basin, which is part of the new Sepulveda Basin Vision Plan and will be released later this week. Review the Sepulveda Basin Vision Plan for additional management goals. **(ACTION ITEM)**

Jesus Gonzalez, LADWP: Made a comment about the need to clarify the Donald C. Tillman Water Reclamation Plant's (Tillman) role in the 100% water reuse goal. Tillman is part of the Sepulveda Basin Vision Plan.

Ben Harris, LA Waterkeeper: Noted that distributed stormwater is a potential PFAS source, which can escape the traditional groundwater filtering process, and that this may affect plans for stormwater capture and infiltration in the future if pre-treatment of contaminants is required.

Ryan Thiha, LASAN: Increased groundwater capture is ongoing. PFAS is even in groundwater, which is then removed for drinking water.

Susie Santilena, LASAN: Currently the highest priority is getting the water in the ground. Treatment depends on where it is infiltrated.

Ryan Thiha, LASAN: Noted the potential for TMDLs for stormwater and groundwater infiltration.

Ben Harris, LA Waterkeeper: Stated that soil contamination at sites such as Taylor Yard may have a large impact on stormwater capture. List soil contamination and infiltration as a separate management goal. **(ACTION ITEM)**

Susie Santilena, LASAN: Noted that soil can act as water treatment. Also mentioned that watershed management plans have volume management that assists with compliance.

Christian Romberger, CDFW: Commented on the benefits of natural infiltration processes for conservation efforts and increased biodiversity, especially in a channelized system. Subsurface groundwater flow can be very beneficial.



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Susie Santilena, LASAN: Project sites vary and the potential for natural infiltration is dependent on local conditions.

Ben Harris, LA Waterkeeper: Emphasized the importance of both increasing permeability of the watershed and the need to be comprehensive with large infiltration projects. Harris noted the balance of allocating water for supply vs natural flows.

Susie Santilena, LASAN: Recommended the integration of different plans: stormwater capture master plan, basin management plans, SCW program strategic planning.

Ben Harris, LA Waterkeeper: Emphasized the need for a unified governance approach.

Ryan Thiha, LASAN: Responding to Ben Harris, suggested a hypothetical collaborative governing authority, possibly with watershed coordinators focused on integrating.

Susie Santilena, LASAN: Noted the current geographically fragmented landscape of decision-makers.

Ben Harris, LA Waterkeeper: Commented that political systems are not happening on a watershed scale.

Ryan Thiha, LASAN: Noted that CDFW/USFWS has the biggest jurisdiction and that it might make sense for them to take lead on governance.

Christian Romberger, CDFW: Suggested that CDFW may have potential for involvement and certain existing regulatory roles, although they may have limited capacity to expand that.

Jesus Gonzalez, LADWP: Suggested identifying goals related to drought, particularly the dry-season base flow within the CEFF functional flow metrics.

Christian Romberger, CDFW: Questioned how to balance habitat/biodiversity needs, water quality needs, and recreational/community needs. Are there scenarios that achieve all these goals?

Ron Mayuyu, LASAN: Noted that drought and dry season goals will be high priority for water supply.

Tim Brick, S.AS: Commented that Metropolitan Water may have potential to get involved, including facilitating groundwater storage programs. Also, Tim recommended an analysis of how much real water Measure W/SCW has developed over six years, compared to the investment in the program. Finally, he reiterated that the Santa Monica Mountains Conservancy Upper LA River (ULAR) tributaries should be added to the list of plan examined in the project. **(ACTION ITEM)**

Ben Harris, LA Waterkeeper: Recommended to add the San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy Plan. **(ACTION ITEM)**

Brian Baldauf, MRCA: Noted that the Vulcan quarries may have potential use for flood capture, as an example, and that the Upper Los Angeles River and Tributaries Revitalization Plan and LA River Master Plan would have divert and treat stormwater goals.



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Ben Harris, LA Waterkeeper: Responding to Brian Baldauf, recommended a recent FoLAR study that identified these quarries as having potential to alleviate flooding. **(ACTION ITEM)**

Christian Romberger, CDFW: Affirmed the benefits of concrete removal.

Tribal cultural / Urban cooling breakout group

Nathan Nunez, Nunez and Nunez Consulting: Urged project team to consider USFS leadership actions on LA River CEFF-related themes, goals, metrics, programs/projects given USFS projects such as tree planting (\$2M for LA River watershed) and related watershed management topics of urban cooling, tribal/cultural, headwaters management and flows. **(ACTION ITEM)**

Max Bracey, Heal the Bay: Noted the links between the Heal the Bay Report Card metrics and data with LA River CEFF as there are many common topics (public health, recreation, water quality, supply, access, temperature, beach closures, Ballona/LAR, biodiversity, urban cooling). **(ACTION ITEM)**

Shelly Backlar, RCDSMM: Recommended the incorporation of Sepulveda Basin (covers invasive species mgt/fire resiliency/urban cooling/water/habitat and many related flows topics.) Also recommended the project to leverage RCDSMM's role in modeling how LA River CEFF-related analyses and LA River CEFF step C can build from urban cooling/climate and fire resiliency strategies/programs given post-Woolsey fire management with agencies, County Fire, and key leads. **(ACTION ITEM)**

Monica Eichler, USACE: Took an action item: USACE will send relevant cultural tribal LA River assessment and CEQA documents to tap resources and recommendations for LA River. **(ACTION ITEM)**

Wendy Katagi, Stillwater Sciences: Commented that the project needs to incorporate Miguel Luna's roles/work/documents in CEQA tribal/cultural clearinghouse, LARWQCB tribal/cultural beneficial uses designation, and stewardship related to LA River flows nexus. **(ACTION ITEM)**

Flooding breakout group

Pat Wood, LACPW: Noted that the City of Los Angeles Floodplain Management Plan is updated every 5 years, and that the last time it was updated was 2020. 2025 Plan is in progress with an expected 2026 approval.

Alex Robinson and Mitul Luhar, USC: Regarding the current flood risk, noted that the Army Corps has certain sections of the channel that have underperformed in the past 10 years.

Pat Wood, LACPW: Noted that the Public Works mission in 1915 was to protect the LA River watershed community from flooding, while capturing as much water as possible, and that USACE and FEMA may have different flood management goals **(ACTION ITEM)**.



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Bill Saunders, LACPW: Made a comment about how facility issues are more common with tributary channels than storm drains, and therefore, LACPW monitors tributary channels more closely.

Derek Booth, Stillwater Sciences: Posed a question about how flood control agencies can articulate their management goals.

Pat Wood, LACPW: Noted that new permitted projects cannot decrease flood protection – it is not a goal, but a requirement. There are some supporting documents, including three Presidential orders and WFIP-Title 44 in the City of Los Angeles.

Kyle Evans, CDFW: Noted that unlike most of the LA River channel, the Arroyo Seco was built by the Flood Control District.

Pat Wood, LACPW: Noted that if applying for Section 404 Permit or Federal money (in Arroyo Seco), other agencies will be involved. Also posed a discussion question about how to handle the displacement risk of up to 500,000 people due to flood, especially in disadvantaged communities.

Virtual attendees breakout group

Erik Porse, UCANR: Made a comment about using multi-objective decision making in water systems analysis using a variety of metrics to find the most impactful alternative scenario. Evolutionary algorithms look at this, using multi-criteria decision analysis with weightings and rankings. Depends on whether a more qualitative, quantitative, or mixed analysis is desired to support decision-making. No one method will capture all the dynamics of the goals, however.

Eric Batman, LACPW: Noted LACPW's priorities as flood protection, water capture, and water supply. Batman further noted, anecdotally, that rainfall is below average 70% of the time, in which case, the strategy is to release less water than what's coming in, for as long as possible. It is expected that wet/dry climate cycles will continue.

Isaac Brown, Stillwater Sciences: Responded that the LA River CEFF project may require the specification of water quantities by the end of 2024 to stay on project schedule. Noted that LACPW has key flood management data needed for this task.

Rowan Roderick-Jones, Stillwater Sciences: Noted that flow regime goals might not be the same for every year. For instance, having one good year out of five or ten for recruitment of riparian trees like cottonwood might be enough. If we prioritize cottonwood recruitment in one year, then that particular outcome might take a backseat to other priorities in subsequent years.

Jane Tsong, WCA: Affirmed importance of discussing seasonal and multi-decadal cycles. Commented that these cycles should be framed as a source of awe and celebrated, as they are part of seeing the LA River as a river, and not a flood control channel. Also affirmed support for Tim Brick's comment about the Arroyo Seco, noting unique tributary opportunities to address equity in local communities.



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Chris Medak, USFWS: Agreed with Jane Tsong, noting that ignoring tributaries would omit a significant water source and that prioritization of the “mainstem” LA River could be problematic, and that including tributaries will create more opportunities for intervention to support goals.

Dan Schultz, SWRCB: Proposed looking at different years in multi-year cycles in ways that manage expectations and build understanding while making tradeoffs. This approach could be used for a variety of management goals that are dependent upon flows, such as fish passage and kayaking.

Rowan Roderick-Jones, Stillwater Sciences: Suggested a model with spectrum of outcomes based off different conditions over years. Noted this could help with defining priorities, as they might shift with annual conditions/number of “successful” days.

Part III: Discovering Environmental Flows Solutions

See attached slides 84-95.

Discussion: Win-win Concept 1 – Restore multi-threaded channel in LA River near Griffith Park (maintain flood channel + new base flow channel)

Eric Batman, LACPW: Commented that although the current infrastructure is built for infrequent flooding, there is a tendency for people to forget its necessity and push to utilize the space for something else.

Edward Belden, LABOE: Noted that considering the existing interest in the LA River mainstem and trails at this location, such as the equestrian and recreational users is important.

Jon Avery, USFWS: Identified past recommendations for similar projects included the development of a functional floodplain with the base flow and up to a certain flow magnitude/frequency. High magnitude events go through the flood hazard channel.

Ben Harris, LA Waterkeeper: Noted that the existing cultural/tribal, recreational, and access benefits need to be preserved in the main channel.

Thuan Nguyen, LACPW: Questioned how this project will decide which thematic benefits to pursue when there are conflicting priorities among stakeholders.

Candice Dickens-Russell, FoLAR: Responding to Thuan Nguyen, asked a follow-up question about understanding how many wins are enough wins to guide these decisions.

Ron Mayuyu, LASAN: Noted that the LA River Glendale Water Reclamation Facility is located within this concept’s area.

Pat Wood, LACPW: Clarified terminology regarding the difference between base flow and base flood. Wood noted that they have distinct definitions so it is important to be clear, and that base flood is commonly discussed in conversations about flooding.



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John Huynh, LADWP: Noted the importance of the cumulative impacts of consumptive flow projects on the entire river system.

Steve Appleton, LA River Kayak Safari: Noted the value of looking at historic maps and ecology, including the Patent maps of Los Angeles that include the Elysian Valley. **(ACTION ITEM)**

Chris Medak, USFWS (In Zoom chat): Stressed the importance of considering not only wastewater, but all sources of water to meet management goals.

Discussion: Win-win Concept 3 – Gravel pit repurposing for multi-benefits and Win-win Concept 4: Dam Releases for Environmental Flows

Bill Saunders, LACPW: Made several comments. First, regarding water rights in reservoirs and that litigating the release of that water might be a long process. Second, reclamation plants that are not as reliable for water supply, compared to reservoirs, due to maintenance and other reasons for a temporary shutdown of operations. Finally, that consistent water conservation is a mission of the flood control district.

Edward Belden, LABOE: Noted that timing of releases from reservoirs would need to be carefully considered and the theoretical capacity in Sepulveda and Hansen dams.

Pat Wood, LACPW: Noted constraints downstream of reservoirs. For example, instream habitat interests downstream of Big Tujunga Dam. Characterized negotiating this as balancing acts of releasing water without affecting community access due to releases, such as at-grade crossings in Big Tujunga that would be overtopped and block access with high releases. Wood also noted complications of balancing habitat needs in Big Tujunga Wash with sending flows large enough to reach LA River and overcome the natural infiltration rates of the wash. Additionally, Wood commented on the development of gravel pits being a source of revenue for landowners.

Nathan Holste, Bureau of Reclamation (In Zoom chat): Stressed the significance of the LA River's lack of floodplain, explaining that floodplains are critical in healthy rivers for dissipating energy, storing water, and providing habitat. The historical LA River was free to spread out and migrate at high flows. Holste suggested creating floodplain analogs or functions as a strategy with high potential for multi-purpose benefits.

Edward Belden, LABOE: Affirmed Pat Wood's earlier comment about gravel pit developments, noting that many are already being filled for development.

Nathan Holste, Bureau of Reclamation (In Zoom chat): Shared another thought on hydrology and flow recommendations: it would be good to expand thinking beyond individual wet/dry/avg years and think about decadal timescale. Can the project include the questions of how many high flow events do we need to achieve certain functions within an approximate 10 year period or how many low flow events can we tolerate? Can the project incorporate natural year-to-year variability as well as the seasons within a year.



TECHNICAL WORKING GROUP MEETING #1

JUNE 11, 2024

10:00 AM – 2:00 PM

CALIFORNIA ENVIRONMENTAL FLOWS FRAMEWORK

LOS ANGELES RIVER

Closing Comments

Joe Edmiston, SMMC: The value of the LA River to its community can be understood through stories; stories of young folks on the Temescal Stream, and a recounting of a family fishing at Marsh Park, now Lewis MacAdams Riverfront Park. Edmiston urged the TWG to think about people's contact with moving water and to keep focus on making that happen for future generations.

Other recorded input (from worksheets sticky notes, and emails)

Biodiversity Theme

- Consider the use of umbrella species, in the process reviewing USFWS Coordination Act and recovery plans for LA River Watershed-specific species such as: **(ACTION ITEM)**
 - Least Bell's Vireo
 - Santa Ana Sucker
 - Arroyo Chub (not federally listed, but a candidate for lower watershed)
- Additional comment about using umbrella species and species guilds:
Umbrella species are an essential complement to the planning guilds part of the working group process.
 - In coordination with USFWS, pick about 10 species that are:
 - sensitive/uncommon native species,
 - were historically present,
 - are technologically feasible to be supported by the future flows of the LA River,
 - representative of the flows that other native species depend upon.
 - Inclusive of at least 2 fish species, 1 amphibian species, 1 reptile species, 3 bird species, and 1 mammal species.
- Sources to evaluate: **(ACTION ITEM)**
 - Species identified by SCCWRP's environmental flow stakeholder process
 - Sepulveda Basin Wildlife Reserve Wildfire Resilient Habitat Plan
 - Fish and Wildlife Coordination Act
 - USFWS 1998 draft recovery plan for Least Bell's Vireo
 - USFWS 2017 final recovery plan for Santa Ana Sucker

Flooding Theme

- Constraints:
 - National Flood Insurance Program's requirement to maintain capacity in altered water courses
 - FEMA Tech Mapping Advisory Council is recommending doubling of 100-year flow
 - Projects and regulation must comply with floodplain management executive orders, [EO 11988](#) and State EO B37-77
 - Do not negate FEMA levee accreditations of LA River levees
- Consider the following data inputs: **(ACTION ITEM)**
 - Long term extreme events + short daily "pulse" regimes?
 - Need more data inputs real time: "non-contact water stages"



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LOS ANGELES RIVER

Recreation Theme

- Consider: (**ACTION ITEM**)
 - Increase access through tangible ways that connect people to nature/river
 - Water trails
 - Increase access but retain “wildness”

Tribal/Cultural Theme

- Sources to evaluate: (**ACTION ITEM**)
 - 30x30 visioning including appendices
 - US Forest Service
 - LA Ecosystem Restoration 2022/2023
 - LA River Cultural Resources Assessment (LA City)
 - LA Ecosystem Restoration Feasibility Study (Cultural Resources)
 - USFS million trees planted in LA River (Treepeople, North East Trees)
 - Heal the Bay LA River Report Card
- Management goals: (**ACTION ITEM**)
 - Broaden the examination of flows to include tributaries and headwaters
 - More involvement of communities

Urban Cooling Theme

- Consider the following: (**ACTION ITEM**)
 - National Pollutant Discharge Elimination System requirement lowering effluent and river temperature to 80°F
 - Include tree canopy in urban cooling

Water Quality Theme

- Consider the following: (**ACTION ITEM**)
 - CSCI and Algae Index
 - Substrate presence/absence

Water Supply Theme

- Consider future 1211 change petitions and CEFF implications (**ACTION ITEM**)

Other Input Received

- Regulators
 - [Section 404 Clean Water Act](#)
 - [Section 9 Rivers and Harbors Act](#)
 - [USACE Section 408 Program](#)
- Big idea concept: Decision matrix a la Klamath Restoration
 - Permeable river bottom
 - Enlarging riparian area/floodplain
 - Braid channel
 - Sinuosity



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LOS ANGELES RIVER

- Land purchasing
- Vegetative cover in channel
- Buying water rights and dedication to e-flow

