Final

SAN GABRIEL RIVER WATERSHED PROJECT TO REDUCE RIVER DISCHARGE IN SUPPORT OF INCREASED RECYCLED WATER REUSE

Final Environmental Impact Report
State Clearinghouse No. 2018071021

Prepared for
Sanitation Districts of Los Angeles County

November 2019

ESA

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CHAPTER 1
Introduction to Response to Comments

This Final Environmental Impact Report (Final EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and *CEQA Guidelines* (California Code of Regulations Section 15000 et seq.). The Final EIR incorporates, by reference, the Draft EIR (State Clearinghouse No. 2018071021) prepared by the Sanitation Districts of Los Angeles County (Sanitation Districts) for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (proposed project), as it was originally published and the following chapters, which include revisions made to the Draft EIR.

1.1 CEQA Requirements

Before the Sanitation Districts may approve the project, it must certify that the Final EIR: a) has been completed in compliance with CEQA; b) was presented to the Sanitation Districts' Board of Directors who reviewed and considered it prior to approving the project; and c) reflects the Sanitation Districts' independent judgment and analysis. (*CEQA Guidelines* Section 15090)

CEQA Guidelines Section 15132 specifies that the Final EIR shall consist of the following:

- The Draft EIR or a revision of that draft;
- Comments and recommendations received on the Draft EIR;
- A list of persons, organizations, and public agencies commenting on the Draft EIR;
- The response of the Lead Agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the Lead Agency.

This Final EIR for the proposed project presents Chapter 1 through Chapter 5:

- Chapter 1: Introduction to response to comments and the CEQA process
- Chapter 2: A list of persons, organizations, and public agencies commenting on the Draft EIR
- Chapter 3: Written comment letters received on the Draft EIR and written responses to each comment identified in Chapter 2
- Chapter 4: Corrections and additions made to the Draft EIR in response to comments received or initiated by the Lead Agency
- Chapter 5: Mitigation Monitoring and Reporting Program

1.2 CEQA Process

Public Participation Process

Notice of Preparation and Public Scoping

In accordance with Section 15082 of the *CEQA Guidelines*, a Notice of Preparation (NOP) of a EIR was prepared and circulated for review by applicable local, state and federal agencies and the public. The 30-day project scoping period, which began with the distribution of the NOP, remained open through March 9, 2019. One public scoping meeting was held on February 20, 2019 at the Sanitation Districts located at 1955 Workman Mill Road, Whittier, CA 90601. The NOP provided the public and interested public agencies with the opportunity to review the proposed project and to provide comments or concerns on the scope and content of the environmental review document including: the range of actions; alternatives; mitigation measures; and significant effects to be analyzed in depth in the EIR.

Notice of Availability of the Draft EIR

The Notice of Availability (NOA) of the Draft EIR was posted on August 2, 2019 with the County Clerk in Los Angeles. The Draft EIR was circulated to federal, state, and local agencies and interested parties requesting a copy of the Draft EIR. Copies of the Draft EIR were made available to the public at the following locations:

- Sanitation Districts of Los Angeles County Website (www.lacsd.org); and
- Sanitation Districts of Los Angeles County, 1955 Workman Mill Road, Whittier, CA 90601.

The Draft EIR was circulated for public review from August 2, 2019 through September 16, 2019. The Sanitation Districts established a 45-day review period, as required by Section 21091 of the Public Resources Code. During this period, the Sanitation Districts held one public meeting to provide interested persons with an opportunity to comment orally or in writing on the Draft EIR and the project. The public meeting was held at the Sanitation Districts Board Room in Whittier on August 21, 2019.

1.3 Evaluation and Response to Comments

CEQA Guidelines Section 15088 requires the Sanitation Districts, as the Lead Agency, to evaluate comments on environmental issues received from parties that have reviewed the Draft EIR and to prepare a written response. The written responses to commenting public agencies shall be provided at least ten (10) days prior to the certification of the Final EIR (*CEQA Guidelines* §15088(b)).

1.4 Final EIR Certification and Approval

Prior to considering the project for approval, the Sanitation Districts, as the Lead Agency, will review and consider the information presented in the Final EIR and will certify that the Final EIR:

(a) Has been completed in compliance with CEQA;

(b) Has been presented to the Board of Directors as the decision-making body for the Lead Agency, which reviewed and considered it prior to approving the project; and

(c) Reflects Sanitation Districts' independent judgment and analysis.

Once the Final EIR is certified, the Sanitation Districts' Board of Directors may proceed to consider project approval (*CEQA Guidelines* §15090). Prior to approving the proposed project, the Sanitation Districts must make written findings and adopt statements of overriding considerations for each unmitigated significant environmental effect identified in the Final EIR in accordance with Sections 15091 and 15093 of the *CEQA Guidelines*. Because the Final EIR does not identify any unmitigated significant environmental effects, a statement of overriding considerations is not required.

1.5 Notice of Determination

Pursuant to Section 15094 of the *CEQA Guidelines*, the Sanitation Districts will file a Notice of Determination (NOD) with the Office of Planning and Research and Los Angeles County Clerk within five working days of project approval.

CHAPTER 2
Comment Letters

The Draft Environmental Impact Report (EIR) for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (proposed project) was circulated for public review for 45 days (August 2, 2019 through September 16, 2019) in accordance with the requirements of *CEQA Guidelines* Section 15105(a). The Sanitation Districts received eight comment letters during the public review period, which are listed in **Table 2-1** and included within Chapter 3. The letters have been marked with brackets that delineate comments pertaining to environmental issues and the information and analysis contained in the Draft EIR. Responses to such comments are provided in Chapter 3.

A public meeting on the Draft EIR was also held on August 21, 2019 at the Sanitation Districts' Board Room. An overview of the proposed project and a summary of the Draft EIR findings were provided during the meeting. Comment cards were made available at the meeting; however, no written comments were provided during the meeting. Further, no verbal comments were received.

TABLE 2-1
COMMENT LETTERS RECEIVED

Comment No.	Commenting Agency	Date of Comment
1	State Clearinghouse, Office of Planning and Research	September 17, 2019
2	California Department of Fish and Wildlife (CDFW)	September 16, 2019
3	California Department of Transportation (Caltrans), District 7	August 7, 2019
4	Los Angeles County Public Works and Flood Control District	September 10, 2019
5	County of Los Angeles, Department of Parks and Recreation	September 16, 2019
6	Sierra Club, San Gabriel Valley Task Force	September 15, 2019
7	Los Angeles Waterkeeper and Heal the Bay	September 16, 2019
8	Save Our Community	September 17, 2019

CHAPTER 3
Responses to Comments

A summary of the comments contained within the comment letters received during the public review period for the Draft EIR are included in this section. The Sanitation Districts provide individual responses to the bracketed comments in each letter. In some instances, in response to the comment, the Sanitation Districts have made additions or deletions to the text of the Draft EIR; additions are included as underlined text and deletions as ~~stricken text~~ (see Chapter 4). The revisions do not significantly alter the conclusions in the Draft EIR.

Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Kate Gordon
Director

September 17, 2019

Jodie Lanza
Los Angeles County Sanitation District
1955 Workman Mill Road
Whittier, CA 90601

Subject: San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse
SCH#: 2018071021

Dear Jodie Lanza:

The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 9/16/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

1-A

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2018071021/3 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

Comment Letter 1: State Clearinghouse, Office of Planning and Research

Comment 1-A

The comment acknowledges the State Clearinghouse distributed the Draft EIR as required under CEQA to pertinent agencies. The California Department of Fish and Wildlife (CDFW) and California Department of Transportation (Caltrans) comment letters are attached.

Response 1-A

The comment is noted and saved in the project record. No response is required because there are no specific comments on the contents in the Draft EIR. The CDFW and Caltrans letters are responded to as Letter 2 and 3 below, respectively.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 16, 2019

Ms. Jodie Lanza, Supervising Engineer
Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601
jlanza@lacsd.org

Subject: Comments on the Draft Environmental Impact Report for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (SCH# 2018071021), Los Angeles County

Dear Ms. Lanza:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Draft Environmental Impact Report (DEIR) for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (Project) prepared pursuant to the California Environmental Quality Act (Public Resources Code 21000 *et seq.*) and its administrative regulations (CEQA Guidelines)[1] with the Sanitation Districts of Los Angeles County acting as lead agency.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code §§ 711.7, subd. (a) & 1802; Pub. Resources Code § 21070; CEQA Guidelines § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code § 1802). Similarly, for purposes of CEQA, CDFW is directed to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code § 21069; CEQA Guidelines § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration (LSA) regulatory authority (Fish & G. Code § 1600 *et seq.*). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the

2-A

[1] CEQA is codified in the California Public Resources Code in Section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with Section 15000.

California Endangered Species Act (CESA) (Fish & G. Code § 2050 *et seq.*) or the Native Plant Protection Act (NPPA; Fish & Game Code § 1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Proponent: Sanitation Districts of Los Angeles County (LACSD)

Project Location: Los Angeles County. The Pomona Water Reclamation Plant (WRP) currently discharges recycled water to San Jose Creek. San Jose Creek WRP, Whittier Narrows WRP, and Los Coyotes WRP each discharge to the San Gabriel River. Long Beach WRP discharges to Coyote Creek at the confluence with the San Gabriel River. The Project study area includes the San Gabriel River and San Jose Creek.

Project Description/Objective:

The objective of the Project is to incrementally reduce discharges of recycled water from five WRPs including San Jose Creek WRP, Pomona WRP, Whittier Narrows WRP, Los Coyotes WRP, and Long Beach WRP. Each of these WRPs currently discharges in the San Gabriel River, San Jose Creek, or Coyote Creek. The proposed use of the recycled water would be implemented by water agencies and other users over time. LACSD will continue to maintain the ability to discharge treated water at the same points but anticipates discharging lesser quantities. A brief description of the Project's discharge operation modifications is provided below:

- The San Jose Creek WRP discharge is currently rotated between five discharge locations within the San Gabriel River watershed as show on in Figure 1. The use of the discharge locations is irregular throughout the year and varies year-to-year, depending on the availability of groundwater recharge facilities and channel maintenance activities. Under the proposed Project, discharges from the San Jose Creek WRP at discharge point SJC002 would be reduced from an annual average of approximately 9.48 million of gallons per day (MGD) to a minimum monthly average of approximately 5 MGD. Although the total annual volume would be reduced, the new monthly average discharge would provide a more consistent discharge rate compared to existing conditions. Discharges would be timed to more efficiently meet the water demand needs of sensitive habitat. The diverted water would be conveyed for beneficial reuse to groundwater recharge basins or other reuse facilities.

- The Pomona WRP discharges into a concrete-lined portion of San Jose Creek that contains no sensitive habitat. As San Jose Creek nears the San Gabriel River, the concrete lining gives way to a soft-bottom reach. Current and historic groundwater upwelling occurs within the lined portion of San Jose Creek upstream of the transition location. The proposed Project would result in zero discharge from the Pomona WRP. Habitat in the soft-bottomed portion of San Jose Creek would continue to be sustained by rising groundwater.

- The Whittier Narrows WRP has three discharge locations but only one tributary to the San Gabriel River. A recently approved modification to discharge from the Whittier Narrows WRP will reduce discharges to the San Gabriel River by approximately 1 percent (0.01 MGD).

- The Los Coyotes WRP discharges into a concrete-lined portion of the San Gabriel River. Discharge flow is contained within the low-flow channel of the river under typical dry

2-A

weather conditions. This Project proposes to maintain a minimum discharge flow of 2 MGD to prevent the low-flow channel from going completely dry downstream of the plant.

The Long Beach WRP discharges into the concrete-lined Coyote Creek approximately 3,000 feet before the start of the San Gabriel River estuary. Urban runoff and natural flows in Coyote Creek upstream of the Long Beach WRP maintain a consistent flow in the creek at the discharge location. This Project proposes a minimum discharge flow of zero from the Long Beach WRP.

HISTORY

LACSD has been working with CDFW and the U.S. Fish and Wildlife Service (USFWS) over the last several years to address concerns regarding the potential impacts to biological resources associated with the proposed Wastewater Change Petitions from the San Gabriel River. LACSD has proposed several small reductions through the Water Code section 1211 process, Notice of Wastewater Change Petition WW0098 (WW0098), and Notice of Wastewater Change Petition WW0100 (WW0100), for which CDFW had protested but subsequently dismissed. The primary concerns identified in the protests were: 1) the use of a categorical exemption to satisfy CEQA, and 2) cumulative impacts to biological resources including habitat communities. LACSD subsequently prepared the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse Initial Study/Mitigated Negative Declaration (2018 MND) to address the WW0098 and WW0100 protests. Potential impacts to biological resources associated with WW0098 and WW0100 are expected to be addressed through the Adaptive Management Plan (AMP) proposed in the 2018 MND. The Adaptive Management Plan will include the formation of a working group that includes the entities that manage the surface and ground water of the San Gabriel River (Los Angeles County Flood Control District, LACSD, USFWS, and CDFW) to develop guidelines that protect existing biological resources.

CDFW has supported LACSD's efforts to consider all anticipated reductions in discharge together under CEQA and to prepare an EIR and an updated AMP for the Project. LACSD and CDFW have continued to work together to address potential impacts to biological resources since the protests were dismissed. LACSD provided CDFW with a copy of the 1211 Wastewater Change Petition on August 7, 2019, that was submitted to the State Water Resources Control Board (SWRCB). If necessary, CDFW will have the opportunity to protest the Wastewater Change Petition and propose measures to remedy any unresolved concerns in the AMP related to potential impacts to biological resources.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist LACSD in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

CDFW also recommends the environmental document include measures or revisions (outlined below) in a science-based monitoring program, with adaptive management strategies, as part of the Project's CEQA mitigation, monitoring and reporting program (Pub. Resources Code § 21081.6; CEQA Guidelines § 15097).

Comment # 1: Baseline Flows

2-A

2-B

2-C

Issue: There is a significant discrepancy between the baseline discharges reported in LACSD's 2018 MND compared to the DEIR. The 2018 MND stated that discharges from the San Jose Creek WRP discharge point SJC002 would be reduced from approximately 16 MGD to a minimum monthly average of approximately of 5 MGD. The DEIR states that LACSD would reduce discharges from an annual average of 9.48 MGD to a minimum monthly average of approximately 5 MGD. The MND identified a combined annual average discharge of 54.24 MGD from the San Jose Creek WRP based on water years between 2011 and 2015 (MND, Table 1-1), which is twice the baseline discharge of approximately 27.16 MGD that is analyzed in the DEIR.[2] 2-C

Specific impact: The proposed baseline condition analyzed in the DEIR underestimates the water that was available from San Jose Creek WRP which establish the current extent of riparian and wetland biological resources. 2-C.1

Why impact would occur: LACSD discharges contribute to a significant portion of the hydrograph of the lower San Gabriel River over the last several decades. While natural flows of the San Gabriel River are diverted out of the channel or held behind dams upstream, the downstream riverbed does receive predictable inputs from wastewater discharges. These inputs have altered the hydrograph and thus created dependence on the wastewater discharge. The current five-year period represents the lowest discharges in the last several decades due to recent increases in water conservation and recycling programs. Because riparian and wetland vegetation in the San Gabriel River has developed over decades and not only within the last five years, the five-year average annual discharge period is not adequate to evaluate the potential impacts of the proposed reduction in discharge. 2-C.2

Evidence impact would be significant: Current baseline conditions include a declining hydrograph with wastewater contributing significantly to year-round flows. In the absence of the natural hydrograph, flows in the amount and velocity were conducive to the growth of mature riparian habitat. These riparian tree species, such as willow and cottonwood trees, rely on the available discharges to fulfill key points of the hydrograph that are necessary for recruitment. This riparian vegetation, not historic to this extent in the watershed, support the nesting habitat of least Bell's vireo (*Vireo bellii pusillus*), a federal Endangered Species Act (ESA)- and CESA-listed species. 2-C.3

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure: Given the recent substantial reduction in baseline discharge levels, we request that the DEIR clarify the discrepancy in the baseline conditions and acknowledge that discharge levels may need to be higher than the current average annual discharge levels "to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels" (Mitigation Measure BIO-1). 2-C.4

Comment # 2: Mitigation Measure BIO-1

Issue # 1: Mitigation Measure BIO-1 would require that the LACSD implement a discharge operational scenario that maintains downstream habitat conditions. Riparian vegetation is a 2-D

[2] Based on information presented in DEIR, Table 2-1, a combined 27.16 MGD is released from the San Jose Creek WRP.

naturally dynamic vegetation community that may change in distribution and extent due to flood events or other factors, outside the control of the LACSD. According to the DEIR, the AMP will be implemented to monitor vegetation in areas currently supported by wastewater discharge "to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels" (DEIR, BIO-1). It will be difficult to collect sufficient data to separate out natural changes in the quality and extent of vegetation from changes directly attributable to the reduction in discharge. 2-D

Issue # 2: The AMP states that "a detectable change of 10 percent in total habitat area mapped as alliances during an annual mapping exercise will trigger an appropriate response based on the alliance. If it is agreed that habitat changes are not detectable on an annual basis, or if suitable aerial photographs are not available, the frequency of mapping may be modified" (AMP, Page 18). A 10 percent change in the acreage of habitat is considered significant. 2-D.1

Specific impact: Project implementation may result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo, an ESA- and CESA-listed species. 2-D.2

Why impact would occur: The AMP identifies triggers for restoring discharges to the San Gabriel River. These triggers allow for some impacts to habitat for the least Bell's vireo (e.g., willow and mulefat vegetation alliances) to occur prior to restoring discharges. It is anticipated that the discharge operational scenario can be adjusted to continue to support the baseline condition of vegetation; however, it is not clear if the appropriate adjustments to the schedule will be determined before permanent impacts to existing riparian vegetation would occur. 2-D.3

Evidence impact would be significant:
The DEIR proposes a 10 percent reduction in mulefat and sandbar willow vegetation alliances and/or a 5 percent reduction in black willow and arroyo willow vegetation alliances prior to restoring discharges (AMP, Table 8).

Mapped Vegetation Alliance (DEIR Table 3.1-1A)	Acreages (DEIR Table 3.1-1A)	Remedial Action Trigger (AMP Table 8)	Loss Amount (acres)	Loss Amount (with Mapping Error ≈ 15.4 %) (Scheidlinger 2019)	Total Loss Amount (with Mapping Error ≈ 15.4 %) (Scheidlinger 2019)
Black Willow	75.2	5%	3.76	11.58	15.34
Arroyo Willow (including disturbed)	4.1	5%	0.21	0.63	0.84
Mulefat (including disturbed)	19.8	10%	1.98	3.05	5.03
Sandbar Willow (including disturbed)	4.2	10%	0.42	0.65	1.07
Estimated Total Loss			6.37 acres		22.28 acres

2-D.4

These proposed triggers will allow for a loss of up to 6.37 acres of least Bell's vireo habitat prior to restoring discharge.[3] Given that least Bell's vireo territories range in size from about 0.5 to 4.5 acres (RECON 1990), CDFW believes a loss of upwards of 6.37 acres of least Bell's vireo habitat before discharges are restored is significant. Vegetation is also mapped at the alliance

[3] Includes black willow, arroyo willow, sandbar willow, and mulefat vegetation alliances as presented in the DEIR (Table 3.1-1A).

level with an 84.6% level of accuracy (Scheidlinger 2019) which may result in a delay in identifying accurate loss of acreages.

CDFW considers adverse impacts to special status species protected by CESA and the federal Endangered Species Act (ESA, 16 U.S.C. § 1531 et seq.), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any State endangered, threatened, candidate species, or listed rare plant species pursuant to the NPPA that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". 2-D.4

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: CDFW recommends lowering the triggers for combined losses of arroyo and black willow vegetation alliances to 2% (i.e., a maximum loss of 1.4 acres). This would reduce the overall potential impacts to habitat for least Bell's vireo to a maximum of 3.7 acres (i.e., including willow and mulefat vegetation alliances) prior to restoring discharges. 2-D.5

Mitigation Measure # 2: If the lower percent triggers and extensive monitoring are not feasible for LACSD[4], then CDFW recommends that LACSD assume a certain reduction in habitat commensurate with the loss of discharges and include mitigation for this loss of least Bell's vireo habitat in the Final EIR. Additionally, we recommend LACSD apply for and obtain an Incidental Take Permit for the least Bell's vireo to mitigate the direct take of least Bell's vireo by the Project. This would change the purpose of the AMP to provide long term monitoring of the habitat, but allow for take as well. This would significantly reduce the monitoring requirements because take is authorized. 2-D.6

Mitigation Measure # 3: CDFW recommends establishing a 2 percent loss trigger for the arroyo willow and black willow alliances grouped together instead of the proposed 5 percent trigger. A 2 percent loss of the arroyo willow and black willow alliances would be equivalent to a loss of approximately 1.58 acres. 2-D.7

Mitigation Measure # 4: CDFW is requesting clarification on impacts to riparian habitat and suitable habitat to least Bell's vireo. The AMP proposes a 10 percent trigger for any mapped alliances and a proposed 5 percent trigger for arroyo willow and black willow vegetation alliances. A proposed 5 percent trigger would be a loss of up to 3.97 acres of various vegetation alliances used by least Bell's vireo. CDFW is requesting clarification on how the loss of 3.97 to 6.37 acres is not considered significant. Without an Incidental Take Permit, the Project may have significant impacts to least Bell's vireo. This level of significance should be addressed or analyzed in the DEIR. 2-D.8

Mitigation Measure # 5: The DEIR currently includes a Project alternative that considers phased reductions in discharge over a two-year period (DEIR, page 5-5). CDFW recommends that LACSD include phased discharge reductions from the San Jose Creek WRP over a minimum of a 10-year period to accommodate a gradual transition of vegetation from areas that become drier to areas that may become more suitable with the change in discharge 2-D.9

[4] CDFW, USFWS, and LACSD have previously discussed the possibility of assuming a certain reduction in habitat commensurate with the loss of discharges and mitigate for impacts. This would significantly reduce monitoring requirements.

schedule. The phased reduction will also allow adequate time to determine appropriate adjustments to the discharge schedule to meet LACSD's objective of ensuring the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels. 2-D.9

Comment # 3: Mitigation Measure BIO-2

Issue: Mitigation Measure BIO-2 would require trapping of brown-headed cowbirds (*Molothrus ater*) to minimize predation of least Bell's vireo nests. This beneficial action is expected to offset any temporary drought stress experienced by the vegetation used by least Bell's vireo as monitored through the AMP; however, as currently written, it is not clear how long cowbird trapping activities will be implemented. Mitigation Measure BIO-2 specifically states "The Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation Districts' staff. The trapping shall occur during the first three years of reduced discharges. Additional cowbird trapping activities shall be implemented subject to need based on AMP annual reporting" (DEIR 3.1-58). 2-E

Specific impact: The proposed three-year commitment to conduct cowbird trappings may not adequately offset the potential loss of riparian habitat used by least Bell's vireo an ESA- and CESA-listed species. 2-E.1

Why impact would occur:
As currently written, it is not clear what conditions will require cowbird trapping beyond three years. Cowbird trapping activities may be necessary to minimize impacts to least Bell's vireo in the event of vegetation thinning as a result of drought stress; however, the appropriate discharge operation schedule may not be developed within the first three years of the Project. Water flows in the San Gabriel River are highly manipulated by other entities (e.g., Los Angeles County Flood Control District) in addition to LACSD. It may take many years to coordinate new discharge schedules in a manner that will support baseline habitat conditions. In absence of cowbird trapping to minimize parasitism, a reduction in least Bell's vireo productivity is more likely to occur if habitat is degraded as a result of leaf loss or reduced understory growth. 2-E.2

Evidence impact would be significant:
Cowbird parasitism is considered a significant threat to least Bell's vireo nesting in this area of the San Gabriel River[5]. Cowbird parasitism of least Bell's vireo nests may exceed 42 percent in some locations (Kus 1999). In the absence of cowbird trapping the temporary reduction in habitat quality that may occur as discharge schedules are adjusted could result in an increase in cowbird parasitism. CDFW believes the potential for increased cowbird parasitism on least Bell's vireo is significant. CDFW considers adverse impacts to special status species protected by CESA and the federal Endangered Species Act (ESA, 16 U.S.C. § 1531 et seq.), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any State endangered, threatened, candidate species, or listed rare plant species pursuant to the NPPA that results from the Project is prohibited, except as authorized by State law (Fish and Game Code §§ 2080, 2085; Cal. Code Regs. tit. 14 § 786.9). Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". 2-E.3

[5] N. Moorhatch, Wood Environmental & Infrastructure Solutions, personal communication to C. Medak, USFWS, August 6, 2019.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure: CDFW recommends an initial ten years of cowbird trapping activities. The ten-year period will allow adequate time for the occupied least Bell's vireo population to calibrate and make adjustments to any minor habitat transitions. This will help LACSD quantitatively evaluate the effectiveness of the AMP and the Project impacts to least Bell's vireo. 2-E.4

Comment # 4: Adaptive Management Plan: 12.1 Monitoring for Presence of Least Bell's Vireo and the Quantification of Least Bell's Vireo Nesting/Territory Locations

Issue: In the AMP Section 12.1 Monitoring for Presence of Least Bell's Vireo, the Project has the potential to affect existing least Bell's vireo and their habitat. LACSD has proposed to contact U.S. Army Corps of Engineers (USACE) and request annual least Bell's vireo survey data within the Project Area and include survey data in their annual report. If LACSD cannot obtain USACE least Bell's vireo data, the LACSD shall commit to conducting annual nesting/territory location information to include in their annual report. 2-F

Specific impact: The Project has the potential to affect the viability of nesting least Bell's vireo. Inadequate data collection may never allow this impact to be identified. 2-F.1

Why impact would occur: Project implementation may have direct impacts to least Bell's vireo nesting habitat by degrading the quality of existing habitat that may cause the existing least Bell's vireo populations to drop below self-sustaining levels. 2-F.2

Evidence impact would be significant:
The data from USACE shows least Bell's vireo occurrences within the limits of USACE. USACE least Bell's vireo data lacks the qualitative information that is needed to establish baseline least Bell's vireo nesting data, and to monitor population estimates over time. LACSD's reliance on another agency's quantitative data will not capture the qualitative data needed to support the AMP and maintain least Bell's vireo nesting territories. CDFW considers adverse impacts to special status species protected by CESA and ESA, for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any State endangered, threatened, candidate species, or listed rare plant species pursuant to the NPPA that results from the Project is prohibited, except as authorized by State law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." 2-F.3

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: CDFW recommends that least Bell's vireo nesting territory surveys be conducted every 3 years to document least Bell's vireo trends within the Project area. Least Bell's vireo protocol-level surveys shall be completed. 2-F.4

- Survey protocol for least Bell's vireo can be found at:https://www.fws.gov/ventura/docs/species/protocols/vireo/leastbellsvireo_survey-guidelines.pdf

Comment # 5: Adaptive Management Plan: 6.4 and 7.2 Habitat Structure Transects 2-G

Issue: The Draft AMP proposes to monitor habitat structure for the least Bell's vireo as part of annual monitoring of the riparian vegetation. The methodology for choosing sample sites in the AMP lacks the specificity needed to ensure sample sites are placed in least Bell's vireo habitat. In addition, the proposed number of sample sites does not appear to account for naturally high variability within habitat for the least Bell's vireo (Kus 1998) or for expected differences in hydrology within the proposed monitoring area. 2-G

Specific impact: Project implementation may result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo, an ESA- and CESA-listed species. 2-G.1

Why impact would occur: An inadequate sample design will limit the ability of the LACSD to detect changes in least Bell's vireo habitat structure over time as a result of the proposed Project. If degradation of least Bell's vireo habitat is not detected during monitoring, discharges will not be restored and existing least Bell's vireo populations could drop below self-sustaining levels. Without adequate transects, the Project may have significant impacts to vireo that may not be detected. 2-G.2

Evidence impact would be significant: CDFW and USFWS reviewed established transects during a site visit on August 20, 2019, with Wood Environment & Infrastructure Solutions. Some transects were established on easily accessible trails that would not be considered least Bell's vireo habitat. CDFW and USFWS has expressed significant concern to LACSD that the sample locations were being placed with bias due to time constraints, access constraints, and lack of a specific protocol to identify transect locations. In addition, the AMP identifies five sample areas (Groups) that are distinguished by different hydrological conditions. Because of the expected differences in response to changes in discharge, proposed sample sizes within each Group should be adequate to characterize the baseline conditions of habitat in each Group and to detect differences between Groups over time. 2-G.3

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: If non-random sampling is used, CDFW recommends that the criteria used to establish the sample locations is defined in detail to limit potential bias in the monitoring program. If transects are used, we recommend sampling points be evenly distributed within each Group and cross the entire width of the channel to capture the diversity of the vegetation structure across all elevation bands and describe the structure of the entire ground. This methodology would allow the LACSD to track changes in least Bell's vireo habitat across the channel as discharge is reduced. 2-G.4

Mitigation Measure # 2: CDFW recommends that an equal number of sample sites (2 x 2 x 5 meter stacked cubes) are established within each Group. The number of samples should be sufficiently large to ensure the data have power to detect differences over time within each Group and between Groups (i.e., starting with a minimum of 20 sites per group to evaluate the variance within and between groups and then reducing sampling sites if you have significant power to detect differences with a smaller sample size). 2-G.5

Mitigation Measure # 3: CDFW requests that both CDFW and USFWS have an opportunity to review and approve the criteria, and the sample locations after new criteria are established and new sites are chosen. 2-G.6

Comment # 6: Remedial action triggers

Issue # 1: Chapter 3.1-55 of the DEIR states that "the AMP will also institute action triggers based on monitoring results that require the discharge of additional recycled water as necessary to maintain overall habitat area and habitat suitability for endemic species." The DEIR does not define the requirements that will trigger an immediate discharge of water. 2-H

Issue # 2: LACSD proposes a 10 percent remedial action trigger for *Arundo donax* which would be an approximate increase of 1.2 acres of the invasive species. An increase of 1.2 acres of *Arundo donax* is considered significant. 2-H.1

Issue # 3: BIO-1: states that "the AMP identifies parameters that would trigger actions to remedy any effects attributable to the proposed reduced discharges. If triggers are reached, specific remedial actions will include resumed discharges into the San Gabriel River channel sufficient to support the acreage of habitat sustained by historical discharges." The AMP does not define what will be sufficient discharges to maintain the existing quality riparian habitat. 2-H.2

Issue # 4: In the AMP Page 19. Overall Trigger Points, it states that "Trigger points for any individual parameter in any individual vegetation alliance or AMP alone, however, may not be cause for implementing the adaptive management actions of increasing water delivery." An effective AMP should highlight the primary response to loss of riparian vegetation by immediately restoring discharges to the San Gabriel River. 2-H.3

Specific impact: There is a discrepancy between the DEIR and the AMP regarding triggers. The DEIR states that if triggers are reached, specific remedial actions will include resumed discharges into the San Gabriel River (Chapter 3.1-55). However, the AMP states that triggers (Table 8, Page 17) may include resumed discharges into the San Gabriel River channel only after initiating a working group meeting and discussion (AMP, Page 20). The immediate action of discussion instead of immediately putting the water back to baseline conditions will result in a delay that may result in the permanent loss of riparian habitat. 2-H.4

Why impact would occur: LACSD proposes to convene a working group meeting and discussion as a remedial action trigger. The AMP states that adaptive management discussions are the appropriate response; however, this immediate remedial action may result in the further loss of riparian habitat depending on the amount of time that goes by before a decision is made to restore discharges to the San Gabriel River. This additional loss of vegetation would be on top of LACSD's proposed 5 to 10 percent vegetation loss that triggered the initial immediate action and may result in prolonged temporal loss of least Bell's vireo habitat that may be considered permanent impacts. 2-H.5

Evidence impact would be significant:
Evidence has been provided in Comments #1 to 5 regarding discrepancies in the baseline flows, the methodology and criteria used to capture existing baseline vegetation conditions, and concerns regarding the 15.6% margin of mapping error. This evidence has highlighted the inconsistencies of the information provided in the DEIR and AMP. 2-H.6

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: Vegetation is mapped at the alliance level with an 84.6% level of accuracy (Scheidlinger 2019). CDFW recommends that for CDFW's recommend of a 2 to 10 2-H.7

percent loss of vegetation that is determined in vegetation mapping, LACSD shall immediately (within 1 week) ground-truth the acreage change. If vegetation loss is confirmed, then LACSD shall restore discharge to reduce water stress within 1 week of confirmation (with the exception of invasive species, such as *Arundo donax*). A meeting would then be held with the working group to discuss the results and implementation changes to the discharge schedule that would avoid additional water stress and restore the loss of habitat. 2-H.7

Mitigation Measure # 2: CDFW recommends a 5 percent remedial action trigger (increase of 0.6 acres) for *Arundo donax*. CDFW recommends that LACSD immediately conduct *Arundo donax* removal and modify their discharge to limit the spread of *Arundo donax*. If LACSD cannot access the Project area to conduct *Arundo donax* removal, then *Arundo donax* removal shall be implemented within the San Gabriel River watershed or an alternate mitigation plan shall be provided to CDFW for approval. 2-H.8

Mitigation Measure # 3: The AMP should separate out the vegetation mapping trigger under Section 7.0 instead of including it in the discussion with Stem Water Potential and Canopy Volume. 2-H.9

Comment # 7: "Impossible to determine cause of (habitat) decline in confidence"

Issue: In the AMP Page 20. Section 8.0 Evaluating the Nature of the Changes in Habitat, it states that "Habitat declines, as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, or species richness, could be caused by a decline in water supply from WRPs, but also by regional drought or other factors such as human activity. Because it may be impossible to determine the cause of the decline with confidence, adaptive management discussions are the appropriate response." CDFW is concerned that the extensive monitoring of the AMP cannot determine the cause of habitat decline. 2-I

Specific impact: The inability of an AMP to determine the cause of habitat decline may result in adverse impacts to fish and wildlife resources that is not analyzed in the DEIR. Project implementation may also result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo, an ESA- and CESA-listed species. 2-I.1

Evidence impact would be significant: In the AMP Page 20. Section 8.0 Evaluating the Nature of the Changes in Habitat, it states that "Because it may be impossible to determine the cause of the decline with confidence, adaptive management discussions are the appropriate response." This statement confirms that the AMP is not sufficient to detect riparian habitat changes. 2-I.2

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: As CDFW, USFWS, and LACSD have discussed in multiple meetings, LACSD agreed to the immediately release of water when any of the monitoring triggers are met. CDFW recommends that LACSD honor this agreement and release water as an immediate trigger action to avoid additional vegetation loss. 2-I.3

Mitigation Measure # 2: To effectively monitor and determine the cause of habitat decline CDFW recommends monitoring and triggers that reflect the Operational Scenarios (DEIR, page 3.1-48) through the monitoring of and the acreage triggers for each alliance that is segmented into HAA1-HAA10 (DEIR, Table 3.1-4). 2-I.4

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp. 2-J

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife and assessment of CEQA filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the lead agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.). 2-K

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse to assist the Los Angeles County Sanitation Districts in identifying and mitigating Project impacts on biological resources. For any questions regarding this letter and further coordination on these issues, please contact Mary Ngo, Senior Environmental Scientist (Specialist), at (562) 342-2140 and Mary.Ngo@wildlife.ca.gov. 2-L

Sincerely,

Erinn Wilson
Environmental Program Manager I

ec: CDFW
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Dolores Duarte, Executive Secretary (San Diego)
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References

CDFW. 2019. California Natural Diversity Data Base (CNDDB). (https://www.wildlife.ca.gov/data/cnddb)

Kus, B. 1998. Use of restored riparian habitat by the endangered Least Bell's Vireo (*Vireo bellii pusillus*). Rest. Ecol. 6:1. Pgs. 75-82.

RECON. 1990. Draft comprehensive species management plan for Least Bell's Vireo. Prepared for SANDAG. Unpublished report. 244 pp plus appendices.

Scheidlinger, C. 2019. Memo: Vegetation Mapping Error Discussion.

Comment Letter 2: California Department of Fish and Wildlife (CDFW)

Comment 2-A

The comment describes CDFW authority as a trustee agency and responsible agency, summarizes the project's proposed discharge modifications, and describes CDFW's history with the Sanitation Districts and previous Wastewater Change Petitions from the San Gabriel River. The comment further describes CDFW's primary concerns with previous petitions. The comment also describes the Adaptive Management Plan identified in the Sanitation Districts' San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse Initial Study/Mitigated Negative Declaration (2018 MND). The comment further acknowledges receipt of Sanitation Districts' Wastewater Change Petition dated August 7, 2019 and that, if necessary, CDFW will have the opportunity to protest the Wastewater Change Petition and remedy unresolved concerns. The comment states that the project may be subject to CDFW's regulatory authority provided by Fish and Game Code, more specifically the Lake and Streambed Alteration Agreement (LSA). To the extent that implementation of the Project may result in a "take" as defined by State law of any protected species, CDFW recommends that the Sanitation Districts obtain appropriate authorization under the Fish and Game Code.

Response 2-A

The proposed project will not require a LSA under Section 1600 of the California Fish and Game Code. Section 1602 of the California Fish and Game Code requires notification of CDFW prior to diversion of the "natural flow" of a stream. In this instance, wastewater is treated and then conveyed directly from the treatment plant to a customer for immediate reuse. Reducing discharges and the reuse of treated wastewater from the treatment plant does not involve any diversion from a stream, and thus, Section 1602 does not apply. (See, generally, Pub. Resources Code, § 1603(a) (notification required before an applicant "substantially divert[s]" the "natural flow" of a "stream").) Further, the proposed project would not result in placement of fill into drainages or use of materials from drainages. For these reasons, the Sanitation Districts have no intention to pursue a LSA. However, CDFW remains a trustee agency under CEQA.

Similarly, the proposed project will not result in "take" of any state-listed species as defined and set forth under Sections 86 and 2080 of the California Fish and Game Code. The primary state-listed species to occur within riparian habitat downstream of the discharge point is least Bell's vireo, an avian species that requires dense riparian vegetation within woodland habitats along water or dry thickets along intermittent streams. A dense shrub layer is required for nesting, while a stratified canopy is required for foraging. "Take" under California law does not include incidental or indirect take through "harm" (i.e., habitat modification); rather, take is defined more narrowly to mean to: "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (Fish & Game Code § 86 (omitting the term "harm"); *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018 ("We reject any insinuation that the definition of 'take' under California Fish and Game Code Section 2081, subdivision (b)(2) encompasses the taking of habitat alone or the impacts of the taking. As Section 86 of the

California Fish and Game Code makes clear, proscribed taking involves mortality.").) Here, there are no listed aquatic species downstream of the points of discharge. Further, the proposed project is designed, by inclusion of the updated Adaptive Management Plan ("AMP"), to not reduce the extent or quality of riparian habitat or otherwise result in mortality of least Bell's vireo. The proposed project, therefore, will not trigger a need for an incidental take permit for least Bell's vireo or other listed species. The updated AMP is included as Revised Appendix H in this Final EIR.

No response is required for other portions of the comment because there are no specific comments on the contents in the Draft EIR.

Comment 2-B

The comment provides an introduction to suggestions and recommendations to assist the Sanitation Districts in identifying and mitigating the project's direct and indirect impacts on biological resources. The comment also recommends that the document include measure and revisions in a science-based monitoring program.

Response 2-B

No response is required because there are no specific comments on the contents in the Draft EIR. However, the Sanitation Districts have been working with professional biological consultants and CDFW on the updated AMP for more than four years incorporating the scientific measures and strategies recommended by both. The EIR adopts implementation of the updated AMP as a mitigation measures (Mitigation Measure BIO-1) and as a part of the mitigation, monitoring, and reporting program (MMRP); refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The updated AMP is included as Revised Appendix H in this Final EIR.

Comment 2-C

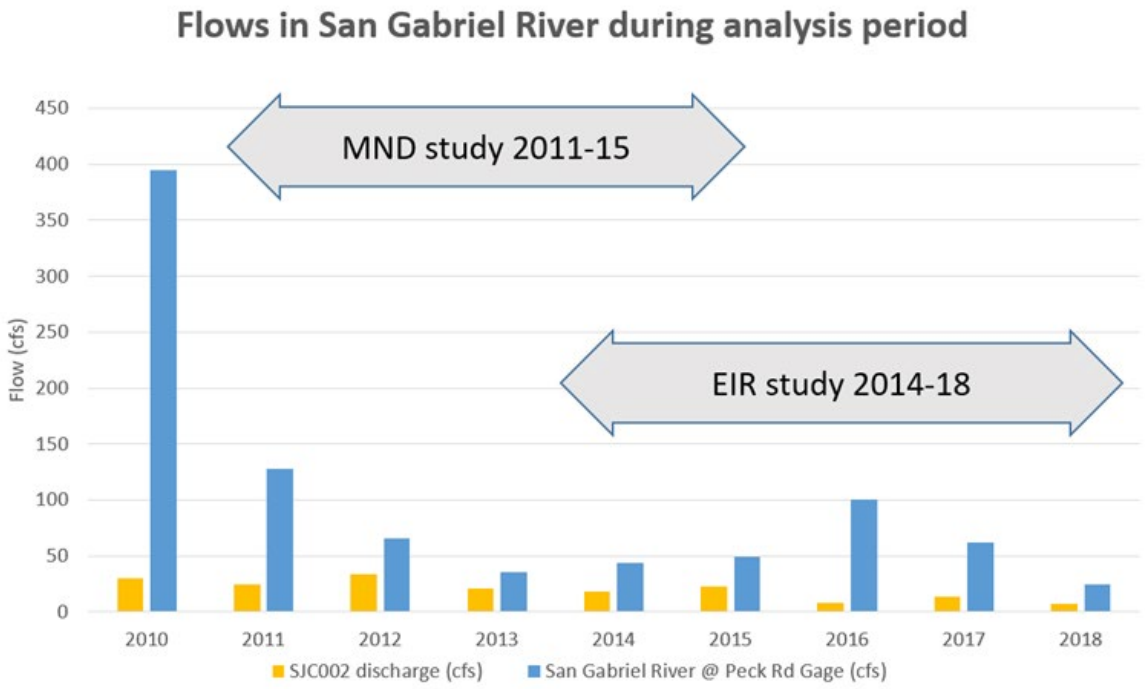
The comment states that there is a significant discrepancy between the baseline discharges reported in Sanitation Districts' 2018 MND compared to the Draft EIR. The Draft EIR states that the Sanitation Districts would reduce discharges from an annual average of 9.48 MGD to a minimum monthly average of 5 MGD (p. 2-5, Table 2-1). CDFW further states that the 2018 MND identified an average annual discharge of 15.7 MGD and a combined annual average discharge of 54.24 MGD based on water years between 2011 and 2015 (2018 MND, Table 1-1), which is twice the baseline discharge of approximately 27.16 MGD analyzed in the Draft EIR.

Response 2-C

The comment correctly identifies that the hydrologic baseline has been updated since the publication of the IS/MND in 2018. Specifically, the annual average daily discharge has been updated as shown in Table 2-1 of the Draft EIR (p.2-5) to reflect a more recent five-year study period of water-years 2014-2018 resulting in an annual average daily discharge of 9.48 MGD compared with 15.7 MGD identified in the IS/MND for the period of 2011-2015. The update was made in consultation with CDFW and the United States Fish and Wildlife Services (USFWS).

The discharge data provided in both assessments are accurate snapshots of pre-project average annual discharges. The more recent study period reflects the current baseline more accurately and includes both wet and dry years as requested by CDFW and the USFWS. For clarity, the following Figure 3-1 presents river flows from the SJC002 discharge point versus flows from the San Gabriel River going back to 2010. The reduction in discharges is the result of reduced inflow to the treatment plants due to factors such as increased water user's conservation, treatment plant and sewer system maintenance and repair activities, and San Gabriel River and Whittier Narrows Dam maintenance activities. Consequently, the water-years 2014-2018 baseline more accurately represents existing environmental conditions as they presently exist.

Figure 3-1: San Gabriel River Flow Study Periods



As described in the Draft EIR (Sections 3.1 and 3.2), the Sanitation Districts conducted two hydrology studies, one that characterized existing and historical flows in the river (Draft EIR, Appendix E2, Hydrology Report 2018) and one that evaluated the relationships of existing surface water flows and ecological values exhibited in the channel and estimated potential effects to the ecology that may result from reduced discharges (Draft EIR, Appendix E1, Hydrology Report 2019). According to the results of the 2018 Hydrology Report and 2019 Hydrology Report, discharges from the San Jose Creek WRP have varied significantly over time. The current habitat in the river channel reflects the recent water availability and represents the baseline condition at the time of the NOP. It should be noted that a lead agency has considerable discretion in determining the baseline physical conditions by which a lead agency determines whether an impact is significant, which are ordinarily "the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a

local and regional perspective." 14 Cal. Code Regs. §15125(a); *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 447-449 ("an agency enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured. . . ."). In turn, CEQA measures the environmental impacts of a project against this baseline to determine whether they will be significant; CEQA does not require the project to improve conditions beyond baseline conditions. 14 Cal Code Regs §15125(a).

Comment 2-C.1

The comment more specifically states that the Draft EIR underestimates the water that is available from San Jose Creek WRP which established the current extent of riparian and wetland biological resources.

Response 2-C.1

The baseline annual average data summarized in Table 2-1 of the Draft EIR provide an accurate depiction of discharges in the most recent five-year period. The biological baseline vegetation mapping was collected in 2018 and 2019 and reflects the current extent of riparian and wetland habitat. CEQA requires that the baseline condition be described as the condition at the time the NOP is published, which in this case is February 2019. 14 Cal. Code Regs. §15125(a). It is the lead agency's responsibility to compare impacts to baseline conditions at the time of the NOP publication. The comment indicating that the Draft EIR underestimates the water available from the San Jose Creek WRP is inaccurate.

Comment 2-C.2

The comment suggests riparian habitat is dependent on discharges, the current discharges are at the lowest levels in decades, and Sanitation Districts' discharges contribute a significant portion of the flows within the lower San Gabriel River over the last several decades. Further, the comment states that the five-year average is insufficient to assess actual impacts to vegetation in the channel and that the downstream riverbed receives predictable inputs from wastewater discharges.

Response 2-C.2

Table 3-1 below shows the Sanitation Districts' discharge contribution to the lower San Gabriel River over the last several decades. The data show that WRP flows account for approximately half of the river flow. While wastewater discharges have been more predictable than natural river flows, the point, volume and timing of discharge has historically varied. Additionally, natural events such as extremely high storm flows and fires have influenced and changed the habitat over the decades. Through consultation with CDFW, the Sanitation Districts proposed that the most recent five-year period is an accurate representation of conditions that will support the habitat given historical and future predicted reductions in other sources of instream flows.

TABLE 3-1
SUMMARY OF FLOW CONTRIBUTIONS TO SAN GABRIEL RIVER FROM SAN JOSE CREEK WRP

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average for Year
1997-98	100%	31%	15%	10%	53%	48%	23%	26%	29%	54%	49%	100%	45%
1998-99	77%	77%	15%	26%	3%	18%	35%	4%	39%	26%	65%	21%	34%
1999-00	29%	57%	100%	100%	100%	100%	26%	100%	100%	100%	100%	100%	84%
2000-01	100%	100%	100%	13%	8%	13%	100%	18%	21%	69%	44%	44%	53%
2001-02	100%	100%	100%	81%	10%	76%	32%	100%	100%	100%	100%	100%	83%
2002-03	59%	71%	66%	30%	100%	79%	90%	38%	57%	65%	60%	69%	65%
2003-04	75%	19%	8%	100%	32%	28%	59%	100%	100%	100%	100%	100%	68%
2004-05	100%	100%	100%	49%	10%	24%	47%	51%	52%	51%	100%	58%	62%
2005-06	29%	36%	18%	2%	4%	38%	30%	100%	100%	100%	100%	69%	52%
2006-07	52%	100%	100%	90%	21%	64%	49%	60%	42%	42%	27%	64%	59%
2007-08	18%	35%	32%	31%	31%	19%	15%	75%	46%	63%	58%	100%	43%
2008-09	100%	22%	18%	3%	18%	57%	58%	41%	100%	90%	78%	100%	57%
2009-10	100%	57%	67%	100%	12%	100%	100%	100%	100%	100%	100%	100%	86%
2010-11	33%	100%	32%	10%	37%	15%	7%	54%	100%	100%	100%	59%	54%
2011-12	43%	16%	3%	23%	13%	16%	33%	52%	9%	72%	17%	100%	33%
2012-13	61%	31%	46%	35%	30%	11%	26%	81%	50%	76%	22%	86%	46%
2013-14	91%	27%	4%	33%	74%	39%	100%	17%	100%	28%	100%	59%	56%
2014-15	6%	35%	100%	100%	90%	100%	100%	100%	0%	100%	100%	100%	78%
2015-16	68%	91%	6%	16%	57%	6%	16%	2%	0%	0%	100%	0%	30%
2016-17	14%	5%	0%	4%	18%	80%	99%	0%	99%	100%	100%	100%	52%
2017-18	99%	79%	13%	45%	96%	73%	23%	100%	98%	94%	97%	100%	76%
Average	64%	57%	45%	43%	39%	48%	51%	58%	64%	73%	77%	78%	58%
Average (2011-15)	47%	42%	37%	40%	49%	36%	53%	61%	52%	75%	68%	81%	53%
Average(2014-18)	56%	48%	25%	39%	67%	60%	68%	44%	60%	64%	99%	72%	58%

The average annual discharges from San Jose Creek WRP listed in Table 2-1 represent the most recent five-year period that has supported habitat mapped in 2018 and 2019. See Response 2-C regarding current discharge levels. The Sanitation Districts are not responsible for sustaining habitat in greater quantities than currently exist. Furthermore, the Sanitation Districts cannot discharge more water than is currently treated and available to discharge at the WRPs. As described in the updated AMP, the Sanitation Districts are committed to returning discharge back to the river, if necessary, based on annual monitoring, to ensure habitat is not impacted by the proposed project.

Furthermore, the statement that the downstream riverbed receives predictable inputs from wastewater discharges is inaccurate. Discharge from the San Jose Creek WRP is currently rotated between the five permitted discharge locations in a random, non-predictable pattern, as allowed by the San Jose Creek WRP NPDES Permit (Order No. R4-2015-0070).

As discussed in Response 2-C, the lead agency has considerable discretion in determining the baseline conditions. Because the Guidelines provides that the physical conditions existing when CEQA review begins normally constitute the environmental baseline, lead agencies may elect to use a different baseline if there is a reasonable basis for doing so and that basis is supported by substantial evidence. *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328; *San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 659 (baseline properly relied on average mining volumes over four-year period).

Comment 2-C.3

The comment suggests that the proposed project would contribute to a declining hydrologic baseline and would result in significant reduction in habitat including willow and cottonwoods.

Response 2-C.3

The comment provides no scientific data showing how the reduced discharges could impact vegetation in the river channel. Rather, the comment assumes that less water would result in reduced habitat, without consideration of how historic flows have resulted in extended dry conditions in the summer. The proposed project would eliminate such conditions by ensuring summer flow. The Draft EIR analyzes the hydrology of the river and concludes that the proposed project may improve habitat conditions by providing more consistent flows, particularly in the dry season. The rationale for this potential benefit of the proposed project is supported with scientific data presented in two Hydrology Studies included as Appendix E1 and E2. Furthermore, if riparian habitat begins to experience more drought stress than under historic conditions, the updated AMP ensures that water will be returned to the river to protect the habitat and species that rely on it. This scientifically based habitat management and conservation effort would be implemented only under the proposed project and would not occur under the No Project Alternative. To suggest that the reduced flow would result in a significant impact to least Bell's vireo habitat is not based in scientific evidence.

The baseline condition documented in the Draft EIR reflects the cumulative effects of water availability in the river over time. The willows and cottonwood species currently present in the river channel are part of the baseline that the Sanitation Districts have committed to maintaining. As described in the Draft EIR (p. 2-12), the San Jose Creek WRP surface water discharge is currently rotated between five discharge locations within the San Gabriel River watershed. The use of the discharge locations is irregular throughout the year and varies year-to-year, depending on the availability of groundwater recharge facilities, channel maintenance activities, and other operational activities. Implementation of the updated AMP (Mitigation Measure BIO-1) would compile data on the vegetation in the Whittier Narrows area to better understand the effect of future cumulative flow conditions; refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The updated AMP will ensure that the amount of riparian habitat currently sustained by discharges remains in the channel in the future. Other factors affecting riparian habitat will continue to affect the cumulative condition that result in storm flow diversions, imported water reductions, recycled water diversions, and channel improvements. The proposed project would provide an adaptive management oversight of the river channel that currently does not exist, providing the potential to address cumulative habitat impacts more effectively than under existing conditions where no management exists at all. As such, the proposed project would not contribute to an adverse impact on special-status species, including habitats that may be used by these species. The Draft EIR concludes that impacts associated with the proposed project under existing and future conditions would be less than significant with mitigation (p. 3.1-58). The updated AMP is included as Revised Appendix H in this Final EIR.

Furthermore, Table 3.1-5 (Draft EIR, p. 3.1-53) shows that two potential discharge scenarios would result in more frequent saturation in some river segments than under existing conditions. Since the proposed project would ensure some moisture is available during the dry periods, particularly the late summer months in areas that currently do not receive consistent surface flows, the proposed project could improve the condition of the vegetation in the lower river segments by providing more consistent flows.

The analysis recognizes that any loss of riparian habitat would be a significant impact, since least Bell's vireo are known to occupy the area. As a result, to ensure that no loss of riparian habitat would occur as a result of the proposed project, the Final EIR includes Mitigation Measures BIO-1 and BIO-2; refer to the revised Mitigation Measures BIO-1 and BIO-2 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. Mitigation Measure BIO-1 provides for the development and implementation of an updated AMP. The Sanitation Districts have met with CDFW and USFWS regularly for over four years to develop the AMP, which will provide the mechanism for collecting and evaluating data in the channel, identify action triggers, and implement measures needed to ensure no net loss of riparian habitat occurs in the channel. The Mitigation Measure BIO-1 requires that the Sanitation Districts return flows to the river channel if riparian habitat shows signs of reduced health.

Comment 2-C.4

The comment requests clarification on the baseline conditions, alleging an apparent discrepancy due to the potential that, under Mitigation Measure BIO-1, the discharge levels may need to be higher than the current average annual discharge levels "to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels."

Response 2-C.4

See Response 2-C regarding baseline conditions. Regarding discharge levels, the Sanitation Districts cannot discharge more water than is treated at the WRPs. Additionally, CEQA requires lead agencies to consider changes to baseline conditions that cause significant impacts and to mitigate those impacts. It does not require lead agencies to improve over baseline conditions to mitigate for unrelated past or present projects or conditions. Despite not being required, consistent with the second project objective, the Sanitation Districts' will attempt to work with other agencies and, if feasible, to enhance sensitive habitats that have benefitted from historical treated effluent discharges.

No changes to the Draft EIR are necessary.

Comment 2-D

The comment states that it will be difficult to collect sufficient data to separate out natural changes in the quality and extent of vegetation from changes directly attributable to the reduction in discharge.

Response 2-D

The comment provides no supporting documentation that it will be difficult to collect sufficient data to separate natural changes in quality and extent of vegetation changes. The Draft EIR described several monitoring parameters in Table 3.1-6 (p.3.1-55) that would be included in the AMP such as stem water potential and annual vegetation mapping to help determine whether the vegetation is substantially stressed from lack of water. Table 3.1-6 has been revised and included in the Final EIR; refer to Chapter 4, p.4-5. Further, the updated AMP was designed in coordination with CDFW and USFWS specifically to collect data that is sufficient for the Habitat Management Committee (HMC) to determine whether or not the proposed project is causing an impact. Nevertheless, revised Mitigation Measures BIO-1 and BIO-2 described in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR ensure no net loss of riparian habitat in the channel. The updated AMP is included as Revised Appendix H in this Final EIR. See also Response 2-C.2.

Comment 2-D.1

The comment summarizes the AMP which considers that a 10 percent change in the acreage of a habitat as an action trigger to increase flows in the river. The comment further states that a 10 percent change in acreage of habitat is considered significant.

Response 2-D.1

In response to the concerns expressed by the comment that a ten percent trigger for acreage is too large, the Sanitation Districts will update the AMP to the suggested two percent trigger for the black and arroyo willow species. Action triggers use data collected in the field in order to make management modifications. The original ten percent action trigger for acreage was based on the experience of participating biologists and scientists who have suggested that mapping errors for year-over-year surveys can result in ten to twenty percent variability. The use of ten percent as an action trigger was meant to reflect this potential for mapping error. There has never been any indication that a ten percent loss of riparian habitat would be acceptable or allowed to occur before mitigation is applied. Again, over the long term, the Sanitation Districts are committed to no net loss of riparian habitat, scientifically and cooperatively evaluated and managed through the HMC established by the updated AMP that will include CDFW.

Comment 2-D.2

The comment states that the proposed project may result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo, an ESA and CESA-listed species.

Response 2-D.2

The comment provides no supporting documentation or scientific analysis to support the assertion that the proposed project would result in the extirpation of least Bell's vireo from the Whitter Narrows area. To make such a claim is contradictory to the scientifically supported analysis provided in the Draft EIR and the solid commitment made on the part of the Sanitation Districts that no net loss of habitat would result from the proposed project as vigorously managed through implementation of the AMP. To re-iterate, the proposed project would not result in long term loss of any riparian habitat, and would not result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo.

Comment 2-D.3

The comment states that the triggers allow for some impacts to habitat for the least Bell's vireo to occur prior to restoring discharges. It states that it is not clear if the appropriate adjustments to the schedule will be determined before permanent impacts to existing riparian vegetation would occur.

Response 2-D.3

The use of action triggers is the foundation of the adaptive management plan. The Sanitation Districts have coordinated with CDFW and USFWS for over four years in developing the AMP including the establishment of action triggers. During these meetings, the wildlife agencies have agreed that adaptive management is an appropriate method for managing habitat. Monitoring for changes is the foundation of the methodology. The action triggers are intentionally narrow to require remedial actions before impacts from drought stress manifest. Evaluating data on stem water potential and vegetation structure provides a view of the health of vegetation before the

overall habitat area is reduced in acreage. Detecting a change in the health of the vegetation does not equate to a permanent loss of habitat as CDFW suggests. Similar to observing a wilting plant, the plant is not lost (unrecoverable) but can be provided water to return to good health.

The AMP has been updated per CDFW's request to restore baseline flow upon confirmation of a change in vegetation mapping until such time as the HMC can confer and determine the meaning of the change in data. This very conservative approach will be protective of the least Bell's vireo. The updated AMP is included as Revised Appendix H in this Final EIR.

Comment 2-D.4

The comment states that the loss of 6.37 acres of least Bell's vireo habitat before discharges are restored would be a significant impact. The comment explains CDFW considers adverse impacts to special status species to be significant without mitigation and that under CESA, the take of endangered species or rare plant species that results from the proposed project are prohibited, except as authorized by state law.

Response 2-D.4

The portion of the comment stating that the proposed project will allow for a loss of up to 6.37 acres of least Bell's vireo habitat is inaccurate because the proposed project will not result in a loss of least Bell's vireo habitat acreage. The Sanitation Districts have met with CDFW and USFWS regularly for over four years to develop the AMP, which will provide the mechanism for collecting and evaluating data in the channel, identify action triggers, and implement measures needed to ensure no net loss of riparian habitat occurs. Mitigation Measure BIO-1 requires that the Sanitation Districts return flows to the river channel if riparian habitat shows signs of reduced health; refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR.

With the commitment of no net loss of riparian habitat, an Incidental Take Permit pursuant to Section 2081 of the California Fish and Game Code will not be necessary. The proposed project will not reduce least Bell's vireo habitat acreage year-over-year and over the long term. Nor will the proposed project result in direct impacts to least Bell's vireo since no vegetation clearing or other physical actions are proposed. Moreover, reduction in least Bell's vireo habitat does not equate to a killing necessary to establish a take. Finally, the Sanitation Districts are not responsible for any loss of habitat or species that are not a proximate cause of the proposed project and result, instead, from intervening factors.

Comment 2-D.5

The comment recommends as a potentially feasible mitigation measure, lowering the triggers for combined losses of arroyo and black willow vegetation alliance to 2 percent and states that this would reduce the overall potential impacts to habitat for least Bell's vireo to 3.7 acres prior to restoring discharges.

Response 2-D.5

In response to the comment that a ten percent trigger is too large, the Sanitation Districts will update the AMP to the suggested two percent trigger for the combined arroyo willow and black willow vegetation alliances. The Draft EIR concludes that the proposed project would result in less than significant effects with implementation of the Mitigation Measures BIO-1 and BIO-2; refer to the revised Mitigation Measures BIO-1 and BIO-2 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. This modification increases the protections established by the mitigation. The updated AMP is included as Revised Appendix H in this Final EIR.

Comment 2-D.6

The comment states that if the lower percent triggers and extensive monitoring are not feasible for the Sanitation Districts, then CDFW recommends mitigation for this loss of least Bell's vireo habitat in the Final EIR, including obtaining an Incidental Take Permit for the least Bell's vireo. This would change the purpose of the AMP to provide long term monitoring of the habitat, but allow for take as well. This would significantly reduce the monitoring requirements because take is authorized.

Response 2-D.6

As noted above, the action trigger of two percent loss is feasible, and the change will be made to the AMP. The proposed project will not have any direct impacts to least Bell's vireo since no vegetation clearing or other physical actions are proposed. With the commitment of no net loss of riparian habitat, an Incidental Take Permit pursuant to Section 2081 of the California Fish and Game Code will not be necessary. The Sanitation Districts are committed to maintaining the habitat that is currently sustained by WRP discharges. Furthermore, establishing least Bell's vireo mitigation in the nearby vicinity may not be feasible, particularly in areas that do not have regular water supplies or that are needed to convey large flood flows. Fortunately, the proposed project provides the opportunity for the least Bell's vireo population in the Whittier Narrows area to be sustained in perpetuity through more efficient water application methods, with the firm commitment that wastewater discharges will be returned to the channel if needed to maintain the baseline condition.

Comment 2-D.7

The comment recommends establishing a 2 percent loss trigger for the arroyo willow and black willow alliances grouped together, which would be equivalent to a loss of approximately 1.58 acres.

Response 2-D.7

In response to the comment that a ten percent trigger is too large, the Sanitation Districts will update the AMP to the suggested two percent trigger for the combined arroyo willow and black willow vegetation alliances. The Draft EIR concludes that the proposed project would result in less than significant effects with implementation of the Mitigation Measures BIO-1 and BIO-2; refer to the revised Mitigation Measurse BIO-1 and BIO-2 in Chapter 4 (pp. 4-5 and 4-6) and

Chapter 5 (p. 5-2) of the Final EIR. This modification increases the protections established by the mitigation. Also, see Response 2-D.1, above.

Comment 2-D.8

This comment requests clarification on impacts to riparian habitat and suitable habitat to least Bell's vireo. The comment states that the loss of 3.97 to 6.37 acres is considered significant. Without an Incidental Take permit, the proposed project may have significant impacts to least Bell's vireo. This level of significance should be addressed or analyzed in the Draft EIR.

Response 2-D.8

See Response 2-D.4. CDFW has applied a simple calculation to a complex habitat mapping exercise. Through the consultation with CDFW and USFWS there has been an emphasis on the part of the agencies that least Bell's vireo habitat is dependent upon and defined by vegetation structure (understory) and canopy cover. Vegetation alliances identify potential habitat but do not conclusively indicate suitable habitat. Hence the AMP is designed to measure and track understory structure and canopy cover. The Sanitation Districts do not agree with the conclusion that a mapped difference in vegetation alliance is equivalent to the calculated number of least Bell's vireo habitat acreage.

Comment 2-D.9

The comment recommends phased discharge reductions from the San Jose Creek WRP over a minimum of a 10-year period to accommodate a gradual transition of vegetation.

Response 2-D.9

The Sanitation Districts are committed to a no net loss of riparian habitat. The comment provides no scientific evidence that a ten-year transition period would accomplish the goal of sustaining the existing habitat more effectively. As described in the Draft EIR (p. 2-12), the San Jose Creek WRP surface water discharge is currently rotated between five discharge locations within the San Gabriel River watershed. The use of the discharge locations is irregular throughout the year and varies year-to-year, depending on the availability of groundwater recharge facilities, channel maintenance activities, and other operational activities. Implementation of the proposed project would immediately provide the benefit of more consistent flows in the Whitter Narrows portion of the river channel. The hydraulic modeling performed indicates that the vegetation can be maintained effectively with more efficient management of the time, volume, and location of discharges. Proposing less efficient use of the water resource for a ten-year period is inconsistent with the objectives of the proposed project and State policy.

Comment 2-E

The comment states that trapping of brown-headed cowbirds to minimize predation of least Bell's vireo nests is proposed by Mitigation Measure BIO-2. This beneficial action is expected to offset any temporary drought stress experiences by the vegetation used by least Bell's vireo as

monitored through the AMP. The comment requests clarification on how long cowbird trapping activities will occur.

Response 2-E

Mitigation Measure BIO-2 in the Draft EIR (p. 3.1-58), states that Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation Districts staff during the first three years of reduced discharges. Cowbird trapping is a precautionary measure that the Sanitation Districts do not anticipate continuing beyond three years. However, the Sanitation Districts will commit to three additional years of cowbird trapping if the vegetation mapping criteria for willows is triggered. The AMP and Mitigation Measure BIO-2 have been revised accordingly; refer to the revised Mitigation Measure BIO-2 in Chapter 4 (p. 4-6) and Chapter 5 (p. 5-2) of the Final EIR and Revised Appendix H.

> **Mitigation Measure BIO-2:** The Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation District's staff. The trapping will ~~shall~~ occur during the first three years of reduced discharges. An ~~A~~additional three years of cowbird trapping activities will occur if the vegetation mapping criteria for willows is triggered ~~shall be implemented subject to need based on AMP annual reporting~~.

Comment 2-E.1

The comment states that the proposed three-year commitment to conduct cowbird trappings may not adequately offset the potential loss of riparian habitat used by least Bell's vireo an ESA and CESA-listed species.

Response 2-E.1

The comment provides no supporting documentation or scientific evidence to support that trapping cowbirds for three years is inadequate to compensate for potential loss of riparian habitat. The Draft EIR clarifies on page 3.1-55 the purpose of the mitigation, stating that cowbird trapping is not needed to avoid a significant impact since the proposed project would result in no net loss of riparian habitat. The conservative action triggers will minimize temporary stress to vegetation before discharges are increased; refer to the revised Mitigation Measure BIO-2 in Chapter 4 (p. 4-6) and Chapter 5 (p. 5-2) of the Final EIR.

Page 3.1-55

> Although not necessary to avoid a significant impact, the Sanitation Districts will as a precaution implement **Mitigation Measure BIO-2** that calls for nest predation management to occur concurrently with the initial monitoring activities associated with the AMP. Mitigation Measure BIO-2 would require trapping of brown-headed cowbirds to minimize predation of least Bell's vireo nests. This beneficial action will offset any temporary drought stress experienced by the vegetation used by least Bell's vireo as monitored through the AMP.

Comment 2-E.2

The comment states that is not clear what conditions will require cowbird trapping beyond three years. It states that in the absence of cowbird trapping to minimize parasitism, a reduction in least Bell's vireo productivity is more likely to occur if habitat is degraded as result of leaf loss or reduced understory growth.

Response 2-E.2

The purpose of the AMP is to ensure that the proposed reduction in flow would not result in loss of habitat. The long-term commitment to maintaining riparian habitat will ensure that the seasonal and multi-year natural variation in habitat vitality will be measured and scientifically monitored to maintain the benefits of the habitat for avian species that rely on them. The AMP provides the best available scientific methods for ensuring the maintenance of habitat. The action triggers requested by CDFW are conservatively narrow and will minimize unmitigated plant stress. The project proposes to manage the WRP discharge location and volume, which are under Sanitation Districts control and will not take years to coordinate. The AMP was developed with the knowledge and assumption that the highly manipulated flows are beyond the Sanitation Districts control. The occurrences of dam releases, import water, or other sources of in stream flow will augment and enhance the Sanitation Districts ability to maintain habitat and manage recycled water efficiently.

Cowbird trapping is a precautionary measure that the Sanitation Districts do not anticipate continuing beyond three years. However, the Sanitation Districts will commit to three additional years of cowbird trapping if the vegetation mapping criteria for willows is triggered. The AMP and Mitigation Measure BIO-2 have been revised accordingly; refer to the revised Mitigation Measure BIO-2 in Chapter 4 (p. 4-6) and Chapter 5 (p. 5-2) of the Final EIR as well as Revised Appendix H.

Comment 2-E.3

The comment states that cowbird parasitism is considered a significant threat to least Bell's vireo nesting in this area of the San Gabriel River. CDFW believes the potential for increased cowbird parasitism on least Bell's vireo is significant. CDFW considers adverse impacts to special and protected species to be significant without mitigation. The comment then defines "take" under CESA.

Response 2-E.3

The comment provides no supporting documentation or scientific evidence to support that trapping cowbirds for three years is inadequate to compensate for potential temporary drought stress experienced by the vegetation used by least Bell's vireo. The Sanitation Districts are committed to no net loss of riparian habitat. Moreover, contrary to the comment, the proposed project has no potential to support or proliferate cowbird parasitism, though cowbird management can be an effective tool at promoting least Bell's vireo populations (a beneficial impact and effective mitigation).

See Responses 2-E.2, 2-E.4, 2-D.9, 2-D.5, and 2-D.7.

Comment 2-E.4

The comment recommends an initial 10 years of cowbird trapping activities.

Response 2-E.4

The Sanitation Districts are committed to no net loss of riparian habitat and the protection of least Bell's vireo. Three years of cowbird trapping is an adequate precautionary measure. However, the Sanitation Districts will commit to three additional years of cowbird trapping if the vegetation mapping criteria for willows is trigged. The AMP and Mitigation Measure BIO-2 have been revised accordingly; refer to the revised Mitigation Measure BIO-2 in Chapter 4 (p. 4-6) and Chapter 5 (p. 5-2) of the Final EIR as well as Revised Appendix H.

See Responses 2-E.2 and R 2-D.9. See also Responses 2-D.5 and 2-D.7.

Comment 2-F

This comments states that, according to Section 12.1 of the AMP, the proposed project has potential to affect existing least Bell's vireo and their habitat. The comment states that if the Sanitation Districts cannot obtain USACE least Bell's vireo data, that AMP requires the Sanitation Districts to commit to conducting annual nesting territory location information to include in their annual report.

Response 2-F

If the Sanitation Districts cannot obtain USACE least Bell's vireo data, the Sanitation Districts will conduct annual surveys, provided that the Sanitation Districts are able to obtain permission from the USACE to conduct surveys on their property.

Comment 2-F.1

The comment states the proposed project has the potential to affect the viability of nesting least Bell's vireo and that inadequate data collection may never allow impact to be identified.

Response 2-F.1

The comment provides no supporting documentation or scientific evidence to support that data collection proposed in the AMP is inadequate to compensate for potential loss of riparian habitat. The AMP was developed in consultation with CDFW and the USFWS to determine potential project impacts to least Bell's vireo habitat. The AMP provides a scientifically sound method for measuring and monitoring the health of the riparian habitat. No such scrutiny of habitat values would be available under the No Project Alternative. Further, the EIR commits the Sanitation Districts to no net loss of riparian habitat and the protection of least Bell's vireo nesting habitat.

See Response 2-C.3. See Responses 2-E.4 and 2-D.9. See also Responses 2-D.5 and 2-D.7.

Comment 2-F.2

The comment states that the proposed project may have direct impacts to least Bell's vireo nesting habitat by degrading the quality of existing habitat that may cause the existing least Bell's vireo populations to drop below self-sustaining levels.

Response 2-F.2

The comment provides no scientific data showing how the reduced discharges could impact vegetation in the river channel that could result in take of least Bell's vireo. Rather, the comment assumes that less water would result in reduced habitat, without consideration of how historic flows have resulted in extended drought conditions in the summer that the proposed project would eliminate. The Draft EIR analyzes the hydrology of the river and concludes that the proposed project may improve habitat conditions by providing more consistent flows, particularly in the dry season. The rationale for this potential benefit of the proposed project is supported with scientific data presented in two Hydrology Studies included as Appendix E1 and E2. Furthermore, if riparian habitat begins to experience more drought stress than under historic conditions, the AMP ensures that water will be returned to the river sufficient to irrigate the affected areas to protect the habitat and species that rely on it. This scientifically based habitat management and conservation effort would be implemented only under the proposed project and would not occur under the No Project Alternative.

See Responses 2-D.2. See also Responses 2-E.4 and 2-D.9. See also Responses 2-D.5 and 2-D.7

Comment 2-F.3

The comment describes USACE least Bell's vireo data as only showing least Bell's vireo occurrences within the limits of USACE and therefore lacking in the qualitative information needed to establish baseline data and to monitor population estimates over time. Further, the comment states that relying on USACE data will not capture the qualitative data needed for the AMP and to maintain least Bell's vireo nesting territories. CDFW considers adverse impacts to special and protected species to be significant without mitigation. The comment then defines "take" under CESA.

Response 2-F.3

It is not the Sanitation Districts' responsibility to maintain least Bell's vireo nesting territories within the Whittier Narrows portion of the San Gabriel River. Rather, the Sanitation Districts are committed to maintaining habitat that may be suitable for least Bell's vireo occupation within the project boundaries. Although the collection of presence/absence data would assist in determining that the habitat remains suitable for occupation if presence is confirmed, the converse is not true that absence would prove the habitat is unsuitable. As an example, Figure 3.1-7 identifies vireo detected in the channel over two years by USACE (2014 and 2015). The presence data is inconsistent year over year. The AMP employs data collection methodologies to measure the habitat against agreed upon habitat suitability criteria that do not rely on presence/absence data to assess conformance. The USACE qualitative data is sufficient to establish that impacts to least

Bell's vireo will be less than significant with mitigation. No further response is required because there are no specific comments on the contents in the Draft EIR.

Comment 2-F.4

The comment recommends that least Bell's vireo nesting territory surveys be conducted every 3 years to document least Bell's vireo trends within the project area.

Response 2-F.4

See Responses 2-C.3, 2-E.4, 2-D.9, 2-D.5, 2-D.7 and 2-F.

Comment 2-G

The comment states that the methodology for choosing samples sites in the AMP lacks the specificity needed to ensure sample sites are placed in least Bell's vireo habitat. In addition, the proposed number of sample sites does not appear to account for naturally high variability within habitat for the least Bell's vireo or for expected differences in hydrology within the proposed monitoring area.

Response 2-G

As indicated in the Draft EIR (p. 3.1-54), the monitoring parameters described in the AMP are adaptable and subject to change based on input from the wildlife agencies. The Sanitation Districts have met with CDFW and USFWS for over four years coordinating the details of the AMP. The Sanitation Districts are committed to a scientifically-sound data collection method that satisfies CDFW's data collection expectations. For the purposes of CEQA compliance, the Draft EIR recognizes that CDFW and USFWS will coordinate with the Sanitation Districts to refine the AMP and monitor the river corridor over the long term. The Draft EIR concludes that with implementation of the AMP, riparian habitat will be maintained sufficient to avoid loss of least Bell's vireo habitat, resulting in a less than significant impact.

Furthermore, the Sanitation Districts are required to obtain wastewater change petitions under Section 1211 of the California Water Code. The wildlife agencies may protest the petitions to the SWRCB at any time to ensure habitat values are not adversely affected by reduced discharges. This California regulation provides the wildlife managers with substantial assurance that the AMP must be successful and the baseline condition maintained. Based on recently approved Section 1211 permits, the Sanitation Districts suspect there will be language in the Section 1211 permits that may require the AMP to be enacted.

The AMP includes five distinct data measurements designed to best understand the vitality of the riparian habitat. They include the following:

- **Stem Water Potential (SWP):** a well-established method (Snyder et al. 1998, Williams and Cooper 2005) of collecting core samples of woody plants to assess drought stress
- **Canopy Condition:** a widely used visual assessment method developed by Michaels (2006) and Cooper and Merritt (2012)

- **Habitat Structure:** a method described by Kus, 1998 of visually evaluating "stacked cubes" within habitat to document vegetation complexity within distinct elevational strata
- **Recruitment of Species Richness:** use of Combined Vegetation Rapid Assessment and Relevé sampling effort (CDFW/CNPS, 2019) to visually document vegetation
- **Vegetation Mapping:** a method that uses aerial photography to measure canopy of target vegetation

As noted on page 21 of the updated AMP, the AMP includes triggers based on empirical data that will result in returning discharges to the river channel if necessary. Triggers are provided in Table 9 of the updated AMP for the following parameters:

- Water Stress (SWP and CV)
- Alliance Acreage (Vegetation mapping)
- Habitat Structure for both canopy and understory (Kus method for structure)
- Recruitment and Species Richness (belt transects)

The triggers included in the AMP were modified based on consultation with the wildlife agencies. See Table 9 excerpted below. For the purposes of CEQA analysis, the AMP was included as Appendix H and provides substantial evidence and commitments that the monitoring program using well established scientific methods will achieve the best assessment of the habitat in question. The updated AMP is included as Revised Appendix H in this Final EIR. The clearly outlined success criteria of no net loss of habitat supports the conclusion that the proposed project would be less than significant with mitigation.

The Sanitation Districts have agreed to provide CDFW and USFWS the descriptions of the sample locations and increase the sampling according to the input received. The AMP has been updated to include the following information regarding transections on page 16:

> The nature of the transects is summarized in Table 8. For each transect, the orientation of the transect is indicated as either perpendicular to the stream channel (preferred) or parallel to it. The reasoning for the selected orientation is indicated in the Table. Quadrats were selected at 10-m distances along transects. Quadrats were sometimes located at a short distance away from the transect in order to sample in suitable habitat. Transect locations were selected based on the presences of at least 1 but up to 7 habitat quality criteria. These criteria are:
>
> A. Edges of dense stands of mature willows with a well-developed understory.
> B. Well-developed understory, adjacent to mature willow canopy.
> C. Dense stands of mature willows adjacent to well-developed understory.
> D. Isolated stands of well-developed understory.
> E. Isolated stands of mature willow canopy.
> F. Isolated patches of understory.
> G. Isolated mature willow.

TABLE 9
OBJECTIVES MATRIX FOR SAN GABRIEL RIVER FLOW MANAGEMENT

Objective	Parameter (What?)	Methods (How?)	Location (Where?)	Monitoring (When?)	Basis of Comparison	Trigger
More efficiently manage effluent	Water Stress	Modify existing random effluent flow to an intentional discharge cycle of reduced flow	SJC002 and SJC003	Continuous logging	5-WY average baseline flow	NA
		Stem water potential	96 Selected Trees	Spring (single baseline) and fall (ongoing)	Pre-Project conditions per AMP Grouping	Significant Δ within group or species
Maintain quantity and quality of riparian habitat in areas Influenced by treatment plant discharge	Alliance – Acreage	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	+/- 10% Δ in any mapped alliance except the key alliances listed below
	Arroyo Willow and Black Willow	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	- 2% Δ
	Arundo	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	+5%*
	Structure – Canopy Cover	Transects with quadrats of "stacked cubes" generally spaced every 10 meters (Kus 1998), 20 quadrats per AMP Grouping	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	Mean for any stratum if Group falls outside baseline range
	Structure – Understory	Transects with quadrats of "stacked cubes" generally spaced every 10 meters (Kus 1998), minimum 20 quadrats per AMP Grouping	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	Mean for any stratum if Group falls outside baseline range
	Species Richness	2-meter-wide belt transects	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	20% Δ
	Recruitment	2-meter-wide belt transects	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	20% Δ

*Alternative plan for Arundo removal will be developed with CDFW; Δ = delta; AMP = Adaptive Management Plan; WY = water year;

TABLE 8
TRANSECTS AND CANOPY STRUCTURE QUADRATS FOR SAN GABRIEL RIVER ASSESSMENT

Number	Orientation	Habitat Elements	Start (description)	End (termination criteria)	Quadrats	Group total
1-1	perpendicular	A, B	mature black willow canopy leading to a variety of understory and sub-canopy	edge of flowing water; no suitable habitat at the other side of channel	4	
1-2	parallel - narrow habitat band and no habitat on other side	A, C	black willow with adjacent understory	end of understory; no habitat on north side of channel	4	
1-3	parallel - narrow habitat band and no habitat on other side	B, D	mature black willow canopy with adjacent sandbar willows	mature black willow canopy; castor bean stand with homeless camp	2	
1-4	perpendicular	A, B	mule fat canopy	dense patches of arundo and castor bean	3	
1-5	perpendicular	D, E	elderberry and mulefat canopy	mulefat and sandbar willow; no habitat adjacent to the transect line	3	
1-6	perpendicular	D, E	arroyo willow canopy	end of suitable habitat; no suitable habitat at other side of channel. Dominant tree Chinese elm	4	20
2-1	perpendicular	E	mule fat and castor bean; selection made by USFWS personnel. Between homeless camps.	dense patch of arundo, eucalyptus, castor bean	4	
2-2	perpendicular	D, E	mule fat canopy	dense stand of castor bean	4	
2-3	perpendicular	C	toe of slope, black willow canopy	suitable habitat ended	4	
2-4	perpendicular	C	black willow canopy	suitable habitat ended	8	20
3-1	perpendicular	C, E	black willow canopy and mulefat sub-canopy	black willow canopy at end of suitable habitat. Quadrats added to previously established transect	6	
3-2	perpendicular	E, G	black willow canopy and mulefat sub-canopy	end of suitable habitat at black willow canopy	3	
3-3	perpendicular	B, E	black willow canopy	end of suitable habitat at black willow canopy	6	
3-4	perpendicular	E, F, G	transect replaced previous one; start at black willow canopy	end of suitable habitat at black willow canopy	5	20
4-1	perpendicular	C, E	black willow canopy; previously established transect with some quadrats moved	end of suitable habitat at black willow canopy, before large stand of arundo	3	

TABLE 8
TRANSECTS AND CANOPY STRUCTURE QUADRATS FOR SAN GABRIEL RIVER ASSESSMENT

Number	Orientation	Habitat Elements	Start (description)	End (termination criteria)	Quadrats	Group total
4-2	perpendicular	B, C	black willow canopy; previously established transect with some quadrats moved	end of suitable habitat under black willow canopy	5	
4-3	perpendicular	C	black willow canopy	end of suitable habitat under black willow canopy	5	
4-4	perpendicular	C, E	black willow canopy	end of suitable habitat at black willow canopy, before large stand of arundo	7	20
5-1	perpendicular	E	shrubby willows	edge of channel, arroyo willow canopy	7	
5-2	perpendicular; crossed channel	B, C, G	shrubby willows	other side of channel under black willow canopy	5	
5-3	perpendicular	C, G	toe of slope at Rosemead Bridge	black willow canopy before dense castor bean and fennel	5	
5-4	perpendicular	C, G	toe of slope in black willow canopy	within willow canopy; quadrat requirement reached	3	20

Transects are named with the convention of the first number indicating the Group number, and the second number indicating the transect number. Quadrats within each transect receive a third number. Thus, quadrat 1-4-2 is the second quadrat in the fourth transect in Group 1.

Comment 2-G.1

The comment states that project implementation may result in reduced reproductive capacity, population declines, or local extirpation of the least Bell's vireo, an ESA and CESA-listed species.

Response 2-G.1

See Response 2-C.3, 2-D, 2-D.2, 2-E.4, 2-D.9, 2-D.5 and 2-D.7.

Comment 2-G.2

The comment states that inadequate sample design will limit the ability to detect changes in least Bell's vireo habitat structure over time as a result of the proposed project. If degradation of least Bell's vireo habitat is not detected during monitoring, discharges will not be restored and existing least Bell's vireo populations could drop below self-sustaining levels. Without adequate transects, the proposed project may have significant impacts to vireo that may not be detected.

Response 2-G.2

The Sanitation Districts are committed to no net loss of riparian habitat and the protection of least Bell's vireo nesting habitat. The comment provides no supporting documentation or scientific

analysis to support the assertion that the sample design is inadequate to measure changes that could result in take of least Bell's vireo. See Response to 2-G.

Comment 2-G.3

The comment states that CDFW and USFWS reviewed established transects during a site visit on August 20, 2019, with Wood Environment & Infrastructure Solutions. It states that some transects were established on easily accessible trails that would not be considered least Bell's vireo habitat. It maintains that CDFW and USFWS have expressed significant concern to the Sanitation Districts that the sample locations were being places with bias due to time constraints, access constraints, and lack of a specific protocol to identify transect locations. In addition, it recommends that sample sizes within each group are adequate to characterize the baseline conditions of habitat in each group and to detect differences between groups over time.

Response 2-G.3

The AMP has been modified with CDFW and USFWS input to ensure transects reflect wildlife agencies' recommendations. Additional field data was collected in October 2019. See Response to 2-G.

Comment 2-G.4

The comment recommends that the criteria used to establish the sample locations should limit potential bias in the monitoring program. CDFW recommends that if transects are used, that the sampling points be evenly distributed within each group and cross the entire width of the channel to capture the diversity of the vegetation structure across all elevation bands and describe the structure of the entire ground. According to CDFW, this methodology would allow the Sanitation Districts to track changes in least Bell's vireo habitat across the channel as discharge is reduced.

Response 2-G.4

See Response 2-G.

Comment 2-G.5

The comment recommends that an equal number of sample sites (2 x 2 x 5 meter stacked cubes) are established within each group. It recommends that the number of samples are sufficiently large to ensure the data have power to detect differences over time within each group and between groups (i.e., starting with a minimum of 20 sites per group to evaluate the variance within and between groups and then reducing sampling sites if you have significant power to detect differences with a smaller sample size).

Response 2-G.5

See Response 2-G.

Comment 2-G.6

The comment requests that both CDFW and USFWS have an opportunity to review and approve the criteria, and the sample locations after new criteria are established and new sites are chosen.

Response 2-G.6

CDFW and USFWS have reviewed the AMP on multiple occasions and the AMP has been revised to reflect agency comments. The Sanitation Districts are committed to a scientifically-sound data collection method that satisfies CDFW's and USFWS's requests for a robust methodology. Prior to finalizing the AMP, the Sanitation Districts will provide the revised draft to the wildlife agencies for additional review and comment.

Comment 2-H

The comment states that Draft EIR does not define the requirements that will trigger an immediate discharge of water.

Response 2-H

On the contrary, the AMP provides detailed description of the requirements that will trigger immediate release of water. On page 26 of the AMP as shown in Revised Appendix H it states that discharges will be returned to the river immediately if data collection efforts identify changes to the habitat parameters in excess of the triggers. The AMP states that the HMC will convene to discuss the data and recommend further actions.

Revised Appendix H AMP page 31:

> No single value identifies the SWP that would induce cavitation, so for this Project, changes from baseline measurements will be monitored closely. In addition, there is no firm percentage of canopy volume that reliably indicates significant stress on the vegetation. The metrics of habitat structure, recruitment, and species richness also provide information to assess changes in habitat condition, although there are also no known quantitative values for these metrics that allow for the defensible conclusion that the Project itself is occasioning the stress. With the information from monitoring, together with an evaluation of the current status of water supply, a fully informed and rational decision can be made during HMC discussions to determine the appropriate course of action regarding adaptive management strategies to address the observed stresses. **Even preliminary indications that water stress is occurring will trigger immediate water release responses and HMC discussions** so that adaptive management in the form of increased flows can be implemented before the stress is irreversible. [*emphasis added*]

Revised Appendix H AMP page 26:

> …if the action triggers are exceeded, as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, and/or species richness, the adaptive management strategy under discussion would be to increase flows. **The Sanitation Districts can release water**

> **from the appropriate WRP discharge location up to the amount that would have been released historically at that time of year.** [*emphasis added*]

Comment 2-H.1

The comment states that the 10 percent remedial action trigger for *Arundo donax* would result in an increase of 1.2 acres of the invasive species that would be considered significant.

Response 2-H.1

The action triggers included in Table 8 of the AMP included as Revised Appendix H include a 10 percent change in vegetation based on visual mapping. As part of the mapping process, invasive species including *Arundo donax* would be calculated. The trigger for *Arundo donax* has been revised to +5 percent. The comment suggests that any increase in *Arundo donax* would be a significant impact of the proposed project. The Sanitation Districts do not anticipate that the discharge reductions will result in expansion of the invasive species currently found in the river channel. However, if the HMC were to determine that the new discharge methods had resulted in increased invasive species encroachment, then the HMC could require vegetation removal activities, subject to USACE approval. This notwithstanding, the Draft EIR for purposes of CEQA does not require any *Arundo donax* removal to conclude a less than significant impact, and the Sanitation Districts can only commit to future discussions on this action with CDFW.

Comment 2-H.2

The comment states that the AMP does not define what will be sufficient discharges to maintain the existing quality riparian habitat.

Response 2-H.2

Page 26 of the AMP as shown in Revised Appendix H notes that the Sanitation Districts would be capable of discharging the amount of water that would have been released historically.

Revised Appendix H AMP page 26:

> …if the action triggers are exceeded, as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, and/or species richness, the adaptive management strategy under discussion would be to increase flows. **The Sanitation Districts can release water from the appropriate WRP discharge location up to the amount that would have been released historically at that time of year.** [*emphasis added*]

If necessary, the Sanitation Districts are committed to returning discharges back to the river to maintain the baseline condition.

Comment 2-H.3

The comment states that an effective AMP should highlight the primary response to loss of riparian vegetation by immediately restoring discharges to the San Gabriel River.

Response 2-H.3

As noted on page 26 of the AMP shown in Revised Appendix H, discharges would be returned to the river immediately upon determining the exceedance of action criteria.

Comment 2-H.4

The comment states that there is a discrepancy between the Draft EIR and the AMP regarding triggers. The Draft EIR states that is triggers are reached, specific remedial actions will include resumed discharges into the San Gabriel River. However, the AMP states that triggers may include resumed discharges into the San Gabriel River channel only after initiating a Habitat Management Committee meeting and discussion. The comment suggests that immediate action of discussion instead of immediately putting the water back to baseline conditions will result in a delay that may result in the permanent loss of riparian habitat.

Response 2-H.4

There is no discrepancy between the Draft EIR analysis and the AMP. As noted on page 3.1-55 of the Draft EIR, indicators of any reduction in the vitality of the habitat attributable to the proposed project will be monitored. If the data indicates that the habitat is declining above the action triggers, remedial actions will be employed, i.e., return of flow to the channel. The comment suggests that convening the HMC will result in delays to returning discharges. Even if temporal delays of a month or two occurred, the habitat would not decline significantly over that time. The concern is unwarranted given the commitment to long term maintenance of the baseline condition. Nonetheless, to resolve this concern expressed by the wildlife agencies, the AMP will be revised to commit the Sanitation Districts to returning discharge flows to the river channel to amounts sufficient to irrigate the affected areas in the dry season between July and October if the current year's data show an excess of any action criteria. The HMC will be able to review the data during this time and determine if the data supports the continued discharge. The updated AMP is included as Revised Appendix H in this Final EIR

Comment 2-H.5

The comment states that delay in returning river flows may increase vegetation impacts and habitat loss.

Response 2-H.5

See Responses 2-C.3, 2-D.1, 2-D.3, 2-D.4, and 2-H.4.

Comment 2-H.6

The comment states that there are inconsistencies between the Draft EIR and the AMP regarding baseline flows, methodology and criteria used to capture the existing baseline vegetation conditions and the margin of error in mapping.

Response 2-H.6

This comment does not recognize the vast amount of time the Sanitation Districts spent working with CDFW in developing the AMP. The specific biological surveys, hydrological studies, methodology and criteria for establishing the baseline have been developed specifically to address input and criticism of CDFW over the past four years. CDFW specifically requested that vegetation mapping be included in the AMP and has suggested that it is methodology commonly utilized by CDFW. When CDFW requested that vegetation mapping triggers be set at two percent the Sanitation Districts did question the low trigger based on the known inherent inaccuracy of the vegetation mapping method. Using this error now to raise concerns about the AMP seems to be inconsistent with the requirement to include vegetation mapping in the first place. In the interest of cooperation, the Sanitation Districts have agreed to lower the vegetation mapping triggers to two percent as requested by CDFW. However, there is no discrepancy between the Draft EIR analysis and the AMP.

Comment 2-H.7

The comment recommends that if a 2 to 10 percent loss of vegetation is determined in vegetation mapping, the Sanitation Districts shall immediately (within 1 week) ground-truth the acreage change. If vegetation loss is confirmed, then the Sanitation Districts shall restore discharge to reduce water stress within 1 week of confirmation (with the exception of invasive species, such as *Arundo donax*). A meeting would then be held with the Habitat Management Committee to discuss the results and implementation changes to the discharge schedule that would avoid additional water stress and restore the loss of habitat.

Response 2-H.7

In response to the comment, the AMP will be revised with the recommended provision as follows:

Revised Appendix H AMP page 26:

> …if the action triggers are exceeded ~~condition of vegetation significantly declines,~~ as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, and/or species richness, the adaptive management strategy under discussion would be to increase flows ~~to an agreed upon flow regime~~. The Sanitation Districts can release water from the appropriate WRP discharge location up to the amount that would have been released historically at that time of year. Discharge would be returned to the river within one week of the identification of the action criteria exceedance sufficient to irrigate the affected areas. Discharges would be maintained through October of the same year, or as otherwise directed by the HMC following discussions on the year's data report.

Comment 2-H.8

The comment recommends that the Sanitation Districts immediately conduct *Arundo donax* removal and modify their discharge to limit the spread of *Arundo donax* if *Arundo donax* acreage increases as a result of the proposed project.

Response 2-H.8

The Sanitation Districts are not responsible for removing *Arundo donax* from the river channel. As noted above, if *Arundo donax* encroachment increases due to the proposed project, the HMC will deliberate on the appropriate action/alternative plan that may require *Arundo donax* removal subject to USACE approval.

Comment 2-H.9

The comment states that the AMP should separate out the vegetation mapping trigger under Section 7.0 instead of including it in the discussion with Stem Water Potential and Canopy Volume.

Response 2-H.9

In response to this comment, the AMP will be revised to separate the stem water potential and canopy discussion from the vegetation mapping.

Comment 2-I

The comment states that the extensive monitoring of the AMP may not be able to determine the cause of habitat decline.

Response 2-I

The AMP provides the best method for determining the cause of changes that may occur in the future in the river channel. No monitoring and management would be provided under the No Project Alternative. As a result, pursuant to CEQA analysis, the proposed project provides a benefit to the biological resources through adaptive monitoring and management with a firm commitment to return water to the river if needed to maintain baseline conditions.

Comment 2-I.1

The comment states that the lack of certainty to the cause of any future decline in habitat could result in the extirpation of least Bell's vireo from the area.

Response 2-I.1

The comment expresses concern that the Sanitation Districts and other members of the HMC may not be able to come to an agreement regarding the cause of the habitat decline and may refuse to implement remedial measures as a result. To allay this concern, the AMP has been revised as shown in response to comment 2-H.7, requiring the Sanitation Districts to return discharges to the river within one week of identifying a trigger exceedance. The adaptive management process allows for the dynamic system to be evaluated year over year to ensure that no long-term decline from the baseline condition occurs.

Comment 2-I.2

The comment suggests that the AMP confirms on page 26 that it is unreliable to detect changes attributable to the proposed reduced discharges.

Response 2-I.2

Page 25 of the AMP as shown in Revised Appendix H acknowledges that the dynamic nature of any natural system presents challenges in determining the direct cause of observed changes. This does not then infer that the AMP will be ineffective. On the contrary, the robust assessment of 5 distinct parameters within the entire Whittier Narrows river segment over the long term as managed by a multi-stakeholder group is the best means of achieving success in this highly disturbed channel. As lead agency, the Sanitation Districts have concluded that implementation of the AMP with the assurance that project impacts will be fully mitigated and will result in less than significant impact to least Bell's vireo.

Comment 2-I.3

The comment requests that the Sanitation Districts agree to the immediate release of water when any of the monitoring triggers are met.

Response 2-I.3

As noted in Response 2-H.7, the AMP will be revised to require immediate return of flows when data exceeds action triggers.

Comment 2-I.4

The comment is unclear. It states that in order to effectively monitor and determine the cause of habitat decline, monitoring and triggers should reflect operational scenarios through the monitoring of and the acreage triggers for each alliance that is segmented into HAA1-HAA10.

Response 2-I.4

The AMP identifies transect locations that reflect the areas within the channel that support potential vireo habitat that could be affected by the reduced discharges. The Sanitation Districts will work closely with the wildlife agencies to employ the AMP and maintain habitat quality and quantities commensurate with baseline conditions.

Comment 2-J

The comment requests that data developed to support impact analysis be compiled into a database for public use.

Response 2-J

The comment is noted and saved in the project record. No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 2-K

The comment states that since impacts would occur, CEQA filing fees would be required.

Response 2-K

The Sanitation Districts appreciate the continued coordination with CDFW and will comply with CEQA filing fees as appropriate.

Comment 2-L

This comment provides a conclusion and provides contact information for any further coordination.

Response 2-L

The comment is noted and saved in the project record. No response is required because there are no specific comments on the contents in the Draft EIR.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
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Making Conservation a California Way of Life.

August 7, 2019

Jodie Lanza P.E.
Los Angeles County Sanitation District
1955 Workman Mill Road
Whittier, CA 90601

RE: San Gabriel River Watershed Project to Reduce River Discharge in Support of increased Recycled Water Reuse – Draft Environmental Impact Report (DEIR)
SCH # 2018071021
GTS # 07-LA-2018-02737
Vic. LA-1/PM:0.161 – LA-60/PM:11.545
LA-60/PM:11.545 – LA-10/PM:42.596

Dear Ms. Jodie Lanza:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project's Draft Environmental Impact Report (DEIR). In anticipation of increased future recycled water demands, the Sanitation Districts of Los Angeles County (Sanitation Districts), as the Lead Agency pursuant to CEQA, are proposing the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (proposed project) to incrementally reduce surface water discharges of recycled water from five water reclamation plants (WRPs), including the San Jose Creek WRP, the Pomona DOC# 4364700 WRP, the Whittier Narrows WRP, the Los Coyotes WRP, and the Long Beach WRP, each of which currently discharges into the San Gabriel River or its tributaries; San Jose Creek, or Coyote Creek. The diverted water would supply recycled water programs implemented by other agencies. The proposed reduction in surface water discharges would. occur over time and would not involve any construction activities or other physical changes to the environment other than the decreased volume of discharge. 3-A

After reviewing the DEIR, Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities.

Storm water run-off is a sensitive issue for Los Angeles County. Please be mindful that projects should be designed to discharge clean run-off water. Discharge of storm water run-off is not permitted onto State Highway facilities without a storm water management plan.

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods 3-B

If you have any questions regarding these comments, please contact project coordinator Reece Allen, at reece.allen@dot.ca.gov and refer to GTS# 07-LA-2018-02737

Sincerely,

FRANCES DUONG
Acting IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

Comment Letter 3: California Department of Transportation (Caltrans), District 7

Comment 3-A

The comment thanks the Sanitation Districts for the opportunity to comment on the proposed project, then summarizes the project description.

Response 3-A

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 3-B

The comment states that Caltrans does not expect project approval to result in direct adverse impacts to State transportation facilities. The comment then explains that stormwater run-off is a sensitive issue in Los Angeles County and discharge of stormwater run-off is not permitted onto State Highway facilities without a storm water management plan. The comment reminds the Sanitation Districts that any transportation of heavy construction equipment and materials that require oversized-transport vehicles on State highways will need a Caltrans permit. The comment provides a staff contact number for questions or concerns.

Response 3-B

The comment is noted and saved in the project record. The proposed project would not involve any construction activity that could affect stormwater quality or that would require a Caltrans permit. No response is required because there are no specific comments on the contents in the Draft EIR.

From: Toan Duong <TDUONG@dpw.lacounty.gov>
Sent: Tuesday, September 10, 2019 5:18 PM
To: Cortes, Vidal <vidalcortes@lacsd.org>; Lanza, Jodie <JLanza@lacsd.org>
Cc: Frank Wu <FWU@dpw.lacounty.gov>; Long Thang <LTHANG@dpw.lacounty.gov>; Jose Suarez <JSUAREZ@dpw.lacounty.gov>; Jason Rietze <JRietze@dpw.lacounty.gov>
Subject: San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse DEIR

Thank you for the opportunity to review the DEIR for the subject project. The following comments from Los Angeles County Public Works and Los Angeles County Flood Control District are for your consideration:

1. Page ES-2: The second paragraph states "The Rio Hondo flows southwest from its headwaters at the Sawpit Dam into the Los Angeles River. . .". Sawpit Dam is not the headwaters of the Rio Hondo. As stated on page 3.2-9 of the report, "The Rio Hondo, a distributary of the San Gabriel River, branches from the San Gabriel River just below Santa Fe Dam . . .". Due to significant modification of the river system, the closest facility resembling headwaters of the Rio Hondo is the Peck Road Spreading Basin. 4-A

2. Page ES-4: We recommend revising the paragraph on the Montebello Forebay to read as follow: "Los Angeles County Public Works owns and operates an extensive system of flood control and groundwater recharge facilities along the San Gabriel River and Rio Hondo that make up the Montebello Forebay Ground Water Recharge project. The Montebello Forebay is located just south of Whittier Narrows Dam and is a valuable area for groundwater recharge for the Central Groundwater Basin (Central Basin) due to its highly permeable soils which allow deep percolation of surface waters. The Rio Hondo Coastal Spreading Grounds (RHSG), the San Gabriel Coastal Spreading Grounds, and the San Gabriel River are groundwater recharge facilities located within the Montebello Forebay. The spreading grounds use Sanitation Districts' recycled water, imported water from the State Water Project, and local runoff to recharge the Central Basin through percolation. Los Angeles County Public Works notes that operations at these facilities recharge an average of approximately 60,600 acre-feet (AF) (54 MGD) of water annually." 4-B

3. Page ES-4: Revise "head" to "headworks" in the last paragraph 4-C

4. Page 2-3: The second paragraph also states "The Rio Hondo flows southwest from its headwaters at the Sawpit Dam...". Please see comment #1 and revise accordingly. 4-D

5. Page 2-8, Section 2.6: Please see comment #2 and revise accordingly. 4-E

6. Page 3.1-7: Figure 3.1-1 appears to combine the delineation of Zone 1 ditch and crossover channel, and label it as Zone 1 ditch. The crossover channel should be delineated and labeled separately from Zone 1 ditch. 4-F

7. Page 3.1-61: The third paragraph states "Further downstream within Segments 5 and 6, this vegetation tapers out and the river bed is groomed through scarifying the channel bottom and by other means...". While vegetation is removed from these portions of the San Gabriel River, the channel bottom is not necessarily scarified. Please revise and clarify this statement. 4-G

8. Page 3.2-9: Revise “spreading grounds” to “Santa Fe Spreading Grounds” in the second sentence of the last paragraph. 4-H

9. Page 3.2-11: Revise “Central Basin groundwater basin” to “Central Groundwater Basin” in the second sentence of the third paragraph. 4-I

10. Page 3.2-11: Revise the first sentence of the fourth paragraph as follow:
“The Montebello Forebay is an area that includes spreading grounds managed by Los Angeles County Public Works.” 4-J

11. Page 3.2-18: Revise “The San Gabriel Watermaster” to “The Basin Watermaster” in the fourth sentence. 4-K

If you have any questions regarding these comments, please contact Mr. Long Thang at (626) 458-5119 or lthang@pw.lacounty.gov.

We request the opportunity to review the future environmental document when it is available. Please route the future documents through Mr. Jose Suarez of Public Works, Land Development Division. His contact is (626) 458-4921, jsuarez@pw.lacounty.gov. 4-L

Thank you,

Toan Duong
Civil Engineer
Los Angeles County Public Works
Office: (626) 458-4921

Comment Letter 4: Los Angeles County Public Works and Flood Control District

Comment 4-A

The comment explains that the Sawpit Dam is not the headwaters of the Rio Hondo River (error on Page ES-2). The comment then states that due to significant modification of the river system, the closest facility resembling headwaters of the Rio Hondo is the Peck Road Spreading Basin.

Response 4-A

To accurately reference the Rio Hondo River's nearest facility resembling headwaters, the second paragraph on Page ES-2 of the Draft EIR is revised as follows:

> The three major rivers in the JOS service area are the Rio Hondo, Los Angeles, and San Gabriel. The Rio Hondo flows southwest from its headwaters at the ~~Sawpit Dam~~ Peck Road Spreading Basin into the Los Angeles River, which discharges into the Pacific Ocean. The San Gabriel River flows southwesterly from its headwaters in the San Gabriel Mountains and forms a tidal prism before discharging into the Pacific Ocean at Seal Beach. The tidal prism of the San Gabriel River is the area within the river where freshwater from upstream sources mixes with salt water from the Pacific Ocean.

Comment 4-B

The comment recommends that the paragraph on Page ES-4 is revised.

Response 4-B

To accurately describe the Montebello Forebay and the Los Angeles County Department of Public Works' facilities, Page ES-4 of the Draft EIR is revised as follows:

> ~~The~~ Los Angeles County Department of Public Works owns and operates an extensive system of flood control and groundwater recharge facilities along the San Gabriel River and Rio Hondo that make up the Montebello Forebay Groundwater Recharge Project. The Montebello Forebay~~,~~ is located just south of Whittier Narrows Dam and ~~an area in the northern part of the Central Groundwater Basin (Central Basin),~~ is a valuable area for groundwater recharge for the Central Groundwater Basin (Central Basin) due to its highly permeable soils which allow deep percolation of surface waters. The Rio Hondo Coastal Spreading Grounds (RHSG), ~~and~~ the San Gabriel Coastal Spreading Grounds (SGSG), and the San Gabriel River are groundwater recharge facilities located within ~~which comprise~~ the Montebello Forebay.~~, and the lower San Gabriel River spreading area comprise the Montebello Forebay recharge facilities. Both~~ The spreading grounds use Sanitation Districts' recycled water, imported water ~~imported~~ from the State Water Project, and local runoff ~~rainwater~~ to recharge the ~~groundwater~~ Central ~~b~~Basin through percolation. ~~The~~ Los Angeles County Department of Public Works notes that operations at these facilities recharge an average of approximately 60,600 ~~150,000~~ acre-feet (AF) (54 ~~134.00~~ MGD) of water annually.

Comment 4-C

The comment suggests to revise text in the last paragraph on Page ES-4.

Response 4-C

To respond to Comment 4-C, the last paragraph on Page ES-4 of the Draft EIR is revised as follows:

> The SGSG are approximately 128 acres. Recycled water is conveyed to the spreading grounds via the San Jose Creek Outfall Pipeline (SJC Outfall Pipeline). The SJC Outfall Pipeline has a discharge point at the headworks of the SGSG facility that is capable of discharging treated recycled water to the San Gabriel river or the spreading grounds, or diverting water from the San Gabriel River into the spreading grounds.

Comment 4-D

The comment suggests that the second paragraph on Page 2-3 be revised similar to Comment 4-A, above.

Response 4-D

To accurately reference the Rio Hondo River's closest facility resembling headwaters, the second paragraph Page 2-3 of the Draft EIR is revised as follows:

> The three major rivers in the JOS service area are the Rio Hondo, Los Angeles, and San Gabriel. The Rio Hondo flows southwest from its headwaters at the ~~Sawpit Dam~~ Peck Road Spreading Basin into the Los Angeles River, which discharges into the Pacific Ocean. The San Gabriel River flows southwesterly from its headwaters in the San Gabriel Mountains and forms a tidal prism before discharging into the Pacific Ocean at Seal Beach. The tidal prism of the San Gabriel River is the area within the river where freshwater from upstream sources mixes with salt water from the Pacific Ocean.

Comment 4-E

The comment suggests that Page 2-8, Section 2.6 is revised, similar to Comment 4-B, above.

Response 4-E

To accurately describe the Montebello Forebay and the Los Angeles County Department of Public Works' facilities Pages 2-8 and 2-9 of the Draft EIR is revised as follows:

> ~~The~~ Los Angeles County Department of Public Works owns and operates an extensive system of flood control and groundwater recharge facilities along the San Gabriel River and Rio Hondo that make up the Montebello Forebay Groundwater Recharge Project. The Montebello Forebay~~,~~ is located just south of Whittier Narrows Dam and ~~an area in the northern part of the Central Groundwater Basin (Central Basin),~~ is a valuable area for groundwater recharge for the Central Groundwater Basin (Central Basin) due to its highly permeable soils which allow deep percolation of surface waters. The Rio Hondo Coastal Spreading Grounds (RHSG), ~~and~~ the San Gabriel Coastal Spreading Grounds (SGSG),

and the San Gabriel River are groundwater recharge facilities located within ~~which comprise~~ the Montebello Forebay.~~, and the lower San Gabriel River spreading area comprise the Montebello Forebay recharge facilities. Both~~ The spreading grounds use Sanitation Districts' recycled water, imported water ~~imported~~ from the State Water Project, and local runoff ~~rainwater~~ to recharge the ~~groundwater~~ Central ~~b~~Basin through percolation. ~~The~~ Los Angeles County Department of Public Works notes that operations at these facilities recharge an average of approximately 60,600 ~~150,000~~ acre-feet (AF) (54 ~~134.00~~ MGD) of water annually.

Comment 4-F

The comment states that on Page 3.1-7, Figure 3.1-1 appears to combine the delineation of Zone 1 ditch and crossover channel, and labels it as Zone 1 ditch. The comment suggests that the crossover channel be delineated and labeled separately form Zone 1 ditch.

Response 4-F

To respond to Comment 4-F, Figure 3.1-1 of the Draft EIR has been revised to locate the cross-over channel as shown on the next page.

Comment 4-G

The comment suggests that the third paragraph of Page 3.1-61 be revised and clarified.

Response 4-G

To respond to Comment 4-G, the third paragraph of Page 3.1-61 of the Draft EIR is revised as follows:

> Further downstream within Segments 5 and 6, this vegetation tapers out and the river bed is groomed ~~through scarifying the channel bottom and by other means~~ to support groundwater recharge. Some natural vegetation exists on the edges in disparate patches, but most of the channel is devoid of natural habitat values. The LACDPW has installed several rubber dams in this segment of the river to impound water when it is available for groundwater recharge. The proposed reductions in discharges of recycled water from the upstream WRPs would have no effect on the habitat in these area since little native habitat occurs under existing conditions.

Comment 4-H

The comment suggests that the second sentence of the last paragraph on Page 3.2-9, that "spreading grounds" be revised to "Santa Fe Spreading Grounds".

Project Area Boundary
Zone 1 Ditch
Crossover Channel
Segment 2
Segment 3
Segment 4

Lexington-Gallatin Rd
60
San Gabriel River
San Jose Creek
San Gabriel River Fwy | I-605
Pellissier Pl
Union P
Durfee Ave
Siphon Rd
605
Rooks Rd
Capitol Ave
0
1,000
Feet

WHITTIER NARROWS WRP
SJC002
WN00
4
2
3
SAN JOSE CREEK WRP
Walnut Creek
Puente Creek
San Jose Creek
1
POM001
POMONA WRP
5
SJC001A
SJC001B
6
SJC001
Rio Hondo
Los Angeles River
La Mirada Creek
Coyote Creek
North Fork Coyote Creek
LC001
LOS COYOTES WRP
7
San Gabriel River
Coyote Creek
LONG BEACH WRP
LB001
8
Discharge Location
River Segment Break
Lined Channel

Path: U:\GIS\GIS\Projects\17xxxx\D170647_08_San_Gabriel_River_Watershed\03_MXDs_Projects\EIR\Fig3.1-1_ProjectArea.mxd, jnielsen, 10/23/2019

SOURCE: ESRI

San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse

Figure 3.1-1
Project Area

ESA

Response 4-H

To respond to Comment 4-H, the second sentence of the last paragraph on Page 3.2-9 of the Draft EIR is revised as follows:

> The Santa Fe Dam provides flood protection to downstream communities along the San Gabriel River between the Santa Fe Dam and Whittier Narrows Dam. The Santa Fe ~~s~~Spreading ~~g~~Grounds are west of the San Gabriel River within the northwest portion of the Santa Fe Reservoir. The Santa Fe Spreading Grounds receives controlled releases from Morris Dam; seasonal local flows originating in San Gabriel Canyon and imported water releases from the Upper San Gabriel Valley Municipal Water District's and San Gabriel Valley Municipal Water District. The spreading grounds recharge water to the Main San Gabriel Basin underlying the San Gabriel Valley. The Groundwater Section below contains more information about the Main San Gabriel Basin (LARWQCB 2000).

Comment 4-I

The comment suggests that second sentence of the third paragraph on Page 3.2-11, the "Central Basin groundwater basin" be revised to the "Central Groundwater Basin".

Response 4-I

To respond to Comment 4-I, the second sentence of the third paragraph on Page 3.2-11 of the Draft EIR is revised as follows:

> Downstream of the Whittier Narrows area, along the Rio Hondo and San Gabriel River, are large spreading grounds utilized for groundwater recharge. The stretch of San Gabriel River below the Whittier Narrows area overlies the Central Groundwater Basin ~~groundwater basin~~ which contains a number of shallow and deep aquifers (the Silverado, the Sunnyside, and the Lynwood). These aquifers are recharged by underflow through the Whittier Narrows from the north and percolation from the San Gabriel River and the Rio Hondo, which flows into the Montebello Forebay just south of the Whittier Narrows. This surface and subsurface flow through the Whittier Narrows represents outflow from the upstream San Gabriel Basin. The San Gabriel River is soft-bottomed in this area, which allows for groundwater recharge at the San Gabriel Coastal Basin Spreading Grounds as depicted in Figure 2-2 of Chapter 2, *Project Description,* of this Draft EIR (LARWQCB 2000). The Rio Hondo in this area is a concrete channel lined below the Whittier Narrows. The spreading grounds are separate from the soft bottomed areas in the San Gabriel River.

Comment 4-J

The comment suggests that the fourth paragraph on Page 3.2-11 be revised.

Response 4-J

To respond to Comment 4-J, the first sentence of the fourth paragraph on Page 3.2-11 of the Draft EIR is revised as follows:

> The Montebello Forebay is an area that includes spreading grounds managed by the Los Angeles County ~~Department of~~ Public Works. Recharge facilities are located immediately downstream of Whittier Narrows Dam, allowing infiltration into the groundwater basin. Reclaimed water supplements local surface water and imported water for replenishing the groundwater basin. The source of reclaimed water is from the Whittier Narrows, San Jose Creek, and Pomona WRPs (LARWQCB 2000). However, the Pomona WRP may only be a source of reclaimed water during wet weather and not during dry weather.

Comment 4-K

The comment suggests that the fourth sentence on Page 3.2-18, be revised.

Response 4-K

To respond to Comment 4-K, the forth sentence on Page 3.2-18 of the Draft EIR is revised as follows:

> The management of the local water resources within the basin is based on watermaster services under two Court Judgments: San Gabriel River Watermaster (River Watermaster) and Main San Gabriel Basin Watermaster (Basin Watermaster). The Basin Watermaster was created in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. The Watermaster is headed by a nine-member board nominated by the Upper San Gabriel Valley Municipal Water District (Upper District) and the San Gabriel Valley Municipal Water District (San Gabriel District) (DWR 2003; 2004a; Main San Gabriel Basin Watermaster 2018). The ~~San Gabriel~~ Basin Watermaster coordinates efforts with the Upper District, San Gabriel District, Three Valleys Municipal Water District (Three Valleys District), Metropolitan Water District of Southern California, the Sanitation Districts, the Los Angeles County Department of Public Works, and local water companies and state and federal regulatory agencies (in coordination with the Upper District) to replenish the groundwater supplies (LARWQCB 2016; DWR 2004a; Main San Gabriel Basin Watermaster 2018).

Comment 4-L

The comment provides a contact for questions regarding comments and requests that the future environmental document is made available to them for review. The comment provides another contact to route future documents to.

Response 4-L

No response is required because there are no specific comments on the contents in the Draft EIR.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
John Wicker, Director Norma E. Garcia, Chief Deputy Director

September 16, 2019

Ms. Jodie Lanza P.E.
Supervising Engineer
Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601

Dear Ms. Lanza:

PUBLIC NOTICE OF AVAILABILITY
SAN GABRIEL RIVER WATERSHED PROJECT TO REDUCE RIVER DISCHARGE IN SUPPORT OF INCREASED RECYCLED WATER REUSE
DRAFT ENVIRONMENTAL REPORT (DEIR)

The Draft EIR for the San Gabriel River Watershed Project (project) has been reviewed for potential impact on the facilities of the Department of Parks and Recreation (DPR). The project would reduce the river discharge in support of increased recycled water and does not propose any construction activities or other physical changes to the environment other than the decreased volume of discharge.

DPR generally supports the increased use of recycled water and does not foresee any future impacts to our facilities based on our analysis and the DEIR.We request that the Sanitation Districts coordinate and share data with DPR on any future study and/or monitoring activity associated with the project that will be performed at the Whittier Narrows Recreation Area. 5-A

Thank you for including this Department in the review of this document. If you have any questions, please contact Ms. Julie Yom, Park Planner, of my staff at jyom@parks.lacounty.gov or (626) 588-5311.

Sincerely,

Clement Lau
Section Head, Planning & CEQA Section

CL: JY/ DEIR for the San Gabriel Watershed Project to Reduce River Discharge

c: Parks and Recreation (A. Bokde, M. Rubio, H. Maldonado, R. Williams, D. Jallo, J. Yom, R. Lopez)

Comment Letter 5: County of Los Angeles, Department of Parks and Recreation

Comment 5-A

The comment acknowledges receipt of the proposed project and reiterates the project description. The comment then states that the Department of Parks and Recreation (DPR) generally supports the increased use of recycled water and does not foresee any future impacts to DPR facilities based on the Draft EIR. The comment suggests that the Sanitation Districts coordinate and share data with the DPR for future studies/monitoring activity within the Whittier Narrows Recreation Area. The comment then provides a contact for any questions.

Response 5-A

No response is required because there are no specific comments on the contents in the Draft EIR. The Sanitation Districts are agreeable to coordinating and sharing selected data with the DPR for future studies/monitoring activity within the Whittier Narrows Recreation Area.

3250 Wilshire Blvd #1106,
Los Angeles, CA 90010

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FOUNDED 1892

Telephone: 213-387-4287
Fax: 213-387-5383
E-mail: info@angeles.sierraclub.org

San Gabriel Valley Task Force

Jodie Lanza, Supervising Engineer
Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601
jlanza@lacsd.org

September 15, 2019

Re: DEIR San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse

The San Gabriel Valley Task Force of the Angeles Chapter of Sierra Club thanks you for an opportunity to comment on the DEIR San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse The Task Force was organized by the Angeles Chapter of the Sierra Club in 1999 to work with San Gabriel Valley cities, governmental agencies and political leaders to seek ways to create a more livable environment for Valley residents while preserving or improving natural habitat. Since that time, we have worked with cities and Los Angeles County and Orange County to create projects that promote low impact outdoor recreation along the urban rivers in San Gabriel Valley, in the Puente Chino Hills, and the foothills of the San Gabriel Mountains. 6-A

The Sanitation District previously published an Initial Study and a Notice of Intent to adopt a Mitigated Negative Declaration (MND) for this same project in July 2018. These documents concluded that the proposed project would result in no significant impacts to the environment. However, after public review of the Mitigated Negative Declaration and the accompanying Initial Study, the Sanitation District decided to prepare a Draft EIR. We thank them for that decision which has led to this DEIR and the additional studies that we hope will lead to a more environmentally sound project.

The Sanitation District is proposing to reduce current discharges of recycled water from the San Jose Creek Water Reclamation Plant (WRP), the Pomona WRP, the Whittier Narrows WRP, the Los Coyotes WRP, and the Long Beach WRP into the channels and instead make that recycled water available for other uses. They not proposing to construct any new facilities. The use of the recycled water made available would be implemented by water agencies and others over time and could include diversions away from the river channels. The district will, however, continue to maintain the ability to discharge treated water at the current discharge points but anticipates lesser quantities. 6-B

We have reviewed the DEIR and offer the following comments on the DEIR.

Section 3.1 Biological Resources:

<u>We believe the goal of recycled water redistribution should be to minimize loss to the ocean, not a loss to the channels.</u> Emphasis on use of the recycled water should be to maintain surface and groundwater resources at a time of climate change, growing demands for water, and to restore those habitat areas along the river channels and banks that have been damaged in the past by developments and incursion by invasive species. It is not enough to just maintain the status quo; we must work towards enhancing the present habitat.

Numerous projects—construction, industrial, irrigation, residential, school sites, golf courses, cemetery expansion—are being considered/planned for recycled water reuse within the area covered by the DEIR (see Table 3-1). However, as also noted in numerous descriptions in Chapter 3, the California Dept. of Fish and Wildlife has designated some areas of vegetation within in the project area as Sensitive Natural Communities. Animals forage and nest in the region, including protected species. Areas along the channels are used by migrating avian populations. Two parts of the impacted area are included in the newly designated Los Angeles County Significant Ecological Areas. The rivers also serve as wildlife corridors connecting the San Gabriel Mountains to the Whittier Narrows, to the Puente Chino Hills. Changes in availability of surface and underground water will potentially affect vegetation changes and wildlife success.

6-C

We believe that monitoring of vegetation changes must be conducted periodically to determine impacts of the water diversions on vegetation as the project progresses so that adjustments can be made to protect habitats. The Draft Adaptive Management Plan (Appendix H) is limited to the Least Bell's Vireo habitat. **These annual studies should be extended to vegetation throughout the project area. If changes are noted, adjustments to the water budget should be implemented.**

6-C1

Plans should be developed for habitat restoration projects and their recycled water needs. This could provide guidance as to future environmental needs so that water is not designated to other urban/commercial/residential needs is unavailable for nature in the future. Enough water should also be allowed to percolate into groundwater resources to reestablish artesian flows lost due to current overuse. Ponds that are currently dry, should be refilled as at the Nature Center property.

6-C2

Steelhead have evidenced return on the San Gabriel River as far upstream from the ocean to Hawaiian Gardens. The next length of "steelhead return" that the San Gabriel Mountains and Rivers Conservancy are focusing on in partnership with other groups is from Hawaiian Gardens to the Arboretum. Nothing should be done re: the SG Recycle Water Reuse that would negatively impact this "in process planning/impending regional project.

"Until the listing of southern steelhead as an endangered species under the Federal Endangered Species Act (ESA), scant attention had been paid to these unique and magnificent fish. While renewed attention has been focused on the almost forgotten populations, there continues to persist an imbalance in the effort being made to restore California anadromous fish heritage. The Southern California Steelhead Recovery Coalition (SCSRC) has been created as a vehicle to mobilize the interests, energies, and political will of the Southern California community on behalf of these resources. As part of this effort, the SCSRC has identified steelhead as the key to restoring the full range of fish fauna of Southern California aquatic systems and their watersheds, and identified basic priorities in accomplishing these goals. These include: focusing on restoring fish passage to historic spawning and rearing areas, addressing watershed wide degradation of aquatic ecosystems, and ensuring adequate representation of Southern California interests in all state and

6-C3

federal programs designed to address the recovery of steelhead in California." (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10173)

6-C3

Section 3.2 Hydrology

Surface flow and groundwater play a role in sustaining habitat (page 3.1-12). The diversions of surface flow can affect availability of subsurface water available. Diversion of surface flow with this project must still be adequate to maintain groundwater levels adequate for habitat health along the river channels, the cross channels and riparian areas.

Impact HYDRO 3.2-2 claims that "The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin". It also claims "Less than Significant Impacts". This is not really known since the planned projects indicated in the DEIR will be supplied by the diversions away from the channels. The DEIR indicates that current irregular surface flows have already contributed to irregular subsurface flows in some areas, impacting vegetation, particularly in riparian areas (page 3.1-12). Changing local climate may exacerbate this problem.
There potentially will be changes; t**hus they cannot claim as needing no required mitigation.** In addition, other future potential diversions are not even known. Future diversion projects must require an environmental evaluation.

What impacts may occur in the coast zone from reduction in channel outflow? Will this affect wetland areas or salt water intrusion? This needs to be addressed.

6-D

Section 3.3. Recreation

Areas adjacent to the project area are residential/urbanized/ industrial. However, the Whittier Narrows Recreational Area, the trails along the San Gabriel River and Rio Hondo, the Bosque del Rio region serve the broader San Gabriel Valley for recreation. Healthy native vegetation is not only valuable as habitat, but is also valuable for aesthetic reasons along walking, bicycling and equestrian trails. Thus these areas, the cross-over channels, and areas to the coast should have a high priority for restoration as habitat.

6-E

Additional Comments:

- Major consideration should be given to installing "recycle lines"("purple water lines") like Northern California has used effectively to save and use large % of recycled household water for lawns, etc.

6-F

- Major consideration should be given to: re-thinking and re-investigating potential "salt-water/ ocean water resources to drinking water" due to all the advances in "salt to pure" water technology, plus lower costs and abundance at our doorstep, and lowered impact advances in science to reduce eff

6-G

The San Gabriel Valley Task Force thanks you for the opportunity to provide our comments on this important project. Please keep us informed of any future actions on the project. If you have any questions, feel free to contact:

Joan Licari
626-330-4229
jlicari2013@gmail.com

6-H

Sincerely,

Joan Licari. Chair
San Gabriel Valley Task Force
Angeles Chapter of Sierra Club

Comment Letter 6: Sierra Club, San Gabriel Valley Task Force

Comment 6-A

The comment thanks the Sanitation Districts for the opportunity to comment on the Draft EIR, and provides information regarding the organization and objectives of the San Gabriel Valley Task Force of the Angeles Chapter of Sierra Club.

Response 6-A

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 6-B

The comment acknowledges the Sanitation Districts' preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed project in July 2018, and subsequent decision to prepare a Draft EIR. The comment then provides a summary description of the proposed project.

Response 6-B

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 6-C

The comment addresses Section 3.1, Biological Resources, of the Draft EIR. The comment suggests that the goal of recycled water redistribution should be to minimize loss to the ocean, not a loss to the channels. The comment raises the issue that changes in availability of surface and underground water will potentially impact Sensitive Natural Communities, protected species that forage and nest in the region, migrating avian populations, and animals using wildlife corridors. It claims that monitoring of vegetation must be conducted periodically to study the impact of water diversion on vegetation.

Response 6-C

The proposed project objectives noted on page 2-3 of the Draft EIR include increasing recycled water through maximizing the use of treated effluent that is currently discharged to the river channel and sustain or, if feasible, enhance sensitive habitats that have benefited from historical effluent discharges. These objectives would be achieved through more efficient management of effluent discharges. The discharge reductions from the Los Coyotes and Long Beach WRPs would reduce flows to the ocean. The diversions proposed from San Jose Creek WRP would increase the efficiency of groundwater recharge by conveying the flows from the Whittier Narrows portion of the San Gabriel River downstream to the San Gabriel Spreading Grounds, which recharge the Central Groundwater Basin. The Whittier Narrows area overlies the southern edge of the San Gabriel Groundwater Basin. The more efficient use of the recycled water supports regional recycled water objectives, while maintaining existing habitat values within the river channel.

Comment 6-C1

The comment observes that the Draft Adaptive Management Plan (Draft EIR Appendix H) is limited to the least Bell's vireo habitat, requests that annual studies be extended to vegetation throughout the project area, and further requests that if changes are noted, adjustments to the water budget should be implemented. The comment also suggests that plans should be developed for habitat restoration projects and their recycled water needs, including the Nature Center property.

Response 6-C1

The Draft EIR beginning on page 3.1-43, evaluates impacts to all biological resources that may be affected by the proposed project, not just least Bell's vireo habitat. Table 3.1-3 presents an assessment of the potential for sensitive species to occur in the area. Targeted surveys were conducted for several species in the river channel including pond turtle, tri-colored blackbird, fish and bats. No sensitive species were located in the river channel during these surveys. Figure 3.1-2 provides vegetation mapping for areas of the Whittier Narrows Recreation Area that could experience effects of the proposed reduced flows. The impact analysis beginning on page 3.1-44 of the Draft EIR outlines potential effects of the proposed project on all biological resources in this area. The evaluation incorporates detailed hydrological modeling summarized in Table 3.1-5 that concludes the modified discharge frequency may result in improved conditions for riparian habitat in the channel. In addition, the analysis concludes that the flow reductions would not affect the upland vegetation associations that do not rely on river flows. However, the analysis recognizes that any loss of riparian habitat could result in a significant impact, since least Bell's vireo (a state and federally listed species) are known to occupy the area. As a result, to ensure that no loss of riparian habitat would occur as a result of the proposed project, the Draft EIR includes Mitigation Measures BIO-1 and BIO-2; refer to the revised Mitigation Measures BIO-1 and BIO-2 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. Mitigation Measure BIO-1 provides for the development and implementation of an AMP. The Sanitation Districts have met with the California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (USFWS) regularly for over four years to develop the AMP, which will provide the mechanism for collecting and evaluating data in the channel, identify action triggers, and implement measures needed to ensure no net loss of riparian habitat occurs in the channel. The Mitigation Measure BIO-1 requires that the Sanitation Districts return flows to the river channel if riparian habitat shows signs of reduced health.

Since the proposed project is committed to maintaining the quantity and quality of the existing habitat in the channel above Whitter Narrows Dam, no additional restoration is proposed. The comment provides examples of how the San Gabriel River can be improved to support habitat values. The Sanitation Districts support efforts to improve biological resources within the San Gabriel River Watershed, and with implementation of the proposed project will manage water releases to benefit ecological objectives. The Sanitation Districts are committing through the mitigation presented in this CEQA analysis to preserve baseline habitat values. Moreover, the AMP provides a new data collection and management tool that will support a better understanding of the Whittier Narrows area and future restoration efforts that may be conducted by others. Implementing the AMP illustrates the Sanitation Districts commitment to ensuring that

habitat values in the San Gabriel River are not diminished. The AMP requires that the Sanitation Districts establish a Habitat Management Committee to regularly evaluate empirical data collected as mitigation to the proposed diversions. This Habitat Management Committee will provide a mechanism to manage the river corridor for biological values. This type of group does not currently exist in the area. The Sanitation Districts are committed to funding the data collection efforts needed to ensure habitat values are monitored sufficiently to be maintained. As a result, implementation of the proposed project provides a mechanism to support future management goals of the river corridor. As such, the Sanitation Districts consider that the proposed project provides significant benefits through its partnership with the regulatory agencies and other stakeholders for proactive management of habitat values.

Comment 6-C2

The comment further suggests that enough recycled water should be allowed to percolate into the groundwater to establish artesian flows that currently do not exist.

Response 6-C2

The scope of the Draft EIR does not evaluate impacts of recycled water use. However, the Draft EIR describes that the diverted water will be conveyed for beneficial reuses that include landscape irrigation and groundwater recharge. The proposed project is not required to reestablish historic artesian flows through groundwater recharge because the proposed project's impacts are evaluated based on the existing conditions at the time the notice of preparation is published and not possible future conditions. (14 Cal. Code Regs. §15125(a).) The groundwater basin is managed by the Main San Gabriel Groundwater Basin Watermaster. The Sanitation Districts do not have control of regional groundwater levels.

Comment 6-C3

The comment notes that steelhead have been observed in the San Gabriel River as far upstream as the Hawaiian Gardens and that there are plans to extend steelhead return to the length of the San Gabriel River from the Hawaiian Gardens to the Arboretum. The comment suggests that nothing be done regarding San Gabriel River water reuse that could negatively impact the proposed project to return steelhead trout to this portion of the San Gabriel River.

Response 6-C3

Regarding steelhead trout, the Draft EIR identifies on pages 3.1-56 and 3.1-64 the existing conditions in the river and constraints to re-establishing a steelhead population in the San Gabriel River that include fish passage impediments in the river. The proposed reductions of non-natural surface flow to the river would not decrease the habitat values in the watershed for steelhead trout, since migration opportunities rely on large storm flow events. Currently, habitat does not exist to potentially support an anadromous steelhead trout population in the San Gabriel River as noted on pages 3.1-56 and 3.1-64 of the Draft EIR. For example, as shown in Figure 3.1-5, the current discharges from the San Jose Creek WRP are not consistent, and do not provide perennial surface flows that could support aquatic species downstream of the drop structures. Efforts to re-establish steelhead trout in the San Gabriel River will largely focus on removing impediments to

fish passage. The proposed project would not impede fish passage and would not adversely affect efforts to re-introduce the population to the river.

Comment 6-D

The comment addresses Section 3.2, Hydrology, of the Draft EIR, suggesting that surface flow must remain adequate to maintain groundwater levels supporting habitat health along the river channels, the cross channels and riparian areas. The comment expresses uncertainty regarding the level of environmental impacts associated groundwater as described in Draft EIR Impact 3.2-2. The comment suggests that unknown future potential diversions require an environmental evaluation. Finally, the comment suggests that the Draft EIR identify what impacts may occur in the coast zone from reduction in channel outflow, and whether this would affect wetland areas or salt water intrusion.

Response 6-D

The Draft EIR evaluates potential effects of the proposed diversions on groundwater beginning on page 3.2-25. The analysis supported by Hydrology Studies included in Appendix E concludes that the proposed reductions would not substantially deplete the San Gabriel Groundwater Basin. A report prepared for the San Gabriel Basin WaterMaster confirms this conclusion (Appendix E3). Potential impacts to the riparian vegetation along the river corridor from reduced contributions to the groundwater is considered in the Hydrology Study of July 2018 (Appendix E2). Beginning on page 1-47 of Appendix E2, the study characterizes the proximity of groundwater available to the existing vegetation in the channel. Figures 32-39 provide depth to groundwater data at three distinct cross sections along the river above and below Whittier Narrows Dam. The study concludes that groundwater is generally too deep to provide perennial support to riparian vegetation within the channel. Groundwater upwelling is known to occur in the lower reaches of San Jose Creek, just above its confluence with the San Gabriel River. However, as this rising groundwater from upstream is impounded by the drop structures in the main channel, the water quickly percolates through porous soils to the groundwater basin located too deep to support riparian vegetation. Based on this conclusion, the Draft EIR includes Mitigation Measure BIO-1 that requires the implementation of an AMP to confirm that the existing riparian habitat supported by surface impoundments and surface flows is maintained. If habitat stress is measured in the river channel resulting from reduced discharges, the Sanitation Districts would return flows to the river sufficient to maintain the existing quantity and quality of habitat. Please refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The updated AMP is included as Revised Appendix H in this Final EIR.

Regarding effects to the San Gabriel River Estuary, the Draft EIR concludes on page 3.1-54 that the reduced contribution of freshwater flows to the riprap lined estuary would not change habitat the conditions significantly. Appendix D provides an overview of the existing condition of the estuary. The Draft EIR concludes on page 3.1-54 that no sensitive wildlife species or plants are known to occur in the freshwater mixing zone that could be affected by reduced freshwater contributions. Regarding saltwater intrusion, the current surface flows within the concrete channel do not affect saltwater intrusion of the groundwater table.

Any unknown future diversion projects are entirely speculative and are not required to be evaluated in this EIR. Therefore, impacts of any unknown future potential diversion will be evaluated in a future environmental document.

Comment 6-E

The comment addresses Section 3.3, Recreation, of the Draft EIR. It states that healthy native vegetation is valuable for aesthetic reasons along walking, bicycling, and equestrian trails. The comment suggests that the Whiter Narrows Recreational Area, the trails along the San Gabriel River and Rio Hondo, the Bosque del Rio region, the cross-over channels, and areas to the coast should have a high priority for habitat restoration.

Response 6-E

Since the proposed project is committed to maintaining the quantity and quality of the existing riparian habitat in the channel above Whitter Narrows Dam, no additional restoration is proposed. In addition, the analysis also concludes that the flow reductions would not affect the upland vegetation associations that do not rely on river flows.

Comment 6-F

The comment suggests that major consideration should be given to installing "recycle lines" ("purple water lines") to save and use a large percentage of recycled household water.

Response 6-F

As presented in Section 2.1 of the Draft EIR, the project proposes to incrementally reduce surface water discharges of recycled water from five water reclamation plants. The diverted water would be available to supply recycled water programs implemented by other agencies. The proposed reduction in surface water discharges would occur over time and would not involve any construction activities, but is intended to provide some degree of certainty for which recycled water programs can plan. As further discussed in Section 2.8 of the Draft EIR, the Sanitation Districts are not proposing to construct any new facilities, and the incremental reductions in surface water discharges can be accomplished without modification to the existing discharge facilities. The proposed use of the recycled water would be implemented by water agencies that have the jurisdictional authority to distribute recycled water. Recycled water projects would occur over time and depend on future needs. Construction of future facilities, if applicable, would be performed and evaluated by proponents of individual projects that intend to rely in whole or in party on recycled water, and is not a part of the proposed project. No recycled lines would be installed as part of the proposed project.

Comment 6-G

The comment suggests that consideration be given to re-thinking and re-investigating potential for the treatment of salt-water/ocean water resources for use as drinking water.

Response 6-G

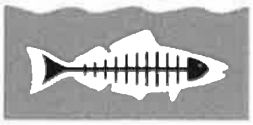
See Response to Comment 6-F above. As presented in Section 2.1 of the Draft EIR, the project proposes to incrementally reduce surface water discharges of recycled water from five water reclamation plants. The diverted water would supply recycled water programs implemented by other agencies. The proposed reduction in surface water discharges would occur over time and would not involve any construction activities or other physical changes to the environment other than the decreased overall volume of discharge. The comment's suggested consideration of the potential treatment of salt-water/ocean water resources for use as drinking water is not contemplated by the proposed project. It is the discretion of water agencies, not the Sanitation Districts, to determine the composition of their water portfolio.

Comment 6-H

The comment thanks the Sanitation Districts for the opportunity to comment on the proposed project.

Response 6-H

No response is required because there are no specific comments on the contents in the Draft EIR.



September 16, 2019

Via email to jlanza@lacsd.org

COURTESY COPY

Jodie Lanza, P.E.
Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601

RE: Comments on the Draft Environmental Impact Report for the "San Gabriel River Watershed Project to Reduce River Discharge In Support of Increased Recycled Water Reuse" Project (SGRWPTRRDISOIRWR)

Dear Ms. Lanza,

Los Angeles Waterkeeper (LAW) and Heal the Bay (HTB) respectfully submit the following comments on the Draft Environmental Impact Report (DEIR) for the "San Gabriel River Watershed Project to Reduce River Discharge In Support of Increased Recycled Water Reuse" Project (the "Project") proposed by the Sanitation Districts of Los Angeles County (LACSD). We appreciate the opportunity to submit written comments, and thank LACSD for several productive meetings with us on this Project over the past year. We look forward to continued engagement with LACSD as it prepares the Final EIR, resolves the remaining issues, and begins the permitting process.

Los Angeles Waterkeeper is a non-profit environmental organization with over 3,000 members dedicated to protecting and restoring the inland and coastal surface and ground waters throughout Los Angeles County, and ensuring an environmentally sustainable water supply that includes water recycling, preferably for potable reuse, and empowering communities to advocate for improved environmental quality as well. LAW also advocates for the ecologically sensitive restoration of all of our region's waterways, including the San Gabriel and Los Angeles Rivers.

Heal the Bay is non-profit organization with over 30 years of experience and 15,000 members dedicated to making the coastal waters and watersheds of Greater Los Angeles safe, healthy, and clean. HTB monitors water quality in the coastal waters and watersheds in the Greater Los Angeles area in support of its education and advocacy programs.

7-A

We Strongly Support Increased Water Recycling, and the DEIR Generally Improves Our Understanding of Project Impacts.

We strongly support increased water recycling in the Los Angeles area, and agree with the overarching goal of the Project to reduce discharges to the San Gabriel River in order to allow for increased use of recycled water. Last year, we urged LACSD to prepare an EIR in

7-B

order to better understand the relationship between flows, beneficial uses, and overall ecological integrity of the river. The DEIR is a significant analytical improvement over the previous Mitigated Negative Declaration (MND). In particular, the DEIR does a thorough job explaining the operational aspects of the system of treatment plants along the river. This analysis in turn supports the conclusion that it is possible for LACSD to manage the discharge of effluent successfully, to avoid or minimize environmental impacts from reduced flows, or the one hand, while avoiding the wasteful or non-beneficial use of water on the other hand. The analysis in the DEIR has begun to resolve several major outstanding issues regarding this important balancing of potentially competing goals. We also believe that the Adaptive Management Plan (AMP), the key mitigation measure for the Project, is more proactive and specific than the version proposed with the MND, although some work on the AMP remains to be done in the Final EIR.

7-B

We commend LACSD for considering ways to increase use of recycled water in the San Gabriel River watershed, and to ensure that all treated effluent in the watershed (including water to support environmental uses such as rare species habitat) is used reasonably and beneficially. Now more than ever, it is crucial to examine how we can best utilize our water resources in order for California to achieve long-term water supply security, reliability, and resiliency, while minimizing environmental impacts and maximizing stream integrity. This Project will ultimately be a step in the right direction in securing an environmentally sustainable water supply in the Los Angeles area.[1]

LACSD Should Consider the Following Comments During Preparation of the Final EIR.

Nevertheless, we believe that the Final EIR would benefit from some additional analysis and clarity regarding impacts to rare and special-status species. We also request some additional consideration of potential impacts on recreation. The Final EIR could also better incorporate planning for reasonably foreseeable impacts from climate change. We also request that the Final EIR discuss the results of the consultation process with the Gabrieleño Band of Mission Indians.[2]

7-C

a. LACSD Should Supplement its Evaluation of the Relationship Between Flows, Habitats, and Wildlife.

The DEIR acknowledges that if a reduction of flows were to substantially reduce the amount of habitat available to the least Bell's vireo (LBV) or other special-status riparian birds, including the yellow warbler and yellow-breasted chat (both California species of special concern), the impact would be significant. (DEIR p. 3.1-54.) We are concerned that impacts to the habitat of the least Bell's vireo may still be potentially significant, despite the inclusion of improved mitigation for impacts to LBV habitat. The validity of the conclusion in the DEIR that the Project will have no significant environmental impacts depends to a large extent on whether

7-D

[1] The DEIR slightly mischaracterizes the previous comments of LAW Senior Attorney Arthur Pugsley as stating support *for the Project* during the public scoping meeting. (DEIR Table 1-1, p. 1-5.) However, the transcribed notes on the scoping meeting (DEIR Appendix K, pdf p.584) correctly characterize LAW's position on the NOP as stating support *for the decision to prepare an EIR for the Project*. While LAW is confident it will eventually offer its support for the Project, we believe impacts to LBV habitat in particular still require some additional clarification.
[2] The DEIR (p. 972 of the pdf) includes a letter from the Gabrieleño Band formally requesting AB52 consultation.

the impacts to LBV habitat are significant enough to effectuate a "take" of this endangered species. *If the California Department of Fish and Wildlife has significant concerns that the project may still effectuate a "take," we strongly suggest that LACSD revise the Final EIR to conclude impacts to rare species are potentially significant, even after mitigation.* While the proposed Adaptive Management Plan and Habitat Management Committee (HMC) can provide the appropriate forum to resolve many issues regarding potential impacts on wildlife from adaptive management of flows, the EIR should accurately resolve the issue of which impacts are potentially significant, and presumably worth focusing the efforts of the HMC in the first place. This information will also be useful for LACSD to make required findings as part of its formal project approval.[3]

7-D

The DEIR does not specify when the additional discharge flows will be released after a trigger is reached (Draft AMP, p. 18-21). For increased clarity, we suggest that the Final EIR list all triggers in one place as well as the corresponding response(s) for each. Additionally, as the AMP acknowledges, woody plants do have a point of permanent wilting, yet the threshold for cavitation is unknown. (Draft AMP, p. 22.) While we believe the HMC can resolve whether further studies are appropriate to better understand the "tipping points" of certain vegetation, we request that the Final EIR acknowledge that the topic should be on the agenda for the HMC.

Further, we are concerned that the DEIR does not evaluate impacts to all potential habitat of the least Bell's vireo. The DEIR focuses almost exclusively on Segments 3 and 4 in its analysis of potential effects to the least Bell's vireo and its habitat. (DEIR pp. 3.1-45-3.1-54.) However, the report acknowledges that the least Bell's vireo is also known to occur in the upstream portion of Segment 5 (DEIR p. 3.1-41), yet there is no analysis of impacts to the habitat in Segment 5. (DEIR p. 3.1-54.) Instead, the DEIR states that no sensitive species utilize the area and simply concludes that the Project would not alter the hydrology in the area. (DEIR p. 3.1-54.) As the least Bell's vireo is endangered both in California and at the federal level, we believe that impacts to *all* existing and potential habitat in the Project area should be considered. We request the Final EIR provide, at a minimum, greater support for the conclusion that the Project will not have an impact on the hydrology of Segment 5, coupled with a commitment that LACSD will seek input from the HMC on the issue of Segment 5 LBV habitat as the AMP is implemented.

7-D1

We agree the HMC is an important part of AMP implementation, and request additional information on its role, duties, and functions. The DEIR states that LACSD will seek participation of environmental NGOs on the HMC. While we don't presume an invitation, our organizations would welcome the opportunity to be HMC members if invited by LACSD. We agree with LACSD that it is important to have the perspectives of non-governmental organizations on the HMC offering advice and guidance on the AMP, given the importance placed on the AMP to the future of the riparian habitat and ecology of the San Gabriel River, and success of the Project in increasing reliance on recycled water. We also recommend inviting tribal representatives to the HMC.

[3] See Public Resources Code Sections 21000-21002 and Section 21081.

The DEIR states that portions of the Project area are located within U.S. Fish and Wildlife Service designated critical habitat for the coastal California gnatcatcher and that a Recovery Plan for the bird is required but not yet prepared. (DEIR p. 3.1-42.) However, there is virtually no further discussion on potential impacts to the species or its habitat. The Final EIR should explain whether there is any analysis LACSD can do now with respect to this species and how LACSD plans to address the Recovery Plan, to the extent the Project area is involved, once the Plan is released. The Final EIR should also include a commitment to bringing issues surrounding the gnatcatcher to the HMC, once the Recovery Plan is available.

It also appears that impacts to some special-status species were not fully addressed in the DEIR. For example, certain special-status wildlife identified by the DEIR as present or having a medium to high potential to occur in the Project area were seemingly left out of any impact analysis. Notably, the Cooper's hawk, a California watchlist species (formerly a species of special concern) is shown to be present in the Project area (DEIR p. 3.1-40, Table 3.1-3), and the crotch bumblebee, a state designated critically imperiled/imperiled species, has a high potential to occur in the Project area. (DEIR p. 3.1-40, Table 3.1-3.) Yet there was no discussion surrounding these species. The Final EIR should include additional information, and explain what role LACSD envisions for the HMC with respect to species other than the LBV.

In addition, the DEIR concludes that because surveys of tri-colored blackbirds and western pond turtles found no such animals in the Project area, tri-colored blackbirds are not expected to occur in the Project area. (DEIR p. 3.1-41.) Additionally, no impacts to the western pond turtle is anticipated. (DEIR p. 3.1-57.) However, we have concerns that the surveys, due to their limited footprints and field conditions at the time of the surveys[4], may not provide a fully accurate picture of those species in the Project area. *LACSD should conduct additional, more robust surveys to confirm its findings and ensure these species are not impacted.*

7-D2

LACSD conducted modeling of six potential operational scenarios of discharge to better determine the impacts to various river reaches in Segments 3 and 4, and we were pleased to see that two scenarios could potentially *improve* vegetation in certain areas through more frequent saturation than under current conditions (DEIR pp. 3.1-47-3.1-50). However, those same operational scenarios are shown to increase the length of dry periods in other areas further downstream (DEIR pp. 3.1-53-3.1-54). The final EIR should explain whether LACSD considered other operational scenarios that could allow for a greater pulse of water (e.g. XX MGD 1 day per week or YY MGD every 10 days) in order to reduce the length of the dry periods of the more downstream areas, if such reduction were to have environmental benefits. Similarly, we request additional information on how LACSD is coordinating its implementation of this Project with the various "vegetation management"/ vegetation removal projects proposed in soft bottomed river sections.

7-D3

[4] Surveys for tri-colored blackbirds, a California threatened species, were only conducted over three days in January 2019 (Updated Biological Resources Report (UBRR), p. 10), and the UBRR notes that at the time of the surveys, approximately 50% of the cattails and tules (key habitat components for the birds) were matted or removed due to a recent heavy rain event (UBRR, p. 40). Surveys for the western pond turtle, a California species of special concern, were conducted in May 2019 only over four days for visual surveys, and three days for trapping surveys (UBRR, p. 12-13).

b. LACSD Should Evaluate Impacts to Existing and Potential Recreational Uses Throughout the Project Area.

We believe it is important to consider not only impacts to existing recreational activities under current conditions, but also impacts to potential activities that are consistent with the beneficial uses designated under the San Gabriel River's Basin Plan and uses that are mandated to be included as beneficial uses by the California Water Code.[5] Although the Los Angeles Regional Water Quality Control Board's Basin Plan assigns both REC-1 (water contact) and REC-2 (non-water contact) beneficial uses to the watershed, the DEIR simply concludes that there will be no impacts to *existing* recreational activities since use of the river channel within the Whittier Narrows Recreation Area for aquatic sports or fishing is uncommon due to the trash and unauthorized homeless encampments in the area. (DEIR p. 3.3-8.) Additionally, changes in the flow regime resulting from the Project could result in changes to water quality, which might affect recreational value. The Final EIR should provide additional support for its conclusions regarding the lack of significant recreational impacts. 7-E

c. LACSD Should Better Prepare for the Impacts of Climate Change.

We urge the LACSD to better evaluate and plan for the effects of climate change on the San Gabriel River and its supported habitats as part of its review of this Project. While the DEIR acknowledges that climate change may result in longer periods of drought and/or more intense precipitation events, the proposed solution is simply implementation of the AMP. (DEIR p. 3.1-58.) We believe that LACSD should evaluate additional measures or response strategies *now* in order to account for the reasonably foreseeable impacts of climate change during the design life of the Project, rather than essentially deferring any response actions to the HMC process. 7-F

d. The Final EIR Should Discuss Results of the AB52 Consultation Process.

We request the Final EIR provide an update on the results of any AB52 consultations, including how such consultations affected Project design. 7-G

Conclusion

Thank you for the opportunity to comment on the DEIR. We are pleased to see meaningful progress in the evolution of this Project (and especially the AMP) since the originally proposed MND. We believe that if the clarifications and additional information requested are provided, the EIR should serve to support efficient review of anticipated Section 1211 Wastewater Change Petitions, and to help avoid formal Protests to the State Water Resources Control Board regarding the same. We thank LACSD for its responsiveness to concerns raised 7-H

[5] We also note that anecdotal information from local environmental and environmental justice organizations regarding existing recreational use of the San Gabriel River itself was included in comments on the Notice of Preparation, and therefore should have been considered during preparation of the DEIR.

to date from our organizations, and we look forward to continued engagement with LACSD as this Project moves forward.

Please contact the undersigned with any follow-up questions.

Sincerely,

7-H

Arthur Pugsley	Annelisa Ehret Moe	Melissa von Mayrhauser
Senior Attorney	Water Quality Scientist	Watershed Program Manager
Los Angeles Waterkeeper	Heal the Bay	Los Angeles Waterkeeper

Courtesy Copies:

Jonathan Bishop, Chief Deputy Director, SWRCB
Renee Purdy, Executive Officer, Region 4
Hope Symthe, Executive Officer, Region 8
Robert Ferrante, General Manager and Chief Engineer, LACSD
Erinn Wilson, Supervisory Senior Environmental Scientist, CDFW Region 5

Comment Letter 7: Los Angeles Waterkeeper and Heal the Bay

Comment 7-A

The comment thanks the Sanitation Districts for the opportunity to comment on the Draft EIR, and provides information regarding the organization and objectives of the Los Angeles Waterkeeper and Heal the Bay.

Response 7-A

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 7-B

The comment expresses support for water recycling the Los Angeles area and the overarching goal of the proposed project to reduce discharges to the San Gabriel River. The comment characterizes the Draft EIR as a significant analytical improvement over the prior MND, and suggest that the proposed project will ultimately be a step in the right direction in securing an environmentally sustainable water supple in the Los Angeles area. It notes that some work on the AMP remains to be done in the Final EIR.

Response 7-B

No response is required because there are no specific comments on the contents in the Draft EIR. Details regarding the requested additional discussion are provided below in Response 7-D.

Comment 7-C

The comment suggests that the Draft EIR provide additional discussion regarding potential impacts to rare and special-status species, recreation, planning for climate change, and the results of the consultation process with the Gabrielino Band of Mission Indians. Details regarding the requested additional discussion are provided below in Comments 7-D through 7-G.

Response 7-C

No response is required because the comment comprises only a brief overview of the commenter's requests. Responses to the specific items requested for additional discussion are presented below in Responses 7-D through 7-G.

Comment 7-D

The comment suggests the Sanitation Districts should supplement their evaluation of the relationship between flows, habitats, and wildlife. It raises the issue that the proposed project may effectuate a "take" of the least Bell's vireo and strongly suggests that the Final EIR be revised to conclude that impacts to rare species are potentially significant, even after mitigation. It recommends providing additional clarity by listing all triggers for release of discharge flows and corresponding responses.

Response 7-D

The Draft EIR acknowledges that the riparian habitat in the river channel above Whitter Narrows Dam may support least Bell's vireo, yellow warbler, and yellow-breasted chat. The Draft EIR concludes that any reduction in riparian habitat caused by the proposed project's reduced discharge would be a significant impact. As a result, Mitigation Measure BIO-1 requires that the AMP document baseline conditions and monitor habitat in the future to ensure that habitat quantity and quality are maintained at current levels. If habitat values decline, the Habitat Management Committee established as part of the AMP (that will include representation from wildlife agencies) will enact corrective measures including returning flow to the river. The purpose of the Habitat Management Committee is to evaluate the data and determine corrective actions over the short term and long term. As indicated throughout Section 3.1 *Biological Resources*, the AMP had not been finalized. A revised AMP is included as part of the Final EIR that reflects additional input from government and non-government wildlife agencies as well as evaluations presented in this EIR. Please refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR.

The Sanitation Districts are committed to ensuring the effectiveness of the AMP, founded on the commitment that the reduction in discharge will not reduce habitat values. Impacts of the proposed project remain less than significant with mitigation since the AMP will ensure impacts are avoided, not just minimized. The long-term commitment to the Habitat Management Committee ensures that habitat values compared to baseline conditions are maintained, with the firm commitment that flow will be returned to the channel if the habitat health declines. See responses to comments to the CDFW Comment Letter 2.

Regarding the details of the action triggers, corrective actions, and duties of the Habitat Management Committee members, an updated AMP has been included as Appendix H of the Final EIR. The details regarding roles, duties and functions of the Habitat Management Committee are outlined in the AMP, which has been developed in close coordination with the wildlife agencies. The Sanitation Districts have met regularly with the wildlife agencies for over four years, to develop the details of the AMP including defining the action triggers and corrective actions. The AMP included as Revised Appendix H of the Final EIR identifies proposed action triggers. The Sanitation Districts are committed to developing an AMP that satisfies CDFW's concerns, and in fact has made revisions based on CDFW's comment letter that address similar comments. Furthermore, as noted on page 2-20 of the Draft EIR, the State Water Resources Control Board (SWRCB) will require that the Sanitation Districts submit a 1211 Wastewater Petition (pursuant to the California Water Code) prior to implementing the proposed project. The 1211 petition process allows for public agencies and interested parties to protest the diversion of wastewater into waters of the State. Through this process, CDFW will have the opportunity to ensure the AMP includes sufficient measures to be protective to the river's biological resources. The updated AMP reflects that input from non-government entities as well as wildlife agencies.

Comment 7-D1

The comment requests that the Final EIR require the HMC to determine whether further studies are appropriate to understand tipping points of certain vegetation. It expresses concerns that the

Draft EIR does not evaluate impacts to potential habitat of the least Bell's vireo in Segment 5 and requests greater support for the conclusion that there will be no impacts to hydrology in Segment 5 and a commitment to seek input from HMC on least Bell's vireo habitat in this segment. It requests additional information on the role, duties, and functions of the HMC, and requests that LA Waterkeepers, Heal the Bay, and tribal representatives are inhibited by the HMC.

Response 7-D1

The comment states that impacts to all habitat should be considered. As noted above, the Draft EIR evaluates all the habitat that may be affected by reduced flows as shown in Figure 1. This includes upland and riparian habitats, including Segment 5. Segments 5 and 6 provide little habitat value and no sensitive species utilize the area (Draft EIR, pp. 3.1-44 - 3.1-54.). The Draft EIR concludes that the effects of reduced discharges may be experienced most in Segments 3 and 4, and as a result the Draft EIR provides detailed analysis of these areas. Furthermore, the Draft EIR concludes that the proposed project would not affect habitat values in Segments 5 and 6 or upland habitat that does not rely on surface flows. As a result, the AMP does not focus on Segments 5 or 6 and the HMC would not convene to evaluate conditions in these areas since they are beyond the potential area of effect of the proposed project. With respect to tribal representation, the AMP notes on page 16 (page 19 of the updated AMP included in the Final EIR) that the HMC is open to participation by non-governmental organizations. Should there be interest from local Native American groups, the Sanitation Districts would invite them to attend the HMC process.

Comment 7-D2

The comment letter also raises potential issues related to the California gnatcatcher and its Recovery Plan, requesting an explanation on whether any analysis could be performed now, as well as a commitment to bringing gnatcatcher issues to the HMC. It states that impacts to special-status species the Cooper's hawk, and the crotch bumblebee were not fully addressed in the Draft EIR. The comment also requests that the Sanitation Districts conduct additional more robust surveys on impacts to tri-colored blackbirds and western pond turtles.

Response 7-D2

Regarding impacts to California gnatcatcher, the Draft EIR identifies that the Whittier Narrows area is included within the USFWS-designated critical habitat for California gnatcatcher. However, the Draft EIR concludes on page 3.1-59 that the reduction in discharges would not affect the upland habitat that is suitable habitat for gnatcatcher. As a result, no impacts to the listed species would occur.

Regarding the Coopers hawk, the Draft EIR identifies the Coopers hawk to be present at the site in Table 3.1-3. The Draft EIR concludes that the reduced flow would not reduce vegetation and therefore would not adversely affect avian species including the Coopers hawk.

The crotch bumblebee was not observed on the site during the field study conducted by ESA, but has a high potential for occurring in the area as noted in Table 3.1-3 of the Draft EIR. The Draft

EIR concludes that the reduced flow would not reduce vegetation and therefore would not adversely affect fauna including insects and benthic organisms.

Regarding potential impacts to tri-colored blackbird and western pond turtles, focused surveys conducted in the spring of 2019 found no presence of these species. (Draft EIR, p. 3.1-43.) The surveys followed the appropriate protocols approved by wildlife agencies to confirm absence of these species. No additional surveys are required to confirm absence of these species in the river channel. Furthermore, the proposed project is not anticipated to reduce the availability of ponded water that provide suitable habitat to these species. As a result, the proposed project does not impede or minimize the future occupation of the river channel by these species.

Comment 7-D3

The comment letter states that the Final EIR should explain whether the Sanitation Districts considered other operational scenarios that allow for greater pulse of water and should contain additional information on coordination with vegetation management projects in soft bottomed river sections.

Response 7-D3

Regarding the operational scenarios, the Draft EIR provides an assessment of several discharge scenarios that may be used to convey water downstream to support riparian habitats. The Draft EIR concludes that the assessment suggests that water delivery in pulses may be more effective than perennial flow due to the permeability of the river channel and the greater loss to percolation that would result from perennial flows. As noted in the comment, the discharge of water in pulses will result in intermittent dry periods. The Sanitation Districts are committed to avoiding loss of habitat quantity or quality. As a result, discharge scenarios will be evaluated and adapted over time to determine the most effective means of irrigating the riparian area.

Regarding the comment on vegetation removal within the soft bottomed river sections, the proposed project does not require any vegetation removal, since the proposed project would not reduce habitat acreage or value. The Sanitation Districts have coordinated with the USACE and Los Angeles County Flood Control District to obtain permissions to conduct surveys in the river channel, and will continue this coordination through implementation of the AMP.

Comment 7-E

The comment suggests the Sanitation Districts should evaluate impacts to potential recreational activities that are consistent with the beneficial uses designed under the San Gabriel River's Basin Plan and the California Water Code. The comment further suggests that changes in flow regime resulting from the proposed project could result in changes to water quality, which might affect recreational value.

Response 7-E

The comment suggests that reduced discharge could impede potential future recreational activities. While the Whittier Narrows Recreation Area, located between Reach 3 of the Rio

Hondo and Reach 3 of the San Gabriel River, is equipped with recreational lakes, irrigated grass, bike paths and picnic areas, including Legg Lake, has designated existing REC-1 uses, that area does not receive any recycled water from the Sanitation Districts' WRPs and will not be impacted by the proposed project. Rio Hondo Reach 3 and the San Gabriel River Reach 3 do currently receive recycled water discharges; however, both areas are designated in the Los Angeles Region Basin Plan as having prohibited access by the Los Angeles County Department of Public Works. Therefore, the proposed project would not reduce REC-1 or REC-2 values.

The comment further suggests that reductions in recycled water discharges could result in changes to water quality. The biggest water quality concern would be toxicity, however, this concern is unfounded for the San Gabriel River watershed for two reasons. First, dry weather copper and lead concentrations in the receiving water are well below protective thresholds. Therefore, any changes in receiving water characteristics associated with reduced recycled water discharges resulting in increased toxicity are highly unlikely. The average dry weather dissolved copper concentration from 2013 through 2017 in the main stem of the San Gabriel River was 3.2 µg/L with a maximum of 11.1 µg/L (392 measurements). For dissolved lead, the average was 0.18 µg/L with a maximum of 0.78 µg/L (295 measurements). Average hardness in the receiving water was 252 mg/L. At this hardness, the "safe" chronic toxicity threshold for dissolved copper and lead based on the California Toxics Rule (CTR) is 19.7 and 6.8 µg/L, respectively. Second, reductions in recycled water discharges will not result in reductions in receiving water total hardness and/or DOC. Final effluent hardness averaged 200 mg/L between 2013 and 2017. Since this is lower than the receiving water hardness of 252 mg/L, any significant reductions in recycled water would translate into an increase in hardness of the receiving water, resulting in decreased metal toxicity. Limited monitoring in the San Gabriel River and Coyote Creek has shown receiving water DOC averages 6.8 mg/L. A three-day characterization of total dissolved organic carbon conducted on recycled water from the Los Coyotes and Long Beach facility averaged 6.1 and 5.6 respectively. Therefore, no reductions in receiving water DOC are anticipated as a result of any decreases in recycled water discharges. Finally, although all of the data presented above were collected during dry weather, recycled water contributions are relatively low during storm events. Therefore, dry weather conditions represent the most critical time period when evaluating potential recycled water contributions into the receiving water. Despite this evidence of no likely impact, the discharges from the WRPs would continue to be subject to the terms and conditions of the NPDES permits furthering the protection of water quality.

Comment 7-F

The comment urges the Sanitation Districts to better evaluate and plan for the effects of climate change on the San Gabriel River and its supported habitats as part of its review of the proposed project. Specifically, the comment suggests that the Sanitation Districts evaluate additional measures or response strategies now, rather than deferring any response actions to the HMC process.

Response 7-F

The Hydrology Report 2018 provides a comprehensive assessment of existing cumulative surface water flows in the San Gabriel River. Pages 3.1-57 and 58 of the Draft EIR observe that, in the future, San Gabriel River flows also may be affected by groundwater management practices, stormwater capture programs in the watershed, and climate change. Groundwater management in the region has been consistently managed by the Main San Gabriel Basin Watermaster for several decades, and is not expected to change significantly in the future. Future drought conditions may result in lowered groundwater levels similar to current conditions. As stormwater capture increases in the future less urban runoff will contribute to the flows. Large storm events will continue to flow through the channels similar to existing conditions. In the future, climate change may result in longer periods of drought and more severe winter storms. This future condition is evaluated as a potential cumulative impact. The Draft EIR concludes that implementation of the AMP (Mitigation Measure BIO-1) would compile data on the vegetation in the Whittier Narrows area to better understand the effect of future cumulative flow conditions, providing measured flows that may reduce stress during prolonged droughts that may occur in the future with more frequency; refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The Draft EIR concludes on page 3.1-58 that providing this data collection that supports habitat management in the channel will benefit the ecosystem compared with the existing condition where no organized observations or management structure exists. The proposed project would provide an adaptive management oversight of the river channel that currently does not exist, providing the potential to address cumulative habitat impacts more effectively than under the current condition where no management exists at all. The updated AMP is included as Revised Appendix H in this Final EIR.

Comment 7-G

The comment suggests that the Final EIR provide an update on the results of any AB52 consultations, including how such consultations affected project design.

Response 7-G

The Sanitation Districts conducted AB52 Native American Tribal Consultation as summarized in Appendix A of the project's CEQA Initial Study/Mitigated Negative Declaration (IS/MND), prepared in 2018 and Appendix G of the Draft EIR. The Gabrieleno Band of Mission Indians-Kizh Nation, provided a letter dated March 29, 2018, as a written request for consultation regarding the proposed project (refer to Appendix G of the Draft EIR). Tribal consultation was completed on May 18, 2018.

As presented in Draft EIR Section V, Cultural Resources, the proposed reduction in discharges of recycled water would occur over time, and would not involve any construction activities or other physical changes to the environment other than the decreased volume of discharge. As such, project implementation would not have any physical effect on historical resources in the area, would not result in construction or excavation, would not involve any other activities that could cause a substantial adverse change in the significance of an archaeological resource, nor involve

any other activities that could disturb human remains, including those interred outside of dedicated cemeteries. The Draft EIR concluded that no impacts would occur to cultural resources.

Comment 7-H

The comment thanks the Sanitation Districts for the opportunity to comment on the Draft EIR, and suggests that if the clarifications and additional information requested are provided, that the Draft EIR should serve to support review of anticipated Section 1211 Wastewater Change Petitions, and help avoid formal protests to the SWRCB regarding the same.

Response 7-H

The Sanitation Districts have submitted a total of four Wastewater Change Petitions pursuant to California Water Code Section 1211 to change the place and purpose of use of recycled water, while maintaining sensitive habitat supported by historic effluent discharges. A petition was submitted, one each for the San Jose Creek WRP, the Pomona WRP, the Los Coyotes WRP, and the Long Beach WRP. Section 2.11 of the Draft EIR notes that the proposed project would require approval from the California SWRCB for one Wastewater Change Petition per WRP. No other approvals would be required.

No additional response is required because there are no specific comments on the contents in the Draft EIR.

Save Our Community
c/o 548 N darlington st So San Gabriel CA 91770
james Flournoy secretary
flurnet@hotmail.com

Comments on
SAN GABRIEL RIVER WATERSHED PROJECT TO REDUCE RIVER DISCHARGE IN SUPPORT OF INCREASED RECYCLED WATER REUSE Environmental Impact Report

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WE are in favor of the maximum use of reclaimed water
However it must be done in a socially responsible way with policies and procedures created and enforced by the Sanitation Districts and the County

8-A

"One of the SWRCB's goals is to substitute as much recycled water for potable water as possible by 2030. "The purpose of the [Board's Recycled Water Policy] is to encourage the safe use of recycled water from wastewater sources…." (SWRCB 2018).
However it is not merely to substitute for potable water where potable water can be conserved
The conservation element must be considered

"The objectives of the proposed project are as follows: •
Consistent with State law and policy, support increased recycled water use through maximizing the availability of treated effluent that would otherwise be discharged to flood control channels within the San Gabriel River watershed "
It is not water " that would otherwise be discharged to flood control channels" that is the issue
Discharging water to flood control channels is necessary for groundwater replenishing and the prevention of salt water intrusion and riparian and marshland habitat.
WE support the critical " increase contributions to the Alamitos Seawater Intrusion Barrier injection well system " and other saltwater intrusion prevention projects.
We support marshland restoration, show allocations.
These two issues are the highest priority

8-B

It is water that would other be discharged into the open ocean that is the issue and the entire document must be revised.

8-C

• Sustain or, if feasible, enhance sensitive habitats that have benefited from historical treated effluent discharges to the San Gabriel River watershed through more efficient discharges from Sanitation Districts' WRPs.
There is the larger issue of water being diverted from sensitive habitats by affiliated water entities, the water then passing through the Sanitation Districts plants and not being used to recharge

8-D

"historical treated effluent discharge" ' have been intermittent allowing sensitive habitats to perish. San District Discharges WRP must be consistent.. Habitats that have been degraded or allowed to perish

8-E

must be re-established. Please show a study on this issue

8-E

What we are saying is that the Sanitation District must require their customers to fully mitigate their environmental impacts AND THEIR RETAIL CUSTOMERS ENVIRONMENTAL IMPACTS in order to be eligible for recycled water allocations.

8-F

WE see no CEQA checklist and required responses.
For example Geology and Soils
The Rio Hondo Plant is directly adjacent to the Class A Whittier-Elsinore Fault (aka locally as East Montebello/ Alhambra Wash. It could generate a 7.85. Users will become dependent on recycled water and require a reliable source. How is the San District prepared to withstand events from Whittier, Puente Hills Thrust directly under Rio Hondo and San Jose and the most likely hazard an event on the San Andreas which will shake the area for minuets amplified by the deep sediments- The bowl of jello effect along the deep San Gabriel River channel which may cause water distribution systems and tanks to be down for months.
See the USGS 2008 Shakeout Scenario.
What is the hazard of plant shut down or failures in a major seismic event, Resilience, time to restore?

8-G

Electricity
Are plants served by at least two separate substations with backup? AFIK Rio Hondo is only served from the SCE Mesa substation on the other side of the Whittier Fault on Potrero Grande Dr. in Monterey Park
What is the plan? What is the effect on the environment if there is a power failure of a significant time as suggested in the USGS "Shakeout" study

8-H

Please Respond to All CEQA checklist requirements.

8-I

Diversion of recycled water is a larger issue than just the Sanitation Districts and their customers. Diverted water engenders requirements from MWD, the Water Replenishment Districts etc.
The San District must ensure that all other entities supply sufficient water for replenishment and habitat even in a drought before committing to recycling customers.
Groundwater pumping must be curtailed with conservation and major new customers not permitted until the aquifers are restored and artesian springs re-established for habitat restoration and conservation is, in fact, in place.

8-J

The Sanitation Districts may have an inherent conflict of interest in being the lead agency on this important matter as do their Water district and other customers.
More on this later

8-K

ES2
" Reductions in treated effluent discharges could affect these habitats by reducing water available to plants and animals in or near the river. "

Reductions have already decimated plants and animals in or near the rivers. The Rio Hondo had always been watered till the artesian flows were curtailed by over-pumping and not replaced by WRD or SAN. The area along Siphon Rd in Whittier Narrows has also been allowed to go dry. The "Audubon Lakes" are dry. Please provide water to refill before thinking of new customers.

8-L

ES-3
"The Whittier Narrows WRP is located at 301 North Rosemead Boulevard in the City of El Monte. "
Whittier Narrows WRP is in unincorporated LA County not the City of El Monte or South EL Monte.

"Watershed. Reductions to the Rio Hondo/Los Angeles River watershed, if proposed, would be a separate and distinct project and the environmental impacts of those reductions would be considered in a separate CEQA document. However, the Sanitation Districts do not anticipate reductions to the Rio Hondo/Los Angeles River watershed. "
Reductions have already been made and must be restored, the current allocations are inadequate, the water table raised and artesian flows restored. This EIR must ensure this.

8-M

ES-4 Groundwater recharge in the San Gabriel Basin / Whittier narrows must be addressed in this EIR
The infrastructure for such recharge from the Reclamation Plants mentioned to the headwaters (say Santa Fe Dam) must be investigated and budgeted.

8-N

ES.3 Project objectives are backward
", enhance sensitive habitats that may benefit from treated effluent discharges to the San Gabriel River watershed through more efficient discharges from Sanitation Districts' WRPs. "

maximizing the availability of treated effluent that would otherwise be discharged to the ocean, after salt water intrusion, aquifer collapse, marshland and Bolsa Chico support; habitat restoration and restoration and support for sensitive habitats above"

"Consistent with State law and policy, support increased recycled water use through maximizing the availability of treated effluent that would otherwise be discharged to the Ocean."

The flood control channels are used for groundwater replenishment and for transfer of water to beneficial users downstream. The goal is to minimize flow and loss to the ocean not to the channels.

The term "historic effluent discharges" must be expurgated from the document. Many beneficial uses which have not been historically served before new recycled water projects are permitted.

In other words the EIR must quantify what "Historic effluent discharges" should have been, not the minuscule amounts the actually were

While substituting Recycled Water for Potable is noble it is a zero sum game. Conservation of both is required. Recycled Water must not be substituted for Potable where conservation is possible. Conservation of Potable water must be required as a prerequisite for the allocation of recycled water.

8-O

Pg ES6
. The proposed use of the recycled water would be implemented by water agencies that distribute recycled water and other recycled water users over time and would depend on future needs for recycled water produced by the Sanitation Districts.
Construction of future facilities, if applicable, would be provided by proponents of other projects and is not a part of the proposed project."

As shown by the CBMWD fiasco; construction of future facilities must not just be left to the proponents of other projects; but must be under the supervision and control of the Districts through regultions, policies and procedures. There is too much potential for misuse and fraud and waste to

8-P

blindly make allocations.

Water agencies must not be given water- recycled or potable- without policies and procedures in place to ensure the equitable and beneficial use of the scarce resources

Currently water agencies can distribute recycled water to the highest bidder, weather or not the user has implemented all mitigation possible. Provide Policies and Procedures for Water Agencies

There are also irregularities in the selection of contractors by the Agencies. No bid contracts with their potential for kickbacks and modifications must be strictly regulated.

" The Sanitation Districts will continue to maintain the ability to discharge treated water at the same surface water points but anticipates lower quantities. "
This should not be possible till the habitats and water tables are restored. Please show a study.

8-P

Bio -1
The project must restore the wetlands of the Whittier Narrows including the Audubon ponds
The Project must ensure restore and maintain year round flow in the Rio Hondo
The Project must support the restoration and maintenance of historic flora and fauna in Whittier Narrows and along the Rio Hondo.
The project must ensure the move foreign invasives that have established themselves do to the lowering of the water table and allowing the historically free flowing Rio Hondo to go dry.
Provide a table of such historic and invasive species
The project must ensure the restoration of the Water Table in the San Gabriel Basin and Whittier narrows sufficient to ensure historic artesian flows.
The project must control the pumping of groundwater and the restoration of groundwater.
Ensuring may be done in co-operation with the MWD and WRD and others but must be accomplished before diversion to Recycling and Recycling curtailed if MWD or WRD or others fail to restore or allow the depletion of groundwater.

8-Q

ES 10

3.2 Hydrology
Impacts are significant, mitigation must be proposed
3.2.1 any diversion is significant. Amount is currently insufficient
3.2.3 groundwater recharge in the San Gabriel Basin is insufficient
3.2.6 Decreased groundwater recharge could increase EPA Hazard plumes
The project must have as a priority the clean up of the aquifer

8-R

3.3 Recreation
The project could impact the uses along the Rio Hondo and Recreation activities such as bird-watching. Having the historic wetlands in Whittier narrows and the Rio Hondo affects such recreation uses

8-S

ES.6
Response to Scoping Comments must be made as if they were included as comments on this draft.
Publish all Scoping Comments and Responses

8-T

Environmentally Superior Alternative
ES 15
"Both the proposed project and Alternative 2 would equally maintain biological and recreational values in the river channels, subject to Mitigation Measures BIO-1 and BIO-2. "

8-U

Biological and recreational values have not been and are not currently maintained.
The Biological and recreational uses must be restored not just maintained in the damaging status quo. 8-V

" The proposed project would result in additional benefits because it would supply more recycled water to users "
The benefits to users are alternatives. Groundwater recharge is a beneficial use to users. More "recycled water" may not be the greatest benefit to the greatest number of users. It may be more of a benefit to the Water Districts and special interests. 8-W

It would seem that a treated water pipeline from Long Beach to Los Coyotes/ to San Jose Creek (picking up Rio Hondo and Pomona) and on to Santa Fe Dam must be considered as a project alternative .
It inherently unacceptable to take water pumped from the San Gabriel Basin, passing through users and into the sewers and Sanitation District plants and then transfer most of this reclaimed water below the Whittier Narrows. Recycled water must first be allocated back to where it originated (or other sources must be provided with fail safe/ drought proof guarantees)
Please show a study of recycled water sources and destinations. 8-X

1-5
WE note that Some Comments are labeled Not applicable. This is not acceptable.
The draft scope is to narrow. What the water is used for is what is ultimately germane. 8-Y

COPP recently noted that CBMWD completed service to the Montebello Golf Course with no requirements that water conservation measures be implemented, no low water turf requirements even-though water conserving turf is available.
The General Manager of CBMWD is on record stating that they are not in the "Land Use Business or decision making" but only sell water. Thus they are enablers of waste. The fact that the CBMWD is in an unsustainable financial model is well known but this is no excuse to just take the money.
Supplying recycled water to "green deserts" with no conservation component is unacceptable.
Provide a study showing all recycled water destined to lawns, golf courses, cemeteries, etc and a plan to conserve. 8-Z

Table 3-1 Planned and approved projects in the Project Area
3.0-6 project summaries
Central Basin Municipal Water District
Southeast Water Reliability Project (SWRP)
Was approved as shown in 3.0-6 project summaries
THE CBMWD project based upon
". San Gabriel and Central District are also working in concert to construct joint recycled water facilities (pipelines, reservoirs, and booster pumps) to serve recycled water for landscape irrigation to the Montebello Hills Specific Plan, Resurrection Cemetery, Potrero Heights Elementary School and Park, and Don Bosco Technical High School in Rosemead.
The proposed Central District recycled water projects will provide up to 441 AFY of recycled water service for landscape irrigation.
2020 " 8-AA

However the SWRP has been decimated removing all users except the MHSP. This project must be resubmitted, re-evaluated and re-approved by the Sanitation Districts as it is no longer the project that was approved. Bait and Switch? Gut and ammend? Fraud? Pick one. 8-BB

It is not equitable that existing schools and Parks were eliminated and new Community Centers were not considered and a NEW URBAN SPRAWL High END Condo Project awarded the limited recycled water available. Montebello has been cited by the Governor for lack of AFFORDABLE housing which is what must be encouraged- not HIGH END. The San District must be an ENABLERof this bad planning but must support the housing needs already identified. Furthermore with the current state of the aquifiers there is actually currently no potable water available for huge projects like this. The MHSP is not a beneficial use of water Potable or Recycled. 8-CC

THE CBMWD
There was recently a secret meeting of the Board of Directors of the CBMWD in which 3 or more board members attended in Violation of the Ralph M Brown Act. There may have been additional SERIAL MEETINGS and meetings with Montebello0. At this meeting plans were made to rehear the denial of the remaining stub of the SWRP project at a recent public CBMWD board meeting. This rehearing was agendized (in violation of Roberts Rules of Order and the Bylaws) and the matter then approved.
(Also to rehear one of those that was in the majority for the previous vote must request the rehearing- there was no citation of any such request at the meeting- this is illegal)

We request that allocations of recycled water to or through the CBMWD through projects not yet completed be withdrawn , rescinded Specifically CBMWD's “Montebello blvd pipeline and pumpstation project” (name for the stub of the SWRP until the resolution of this EIR and new policies and procedures are in place
The CBMWD
Specifically CBMWD removed all potential recycled water users from their otherwise good pipeline project, including schools and parks leaving only an Oil Company.
CBMWD acted as lead agency in a project (the MHSP) already approved by the City of Montebello called the Montebello Hills Specific Plan.(MHSP)
The CBMWD proposal moved the approved recycled water supply from the East Side of the MHSP to a new unapproved location on the West Side effectively bypassing the City. In this process the recycled water tank required by the MHSP disappeared and the requirement to serve “the common areas” (ie the condo residents) also disappeared. Common Areas is strictly defined in condominium law which CBMWD purports to redefine ”common areas” as street medians. The Oil company evidently does not want to invest in recycled water infrastructure except to support it's grading operation.
We appreciate the finical straights of the CBMWD but this is no excuse to eliminate the other users in favor of the highest bidder for the scarce recycled water available.
We request that the Sanitation Districts withdraw the recycled water allocation to the Montebello Hills Specific Plan (MHSP or Montebello Hills Project or that remaining portion of the SWRP.. 8-DD

The MHSP has no recycle-reuse requirements, LID was not enacted when the City approved the MHSP,
There is no storm water capture which could reduce the need for recycled water. There is no Grey water plan, very little on water wise plantings, etc
The project is a “total loss to the storm drain system” for all recycled water allocated. This is not acceptable. Recycled landscape water and storm water must be recycled-reused on site.
CBMWD cries that the project must have recycled water or it will not ever have recycled water.
WHY ? If the MHSP project does not get recycled water someone else more deserving will and the same amount of potable water will be saved. We do not see a short term (but massive) grading project is the most beneficial use of recycled water where there are long term users available. 8-EE

Potential for Fraud and Kickbacks
The City of Montebello has issued a No Bid Contract for street improvements on Montebello Blvd. CBMWD, to save the cost of repaving, wishes to construct its pipeline at the same time using the same NO Bid contractor. The NO bid contractor was banned by John Wayne Airport for " irregularities " , fraud, accounting kickbacks, fined by the County of Orange, etc.
THIS STINKS and its Sanitation Districts and hence Our- the public's water and we want the Sanitation Districts to be responsible for it.

8-FF

Note that eliminating the water tank and the service to the "common areas" of the development is NOT IN THE BEST LONG TERM INTEREST of the CBMWD.
CBMWD is trading the long term service to the MHSP project and its future residents ,as approved, for quick bucks during the grading period. The developer stands to save big $$$ not having to use potable water for grading hence the tremendous pressure on the City and the CBMWD to approve the "pipeline and pumpstation" project.
The recycled water can better be utilized elsewhere- there are plenty of potential customers so there is not effect on potable water consumption- just a reallocation of who gets the benefits.
As stated above we do not thing that urban sprawl housing projects should be allowed to crowd out other potential users and Sanitation Districts must create guidelines and policies and procedures.

The project must develop guidelines and enforce them or the NO build alternative must be adopted.

8-GG

Tom Williams
we suspect that Dr Williams will comment on the draft but we hope his comments are fully appreciated.

8-HH

Michael Popoff
WE think that Environmental Justice IS the most important item in the equitable distribution of recycled water
The project must develop guidelines and enforce them or the NO build alternative must be adopted.

8-II

pg 3.0-6 Table 3.1
Southeast Water Reliability Project (SWRP)
The SWRP includes a recycled water pipeline in the northern portion of Central District's service area. The SWRP enhances recycled water deliveries and reliability within Central District's service area. The SWRP includes the cities of Montebello and Pico Rivera. San Gabriel and Central District are also working in concert to **construct joint recycled water facilities (pipelines, reservoirs, and booster pumps) to serve recycled water for landscape irrigation to the Montebello Hills Specific Plan, Resurrection Cemetery, Potrero Heights Elementary School and Park, and Don Bosco Technical High School in Rosemea**d. The proposed Central District recycled water projects will provide up to 441 AFY of recycled water service for landscape irrigation.
2020

8-JJ

This is the project we want rescinded
water for
“Resurrection Cemetery, Potrero Heights Elementary School and Park, and Don Bosco Technical High School in Rosemead. “ (
The Armenian Cathedral and New Montebell Community Center and the Shops at Montebello and other shopping centers are not mentioned)
Have been removed from the project leaving only the **Montebello Hills Specific Plan, (The Oil Company)**
There is no basis for this discrimination except greed on the part of the CBMWD and profit from contracting.
There are illegal activities as mentioned above
The pipeline is to be paid for from CBMWD RESERVES, which are even now inadequate
The pipeline CASH costs are to be shown on the books offset by a million dollar pump to be shown as an ASSET (what is the resale value?) at some date in the future.
A Tank, which would benefit the project as a whole,has been eliminated without pervue by the City of Montebello and the future homowners denied the benefits or recycled water for their common areas (common areas are everything outside the inner walls of the homes, including outer walls, roofs and LANDSCAPING
CBMWD will own the infrastructure if and when and SGVWCO will be the system operator as well as the operator of the domestic water system

8-JJ

Montebello City Hall Project - good project but the Montebello Land and Water Company has been sold to the San Gabriel Valley Water Company.

8-KK

3.0.2 Existing Conditions
Historical Conditions must also be considered
Existing Conditions must take recent drought into consideration

8-LL

figure 3.1.1 or 3.1.2 Show the Whittier Narrows Natural Area/ Nature Center/ Discovery Center/ Duck Farm and show the Audubon Ponds and artesian springs locations. Does this EIR consider servicing the Puente Hills Park, Discovery Center, Duck Farm and other public users?

8-MM

3.1.3 Is that Whittier Narrows Dam :) ??San Gabriel Blvd ?? I do not see the Bosque
Show how you plan on removing all of the non natives to save on wasted water
This looks more like the Dam impoundment area than the Bosque area which is north of San Gabriel Blvd
The BOSQUE area is North of San Gabriel blvd not south

8-NN

How many native turtles and crayfish did you find in the Rio Hondo?
Horny Toads, crayfish, native turtles, weasels and more were found along the RioHondo
Red snakes and California gopher snakes were found along the rio Hondo
Weasels along the Rio Hondo, spotted and striped skunks, raccoon, there seem to be lots of missing mammals and reptiles and amphibians.
What fish were native to the Rio Hondo before you let it go dry? Reptiles? Crustaceans, amphibians?,

8-OO

Other EIR's must be consulted: Whittier Narrows Discovery Center EIR, The SCE Tehachapi Project EIR the Puente Hills Landfill Park EIR, Rio Hondo College Eir must be consulted and considered.

8-PP

There must be others with the project area 8-PP

Pg 3.1-59
"Rio Hondo above the dam in the area known as the Bosque Del Rio Hondo."
The impound basin above the dam is NOT the Bosque Del Rio Hondo. Area
in fact the Bosque Del Rio Hondo is not the proper name which is Murano Beach

There needs to be a thorough study of the unlined Rio Hondo 8-QQ

3.2-11
"Whittier Narrows Dam Whittier Narrows Dam is a flood control and water conservation facility."
Whittier Narrows dam is NOT a water conservation facility- unfortunately
currently it is also hazardous as a flood control facility due to piping.
This draft is full of verbage- boilerplate and must be cleaned up. 8-RR

Figue 3.2-2
The area of the Main San Gabriel Groundwater Basin supplies a great portion of the input into the Whittier Narrows and San Jose Creek reclamation plants but this area is not shown to obtain much if any benefit form this project.
Benefits must be obtained and analyzed as part of this EIR 8-SS

Water falls as rain and recharges the upper basin aquifiers, it is pumped by the water companies and eventually ends up at the Reclamation Plants where it is partially discharged into the flood control channels. WRONG The water must be recycled and reused in the upper basins areas not exported south past the Whittier Narrows. In the alternative to pumping recycled back to the heights of the basins the San District could enforce the purchase of Replenishment water for the upper basins. This project must not be just a get rich quick scheme for downstream recycled water purveyors.
Show the amounts of water being removed from the upper basin areas to the lower basin areas and a plan to replace upper basin water. It is not as simple as trading potable for recycled on a system wide level.
Show a plan for use of upper basin outflows in the upper basins (including Pomona for example) 8-TT

3.2-20
groundwater quality must be made current as well as groundwater levels 8-UU

Figure 2.2 AND TEXT
Include spreading grounds between Santa Fe Dam and the current map
show how this project plans to supply these spreading grounds 8-VV

2.9 Project Construction No construction activities would be associated with the proposed project, as
As mentioned above the project is only half a project if the San Gabriel basin/ Whittier narrows is not included. A pipeline similar to the Carson to Hansen dam project must be included as an alternatives, costs shown etc. 8-WW

2.10 Uses of Recycled Water and Reuse Customers The goal of the Sanitation Districts is to make available as much recycled water from its treatment plants as possible to support the water resource planning needs of the region's water agencies. 8-XX

It's not for the water agencies it for the PUBLIC please rework this documents for it's benefits to the Public

8-XX

Impact Hydro 3.2.2
Impact on the whole of the basin may not be much but it must be shown what the impact on the southern most edge of the San Gabriel basin is. The area where there are historic artesian springs
The monitoring well near Whittier Narrows dam are at Historic lows eventhough the Baldwin Park well shows some increase in level

"The proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts would be less than significant."
I call BS
Any diversion of Recycled water would interfere with groundwater recharge.
This assertion is not supported by facts or logic.

8-YY

Hydrology- discuss the gradient from the San Gabriel Mountains to the Whittier Fault Crossing of the Whittier Narrows (where the Rivers cut through the uplifting hills)and how water has historically risen to the surface at the Whittier Narrows and how over-pumping has interfered with this natural system to the detriment of the environment. Show how this project helps to mitigate this over-pumping.

8-ZZ

3-2-36
Cumulative Impacts
The Watermaster and the WRD have been negligent in allowing the lowering of the water table and not replenishing.
There is no assurance that MW be able to supply water when there is another drought.

8-AAA

Where is the sediment removal and trash within the Whittier Narrows Dam impoundment area?
Where is the removal of water wasting arundo, castor bean and eucalyptus?
It is clear that mitigation on water replenishment is required and that it is a major project involving may agencies all the way from Pat Brown's Peripheral Canal to today.
The so called "IRWM" has failed putting the whole basin at risk
The project needs to be part of the solution not just part of the problem.
There must be a moratorium on additional pumping of groundwater. New users supplies must come from conservation.
Conservation however puts constraints on water sales, revenue for water suppliers. Please discuss these implications and conflicts of interest.

8-BBB

Cumulative Impacts Cumulative projects such as Capital Improvements Projects within the Central "Basin have the potential to implement built-facilities within the project vicinity which could impede or redirect flows and impact drainages onsite or offsite."
CBMWD's projects enable the paving of hundreds of acres of current watershead, greatly increasing runoff including runoff of scarce recycled water with no provision for capture and reuse
Effects locally are significant and must be addressed
THE MHSP project will continue to include oil field/ brownfield runoff which needs to meet all new requirements for storm water runoff in addition to the pesticides, herbicides, fertilizers from the large condo project including water from Recycled sources. Mixing this water into the groundwater recharge

8-CCC

"Legg Lake and other bodies of water along with the estuary area of San Gabriel River near Alamitos Bay within the project area are susceptible to seiches and tsunamis hazards (refer to Figure 3.2-3)"

"Legg Lake ... susceptible to seiches and tsunamis hazards...
Fix This

8-DDD

Hydro 3.2 5
While not obstructing what is the project doing to protect the Beneficial Uses, to mitigate the pollution
How is this project part of the solution
How does not making it worse make it better?

8-EEE

Impact Rec
Where are the swimming holes and cold clear springs historically along the Rio Hondo?
Where is Murano Beach?
Where is "Bean Beach"?

8-FFF

Distribution System and customers distribution systems
Include a map and discussion on the resilience and reliability of distribution systems. Show any non ductile piping, any tanks with obsolete hold downs, no break away valves etc. Show cost and timeline estimates necessary to harden the San Districts infrastructure and that of recycled water customers.
What is the time to repair and costs given a major earthquake.

8-GGG

Comment Letter 8: Save Our Community

Comment 8-A

The comment expresses support for the use of reclaimed water, and advocates that it be implemented in a socially responsible way.

Response 8-A

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-B

The comment acknowledges one of SWRCB's goals as to encourage the safe use of recycled water. The comment also references one of the objectives of the proposed project to "…support increased recycled water use through maximizing the availability of treated effluent that would otherwise be discharged to flood control channels within the San Gabriel River watershed." It expresses support for marshland restoration but requests that the Draft EIR show allocations. Finally, the comment expresses support for contributions to the Alamitos Seawater Intrusion Barrier well system, other saltwater intrusion prevention projects, and marshland restoration.

Response 8-B

The project objectives are provided in Section 2.4 of the Draft EIR. Also refer to Table 3-1, Planned and Approved Projects in the Project Area on pages 3.0-5 through 3.0-10. The projects consist of stormwater projects, recycled water projects, and streambed maintenance projects proposed by local groundwater management agencies, water districts, Los Angeles County Department of Public Works, and local cities. The list compiles cumulative projects in the project area that are relevant to the proposed project in that they either expand recycled water use, propose work in the streambed, or alter stream flows. In addition to the projects listed in Table 3-1, additional recycled water infrastructure development/planning efforts and programs that have not been identified as of this time could occur within the project area.

No additional response is required because there are no specific comments on the contents in the Draft EIR

Comment 8-C

The comment suggests that water that would otherwise be discharged into the open ocean is the issue (i.e., rather than water that is discharged to flood control channels), and requests that the entire document be revised.

Response 8-C

The project objectives are provided in Section 2.4 of the Draft EIR, and explicitly involves water discharges to flood control channels within the San Gabriel River watershed. Direct discharges to the open ocean are not contemplated by the proposed project. No additional response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-D

The comment references one of the objectives of the proposed project to, "Sustain or, if feasible, enhance sensitive habitats that have benefitted from historical treated effluent discharges to the San Gabriel River watershed through more efficient discharges from Sanitation Districts' WRPs." The comment subsequently claims a larger issue of water diversions by affiliated water entities and not being used to recharge.

Response 8-D

No response is required because there are no specific comments about the "water being diverted" or who would be diverting this water. Additionally, the comment is not on the contents in the Draft EIR.

Comment 8-E

The comment suggests that habitats that have been degraded or allowed to perish must be re-established, and requests a study on this issue.

Response 8-E

The potential impacts of the proposed project on biological resources are presented in Section 3.1 of the Draft EIR. Mitigation Measure BIO-1 provides that, "The Sanitation Districts shall implement a discharge operational scenario that maintains downstream habitat conditions..." and concludes that associated impacts would be less than significant after mitigation. No additional study is necessary; refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The proposed project is not required to re-establish previously degraded habitats, because the proposed project's impacts are evaluated based on the existing conditions at the time the notice of preparation is published. (14 Cal. Code Regs. §15125(a).)

Comment 8-F

The comment suggests that the Sanitation Districts must require their customers to fully mitigate their environmental impacts and their retail customers' environmental impacts in order to be eligible for recycled water allocations.

Response 8-F

Any use of recycled water by the Sanitation Districts customers is speculative and outside of the scope of this EIR and subject to environmental review by the proponents of those projects. No further response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-G

The comment finds no CEQA checklist and responses related to the topics of Geology and Soils, and Hazards. It requests information on how the proposed project will be impacted by an earthquake on the Whittier-Elsinore Fault.

Response 8-G

An Initial Study Checklist for the proposed project was prepared in February 2019, and is included as Appendix A-1 to the Draft EIR. Potential environmental impacts of the proposed project to Geology and Soils, and Hazards and Hazardous Materials, are presented in Sections VII and IX, respectively, of the Initial Study. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. Therefore, all issues associated with those topics were determined to have "No Impact." Accordingly, no additional study is necessary.

Comment 8-H

The comment suggests details regarding electricity provision and the potential effects of a significant power failure.

Response 8-H

An Initial Study Checklist for the proposed project was prepared in February 2019, and is included as Appendix A-1 to the Draft EIR. Potential environmental impacts of the proposed project to Energy, and Utilities and Service Systems, are presented in Sections VI and XIX, respectively, of the Initial Study. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge, and would not require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or stormwater drainage, electric power, or telecommunications facilities. All issues associated with those topics were determined to have "No Impact." Accordingly, no additional details regarding electricity provision and the potential for power failure are necessary.

Comment 8-I

The comment suggests that responses be provided to all CEQA checklist requirements.

Response 8-I

An Initial Study Checklist for the proposed project was prepared in February 2019, and is included as Appendix A-1 to the Draft EIR. Potential environmental impacts associated with all topics required by the State CEQA Guidelines, Appendix G, are addressed. Based upon the potential environmental impact determinations made during preparation of the checklist, three topics were carried forward for further review in the Draft EIR: Biological Resources; Hydrology and Water Quality; and Recreation.

Comment 8-J

The comment notes that the diversion of recycled water is a larger issue than the Sanitation Districts and their customers, and suggests that the Sanitation Districts must ensure that all other entities supply sufficient water for replenishment and habitat before committing to recycling customers. The comment further suggests that groundwater pumping be curtailed until aquifers are restored and artesian springs re-established.

Response 8-J

The project objectives are provided in Section 2.4 of the Draft EIR. The relationship of the proposed project to other recycled water programs, including the SWRCB Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014, is discussed in Section 2.7 of the Draft EIR. The potential impacts of the proposed project on groundwater resources are presented in Section 3.2. The potential impacts of the proposed project on biological resources are presented in Section 3.1 of the Draft EIR. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. No additional response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-K

The comment suggests that the Sanitation Districts may have a conflict of interest as Lead Agency for the proposed project.

Response 8-K

Section 1.2 of the Draft EIR identifies the Sanitation Districts as the Lead Agency for the proposed project, given that the Districts would implement the proposed project and would act upon and approve the proposed project (see CEQA Guidelines Section 15150). Given that the Sanitation Districts hold those responsibilities for the proposed project, they are therefore the appropriate Lead Agency for the Draft EIR. The comment provides no details regarding a potential conflict of interest associated with the Sanitation Districts' serving as Lead Agency, so no further discussion is necessary.

Comment 8-L

The comment references the fourth paragraph of page ES-2, which states, "Reductions in treated effluent discharges could affect these habitats by reducing water available by plants and animals in or near the river." The comment suggests that the Sanitation Districts provide water to refill before thinking of new customers.

Response 8-L

Potential environmental impacts to biological resources associated with reductions in discharges are discussed in the Draft EIR under Impact BIO 3.1-1. These impacts would be reduced to less than significant with the implementation of Mitigation Measures BIO-1 and BIO-2, which would

require that the Sanitation Districts implement a discharge operational scenario that maintains downstream habitat conditions, and conduct brown-headed cowbird trapping adjacent to selected areas of the San Gabriel River channel; refer to the revised Mitigation Measures BIO-1 and BIO-2 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. Groundwater management and the management of the recreation areas within the Whittier Narrows area are not within the jurisdictional authority of the Sanitation Districts. This project proposes to make a recycled water source available to support the efforts of the agencies tasked with those responsibilities. For further detail see Response 6-C above.

Comment 8-M

The comment references location details regarding the Whittier Narrows WRP, as presented on page ES-3 of the Draft EIR. The comment also references a statement at the bottom of page ES-3, regarding reductions to the Rio Hondo/Los Angeles River watershed, which if proposed, would be a separate and distinct project and the environmental impacts of those reductions would be considered in a separate CEQA document. Comment states that current allocations are inadequate and the water table must be raised and artesian flows restore.

Response 8-M

The Sanitation Districts do not anticipate that the proposed project would result in reductions to the Rio Hondo/Los Angeles River watershed. See Response 8-L regarding groundwater management above. No additional response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-N

The comment suggests that groundwater recharge in the San Gabriel Basin / Whittier Narrows be addressed in the Draft EIR, and that the infrastructure for such recharge from the Reclamation Plants mentioned to the headwaters be investigated and budgeted.

Response 8-N

Potential impacts to groundwater hydrology from the proposed project are discussed in Section 3.2.3 of the Draft EIR. The analysis concluded that all impacts would be Less Than Significant, or No Impact, and that no mitigation is required. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge, and therefore no infrastructure is proposed as part of the proposed project. Also see Response 8-L above.

Comment 8-O

The comment states that the “project objectives are backward,” suggesting that the goal of the proposed project should be to minimize flow and loss to the ocean, rather than to the flood control channels. The comment also requests that the Draft EIR remove the term “historic effluent discharges.” Finally, the comment suggests that conservation of potable water must be required as a prerequisite for the allocation of recycled water.

Response 8-O

The project objectives are presented in Sections ES.3 and 2.4 of the Draft EIR. The proposed project would facilitate the increased use of recycled water consistent with state law and policy, including Water Code Sections 461, 3500 *et seq*., and 13575 *et seq*., Government Code Section 65601 *et seq*., the SWRCB's Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014. As discussed in Section 2.7 of the Draft EIR, the Executive Order promotes the development of recycled water to serve areas in need and encourages the SRWCB to expedite requests to change water permits to enable those deliveries. The project objectives presented in the Draft EIR are consistent with these recycled water programs. No changes to the project objectives are warranted.

Comment 8-P

The comment expresses concern that the construction of future facilities would be provided by proponents of other projects, suggesting that such construction be done under the supervision and control, and policies and procedures, of the Sanitation Districts. The comment also requests that a study be provided regarding restoration of habitat and water tables as potentially impacted by the discharge of treated water.

Response 8-P

As presented in Section 2.3 of the Draft EIR, the Sanitation Districts are a public agency created under state law to manage wastewater and solid waste on a regional scale. The construction and operation of associated recycled water infrastructure programs is the responsibility of local municipalities, independent from the direct involvement of the Sanitation Districts. No changes to the project's implementation, nor the discussion in the Draft EIR, are warranted.

Comment 8-Q

The comment suggests that the proposed project be expanded to address multiple topics, including restoration of wetlands, water flows in the Rio Hondo Channel, restoration and maintenance of flora and fauna, invasive species, restoration of the water table in the San Gabriel Basin and Whittier Narrows, pumping and restoration of groundwater, and collaboration with MWD and WRD.

Response 8-Q

The comment suggests modification and expansion of the project objectives and project components beyond those contemplated by the Sanitation Districts. The Sanitation Districts' project objectives are presented in Sections ES.3 and 2.4 of the Draft EIR. The proposed project would facilitate the increased use of recycled water consistent with state law and policy, including Water Code Sections 461, 3500 et seq., and 13575 et seq., Government Code Section 65601 et seq., the SWRCB's Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014. As discussed in Section 2.7 of the Draft EIR, the Executive Order promotes the development of recycled water to serve areas in need and encourages the SRWCB to expedite requests to change water permits to

enable those deliveries. The project objectives presented in the Draft EIR are consistent with these recycled water programs. No changes to the project objectives are warranted.

Comment 8-R

The comment suggests that the proposed project would have significant impacts on hydrology, including impacts related to diversion and groundwater recharge. The comment also suggests that decreased groundwater recharge could increase EPA Hazard plumes and that cleanup of the aquifer be a priority of the proposed project.

Response 8-R

Potential impacts of the proposed project on hydrology and water quality are presented in Section 3.2.3 of the Draft EIR. The Draft EIR discussion of Impact HYDRO 3.2-2 acknowledges the potential for the proposed project to reduce river-bottom recharge to the southern-most edge of the San Gabriel Basin. The discussion explicitly references details from a recent study by the Basin Watermaster (provided in Appendix E3 of the Draft EIR), concluding that the proposed discharge reductions would result in a negligible loss of storage or subsurface basin flows and that groundwater levels could be reduced by up to 0.5 percent of baseline conditions. The Draft EIR concluded that, "Based on the results of the study and the small effect of the project on the San Gabriel Basin compared with other contributing factors of groundwater recharge and pumping, the proposed project would not significantly decrease groundwater supplies or interfere substantially with groundwater recharge." Cleanup activities related to the historical use of the aquifer are beyond the scope of the project objectives, and need not be addressed in the Draft EIR.

Comment 8-S

The comment suggests that the proposed project could impact recreational uses and activities along the Rio Hondo Channel.

Response 8-S

Potential impacts of the proposed project on recreation are presented in Section 3.3.3 of the Draft EIR. As discussed in Impact REC 3.3-3, the proposed reduction in discharges of recycled water would not involve any physical changes to the environment other than the decreased volume of discharge affecting areas where water recreation does not occur or is not allowed. Therefore, the proposed project would not substantially or negatively impact recreational facilities or interfere with existing recreational activities.

Comment 8-T

The comment requests written documentation for all scoping comments and responses.

Response 8-T

Comments received on the Notice of Preparation (NOP) and at the NOP scoping meeting are provided in Appendix A3 of the Draft EIR. A summary of those comments, and where addressed

in the Draft EIR, is provided in Table 1-1 of the Draft EIR. Section 15082 of the State CEQA Guidelines describes the process for issuance of the NOP. CEQA does not require that written responses be provided to comments received during public scoping. Rather, such comments may be considered by the Lead Agency when determining the appropriate scope of environmental analysis.

Comment 8-U

The comment reiterates the conclusion of Section 5.5 of the Draft EIR, that both the proposed project and Alternative 2 would equally maintain biological and recreational values in the river channels, subject to Mitigation Measures BIO-1 and BIO-2.

Response 8-U

No response is required because the comment concurs with the contents in the Draft EIR.

Comment 8-V

The comment is a continuation of Comment 8-U, and suggests that biological and recreational uses in the river channels must be restored, rather than only maintained.

Response 8-V

See Response 8-E and 8-S. The potential impacts of the proposed project on biological resources are presented in Section 3.1 of the Draft EIR. Mitigation Measure BIO-1 provides that, "The Sanitation Districts shall implement a discharge operational scenario that maintains downstream habitat conditions..." and concludes that associated impacts would be less than significant after mitigation; refer to the revised Mitigation Measure BIO-1 in Chapter 4 (pp. 4-5 and 4-6) and Chapter 5 (p. 5-2) of the Final EIR. The proposed project is not required to restore past biological and recreational uses in the river channels, because the project's impacts are evaluated based on the existing conditions at the time the notice of preparation is published. (14 Cal. Code Regs. §15125(a).)

Potential impacts of the proposed project on recreation are presented in Section 3.3.3 of the Draft EIR. As discussed in Impact REC 3.3-3, the proposed reduction in discharges of recycled water would not involve any physical changes to the environment other than the decreased volume of discharge affecting areas where water recreation does not occur or is not allowed. Therefore, the proposed project would not substantially or negatively impact recreational facilities or interfere with existing recreational activities.

Comment 8-W

The comment references the statement in Section 5.5 of the Draft EIR, that the proposed project would result in additional benefits [i.e., in comparison to Alternative 2] because it would supply more recycled water to users. The comment suggests that more recycled water may not be the greatest benefit to the greatest number of users.

Response 8-W

The referenced statement in the Draft EIR is correct as presented. The use of recycled water is consistent with the project objectives presented in Section 2.4 of the Draft EIR. The scope of the EIR is not intended to compare the respective merits of increased recycles water availability versus groundwater recharge. The project's potential impacts to groundwater recharge are presented in Section 3.2.3 of the Draft EIR, and were determined to be less than significant.

Comment 8-X

The comment suggests that a treated water pipeline "from Long Beach to Los Coyotes/to San Jose Creek (picking up Rio Hondo and Pomona) and on to Santa Fe Dam" be considered as a project alternative. The comment objects to taking water from the San Gabriel Basin and then treating and transferring reclaimed water below the Whittier Narrows. The comment requests a study of recycled water sources and destinations.

Response 8-X

Section 5 of the Draft EIR describes two alternatives to the proposed project. These alternatives are considered to comprise a "reasonable range of alternatives" as required by CEQA Guidelines Section 15126.6(c). The alternative suggested in the comment would not meet the project objectives as presented in Section 2.4 of the Draft EIR, and need not be considered.

Comment 8-Y

The comment objects to selected comments being considered "Not applicable" for analysis as shown in Draft EIR Table 1-1, Summary of NOP Comments, and suggests that the scope [of the proposed project] is too narrow.

Response 8-Y

Comments identified in Draft EIR Table 1-1 as "Not applicable" represent comments that request content, analyses, and other details in the Draft EIR that are not relevant to the purpose, intent, and/or objectives of the proposed project. CEQA does not require that all comments received during NOP scoping merit analysis in the Draft EIR. Those comments not meriting analysis were categorized as "Not applicable" in Draft EIR Table 1-1. The scope of the EIR is adequate because an EIR is not required to examine the impacts of facilities that are planned independently of the proposed project. (*National Parks & Conserv. Ass'n v. County of Riverside* (1996) 42 Cal.App.4th 1505.)

Comment 8-Z

The comment states that CBMWD completed service to the Montebello Golf Course with no requirements for the implementation of water conservation measures. The comment requests a study showing all recycled water destined to lawns, golf courses, cemeteries, etc., and a plan to conserve.

Response 8-Z

Historical water conservation practices at the Montebello Golf Course are not relevant to the proposed project. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. The comment's request for recycled water use study as requested is outside of the scope of the proposed project.

Comment 8-AA

The comment references Table 3-1, Planned and Approved Projects in the project area.

Response 8-AA

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-BB

The comment is a continuation of Comment 8-AA, and claims that the Southeast Water Reliability Project (SWRP) removed all users except the Montebello Hills Specific Plan (MHSP). The comment suggests that the SWRP project be re-reviewed by the Sanitation Districts.

Response 8-BB

No response is required because there are no specific comments on the San Gabriel Watershed project as proposed in the Draft EIR.

Comment 8-CC

The comment expresses concern over housing approvals in the City of Montebello.

Response 8-CC

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-DD

The comment requests that allocations of recycled water to or through the Central Basin Municipal Water District (CBMWD) be withdrawn for projects not yet completed; specifically, CBMWD's "Montebello Boulevard Pipeline and Pump Station Project." The comment also requests that the Sanitation Districts withdraw the recycled water allocation to the Montebello Hills Specific Plan (MHSP).

Response 8-DD

The comment requests the withdrawal of recycled water allocations for selected projects, thereby effectively requesting modification and expansion of the project objectives and project components beyond those contemplated by the Sanitation Districts. The Sanitation Districts' project objectives are presented in Sections ES.3 and 2.4 of the Draft EIR. The proposed project would facilitate the increased use of recycled water consistent with state law and policy,

including Water Code Sections 461, 3500 et seq., and 13575 et seq., Government Code Section 65601 et seq., the SWRCB's Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014. As discussed in Section 2.7 of the Draft EIR, the Executive Order promotes the development of recycled water to serve areas in need and encourages the SRWCB to expedite requests to change water permits to enable those deliveries. The project objectives presented in the Draft EIR are consistent with these recycled water programs. No changes to the project objectives, project description, nor other recycled water allocations are warranted.

Comment 8-EE

The comment expresses concern over water recycling and reuse associated with the Montebello Hills Specific Plan (MHSP).

Response 8-EE

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-FF

The comment expresses concern over the potential for fraud and kickbacks associated with improvements on Montebello Boulevard.

Response 8-FF

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-GG

The comment expresses concern over the long-term interests of the Central Basin Municipal Water District (CBMWD), and associated service to the Montebello Hills Specific Plan (MHSP).

Response 8-GG

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-HH

The comment states that the commenter suspects Dr. Williams will comment on that Draft EIR and that the commenter hopes his comments are fully appreciated.

Response 8-HH

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-II

The comment suggests that Environmental Justice is the most important item in the equitable distribution of recycled water, and that the proposed project must develop guidelines and enforce them, or the "No Project" Alternative must be adopted.

Response 8-II

The CEQA Guidelines do not use the term "environmental justice" and CEQA does not consider economic effects alone to be environmental impacts if they do not also result in adverse physical changes to the environment. Of note, the comment is not suggesting that the provision of recycled water will have any adverse impact on certain disadvantaged communities. Moreover, the development of environmental justice guidelines is outside the scope of the project objectives and project description presented in Section 2.0 of the Draft EIR. No revisions are needed to the EIR in response to the comment.

Comment 8-JJ

The comment reiterates the description of the Southeast Water Reliability Project (SWRP) provided in Table 3-1 on p. 3.0-6 of the Draft EIR. The comment expresses concern over the potential for discrimination, greed, and illegal activities associated with the SWRP.

Response 8-JJ

The comment refers to various cumulative projects in the project area (new recycled water users/recycled water projects). No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-KK

The comment states that the Montebello City Hall Project is a good project, but the Montebello Land and Water Company has been sold to the San Gabriel Valley Water Company.

Response 8-KK

No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-LL

The comment states that in Section 3.0.2 of the Draft EIR, historical conditions must also be considered. Additionally, the comment states that existing conditions must take recent drought into consideration.

Response 8-LL

The Environmental Setting discussions presented for resource areas in Sections 3.1 through 3.3 of the Draft EIR are consistent with the State CEQA Guidelines Section 15125(a)(1), which states that the EIR include a "description of the physical

> environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published. . . .” Under CEQA, the lead agency “may” (but is not required to) “referenc[e] historic conditions.”

Here, Sanitation Districts included both current and historical conditions affecting the two groundwater basins in the project area (the Main San Gabriel Basin and the Central Basin) in Section 3.2.2 of the Draft EIR. Various management measures incorporated to provide reliable groundwater supply, water quality, and prevent seawater intrusion within the Central Basin are summarized in Draft EIR Table 3.2-6, Historical Central Basin Management Measures.

As discussed on p. 3.2-32 of the Draft EIR, considerations regarding periods of drought are addressed through the Sustainable Groundwater Management Act (SGMA). Since the Main San Gabriel Basin and the Central Basin are adjudicated, they are exempt from SGMA. However, both the Main San Gabriel Watermaster and the WRD have groundwater management and monitoring programs in place to best implement the goals and objectives of SGMA. As described in the Draft EIR (p. 3.2-25), a study prepared by the Basin Watermaster (Appendix E3) estimated the impacts to groundwater conditions that could be expected from the reduced discharges indicated that the proposed discharge reductions would result in negligible loss of storage or subsurface basin flows and that groundwater levels could be reduced by up to 0.5 percent of baseline conditions. Overall, the project’s contribution to cumulative impacts regarding groundwater management levels and quality would be less than cumulatively considerable.

Comment 8-MM

The comment requests that Figure 3.1-1 or 3.1-2 of the Draft EIR show the Whittier Narrows Natural Area/Nature Center/Discovery Center/Duck Farm and show the Audubon Ponds and artesian springs locations. The comment asks if the Draft EIR considers servicing the Puente Hills Park, Discovery Center, Duck Farm, and other public users.

Response 8-MM

The Whittier Narrows natural area is shown throughout various Draft EIR figures. Directly labeling other areas such as the nature center and duck farm are not relevant to the analysis contained within the Draft EIR. The proposed project would allow for localized recycled water supply to be distributed directly from WRPs to new recycled water customers/existing recycled water uses. Available recycled water from decreased discharges can be used to service recreational uses within the project area, including those uses described above. However, the particular use of recycled water will ultimately be determined by the local water agency, and is speculative at this time.

Comment 8-NN

The comment requests clarifications regarding the features shown on Figure 3.1-3; specifically regarding Whittier Narrows Dam, San Gabriel Blvd, and the Bosque Area. The comment asks how the Sanitation Districts plans on removing all of the nonnatives to save on wasted water. The

comment states that the figure looks like it is showing the Dam impoundment area, and not the Bosque area. The comment states that the Bosque area is North of San Gabriel Blvd., not south.

Response 8-NN

As shown on Figure 3.1-3, San Gabriel Blvd. is located just west of Durfee Avenue after its intersection with Rosemead Blvd/ SR 19, but it is not labeled. According to LA County Parks, the Bosque area (where most of the plant communities and land cover exist) is located primarily south of San Gabriel Blvd.; however, parking for the hiking trail, the Rio Hondo Bike Path, and a smaller amount of plant and land cover are located just north of San Gabriel. The Bosque Del Rio Hondo area is shown north and south of Durfee Ave./San Gabriel Blvd on Figure 3.1-3.

The proposed project does not include the removal of nonnative species; therefore, such action is not described within the project description or analyzed within the Draft EIR.

Comment 8-OO

The comment requests details regarding biological species found in and along the Rio Hondo, alleging that "there seem to be lots of missing mammals and reptiles and amphibians." The comment then inquires about what fish were native to the Rio Hondo before it "went dry."

Response 8-OO

Section 3.1, *Biological Resources*, of the Draft EIR and Appendices B1 and B2 of the Draft EIR contain extensive listing, reporting and analysis of potential impacts to special status and protected species within the project area. No further response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-PP

The comment states that other EIRs must be consulted and considered, such as the: Whittier Narrows Discovery Center EIR; the SCE Tehachapi Project EIR; the Puente Hills Landfill Park EIR; and the Rio Hondo College EIR. The comment suggests that there must be others in the project area as well.

Response 8-PP

References used in the preparation of the San Gabriel River Watershed Project EIR are provided in Chapter 4 of the Draft EIR. The proposed project does not include any construction activities or implementation of facilities that would have impacts cumulatively considerable with those projects identified by the commenter. The EIRs referenced by the commenter are understood to have described and analyzed impacts specific to those projects' goals and objectives. Cumulatively considerable impacts were evaluated for relevant projects identified in Table 3-1 of the Draft EIR.

Comment 8-QQ

The comment reiterates a sentence from page 3.1-59 of the Draft EIR: "Rio Hondo above the dam in the area known as the Bosque Del Rio Hondo." The comment states that the impound basin above the dam is not the Bosque Del Rio Hondo, and claims that the proper name is not the Bosque Del Rio Hondo, but "Murano Beach". The comment states that there needs to be a thorough study of the unlined portion of the Rio Hondo.

Response 8-QQ

The description provided on page 3.1-59 of the Draft EIR is consistent with the Updated Biological Resources Report (July 2019) provided as Appendix B.1 in the Draft EIR, which identifies the Bosque Del Rio Hondo as the "backwater" area of the Rio Hondo, just upstream from the Whittier Narrows Dam. The comment provides no details to support its objections to the location or names of these facilities. The Draft EIR describes that flows periodically are conveyed to the Rio Hondo through the Zone 1 Ditch. The Draft EIR concludes on page 3.1-59 that the flows to the Rio Hondo are inconsistent and infrequent and do not support habitat that is otherwise watered by urban runoff and Whittier Narrows WRP discharges to the Rio Hondo. No associated revisions are needed to the Draft EIR.

Comment 8-RR

The comment reiterates a sentence on Page 3.2-11 of the Draft EIR: "Whittier Narrows Dam is a flood control and water conservation facility." The comment states that the Whittier Narrows dam is not a water conservation facility, and characterizes the dam as "hazardous… due to piping." The comment alleges that the Draft EIR is full of verbiage/boilerplate and must be cleaned up.

Response 8-RR

The facility description provided on the U.S. Army Corps of Engineers website for Whittier Narrows Dam and Reservoir (https://www.spl.usace.army.mil/Missions/Asset-Management/Whittier-Narrows-Dam) states, "Whittier Narrows Dam and Reservoir is a flood control and water conservation project constructed and operated by the U.S. Army Corps of Engineers, Los Angeles District at the Whittier Narrows in Montebello, California." The description on page 3.2-11 in the Draft EIR is consistent with that provided by the U.S. Army Corps of Engineers, and need not be revised. The comment's additional statements regarding hazards, piping, and "verbiage/boilerplate" are not supported by sufficient details. No associated revisions are needed to the Draft EIR.

Comment 8-SS

The comment states that the Main San Gabriel Groundwater Basin supplies a great portion of the input into the Whittier Narrows and San Jose Creek reclamation plants, but suggests that "this area" [not clearly identified in the comment] is not shown (on Figure 3.2-2) to obtain much if any benefit from this proposed project. The comment states that such benefits must be obtained and analyzed as part of the EIR.

Response 8-SS

The comment suggests modification and expansion of the project objectives and project components beyond those contemplated by the Sanitation Districts. The project objectives are provided in Section 2.4 of the Draft EIR. The relationship of the proposed project to other recycled water programs, including the SWRCB Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014, is discussed in Section 2.7 of the Draft EIR. The potential impacts of the proposed project on hydrology and water quality are presented in Section 3.2 of the Draft EIR, and are concluded to be less than significant. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. Additional analysis regarding benefits to the Main San Gabriel Groundwater Basin need not be provided in the Draft EIR.

Comment 8-TT

The comment suggests that water must be recycled and reused in the upper basins areas and not exported south past the Whittier Narrows. The comment requests that the Draft EIR show the amounts of water being removed from the upper basin areas to the lower basin areas, and a show/describe a plan for the use of upper basin outflows in the upper basins.

Response 8-TT

Please refer to Response 8-SS, above.

Comment 8-UU

The comment references page 3.2-20 of the Draft EIR, and suggests that "groundwater quality must be made current as well as groundwater levels."

Response 8-UU

Groundwater quality data presented on page 3.2-20 of the Draft EIR, for the years 2001-2002 through 2011-2012, are those most currently available as of the date of preparation of the Draft EIR. Additional hydrological data is included in Appendix E1, Hydrology Report, 2019 and Appendix E2, Hydrology Report, 2018 of the Draft EIR. As required under CEQA, Section 15125, data presented in the EIR "must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published…" No revisions are needed to the Draft EIR.

Comment 8-VV

The comment references "Figure 2.2 AND TEXT" of the Draft EIR, and requests that the figure be revised to "show the spreading grounds between Santa Fe Dam and the current map." The comment also requests that text of the Draft EIR explain how the project plans to supply water to these spreading grounds.

Response 8-VV

It is unclear whether the comment intends to refer to Figure 2-2, or Figure 3.2-2, in the Draft EIR. Nonetheless, revisions to the Draft EIR figures to show spreading grounds south of Santa Fe Dam are outside the scope of the project objectives and project description as presented in Chapter 2 of the Draft EIR, and are therefore unnecessary.

Comment 8-WW

The comment references Section 2.9, *Project Construction* of the Draft EIR, which states that "No construction activities would be associated with the proposed project…" The comment alleges that the proposed project "is only half a project if the San Gabriel Basin/Whittier narrows is not included." The comment requests that a pipeline similar to the Carson to Hansen Dam Project must be included as an alternative.

Response 8-WW

Guidance regarding the identification and selection of alternatives in CEQA documents is provided in Section 15126.6(c) of the State CEQA Guidelines. As provided therein, "The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." In addition, CEQA Guidelines Section 15126(e) states that "The specific alternative of "no project" shall also be evaluated along with its impact. Consistent with this guidance, Draft EIR Section 5.3 identifies two alternatives to the project: Alternative 1, No Project Alternative; and Alternative 2, Discharge Reduction Phasing.

The comment's request for an alternative comprising "a pipeline similar to the Carson to Hansen Dam Project" is not supported by sufficient detail to understand what additional alternative is specifically being requested. Moreover, such alternative is highly likely to be inconsistent with the project objectives provided in Section 2.4 of the Draft EIR, and is unlikely to lessen any substantial effects of the proposed project. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. Analysis of additional alternatives is not necessary to properly evaluate the proposed projects and ways to avoid or lessen project impacts.

Comment 8-XX

The comment references Section 2.10 of the Draft EIR. The comment suggests that the goal of the Sanitation Districts is to make available as much recycled water from its treatment plants as possible to support the water resource planning needs of the region's water agencies. The comment further suggests that recycled water is "for the PUBLIC" and requests that the Draft EIR be "reworked" accordingly.

Response 8-XX

The comment suggests modification and expansion of the project objectives and project components beyond those contemplated by the Sanitation Districts. The project objectives are

provided in Section 2.4 of the Draft EIR. The relationship of the proposed project to other recycled water programs, including the SWRCB Policy for Water Quality Control for Recycled Water (Recycled Water Policy), and the Executive Order issued by the Governor in April 2014, is discussed in Section 2.7 of the Draft EIR. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. Additional analysis in the Draft EIR regarding the comparative benefits of the project to water agencies and the public is not necessary.

Comment 8-YY

The comment references Impact HYDRO 3.2-2 of the Draft EIR, suggesting that the impact on southern-most edge of the San Gabriel Basin is important and should be addressed, that it is an area where historic artesian springs are located, and that the monitoring well near Whittier Narrows Dam is at historic lows even though the Baldwin Park Well shows some increase in level.

The comment further references the third paragraph on page 3.2-26 of the Draft EIR, stating "The proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts would be less than significant." The commenter does not agree with this significance determination or impact statement, and suggests that any diversion of recycled water would interfere with groundwater recharge.

Response 8-YY

The Draft EIR discussion of Impact HYDRO 3.2-2 acknowledges the potential for the proposed project to reduce river-bottom recharge to the southern-most edge of the San Gabriel Basin. The discussion explicitly references details from a recent study by the Basin Watermaster (provided in Appendix E3 of the Draft EIR), concluding that the proposed discharge reductions would result in a negligible loss of storage or subsurface basin flows and that groundwater levels could be reduced by up to 0.5 percent of baseline conditions. The Draft EIR concluded that, "Based on the results of the study and the small effect of the project on the San Gabriel Basin compared with other contributing factors of groundwater recharge and pumping, the proposed project would not significantly decrease groundwater supplies or interfere substantially with groundwater recharge."

The commenter does not provide expert opinion or sufficient analytical detail to support its disagreement with the conclusion reiterated on page 3.2-26 of the Draft EIR. No revisions are needed to the Draft EIR.

Comment 8-ZZ

The comment requests that the Draft EIR discuss the gradient from the San Gabriel Mountains to the Whittier Fault Crossing of the Whittier Narrows (where the Rivers cut through the uplifting hills), how water has historically risen to the surface at the Whittier Narrows, and suggests that over-pumping has interfered with this natural system to the detriment of the environment. The comment requests that it be explained how the project helps to mitigate this over-pumping.

Response 8-ZZ

Pages 3.2-9 through 3.2-11 of the Draft EIR describe surface flows from the San Gabriel Mountains to the Whittier Narrows Dam. Further, the existing flow regime of the Whittier Narrows area was described and studied, with details from the project's Hydrology Report 2019 summarized in Section 3.2 (Hydrology and Water Quality) and Appendix X of the Draft EIR.

The groundwater hydrology of the project area within both the Main San Gabriel Basin (where the San Gabriel Mountains reach the Whittier Narrows) and the Central Basin gradients are detailed in pages 3.2-17 through 3.2-20 of the Draft EIR. These pages of the EIR discuss historical over pumping and the Watermasters' roles in mitigating impacts of over pumping. As detailed on Page 3.2-19 of the Draft EIR, the area with most documented over pumping is within the Central Basin (due to the need to maintain the seawater barrier) and not within the Main San Gabriel Basin, where the Whittier Narrows is located. Just south of the Whittier Narrows is where the Central Basin begins and includes areas of the highest water table levels due to increased recharge within spreading basins.

The proposed project would have no direct impact on groundwater pumping. Reduced discharges to the San Gabriel River would directly hold more water, treat it, and send it within existing conveyance facilities to Recycled Water Customers. Water for new recycled water customers under the proposed project would not be pumped from the groundwater table.

Comment 8-AAA

The comment suggests that the Watermaster and the WRD have been negligent in allowing the water table to be lowered and not replenished, and suspects there is no assurance that MWD will be able to supply water when there is another drought.

Response 8-AAA

The CEQA Lead Agency for the proposed project is the Sanitation Districts, and not the Watermaster or WRD. However, by implementing the proposed project, the Sanitation Districts will be providing a sustainable water source for the Watermasters and WRD to become less dependent on imported water. No response is required because there are no specific comments on the contents in the Draft EIR.

Comment 8-BBB

The comment asks where the sediment and trash removal is within the Whittier Narrows Dam impoundment area. The comment also asks for details regarding the location of Arundo, castor bean and eucalyptus. The comment suggests that mitigation regarding water replenishment is required, and that is a major project involving many agencies

The comment states that the "IRWM" (Integrated Regional Water Management) has failed and is putting the whole basin at risk, and that there must be a moratorium on additional pumping of groundwater. The comment suggests that new users' supplies must come from conservation, and

asks that the Draft EIR discuss implications and conflicts of interests associated with conservation, constraints on water sales, and revenue for water suppliers.

Response 8-BBB

Sediment and trash removal is not a part of the proposed project, nor is the removal of Arundo, castor bean, or eucalyptus bean species. Other projects in the area include trash and sediment removal for increased flows in channels and/or invasive species removal to assist with surface flow/groundwater recharge and quality. Activities such as these are being implemented by Watermasters and responsible agencies within the project area such as Los Angeles County Department of Public Works (see Table 3-1). However, the proposed project does not include these activities.

As detailed on Page 3.2-31 of the Draft EIR, the proposed project and cumulative projects such as the ARC, support IRWM planning administered by the DWR on a state-wide scale. The proposed project would reduce discharges to manage local water supply and environmental objectives. The proposed project would not result in trash or sedimentation within the basins. The proposed project has no direct or indirect impact on groundwater pumping within the project area. Therefore, the Draft EIR does not require further analysis on groundwater supply impacts, or include implications of water sales and revenue for water suppliers. Overall, the proposed project would be beneficial to water suppliers in the local area.

Comment 8-CCC

The comment states that cumulative projects such as Capital Improvements Projects within the Central Basin “have the potential to implement built-facilities within the project vicinity which could impede or redirect flows and impact drainages onsite or offsite.” The comment suggests that CBMWD's projects enable increased runoff, and result in the loss of potential capture and reuse of recycled water, and must be addressed. The comment states that the MHSP project will continue to include oil field/brownfield runoff and other hazardous discharges which are mixed into the groundwater recharge.

Response 8-CCC

The Capital Improvement Projects that the commenter refers to are cumulative projects and not part of the scope of the proposed project nor are directly linked to the proposed project. The San Gabriel Watershed project would not include built facilities and would not increase runoff. No further response is required because there are no specific comments on the proposed project as proposed in the Draft EIR.

Comment 8-DDD

The comment references text from Impact HYDRO 3.2-4 on page 3.2-30 of the Draft EIR: “Legg Lake and other bodies of water along with the estuary area of San Gabriel River near Alamitos Bay within the project area are susceptible to seiches and tsunamis hazards (refer to Figure 3.2-3)”. The comment then states that this sentence needs to be fixed.

Response 8-DDD

Page 3.2-21 of the Draft EIR defines seiches and tsunamis. Legg Lake is susceptible to seiches as it is a closed body of water that can oscillate with a large earthquake event or wind event. The San Gabriel River near the Alamitos Bay/the Pacific coast is susceptible to tsunamis. This sentence on page 3.2-30 of the Draft EIR has been revised slightly to be more clear:

> Legg Lake and other bodies of water are susceptible to seiche hazards (refer to Figure 3.2-2). ~~along with the~~ Further, the estuary area of San Gabriel River near Alamitos Bay within the project area is ~~are~~ susceptible to ~~seiches and~~ tsunamis hazards (refer to Figure 3.2-3). However, no physical development or changes in current facilities or operations are proposed by the project, therefore, the proposed project would not result in a release of pollutants in these local seiche or tsunami flood hazard areas. No impacts would occur.

Comment 8-EEE

The comment asks, "While not obstructing what is the project doing to protect the Beneficial Uses, to mitigate the pollution… How is this project part of the solution… How does not making it worse make it better?"

Response 8-EEE

The proposed project has no direct impact on pollution, therefore, the proposed project does not require mitigation measures to reduce or minimize pollution in the project area. The proposed project would further localize water supply by providing recycled water customers with treated water by reducing discharges to the San Gabriel River. No further response is required because there are no specific comments on the San Gabriel Watershed project as proposed in the Draft EIR.

Comment 8-FFF

The comment asks: "Where are the swimming holes and cold clear springs historically along the Rio Hondo? Where is Murano Beach? Where is Bean Beach?"

Response 8-FFF

As described within the Draft EIR and above in previous responses to comments, the proposed project does not impact the Rio Hondo River, nor would it result in adverse impacts to local beaches or other recreational facilities. No further response is required because there are no specific comments on the San Gabriel Watershed project as proposed in the Draft EIR.

Comment 8-GGG

The comment requests that the Draft EIR include a map and discussion regarding the resilience and reliability of distribution systems. The comment asks that the Draft EIR show any non-ductile piping, any tanks with obsolete hold downs, and no break away valves. Additionally, the comment requests that the Draft EIR show cost and timeline estimates necessary to harden the

Sanitation Districts infrastructure and that of recycled water customers. Along with estimates of the time and costs to repair should a major earthquake occur.

Response 8-GGG

The comment suggests additional analyses, modification, and expansion of the project objectives and project components beyond those contemplated by the Sanitation Districts. The project objectives are provided in Section 2.4 of the Draft EIR. The proposed project would not involve any construction activities or physical changes to the environment other than the decreased volume of discharge. Additional analysis in the Draft EIR regarding infrastructure resilience is not necessary.

CHAPTER 4
Corrections and Additions to the Draft EIR

This chapter contains a compilation of revisions made to the text of the Draft EIR by the Sanitation Districts as the Lead Agency, in response to the comments received during the 45-day public review period as well as minor edits. All revisions are previously introduced in Chapter 3 of this Final EIR but are summarized here for convenience of the reader. Where the responses indicate additions or deletions to the text of the Draft EIR, additions are indicated in underline and deletions in ~~strikeout.~~

Executive Summary

ES.2 Background

Pages ES-2

The three major rivers in the JOS service area are the Rio Hondo, Los Angeles, and San Gabriel. The Rio Hondo flows southwest from its headwaters at the ~~Sawpit Dam~~ Peck Road Spreading Basin into the Los Angeles River, which discharges into the Pacific Ocean. The San Gabriel River flows southwesterly from its headwaters in the San Gabriel Mountains and forms a tidal prism before discharging into the Pacific Ocean at Seal Beach. The tidal prism of the San Gabriel River is the area within the river where freshwater from upstream sources mixes with salt water from the Pacific Ocean.

Page ES-4

~~The~~ Los Angeles County Department of Public Works owns and operates an extensive system of flood control and groundwater recharge facilities along the San Gabriel River and Rio Hondo that make up the Montebello Forebay Groundwater Recharge Project. The Montebello Forebay~~,~~ is located just south of Whittier Narrows Dam and ~~an area in the northern part of the Central Groundwater Basin (Central Basin),~~ is a valuable area for groundwater recharge for the Central Groundwater Basin (Central Basin) due to its highly permeable soils which allow deep percolation of surface waters. The Rio Hondo Coastal Spreading Grounds (RHSG), ~~and~~ the San Gabriel Coastal Spreading Grounds (SGSG), and the San Gabriel River are groundwater recharge facilities located within ~~which comprise~~ the Montebello Forebay.~~, and the lower San Gabriel River spreading area comprise the Montebello Forebay recharge facilities. Both~~ The spreading grounds use Sanitation Districts' recycled water, imported water ~~imported~~ from the State Water Project, and local runoff ~~rainwater~~ to recharge the ~~groundwater~~ Central ~~b~~Basin through percolation. ~~The~~ Los Angeles County Department of Public Works notes that operations at these facilities recharge an average of approximately 60,600 ~~150,000~~ acre-feet (AF) (54 ~~134.00~~ MGD) of water annually.

Page ES-4

The SGSG are approximately 128 acres. Recycled water is conveyed to the spreading grounds via the San Jose Creek Outfall Pipeline (SJC Outfall Pipeline). The SJC Outfall Pipeline has a discharge point at the headworks of the SGSG facility that is capable of discharging treated recycled water to the San Gabriel river or the spreading grounds, or diverting water from the San Gabriel River into the spreading grounds.

ES.4 Project Description

Page ES-5

The proposed project would facilitate the increased use of recycled water consistent with state law and policy, including Water Code Sections 461, 13500 *et seq*., and 13575 *et seq*.; Government Code Section 65601 *et seq*.; the SWRCB's Policy for Water Quality Control for Recycled Water (Recycled Water Policy); and the Executive Order issued by the Governor on April 25, 2014. The Executive Order promotes the development of recycled water to serve areas in need and encourages the SWRCB to expedite requests to change water permits to enable those deliveries. The Sanitation Districts has ~~are proposing to~~ submitted one Wastewater Change Petition per WRP pursuant to California Water Code Section 1211 to change the place and purpose of use of recycled water, while maintaining sensitive habitat supported by historic effluent discharges. A total of four petitions ~~will~~ were ~~be~~ submitted, one each for the San Jose Creek WRP, the Pomona WRP, the Los Coyotes WRP, and the Long Beach WRP.

Table ES-2

Page ES-9

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
3.1 Biological Resources			
Impact BIO 3.1-1: The proposed projects could have a significant impact if they would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	Potentially Significant	**BIO-1:** The Sanitation Districts shall implement a discharge operational scenario that maintains downstream habitat conditions. The District shall finalize and implement the Adaptive Management Plan (AMP) (refer to Appendix H) to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels, recognizing that the habitat in the channel may change naturally in response to long-term changes in surface flows and high flood events. The District shall coordinate with the USFWS and CDFW in implementing the AMP. As part of the AMP, data collected during monitoring will be submitted to USFWS and CDFW for review and comment. The AMP identifies parameters that would trigger actions to	Less than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		remedy any effects attributable to the proposed reduced discharges. Monitored parameters shall include a combination of water stress, vegetation cover, and structural diversity of vegetation based on richness, canopy and understory cover, and recruitment. The specific trigger levels for each parameter shall be included in a Habitat Monitoring Plan developed in consultation with USFWS and CDFW. If triggers are reached, specific remedial actions will include resumed discharges into the river channel sufficient to support the acreage of habitat sustained by historical discharges. **BIO-2:** The Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation District's staff. The trapping will ~~shall~~ occur during the first three years of reduced discharges. An ~~A~~additional three years of cowbird trapping activities will occur if the vegetation mapping criteria for willows is triggered ~~shall be implemented subject to need based on AMP annual reporting~~.	

Chapter 2 Project Description

2.3 Project Background

Page 2-3

The three major rivers in the JOS service area are the Rio Hondo, Los Angeles, and San Gabriel. The Rio Hondo flows southwest from its headwaters at the ~~Sawpit Dam~~ Peck Road Spreading Basin into the Los Angeles River, which discharges into the Pacific Ocean. The San Gabriel River flows southwesterly from its headwaters in the San Gabriel Mountains and forms a tidal prism before discharging into the Pacific Ocean at Seal Beach. The tidal prism of the San Gabriel River is the area within the river where freshwater from upstream sources mixes with salt water from the Pacific Ocean.

2.6 Montebello Forebay

Pages 2-8 and 2-9

~~The~~ Los Angeles County Department of Public Works owns and operates an extensive system of flood control and groundwater recharge facilities along the San Gabriel River and Rio Hondo that make up the Montebello Forebay Groundwater Recharge Project. The Montebello Forebay~~,~~ is located just south of Whittier Narrows Dam and ~~an area in the northern part of the Central Groundwater Basin (Central Basin),~~ is a valuable area for groundwater recharge for the Central Groundwater Basin (Central Basin) due to its highly permeable soils which allow deep

percolation of surface waters. The Rio Hondo Coastal Spreading Grounds (RHSG), ~~and~~ the San Gabriel Coastal Spreading Grounds (SGSG), and the San Gabriel River are groundwater recharge facilities located within ~~which comprise~~ the Montebello Forebay~~., and the lower San Gabriel River spreading area comprise the Montebello Forebay recharge facilities. Both~~ The spreading grounds use Sanitation Districts' recycled water, imported water ~~imported~~ from the State Water Project, and local runoff ~~rainwater~~ to recharge the ~~groundwater~~ Central ~~b~~Basin through percolation. ~~The~~ Los Angeles County Department of Public Works notes that operations at these facilities recharge an average of approximately 60,600 ~~150,000~~ acre-feet (AF) (54 ~~134.00~~ MGD) of water annually.

2.7 Relationship of Project to Recycled Water Programs

Page 2-9

The proposed project would facilitate the increased use of recycled water consistent with state law and policy, including Water Code Sections 461, 13500 et seq., and 13575 et seq.; Government Code Section 65601 et seq.; the State Water Resources Control Board (SWRCB) Policy for Water Quality Control for Recycled Water (Recycled Water Policy); and the Executive Order issued by the Governor on April 25, 2014. The Executive Order promotes the development of recycled water to serve areas in need and encourages the SWRCB to expedite requests to change water permits to enable those deliveries. The Sanitation Districts has ~~are proposing to~~ submitted a total of four Wastewater Change Petitions pursuant to California Water Code Section 1211 to change the place and purpose of use of recycled water, while maintaining sensitive habitat supported by historic effluent discharges. A total of four petitions ~~will~~ were ~~be~~ submitted, one each for the San Jose Creek WRP, the Pomona WRP, the Los Coyotes WRP, and the Long Beach WRP.

Section 3.1 Biological Resources

3.1.1 Biological Resources Data Sources

Refer to revised Figure 3.1-1 at the end this Chapter.

Impact BIO 3.1-2

Page 3.1-16

Further downstream within Segments 5 and 6, this vegetation tapers out and the river bed is groomed ~~through scarifying the channel bottom and by other means~~ to support groundwater recharge. Some natural vegetation exists on the edges in disparate patches, but most of the channel is devoid of natural habitat values. The LACDPW has installed several rubber dams in this segment of the river to impound water when it is available for groundwater recharge. The proposed reductions in discharges of recycled water from the upstream WRPs would have no effect on the habitat in these area since little native habitat occurs under existing conditions.

Table 3.1-6

Page 3.1-55

TABLE 3.1-6
ADAPTIVE MANAGEMENT PLAN MONITORING OBJECTIVES AND PARAMETERS

Monitoring Objective	Monitoring Parameter	Methods	Location	Timing	Basis of Comparison
More efficiently manage effluent	Water Stress	Modify existing random effluent flow to an intentional discharge cycle of reduced flow	SJC002 and SJC003	Continuous logging	5-WY average baseline flow
		Stem water potential	~~71~~ 96 Select Trees	Spring (single baseline) and Fall (on-going)	Pre-project conditions per AMP Grouping
Maintain quantity and quality of riparian ~~and wetland habitat~~ in areas influenced by treatment plant discharge	Cover of Vegetation Alliances (arroyo willow thickets, black willow thickets, sandbar willow, blue elderberry stands, California sycamore stands, mulefat thickets, box-elder forest, ~~and~~ cattail marsh, and arundo)	Vegetation Mapping - Aerial Photographs and Ground Truthing	AMP Grouping 1-5	Annually in the Fall	Pre-project conditions per Overall Project Area
	Structure - Canopy Cover	Transects with quadrats of "stacked cubes" every ~~20~~ 10 m (Kus 1998), minimum 20 quadrats per AMP grouping	~~21~~ 22 Transects	Annually in the Fall	Pre-project conditions per AMP Grouping
	Structure - Understory	Transects with quadrats of "stacked cubes" every ~~20~~ 10 m (Kus 1998), minimum 20 quadrats per AMP grouping	~~21~~ 22 Transects	Annually in the Fall	Pre-project conditions per AMP Grouping
	Species Richness	2 m wide Belt Transects	~~21~~ 22 Transects	Annually in the Fall	Pre-project conditions per AMP Grouping
	Recruitment	2 m wide Belt Transects	~~21~~ 22 Transects	Annually in the Fall	Pre-project conditions per AMP Grouping

Mitigation Measure BIO-1

Page 3.1-58

Mitigation Measure BIO-1: The Sanitation Districts~~s~~ shall implement a discharge operational scenario that maintains downstream habitat conditions. The Sanitation Districts shall finalize and implement the Adaptive Management Plan (AMP) (refer to Appendix H) to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges

is maintained at or above baseline levels, recognizing that the habitat in the channel may change naturally in response to long-term changes in surface flows and high flood events. The Sanitation Districts shall coordinate with the USFWS and CDFW in implementing the AMP. As part of the AMP, data collected during monitoring will be submitted to USFWS and CDFW for review and comment. The AMP identifies parameters that would trigger actions to remedy any effects attributable to the proposed reduced discharges. Monitored parameters shall include a combination of water stress, vegetation cover, and structural diversity of vegetation based on richness, canopy and understory cover, and recruitment. The specific trigger levels for each parameter shall be included in a Habitat Monitoring Plan developed in consultation with USFWS and CDFW. If triggers are reached, specific remedial actions will include resumed discharges into the river channel sufficient to support the acreage of habitat sustained by historical discharges.

Mitigation Measure BIO-2

Page 3.1-58

Mitigation Measure BIO-2: The Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation District's staff. The trapping will shall occur during the first three years of reduced discharges. An Aadditional three years of cowbird trapping activities will occur if the vegetation mapping criteria for willows is triggered shall be implemented subject to need based on AMP annual reporting.

Section 3.2 Hydrology and Water Quality

3.2.2 Environmental Setting

Page 3.2-9

The Santa Fe Dam provides flood protection to downstream communities along the San Gabriel River between the Santa Fe Dam and Whittier Narrows Dam. The Santa Fe sSpreading gGrounds are west of the San Gabriel River within the northwest portion of the Santa Fe Reservoir. The Santa Fe Spreading Grounds receives controlled releases from Morris Dam; seasonal local flows originating in San Gabriel Canyon and imported water releases from the Upper San Gabriel Valley Municipal Water District's and San Gabriel Valley Municipal Water District. The spreading grounds recharge water to the Main San Gabriel Basin underlying the San Gabriel Valley. The Groundwater Section below contains more information about the Main San Gabriel Basin (LARWQCB 2000).

Page 3.2-11

Downstream of the Whittier Narrows area, along the Rio Hondo and San Gabriel River, are large spreading grounds utilized for groundwater recharge. The stretch of San Gabriel River below the Whittier Narrows area overlies the Central Groundwater Basin groundwater basin which contains a number of shallow and deep aquifers (the Silverado, the Sunnyside, and the Lynwood). These aquifers are recharged by underflow through the Whittier Narrows from the north and percolation from the San Gabriel River and the Rio Hondo, which flows into the Montebello Forebay just

south of the Whittier Narrows. This surface and subsurface flow through the Whittier Narrows represents outflow from the upstream San Gabriel Basin. The San Gabriel River is soft-bottomed in this area, which allows for groundwater recharge at the San Gabriel Coastal Basin Spreading Grounds as depicted in Figure 2-2 of Chapter 2, *Project Description,* of this Draft EIR (LARWQCB 2000). The Rio Hondo in this area is a concrete channel lined below the Whittier Narrows. The spreading grounds are separate from the soft bottomed areas in the San Gabriel River.

Page 3.2-11

The Montebello Forebay is an area that includes spreading grounds managed by the Los Angeles County ~~Department of~~ Public Works. Recharge facilities are located immediately downstream of Whittier Narrows Dam, allowing infiltration into the groundwater basin. Reclaimed water supplements local surface water and imported water for replenishing the groundwater basin. The source of reclaimed water is from the Whittier Narrows, San Jose Creek, and Pomona WRPs (LARWQCB 2000). However, the Pomona WRP may only be a source of reclaimed water during wet weather and not during dry weather.

Page 3.2-18

The management of the local water resources within the basin is based on watermaster services under two Court Judgments: San Gabriel River Watermaster (River Watermaster) and Main San Gabriel Basin Watermaster (Basin Watermaster). The Basin Watermaster was created in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. The Watermaster is headed by a nine-member board nominated by the Upper San Gabriel Valley Municipal Water District (Upper District) and the San Gabriel Valley Municipal Water District (San Gabriel District) (DWR 2003; 2004a; Main San Gabriel Basin Watermaster 2018). The San Gabriel Basin Watermaster coordinates efforts with the Upper District, San Gabriel District, Three Valleys Municipal Water District (Three Valleys District), Metropolitan Water District of Southern California, the Sanitation Districts, the Los Angeles County Department of Public Works, and local water companies and state and federal regulatory agencies (in coordination with the Upper District) to replenish the groundwater supplies (LARWQCB 2016; DWR 2004a; Main San Gabriel Basin Watermaster 2018).

Impact HYDRO 3.2-4

Page 3.2-30

Legg Lake and other bodies of water are susceptible to seiche hazards (refer to Figure 3.2-2). ~~along with the~~ Further, the estuary area of San Gabriel River near Alamitos Bay within the project area is ~~are~~ susceptible to ~~seiches and~~ tsunamis hazards (refer to Figure 3.2-3). However, no physical development or changes in current facilities or operations are proposed by the project, therefore, the proposed project would not result in a release of pollutants in these local seiche or tsunami flood hazard areas. No impacts would occur.

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Project Area Boundary
Zone 1 Ditch
Crossover Channel
Segment 2
Segment 3
Segment 4

Lexington-Gallatin Rd
60
San Gabriel River
San Jose Creek
San Gabriel River Fwy | I-605
Pellissier Pl
Union P
Durfee Ave
Siphon Rd
605
Rooks Rd
Capitol Ave
0
1,000
Feet

WHITTIER NARROWS WRP
SJC002
WN00
4
2
3
SAN JOSE CREEK WRP
Walnut Creek
Puente Creek
San Jose Creek
1
POM001
POMONA WRP
5
SJC001A
SJC001B
6
SJC001
Rio Hondo
Los Angeles River
La Mirada Creek
Coyote Creek
North Fork Coyote Creek
LC001
LOS COYOTES WRP
7
San Gabriel River
Coyote Creek
LONG BEACH WRP
LB001
8
Discharge Location
River Segment Break
Lined Channel

Path: U:\GIS\GIS\Projects\17xxxx\D170647_08_San_Gabriel_River_Watershed\03_MXDs_Projects\EIR\Fig3.1-1_ProjectArea.mxd, jnielsen, 10/23/2019

SOURCE: ESRI

San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse

Figure 3.1-1
Project Area

ESA

CHAPTER 5
Mitigation Monitoring and Reporting Program

CEQA Requirements

Section 15091(d) and Section 15097 of the CEQA Guidelines require a public agency to adopt a program for monitoring or reporting on the changes it has required in the project or conditions of approval to substantially lessen significant environmental effects. This Mitigation, Monitoring and Reporting Program (MMRP) summarizes the mitigation commitments identified in the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse EIR (State Clearinghouse No. 2018071021). Mitigation measures are presented in the same order as they occur in the Final EIR.

The columns in the MMRP table provide the following information:

- **Mitigation Measure(s):** The action(s) that will be taken to reduce the impact to a less-than-significant level.
- **Implementation, Monitoring, and Reporting Action:** The appropriate steps to implement and document compliance with the mitigation measures.
- **Responsibility:** The agency or private entity responsible for ensuring implementation of the mitigation measure. However, until the mitigation measures are completed, the Sanitation Districts, as the CEQA Lead Agency, remains responsible for ensuring that implementation of the mitigation measures occur in accordance with the MMRP (CEQA Guidelines, Section 15097(a)).
- **Monitoring Schedule:** The general schedule for conducting each task. Because the proposed project does not include a construction phase, the general schedule is summarized as either "prior to operation" and/or "during operation".

TABLE 5-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE SAN GABRIEL RIVER WATERSHED PROJECT TO REDUCE RIVER DISCHARGE IN SUPPORT OF INCREASED RECYCLED WATER REUSE ENVIRONMENTAL IMPACT REPORT

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Responsibility	Monitoring Schedule
Biological Resources			
BIO-1: The Sanitation Districts shall implement a discharge operational scenario that maintains downstream habitat conditions. The Sanitation Districts shall finalize and implement the Adaptive Management Plan (AMP) (refer to Appendix H) to ensure that the quantity and quality of riparian and wetland habitat currently supported by wastewater discharges is maintained at or above baseline levels, recognizing that the habitat in the channel may change naturally in response to long-term changes in surface flows and high flood events. The Sanitation Districts shall coordinate with the USFWS and CDFW in implementing the AMP. As part of the AMP, data collected during monitoring will be submitted to USFWS and CDFW for review and comment. The AMP identifies parameters that would trigger actions to remedy any effects attributable to the proposed reduced discharges. Monitored parameters shall include a combination of water stress, vegetation cover, and structural diversity of vegetation based on richness, canopy and understory cover, and recruitment. The specific trigger levels for each parameter shall be included in a Habitat Monitoring Plan developed in consultation with USFWS and CDFW. If triggers are reached, specific remedial actions will include resumed discharges into the river channel sufficient to support the acreage of habitat sustained by historical discharges.	• Prepare and implement the Adaptive Management Plan (AMP) • Retain copies of the AMP in the project file. • Prepare monitoring reports and log all coordination with the USFWS and CDFW • Retain copies of reporting logs and agency correspondence in the project file.	Sanitation Districts; USFWS; CDFW	Before and During Operation
BIO-2: The Sanitation Districts shall conduct brown-headed cowbird trapping adjacent to the San Gabriel River channel in areas that are accessible to Sanitation Districts staff. The trapping will occur during the first three years of reduced discharges. An additional three years of cowbird trapping activities will occur if the vegetation mapping criteria for willows is triggered.	• Ensure trapping consistency with the AMP, detailed above in Mitigation Measure BIO-1. • Prepare trapping reports and other documentation in the project file. • Correspond with CDFW, as needed. • Retain any copies of agency correspondence in the project file.	Sanitation Districts; Qualified Biologist; CDFW	During Operation

Appendix

Revised Appendix H

Draft Adaptive Management Plan for Los Angeles County Sanitation Districts San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse, October 2019

ESA

DRAFT ADAPTIVE MANAGEMENT PLAN for LOS ANGELES COUNTY SANITATION DISTRICTS SAN GABRIEL RIVER WATERSHED PROJECT TO REDUCE RIVER DISCHARGE IN SUPPORT OF INCREASED RECYCLED WATER REUSE

Prepared for:
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October 2019

Wood Project Number 1755500035

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ACRONYMS AND ABBREVIATIONS

%	percent
AF	acre-feet
AF/acre/year	acre-feet per acre per year
AF/d	acre-feet per day
AMP	Adaptive Management Plan
BOR	United States Bureau of Reclamation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CIMIS	California Irrigation Management Information System
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CV	canopy volume
ET	evapotranspiration
gal/day	gallon(s) per day
gal/mo	gallon(s) per month
GPS	Global Positioning System
HAA	Habitat Assessment Area
HMC	Habitat Management Committee
ITP	Incidental Take Permit
LACDRP	Los Angeles County Department of Regional Planning
LBV	Least Bell's Vireo
LCRMSCP	Lower Colorado River Multi-Species Conservation Program
MCV2	Manual of California Vegetation Version 2
mgd	million gallons per day
NA	not applicable
NPDS	National Pollutant Discharge System
NRCS	Natural Resources Conservation Service
PCE	Primary Constituent Element
PomWRP	Pomona Water Reclamation Plan
Project	San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse
PSHB	polyphagous shot-hole borer
Sanitation Districts	Sanitation Districts of Los Angeles County
SD	standard deviation
SGR	San Gabriel River
SJC	San Jose Creek
SJCWRP	San Jose Creek Water Reclamation Plant
SWP	stem water potential

UCNAR	University of California Agricultural and Natural Resources
USFWS	United States Fish and Wildlife Service
U.S. 60	United States Route 60
USGS	United States Geological Survey
WNCC	Whittier Narrows Dam Cross Channel
WND	Whittier Narrows Dam
Wood	Wood Environment & Infrastructure Solutions, Inc.
WRP	Water Reclamation Plant
WY	water year
Z1D	Zone 1 Ditch

1.0 Introduction and Problem Statement

The Sanitation Districts of Los Angeles County (Sanitation Districts) propose the "San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse" (Project) for the potential reduction of flow in portions of the San Jose Creek (SJC) and San Gabriel River (SGR) as well as in some off-channel watercourses (Figure 1) generally located within the Whittier Narrows Dam (WND) area. When the Project is implemented, reduced discharge from the San Jose Creek and Pomona Water Reclamation Plants (WRPs) into the SJC and SGR and associated channels has the potential to adversely affect the downstream riparian habitat. Because this type of habitat has historically been occupied by the sensitive riparian bird species Least Bell's Vireo (LBV; *Vireo bellii pusillus*), changes in that habitat could affect its suitability for occupation by this species.

This Adaptive Management Plan (AMP) is designed to ensure continuation of the pre-Project conditions (overall quality and quantity) of the habitat influenced by treatment plant discharges. This objective will be accomplished by mapping and monitoring the riparian vegetation annually. Data on the vegetation will be collected through field measurements and observations. Although other portions of the SGR may include riparian habitat, they would not be affected by the Project.

The riparian habitat potentially impacted by the Project includes portions of the SGR above and below the confluence with the SJC, a portion of the SGR just downstream of the dam, and other off-channel areas that receive water from the SGR known as the Zone 1 Ditch (Z1D) and the Whittier Narrows Dam Cross Channel (WNCC). The habitat can be defined in Groups 1 through 5 (Figure 2), which all contain similar manmade elements, including lining along the banks/sides and weirs spanning the channels, and will experience similar Project-related surface flow conditions. Group 1 is the northernmost habitat area, extending from the large drop structure upstream of the confluence of the SGR and SJC down to below United States Route 60 (U.S. 60; Figure 3); a small portion of the SJC is in Group 1. Group 2 is entirely within the SGR channel, extending from U.S. 60 to the weir southwest of Peck Road (Figure 4). Group 3 is also entirely within the SGR channel, extending downstream from Group 2 to the area where the channel begins to constrict above WND (Figure 5). Group 4 includes habitat just above and extending downstream of the WND (Figure 6). Group 5 is the area off the main channel, composed of the habitat along the Z1D and the WNCC that receives water from the SGR at the downstream end of Group 2 (Figure 7).

Vegetative and soil conditions within the Project area are subject to natural changes from the seasonal rainfall patterns of the region. Such changes range from seasonal drought, which results in ephemeral flows in portions of the channels, to major storm events that may cause flooding of the Project area and scouring of vegetation. Such natural changes are independent of discharges from the WRPs. As a result, the amount of water that is available to vegetation is variable in both space and timing. The water availability issue is described in Section 2.0.

Because water availability has the potential to affect riparian vegetation, the goal of this AMP is to ensure, through monitoring, that baseline riparian vegetation conditions (extent and condition

of vegetation prior to implementation of the Project) are maintained over the life of the Project in the Project area.

This AMP defines the parameters that characterize riparian vegetation, describes monitoring strategies to evaluate these parameters numerically within the Project area, defines triggers for implementation of adaptive management strategies necessary after Project implementation, and describes the tools available for management.

2.0 Water Availability

The amount of water used by vegetation that comprises riparian habitat and other area vegetation has been calculated, as has the volume of open water present in Groups 1 through 5 of the Project area. Sufficient water must be available to support that vegetation; an amount of water equal to the vegetation demand must be present in the soil in the habitat areas in order to support the vegetation. Because emergent aquatic vegetation is not considered part of the riparian vegetation, soil storage only (not the extent of ponded water) is important for this evaluation.

For the water demand calculations, a number of sources were consulted, including data from the United States Geological Survey (USGS, 2006) and United States Bureau of Reclamation (BOR, 2011), a publication from California State Polytechnic University, Pomona (Perry 2010) regarding water use by cottonwoods and willows in southern California, site management information from BOR for stands of willow and cottonwood established along the Lower Colorado River (BOR et al. 2004, Iglitz and Raulston 2017, and Lower Colorado River Multi-Species Conservation Program [LCRMSCP] 2004), and water management information from the Imperial Irrigation District for managed cottonwood-willow stands (K. Bishop, personal communication, December 5, 2016). These sources varied considerably in the reported or estimated ranges for evapotranspiration (ET) of willow/cottonwood vegetation. For this analysis, the highest value reported (8.0 acre-feet per acre per year [AF/acre/year]) was selected for the 166.25 acres of vegetation dominated by trees or mulefat in the entire Project area, and the lowest value reported from the same sources (4.0 AF/acre/year) was selected for the remaining 129.62 acres of vegetation and open water in the Project area. The annual water demand for the entire vegetated area is 1,945 AF, or 633,735,460 gallons per year. We then evaluated the annual proportion of ET from each month of the year, based on California Irrigation Management Information System (CIMIS) reports from the Long Beach Station #174, which is the station nearest the Project site. The resulting water demand is shown in Tables 1 and 2.

Table 1. Water Demand per Month in Groups 1, 2, 3, and 4 of the San Gabriel River

Month	ET (inches)	%	ET		MGD	AF/d
			gal/mo	gal/day		
Jan	1.75	4%	14,434,785	465,638	0.47	1.43
Feb	1.76	4%	14,517,270	468,299	0.47	1.44
Mar	4.28	9%	35,303,360	1,138,818	1.14	3.50
Apr	5.55	12%	45,778,890	1,476,738	1.48	4.53
May	5.31	11%	43,799,262	1,412,879	1.41	4.34
Jun	5.22	11%	43,056,902	1,388,932	1.39	4.26
Jul	6.4	13%	52,790,071	1,702,906	1.70	5.23
Aug	5.98	12%	49,325,723	1,591,152	1.59	4.88
Sep	4.63	10%	38,190,317	1,231,946	1.23	3.78
Oct	3.26	7%	26,889,943	867,418	0.87	2.66
Nov	2.34	5%	19,301,370	622,625	0.62	1.91
Dec	1.48	3%	12,207,704	393,797	0.39	1.21
Total	47.96	100%	395,595,596		1.06	3.26

AF/d = acre-feet per day; ET = evapotranspiration; gal/day = gallons per day; gal/mo = gallons per month; MGD = million gallons per day

Table 2. Water Demand per Month in Group 5

Month	ET (inches)	%	ET		MGD	AF/d
			gal/mo	gal/day		
Jan	1.75	4%	8,688,108	280,262	0.28	0.86
Feb	1.76	4%	8,737,755	281,863	0.28	0.86
Mar	4.28	9%	21,248,631	685,440	0.68	2.10
Apr	5.55	12%	27,553,715	888,830	0.89	2.73
May	5.31	11%	26,362,203	850,394	0.85	2.61
Jun	5.22	11%	25,915,386	835,980	0.84	2.57
Jul	6.4	13%	31,773,654	1,024,957	1.02	3.15
Aug	5.98	12%	29,688,508	957,694	0.96	2.94
Sep	4.63	10%	22,986,253	741,492	0.74	2.28
Oct	3.26	7%	16,184,705	522,087	0.52	1.60
Nov	2.34	5%	11,617,242	374,750	0.37	1.15
Dec	1.48	3%	7,347,657	237,021	0.24	0.73
Total	47.96	100%	238,103,818		0.64	1.96

AF/d = acre-feet per day; ET = evapotranspiration; gal/day = gallon(s) per day; gal/mo = gallon(s) per month; MGD = million gallons per day

Based on this analysis, the Sanitation Districts would need to supply a sufficient amount of water that could be either (1) consumed by vegetation directly from surface flow, or (2) stored in the soil to provide for the future needs of the vegetation. Although possibly present in some areas, water from other sources has not been quantified.

Historically (based on Sanitation Districts data from water year [WY] 2014 through WY 2018), the volume of discharge from the Sanitation Districts' San Jose Creek Water Reclamation Plant (SJCWRP) to the Project area is far greater than the calculated water demand by the vegetation in the Project area, although yearly discharge flow rates are highly variable. The historical average monthly discharges from the SJCWRP to the Project area range from 5.3 million gallons per day (MGD) to 8.2 MGD when water demand is highest, between May and September. Discharge to the Z1D, which would also support vegetation in the WNCC, is also variable, ranging from a low monthly average of 0.0 MGD in April, May, and December to a high of 2.44 MGD in February (WY 2014 through WY 2018). As shown in Tables 3 and 4, the water flows in these areas are higher than the vegetation water demand in the SGR segments in all months (Table 3), and for most, but not all, months in the Z1D and WNCC (Table 4).

The Sanitation Districts propose a modified water discharge schedule as part of the Project to more efficiently provide water both in volume and time. The proposed Project is designed to minimize the lengths of dry periods over the course of the year, while targeting an average discharge rate of 5 MGD. Details of proposed schedules that yield a 5-MGD monthly average are provided in Section 10.0.

Riparian plant species require soil water, but they cannot survive in continuously saturated soils. The amount of water that can be stored in the soil volume from which the vegetation takes water can be evaluated (Table 5). The Natural Resources Conservation Service (NRCS) soils map (website accessed October 17, 2017) shows that the soils in the Project area are largely sandy (xeropsamment soil). This soil type has a water capacity (pore volume) of about 0.25 (Plant and Soil Sciences e-library accessed October 17, 2017). That is, in a given volume of soil, about 25 percent of the volume can be occupied with water if the soil is totally saturated. In practice, totally saturated soil would be lethal to cottonwood, willow, mulefat, and other riparian species that require some air in the root area. Soil that is drained so that the water in it is optimally available to plants is said to be at "field capacity." The field capacity in sandy soils is about 17.5 percent. So, a given volume of this type of soil would contain a field capacity volume equal to about 17.5 percent of the soil pore volume, in effect limiting the amount of water than can be usefully stored in the soil at any given time. Some portion of the soil column can be saturated, which would allow for more storage. However, complete saturation throughout the year would not be desirable.

To satisfy the needs of riparian vegetation in July (the month with the highest transpirative demand), a soil volume about 19 feet deep at field capacity would be required if no other water source (such as a saturated zone, groundwater, or continually delivered surface water) was available (Tables 5 and 6). Therefore, even if a water source flow is reduced to zero at the height of summer, the vegetation may survive on water stored in the soil that had been replenished during periods of higher flow. As demonstrated by the healthy vegetation currently supported by the existing flow regime, sufficient water is provided in the Project area even during periods of low flow and high ET, and even when the actual water delivery is below the demand (as occurs in June and July for the Group 5 areas). As discussed above, it is the Sanitation Districts' intent to modify the discharge schedule to more efficiently manage the volume and timing of treatment-plant-related surface flows throughout the year to support the existing riparian habitat.

Table 3. Water Demand and Water Delivery for San Gabriel River Groups 1, 2, 3, and 4

Month	ET inches (CIMIS)	% of Annual demand	Rank (demand)	5-year Average MGD Delivered	5-year Average AF/d Delivered	Rank (volume delivered)	MGD Required	AF/d Required	Proportion Needed
Jan	1.75	4%	10	12.8	39.41	3	0.46	1.43	3.63%
Feb	1.76	4%	11	16.0	49.09	1	0.46	1.44	2.93%
Mar	4.28	9%	7	9.8	30.21	6	1.13	3.5	11.59%
Apr	5.55	12%	3	10.1	31.10	5	1.46	4.53	14.56%
May	5.31	11%	4	5.3	16.25	11	1.40	4.34	26.71%
Jun	5.22	11%	5	7.8	23.98	8	1.37	4.26	17.77%
Jul	6.4	13%	1	7.1	21.79	9	1.69	5.23	24.00%
Aug	5.98	12%	2	8.2	25.23	7	1.57	4.88	19.34%
Sep	4.63	10%	6	6.6	20.14	10	1.22	3.78	18.77%
Oct	3.26	7%	8	13.5	41.29	2	0.86	2.66	6.44%
Nov	2.34	5%	9	11.5	35.41	4	0.62	1.91	5.39%
Dec	1.48	3%	12	5.0	15.24	12	0.39	1.21	7.94%
	Total			**Average**	**Average**		**Average**	**Average**	
Total	47.96	100%		9.48	29.09		1.05	3.26	13.26%

Note:
Data are from the Sanitation Districts. The 5-year average is for water years 2014–2018. The water year runs from October 1 of the previous year to September 30 of the labeled year.
AF/d = acre-feet per day; CIMIS = California Irrigation Management Information System; ET = evapotranspiration; MGD = million gallons per day

Table 4. Water Demand and Water Delivery for Group 5

Month	ET inches (CIMIS)	% of Annual Demand	Rank (Demand)	5-year Average MGD Delivered	5-year Average AF/d Delivered	Rank (volume delivered)	MGD Required	AF/d Required	Proportion Needed
Jan	1.75	4%	10	0.3	1.06	9	0.28	0.86	81.46%
Feb	1.76	4%	11	2.4	7.22	1	0.28	0.86	11.90%
Mar	4.28	9%	7	0.8	2.31	7	0.68	2.1	90.99%
Apr	5.55	12%	3	0	0.00	10	0.88	2.73	NA
May	5.31	11%	4	0	0.00	11	0.84	2.61	NA
Jun	5.22	11%	5	0.4	1.09	8	0.83	2.57	236.55%
Jul	6.4	13%	1	1.5	4.63	5	1.02	3.15	67.97%
Aug	5.98	12%	2	1.3	3.85	6	0.95	2.94	76.39%
Sept	4.63	10%	6	1.6	4.81	4	0.74	2.28	47.38%
Oct	3.26	7%	8	1	6.19	2	0.52	1.6	25.83%
Nov	2.34	5%	9	2	5.51	3	0.37	1.15	20.89%
Dec	1.48	3%	12	1.8	0.00	12	0.24	0.73	NA
	Total			**Average**	**Average**			**Average**	
Total	**47.96**	**100%**		1.09	3.06		0.63	1.96	63%

Note:
Data are from the Sanitation Districts. The 5-year average is for water years 2014–2018. The water year runs from October 1 of the previous year to September 30 of the labeled year.
AF/d = acre-feet per day; CIMIS = California Irrigation Management Information System; ET = evapotranspiration; MGD = million gallons per day; NA = not applicable

Table 5. Soil Water Holding Capacity and Peak Summer Demand for Groups 1, 2, 3, and 4

Soil Volume	Number	Units
Xeropsamment volumetric water content	0.25	proportion of volume
Depth saturation July	4.27	feet
Field capacity	0.175	proportion of volume
Depth field capacity July	24.40	feet
Water needs July (all vegetation/all areas)	121.67	AF
	3.925	AF/d
	1.28	MGD

Table 6. Soil Water Holding Capacity and Peak Summer Demand for Group 5

Soil Volume	Number	Units
Xeropsamment volumetric water content	0.25	proportion of volume
depth saturation July	1.90	feet
field capacity	0.175	proportion of volume
depth field capacity July	18.88	feet
water needs July (all veg. all areas)	97.52	AF/mo
	3.146	AF/day
	1.02	MGD

3.0 Significance Criteria and Thresholds

For this AMP, *significance criteria* are limited to habitat characteristics that represent riparian habitat. Of special concern is LBV, a species that was listed as a state endangered species by the California Fish and Game Commission in 1980, and as a federal endangered species in 1986.

Neither California Department of Fish and Wildlife (CDFW) nor United States Fish and Wildlife Service (USFWS) specifies criteria for designating habitat as “critical” to or “suitable for” survival and occupation of or by LBV. The Federal Register (1994) and expert biologists describe LBV as a migratory songbird that nests primarily in willows (*Salix* spp.), but also uses a variety of other shrub and tree species for nest placement (Gray and Greaves 1984, Salata 1987). LBV forages in riparian and adjoining upland habitats (Salata 1983, Kus and Miner 1987), with a large percentage of the foraging potentially occurring in the adjacent chaparral community. These habitat characteristics can be considered as Primary Constituent Elements (PCEs) for LBV, and are interpreted to consist of riparian vegetation, including riparian understory species. LBV does not use aquatic resources, nor do the species forage or nest in emergent aquatic vegetation.

In accordance with California Environmental Quality Act (CEQA) Guidelines (California Natural Resources Agency [CNRA] 2014), the following biological resource significance criteria apply to the Project:

a. Would the project:
    i. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?
    ii. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

b. In accordance with the County of Los Angeles CEQA Threshold Guidelines (Los Angeles County Department of Regional Planning [LACDRP] 1987), the Project would have a significant impact on biological resources if it could:
    i. Substantially affect a rare or endangered species of animal or plant or the habitat of the species.

Wood Environment & Infrastructure Solutions, Inc. (Wood) biologists informally evaluated the WNCC and WND areas and concluded that these areas also could be affected by reduced discharges. Therefore, thresholds must be established to determine when the impacts of reduced discharges are sufficiently severe to merit adaptive management actions. This AMP focuses on direct evaluation of riparian vegetation for early detection of deteriorating conditions and recommends thresholds for management actions implemented to arrest or reverse any detected stress in vegetation alliances that define the riparian vegetation.

CDFW has recommended that the Sanitation Districts seek appropriate take authorization under the California Endangered Species Act (CESA) prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code Sections 2080.1, 2081, subds. (b),(c)). However, the AMP is designed to prevent any take, so no ITP is needed. Therefore, no advance mitigation measures are proposed. If impacts on riparian habitat, defined as alliances dominated by riparian trees, are detected through monitoring, adaptive management tools and/or other response measures will be discussed and implemented as needed.

4.0 Habitat Considerations to Guide Vegetation Monitoring

Habitat considerations for monitoring for this Project focus on the riparian habitat criteria known to be important for occupation by sensitive riparian birds, particularly LBV—the PCEs described above. These criteria are presented by Kus (2002) and are summarized as follows:

a. **Tree height for nests and surrounding vegetation.** LBVs place their nests in a variety of plants that provide concealment in the form of dense foliage. The most frequently used

species include willows (*Salix* sp.), mulefat (*Baccharis salicifolia*), California wild rose (*Rosa californica*), poison oak (*Toxicodendron diversilobum*), mugwort (*Artemisia douglasiana*), and cottonwood (*Populus fremontii*). Nests are typically placed within 1 meter of the ground. Average host heights range from 2.0 to 8.5 meters. The canopy of suitable riparian habitat is mainly dominated by willows (black willow [*Salix goodingii*] and arroyo willow [*Salix lasiolepis*]). Cottonwood may also be present. Top canopy height averages 7 to 8 meters. Elderberry (*Sambucus mexicana*) can also be suitable habitat for LBV if it is close to other preferred species.

b. **Understory shrub/subshrub cover.** Early to mid-successional riparian habitat is typically used for nesting by the LBV because it supports the dense shrub cover required for nest concealment as well as a structurally diverse canopy for foraging. Vegetation characteristics of riparian stands between five to ten years old are most suitable for nesting LBV. Nests are normally found in areas with dense understory. Species of importance may include mugwort, mulefat, and willow shrubs (*Salix* spp.), although non-native species can provide suitable habitat if they provide sufficiently dense understory. In addition, LBV prefer to nest in areas with low herbaceous cover. Patch size may be a habitat criterion, but patch size is inherently limited by the configuration of the channels.

These vegetation descriptions are relevant to vegetation alliances that will be mapped and monitored in the AMP Groups. Mapping is described in Section 5.1.1. Alliances that are considered as suitable riparian habitat include black willow thicket, arroyo willow thicket, mulefat thicket, and sandbar willow thicket; elderberry thicket could qualify as habitat as well, depending on adjacent vegetation. Any or all of these alliances may contain cottonwood as well. Monitoring will focus on condition and structure of riparian trees, shrubs/subshrubs, and associated herbaceous understory habitat in the AMP area, because they are the criteria that affect habitat suitability for LBV (Kus 2002). Recruitment of these and other plant species important to riparian habitat health will also be monitored and documented.

5.0 Baseline Conditions

Baseline conditions will be assessed during the two summer seasons prior to Project start using existing information and the monitoring strategies described in Section 6.0. A vegetation map will be prepared using a current year aerial photograph, with vegetation mapped to the level of the alliance (Sawyer et al. [2009] Manual of California Vegetation Version 2 [MCV2]). July through September is the optimal period for baseline monitoring to detect vegetation stress (Williams and Cooper 2005). Data from the two summer seasons prior to implementation of the Project, supplemented by a partial data set from a single spring season, will describe baseline conditions. All data collected during baseline assessments will be averaged to determine pre-Project conditions. The AMP assumes, based on available data, that deep groundwater is not available to the plants in the subject habitat, so groundwater monitoring well data are not directly important to the AMP. Furthermore, because the AMP uses multiple types of data to characterize the habitat, including mapping of the vegetation, direct measurements of the plants' ability to obtain water (SWP), and numerical evaluations of habitat characteristics, including species richness,

canopy structure (including understory), and recruitment, a pre-Project baseline data set of at least two years will provide sufficient information for evaluating existing habitat conditions.

5.1 Habitat Conditions

5.1.1 Vegetation Map

To comply with the standard specifications of the typical map units used in MCV2, the baseline vegetation in the areas potentially impacted has been mapped on an aerial photograph obtained from the year prior to Project initiation, using MCV2 alliance vegetation types (Figure 8). The alliance level is the appropriate mapping level for describing riparian habitat, because it is based on the following guidance from the MCV2: “diagnostic species, including some from the primary layer, which has moderately similar composition that reflects regional to subregional climate, substrate, hydrology, moisture/nutrient factors, and disturbance regimes.” Classification and mapping at any lower level do not provide any additional information that relates to riparian habitat. No minimum mapping unit is proposed, which is a conservative application of the guidance for fine-scale vegetation mapping of rare vegetation, including riparian vegetation, as described by California Native Plant Society (CNPS, 2011). The map shows grayed-out areas that are not listed as a vegetation community, such as barren or disturbed areas; these areas will not be included in a numerical analysis for the vegetation mapping. Selected map colors are dynamic and clearly show the differences in vegetation mapping polygons. The baseline map allows for numerical summing of the total acreage of each vegetation alliance mapped. In subsequent mapping efforts, any changes in the quantity of any vegetation alliance present in the Project area will be readily detected.

5.1.2 Definition of Vegetation Groups

For comparative analyses, the vegetation within the AMP area has been grouped in subareas that exhibit similar physical conditions and that are expected to experience similar surface flow conditions under the proposed Project. These subareas are identified as Groups 1, 2, 3, 4, and 5 (Figures 2 through 7). The vegetation in each Group is listed in Table 7.

As the Groups only include vegetation in SJC that could be affected by changes in discharges from SJC002 and does not include vegetation farther upstream in SJC, the acreages of habitat shown in Table 7 differ from the acres of total vegetation shown in other related documents.

Table 7. Acres of Each Mapped Vegetation Alliance, by Habitat Group

Vegetation	Group 1	Group 2	Group 3	Group 4	Group 5	Grand Total
Annual brome grassland	11.50	1.23	10.47			23.20
Arroyo willow thickets	0.55	0.34			0.59	1.48
Arroyo willow thickets - Disturbed	2.27					2.27
Barren		0.60	0.34	2.09	7.83	10.86
Basket bush patches			0.11		4.03	4.14
Black cottonwood forest					0.76	0.76
Black willow thickets	12.12	7.90	9.41	19.27	17.97	66.67
Blue elderberry stands			7.15	1.61	32.29	41.05
Box-elder forest			0.10			0.10
California buckwheat scrub			0.06			0.06
California coffee berry scrub					0.21	0.21
California sycamore woodlands			0.14		0.22	0.36
California walnut groves			0.20	0.05	1.38	1.64
California yerba santa scrub					0.11	0.11
Cattail marshes	1.07	0.67		0.09		1.84
Coast prickly pear scrub			0.25			0.25
Developed	12.34	4.06	6.88	4.60	4.49	32.36
Eucalyptus semi-natural stands	1.38	0.61	0.14	0.67	0.36	3.15
Giant reed breaks	0.03	0.04	2.42	1.19	8.96	12.64
Mulefat thickets	0.02	0.39	1.27	0.43	4.72	6.82
Mulefat thickets - Disturbed	3.92	6.78			1.03	11.74
Non-native woodland		0.06	0.81	8.84	5.80	15.51
Open Water	15.58	0.02				15.60
Perennial pepper weed patches				2.34		2.34
Poison hemlock patches			0.84			0.84
Poison oak scrub			0.22			0.22
Sandbar willow thickets	0.90			0.11		1.01
Sandbar willow thickets - Disturbed	3.21					3.21
Scalebroom scrub			0.03			0.03
Smartweed - cocklebur patches	0.49	0.71	5.36	4.38		10.94
Sugarbush chaparral					0.08	0.08
Unvegetated streambed	1.24	10.07	19.28	3.46	13.61	47.66
Upland mustards			8.17	23.01	39.04	70.21
White alder groves				0.12		0.12
Wild grape shrubland			0.02	0.01		0.03
Grand Total	**66.64**	**33.48**	**73.66**	**72.26**	**143.48**	**389.52**

Note:
Highlights are for habitats important for this AMP as potential habitat for LBV.

5.2 Numerical Statement of Baseline Conditions

Baseline conditions that focus on the PCEs will be measured using the following metrics:

a. Vegetation mapping to alliance level, with quantitative summaries of each alliance type present in each Group area.
b. Direct assessment of stem water potential (SWP) in the species that form the upper habitat canopy level
c. Numerical evaluation of canopy condition interpreted as canopy volume (CV) of the tree sampled for SWP
d. Numerical representation of habitat structure, including the understory
e. Numerical summary of recruitment expressed as juvenile tree and shrub/subshrub species
f. Plant species richness

This monitoring program includes proposed methods for evaluating the aerial extent (in acres) of the habitat, species composition, species richness, and structural diversity, as well as SWP and CV. The monitoring strategies described in Section 6.0 will be implemented for baseline evaluation for these metrics and for ongoing monitoring.

6.0 Monitoring Strategies

6.1 Rationale for the Methods Selected

The monitoring described in this AMP will focus on the PCEs or vegetation characteristics that support suitable habitat for riparian birds, specifically LBV. Hendricks and Rieger (1989) learned that nest plots of LBV vary widely in vegetation structure. They concluded that this high variability, and the similarity between areas occupied and not occupied by LBV, indicates that the LBV is a generalist nester with respect to species frequency, cover, and plant density. The monitoring methods selected for this Project allow evaluation of the condition of the plant species and associated vegetation that define suitable habitat. It is not necessary to survey or document the characteristics of the water channel itself, because LBV does not occupy or forage in open water.

The monitoring will allow (1) direct assessment of the condition of the tree species that provide upper-canopy habitat for LBV as it relates to water availability for these species using SWP; (2) numerical evaluation of the visible condition of the important habitat plant species using canopy condition assessment (CV); (3) quantifiable descriptions of habitat structure, including detailed data on understory; and (4) evaluation of sustainability by numerical reporting of recruitment and species richness in the monitored habitats. All methods have been used widely to detect moisture stress in woody plants of all types (Snyder et al. 1998) and to evaluate the condition of riparian vegetation (Scott et al. 1999, Michaels 2006, Kus 1998).

6.2 Stem Water Potential

Measuring SWP is a well-established method for determining how well a plant species acquires water from the soil. Water within a plant mainly moves through xylem cells to carry water from the roots to the leaves. The water in the xylem is under tension. As the soil dries or humidity, wind, or heat load increases, it becomes increasingly difficult for the roots to keep pace with evaporation from the leaves. This condition causes the tension to increase. The higher the stress, the higher the water deficit the plant experiences. This deficit is called the "water potential" of the plant. SWP is a reading of conditions within the xylem of the plant, and the SWPs at different canopy heights are significantly correlated, so a single measurement at an accessible point in the canopy is indicative of the water stress for that plant (Deb et al. 2012). The relationship of soil dryness to SWP is straightforward—as the soil becomes dryer, SWP becomes more negative. Peer-reviewed research in field systems under different systems of irrigation has shown high correlation between transpiration and SWP (Naor 1998).

Scholander et al. (1965) used a pressure chamber to measure water potential (effective soil dryness) of tissues throughout the root system of a plant. This method consists of placing a leaf attached to a stem inside a sealed chamber and slowly adding pressurized gas to the chamber. As the pressure increases, at some point sap is forced out of the xylem and is visible at the cut end of the stem. The pressure required to produce this sap is equal to and opposite of the water potential of the leaf and stem. Because tension is measured directly, negative values are typically reported.

This measurement is quantifiable and repeatable. Pressure chambers are very durable and mechanically simple. Measurements taken from individual trees and shrubs at a variety of locations in the five Groups will indicate the water stress in the plants and any issues related to soil drying that can be correlated with direct soil moisture measurements taken at the same time. Water potential measurements have been taken for cottonwood/willow habitats in the American southwest, and they provide an indication of the healthy water potential for the species, as well as for conditions of stress (Snyder et al. 1998, Williams and Cooper 2005). Detection of SWP stress during the annual sampling period will serve as an advance warning of stress for the entire area, and the warning will be provided in sufficient time for adaptive management to reverse the stress before the mortality of the vegetation is threatened (Lines 1999). Because the vegetation in these areas has experienced a variable schedule of water delivery under existing conditions, and presumably a concomitant variability in water table and soil moisture, the trees have developed root growth in areas other than those accessing the deep water table. This adaptation has conferred a resiliency in response to changes in water flow in a riparian area (Williams and Cooper 2005).

SWP monitoring will be conducted once per year, during the August/September period, as described above for the baseline monitoring. This schedule will allow for early detection of Project impacts that may be visible when trees and shrubs are experiencing the highest evapotranspiration rates in the summer season. Monitoring will be conducted at mid-day in the

three-hour time period between noon and 3:00 PM to ensure comparability of measurements (McCutcheon and Schakel 1992, Naor 1988).

The individual trees selected for monitoring are in areas where the biologist determines, and CDFW concurs, that riparian habitat value is high. Such areas were selected only in the vegetation alliances described as suitable riparian habitat. At this time a total of 96 trees have been selected, with 26 in Group 1, 12 in Group 2, 16 in Group 3, 15 in Group 4, and 27 in Group 5 (Figure 9). Tree willows (arroyo willow and black willow) are the most critical species for upper canopy for LBV, so a minimum of 12 willow trees was sought in each of the Groups. The number of trees per Group varies widely because the number of available individuals is highly variable among these Groups. The number and location of trees can and will be adjusted as necessary as an adaptive management strategy. For long-term monitoring, as mentioned above, if feasible, at least 12 willow trees (of the dominant overstory species), will be selected in each Group, in addition to a representative sample of any other small trees (such as mulefat) that form an important portion of the canopy. Each tree has a Global Positioning System (GPS) coordinate, a unique alpha-numeric code, and is visibly tagged or flagged so that the same individual can be sampled during each monitoring event.

For each tree selected, leaves chosen for SWP determinations should be fully expanded, mature leaves from an interior and shaded portion of the lower canopy to eliminate any temporary heating effects of direct sunlight. The targeted leaves are covered with foil-laminated plastic bags and allowed to remain on the plant for at least 30 minutes. The leaf is then cut from the stem to avoid any further transpiration, and, within 5 to 10 seconds, placed with its bag inside the pressure chamber. The pressure chamber and instructions for its use are provided in Appendix A.

6.3 Canopy Condition

In addition, the visible condition of the plants being monitored for water potential will be evaluated. This method uses estimates of CV, and has been implemented elsewhere to assess the condition of riparian vegetation (Scott et al. 1999). The data are collected by visual observation, using a scale such as those developed by Michaels (2006) and Cooper and Merritt (2012). Following a widely used method (Michaels 2006, Scott et al. 1999, Cooper and Merritt 2012), classes are assigned to riparian vegetation to provide a score for canopy condition. This method has the advantage of reliably predicting the probability of mortality. Scott et al. (1999) found that a 30 percent decline in canopy volume was associated with a 50 percent probability of mortality.

Canopy condition will be evaluated using the strategies implemented by Michaels (2006) and Cooper and Merritt (2012). Each tree monitored for SWP will also be monitored for CV. The visual guides developed in both studies will be used; they are shown in Figures 10a and 10b. Scott and Merritt (2012) advise that, to obtain the percentage of maximum canopy, the observer should visualize a full canopy and then estimate the percentage of that maximum area that is occupied by canopy (to the nearest 5 percent; Michaels 2006). Michaels directs the assessor to visualize a circle around the outer boundary of the canopy crown (the uppermost part of the tree bearing branches). This circle is the total crown area. If all the branches were bearing foliage, the canopy

health would be 100 percent. The proportion of dead crown to total crown area is estimated. The remainder is the proportion of healthy crown cover for this tree, expressed as a percentage (Michaels 2006). Absent or fallen branches do not necessarily correspond to reduced tree health and as such are not accounted for as part of the tree health component. In addition, sub-canopy foliage and branches (lower limbs that do not form part of the canopy) are not included in the assessment.

For this aspect of monitoring, the evaluations of two biologists in the field will be averaged. If only a single biologist is present, the biologist will take a photograph of the canopy area being scored to allow CDFW to render a second opinion as to the score. Together with the data from the SWP determinations, CV provides a good early warning of vegetation stress.

6.4 Canopy Structure

Canopy structure is an important characteristic of vegetation that determines its suitability for LBV habitat. A quantitative method for the description of canopy structure was developed by Kus and Miner (1987). This method was developed to determine the optimal habitat for nesting LBV, with data having been collected in the immediate vicinity of known LBV nests. Data collected from other riparian vegetation can be compared to the optimal condition data to determine how suitable the riparian vegetation may be for LBV occupation. In this case, data were collected to characterize the existing vegetation before the onset of the Project. In subsequent years, changes from this baseline condition can be evaluated by re-sampling the same quadrats and transects. It is acknowledged that current conditions may be poorly suited as LBV nesting habitat; it is one of the goals of the Project to release water on a schedule that may actually improve the habitat conditions. On-going monitoring of canopy structure is a means of determining if changes are found in this aspect of the vegetation condition.

Canopy structure is assessed by the establishment of quadrats that measure 2 m on a side. The quadrat is then extended vertically in 1 m increments such that “cubes” of canopy are assessed for the amount of vegetation contained within each 1-m high portion of the quadrat. Data are taken that detail the volume of vegetation of each species present in each “cube”, up to a maximum of 5 m high. Each quadrat, then, consists of 5 “stacked cubes”, each level of which can be evaluated separately.

Canopy structure is to be assessed on transects in areas with vegetation alliances that characterize riparian habitat. A total of 22 such areas have been selected, with 6 transects selected in Group 1, and 4 each in Groups 2, 3, 4, and 5 (Figure 11). Transect areas have been selected in the Groups at general locations that are evaluated for SWP and CV, and where potential habitat for LBV was found. These transects will form the basis for the evaluation of the “stacked cubes”. A total of 22 transects, each a minimum of 40 meters long, is established in the riparian vegetation of the Project area. Transects will be sampled for habitat structure every 10 meters, starting at the 0 point of the transect. An estimate of the canopy volume in each 1-meter height increment of a quadrat measuring 2 meters by 2 meters is recorded, up to a height of 5 meters. These estimates provide a quantitative evaluation of canopy structure, including

understory, that can be compared with a data envelope that has been determined to represent acceptable habitat for LBV and that represents canopy complexity that would be sampled by other riparian birds. All Groups have 20 quadrats each. The location of the transects is shown in detail in the map set in Appendix B.

The nature of the transects is summarized in Table 8. For each transect, the orientation of the transect is indicated as either perpendicular to the stream channel (preferred) or parallel to it. The reasoning for the selected orientation is indicated in the Table. Quadrats were selected at 10-m distances along transects. Quadrats were sometimes located at a short distance away from the transect in order to sample in suitable habitat. Transect locations were selected based on the presences of at least 1 but up to 7 habitat quality criteria. These criteria are:

A. Edges of dense stands of mature willows with a well-developed understory.
B. Well-developed understory, adjacent to mature willow canopy.
C. Dense stands of mature willows adjacent to well-developed understory.
D. Isolated stands of well-developed understory.
E. Isolated stands of mature willow canopy.
F. Isolated patches of understory
G. Isolated mature willow

Table 8. Transects and Canopy Structure Quadrats for San Gabriel River Assessment

Number	Orientation	Habitat Elements	Start (description)	End (termination criteria)	Quadrats	Group total
1-1	perpendicular	A, B	mature black willow canopy leading to a variety of understory and sub-canopy	edge of flowing water; no suitable habitat at the other side of channel	4	
1-2	parallel - narrow habitat band and no habitat on other side	A, C	black willow with adjacent understory	end of understory; no habitat on north side of channel	4	
1-3	parallel - narrow habitat band and no habitat on other side	B, D	mature black willow canopy with adjacent sandbar willows	mature black willow canopy; castor bean stand with homeless camp	2	
1-4	perpendicular	A, B	mule fat canopy	dense patches of arundo and castor bean	3	
1-5	perpendicular	D, E	elderberry and mulefat canopy	mulefat and sandbar willow; no habitat adjacent to the transect line	3	

Table 8. Transects and Canopy Structure Quadrats for San Gabriel River Assessment (Continued)

Number	Orientation	Habitat Elements	Start (description)	End (termination criteria)	Quadrats	Group total
1-6	perpendicular	D, E	arroyo willow canopy	end of suitable habitat; no suitable habitat at other side of channel. Dominant tree Chinese elm	4	20
2-1	perpendicular	E	mule fat and castor bean; selection made by USFWS personnel. Between homeless camps.	dense patch of arundo, eucalyptus, castor bean	4	
2-2	perpendicular	D, E	mule fat canopy	dense stand of castor bean	4	
2-3	perpendicular	C	toe of slope, black willow canopy	suitable habitat ended	4	
2-4	perpendicular	C	black willow canopy	suitable habitat ended	8	20
3-1	perpendicular	C, E	black willow canopy and mulefat sub-canopy	black willow canopy at end of suitable habitat. Quadrats added to previously established transect	6	
3-2	perpendicular	E, G	black willow canopy and mulefat sub-canopy	end of suitable habitat at black willow canopy	3	
3-3	perpendicular	B, E	black willow canopy	end of suitable habitat at black willow canopy	6	
3-4	perpendicular	E, F, G	transect replaced previous one; start at black willow canopy	end of suitable habitat at black willow canopy	5	20
4-1	perpendicular	C, E	black willow canopy; previously established transect with some quadrats moved	end of suitable habitat at black willow canopy, before large stand of arundo	3	

Table 8. Transects and Canopy Structure Quadrats for San Gabriel River Assessment (Continued)

Number	Orientation	Habitat Elements	Start (description)	End (termination criteria)	Quadrats	Group total
4-2	perpendicular	B, C	black willow canopy; previously established transect with some quadrats moved	end of suitable habitat under black willow canopy	5	
4-3	perpendicular	C	black willow canopy	end of suitable habitat under black willow canopy	5	
4-4	perpendicular	C, E	black willow canopy	end of suitable habitat at black willow canopy, before large stand of arundo	7	20
5-1	perpendicular	E	shrubby willows	edge of channel, arroyo willow canopy	7	
5-2	perpendicular; crossed channel	B, C, G	shrubby willows	other side of channel under black willow canopy	5	
5-3	perpendicular	C, G	toe of slope at Rosemead Bridge	black willow canopy before dense castor bean and fennel	5	
5-4	perpendicular	C, G	toe of slope in black willow canopy	within willow canopy; quadrat requirement reached	3	20

Transects are named with the convention of the first number indicating the Group number, and the second number indicating the transect number. Quadrats within each transect receive a third number. Thus, quadrat 1-4-2 is the second quadrat in the fourth transect in Group 1.

6.5 Recruitment and Species Richness

Recruitment of individuals of suitable tree and shrub/subshrub species into a habitat area is an indication of habitat sustainability, as is species richness. These metrics will be collected during the baseline year and in alternate monitoring years thereafter. Recruitment will be evaluated by using the transects established for the habitat structure measurements. Each transect will consist of a belt 2 meters wide extending for the entire length of the transect. That belt will be scored with a tally of tree saplings (all willow species, plus mulefat) less than 2 meters tall encountered on this belt transect. These individuals would be scored as T1, T2, or T3 for height (T 1 =< ½ meter,

T2=1/2–1 meter, T3 = 1–2 meters), in a Combined Vegetation Rapid Assessment and Relevé sampling effort (CDFW/CNPS, 2019). The belt transect will be recorded as a tracklog in GPS by the first observer; and the same track will be revisited in subsequent monitoring years. In addition, a tally will be made of the most prevalent plant species that occur in all quadrats and in each transect belt to document relevant local species richness. This list will include species that have been identified in the canopy structure protocol, and any others that appear frequently and that are obvious to a trained botanical observer along the length of the transect. Annual species that do not occur frequently will not be listed.

6.6 Vegetation Mapping

The vegetation map at the level of alliance for the AMP area will be updated annually, using the most recent aerial photograph available that was taken during summer months. Mapping will be used to produce a table of the total area of each habitat type for each year of mapping. As noted by Rompre et al. (2010), for bird species, the threshold of significance of decline may generally be between 30 percent and 40 percent of the habitat still remaining, compared with the proportion observed under a natural disturbance regime. For this Project, the goal is no significant change in total area of suitable habitat alliances or in individual alliances of importance to riparian birds.

7.0 Triggers for Adaptive Management

A table of objectives (Table 9) has been prepared to guide evaluation of habitat conditions and to suggest triggers for implementing adaptive management. The overall objective is to more efficiently manage effluent to maintain the quantity and quality of riparian habitat in areas currently influenced by treatment plant discharge. The Habitat Management Committee (HMC) is a critical part of the AMP, and this committee will meet regularly to interpret the data collected during monitoring. The HMC will evaluate to data to determine whether there have been any impacts on habitat conditions caused by the Project and will also determine the adaptive management actions that should be taken in response to any such impacts. The HMC will include staff from the Sanitation Districts, representatives from USFWS and CDFW, Los Angeles County Department of Public Works, Southern California Coastal Water Research Project, and water management and supply agencies. Invitations will be extended to the United States Army Corps of Engineers and environmental and other non-governmental organizations (such as Water Keepers).

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Table 9. Objectives Matrix for San Gabriel River Flow Management

Objective	Parameter (What?)	Methods (How?)	Location (Where?)	Monitoring (When?)	Basis of Comparison	Trigger
More efficiently manage effluent	Water Stress	Modify existing random effluent flow to an intentional discharge cycle of reduced flow	SJC002 and SJC003	Continuous logging	5-WY average baseline flow	NA
		Stem water potential	96 Selected Trees	Spring (single baseline) and fall (ongoing)	Pre-Project conditions per AMP Grouping	Significant Δ within group or species
Maintain quantity and quality of riparian habitat in areas Influenced by treatment plant discharge	Alliance – Acreage	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	+/- 10% Δ in any mapped alliance except the key alliances listed below
	Arroyo Willow and Black Willow	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	- 2% Δ
	Arundo	Vegetation mapping	Aerial Photographs and Ground Truthing	Fall	Pre-Project conditions per overall Project area	+5%*
	Structure – Canopy Cover	Transects with quadrats of "stacked cubes" generally spaced every 10 meters (Kus 1998), 20 quadrats per AMP Grouping	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	Mean for any stratum if Group falls outside baseline range
	Structure – Understory	Transects with quadrats of "stacked cubes" generally spaced every 10 meters (Kus 1998), minimum 20 quadrats per AMP Grouping	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	Mean for any stratum if Group falls outside baseline range
	Species Richness	2-meter-wide belt transects	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	20% Δ
	Recruitment	2-meter-wide belt transects	22 Transects (see map)	Fall	Pre-Project conditions per AMP Grouping	20% Δ

*Alternative plan for Arundo removal will be developed with CDFW; Δ = delta; AMP = Adaptive Management Plan; WY = water year;

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7.1 SWP and CV

The baseline measurements will be taken from existing riparian vegetation before the Project begins. The first monitoring events will be conducted in the two summers before Project start to provide baseline data. The number of samples specified in Section 6.0 has been established as sufficient, based on the first year of baseline monitoring (Wood 2019). Proposed triggers for adaptive management are described below. It is acknowledged that the triggers may be revised during ongoing discussions of the HMC. A mean and standard deviation for each species sampled for SWP and CV will be calculated for the entire Project area, as well as for each AMP Group. The variation exhibited for each metric will be evaluated by a biostatistician to help determine the importance of any changes in tree conditions during the ongoing monitoring. The expected range of SWP measurements for tree willows that are not stressed is -5.0 to -7.1 bar, based on measurements in April 2019, in a cool and wet environment that followed a season of high rainfall (Wood 2018). The baseline data for tree willows for late summer was measured at between means of -8.9 and -10.1 bar (Wood 2019), making it possible to determine an acceptable range. The expected range for baseline CV is between 75 to 100 percent.

The triggers for adaptive management are set as follows:

Significant downward difference between the late summer baseline means and annual measured late summer means for SWP or for CV for tree willows or for mulefat. Sufficient samples are not available for blue elderberry or sycamore to specify a trigger range for these species at this time. Significance is defined at the 90 percent confidence level (Wood 2019).

After Project implementation, if the data for any SWP or CV show a statistically significant decline for any species or any Group from the baseline data for that Group or species (based on a standard paired sample t-test of means for either of these monitored metrics), the significant decline will trigger an increase of discharge flow to baseline level until the HMC meets and provides direction.

7.2 Habitat Structure (Canopy and Understory Strata)

The ranges of volume have been established for each of the strata sampled using the “stacked cube” method that is acceptable as habitat for LBV (Table 10, Kus 1998) and data collected for this Project will be compared with those ranges. Triggers, however, will be determined relative to the baseline data, not to the optimum canopy level conditions in Table 9. New tables of baseline conditions of canopy density at each stratum in a minimum of 20 quadrats in each Group will be prepared, one for each AMP Group, including standard deviations for each stratum. Each AMP Group’s monitoring data will be compared with the baseline values in these tables.

Table 10. Parameters for Optimal Canopy Strata Volume

	Canopy Height (meters)					
	0–1	**1–2**	**2–3**	**3–4**	**4–5**	**5+**
Average. % cover	39.8	33.4	26.6	21.1	17.6	NA
Standard deviation	6.6	7.4	5.9	5.9	5.6	NA
Range of optimal % cover at each height (+/- 1 standard deviation)						
High	46.4	40.8	32.5	27.0	23.2	NA
Low	33.2	26.0	20.7	15.2	12.0	NA

A trigger for adaptive management would be a decline of 1 standard deviation (SD) or more from the baseline mean in canopy volume measured as “stacked cubes” for increments 0–1 meter, 1-2 meters, or 2–3 meters in sampled quadrats reported as a mean for each stratum in each AMP Group (Figure 11). That is, all quadrats sampled in each Group (a minimum of 20 quadrats per Group) would be combined to attain a single canopy volume mean and associated SD within each sampled stratum for that AMP Group. If the annually sampled mean of one of the strata is more than 1 SD higher or lower than the baseline mean for that stratum within that Group (falling outside the baseline range for that stratum in that Group), an increase of discharge flow to baseline level would be triggered until the HMC meets and provides direction. The objective is to maintain vegetation in baseline state, or to improve it. Neither overly dense nor overly sparse vegetation is considered to characterize suitable habitat. If the deviation from the baseline range moves the stratum closer to the range for that stratum shown in Table 10 however, the change would be judged to be positive. For this analysis, there is no specified optimal range for canopy volume higher than 5 meters. The annual growth of a tree alone could be sufficient reason for the volume of canopy in the >5-meter stratum to increase.

7.3 Recruitment and Species Richness

Because recruitment is usually an episodic event in riparian systems (Stevens et al. 2005), recruitment and species richness will be evaluated every two years rather than annually. However, data for recruitment and species richness will be collected annually. If recruitment, defined as the presence of saplings in Section 6.5, declines from the baseline in any Group by the percentage indicated in Table 9, an increase of discharge flow to baseline level will be triggered until the HMC meets and provides direction. If species richness, sampled as described in Section 6.5, declines from the baseline in any AMP Group by the percentage indicated in Table 9, an increase of discharge flow to baseline level will be triggered until the HMC meets and provides direction.

There is no expected range for either recruitment or species richness.

7.4 Vegetation Mapping

Vegetation mapping will be conducted on the most recent available aerial photos of the region to the level of alliance. Targeted riparian alliances are willow thickets (black, arroyo, and sandbar, including disturbed), and mulefat thickets (including disturbed). For the evaluation, a decrease in

acreage for any of these identified alliances from the baseline conditions described in Table 7 would trigger an adaptive management response of returning flow to baseline level until the HMC meets. Although it is difficult to judge future significant decline of habitats, and this judgment inevitably relies heavily on expert opinion (OSPAR Commission 2003), a conservative level has been established for each evaluated alliance. This level can represent a reasonable trigger for either the return of flow to baseline level and/or HMC discussions (Table 9).

The goal for habitat is that the area generally remains undiminished. A detectable change of habitat percentages as shown in Table 9 will trigger an appropriate response. If it is agreed that habitat changes are not detectable on an annual basis, or if suitable aerial photographs are not available, the frequency of mapping may be modified.

7.5 Overall Trigger Points

The HMC will meet annually between the third week of October and the third week of November each monitoring year to review the monitoring data. If the data review indicates water stress in the vegetation, as measured using any of the methods described in Section 6.0, the HMC can recommend an adaptive management strategy and implement responsive measures. Trigger points for any individual parameter in any individual vegetation alliance or AMP Group alone, however, may not be cause for implementing the adaptive management actions of increasing water delivery. The trigger points summarized in Table 9 guide adaptive management considerations.

8.0 Evaluating the Nature of the Changes in Habitat

If increased water stress is detected from any of the parameters measured in Section 6.0 and if that stress meets the criteria for triggering a response, discharge flow up to baseline will be restored until the HMC can review the data and assess the potential cause of the stress. If the stress is attributed to the Project and/or can be addressed by adapting the discharge scheme, that adaptive strategy will be implemented. Significant data findings will be discussed by the HMC. It is reasonable to assume that only stresses that can be attributed to the Project, and that would be arrested by applying available adaptive management strategies, would be considered as triggers for such adaptive management actions. Habitat declines, as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, or species richness, could be caused by a decline in water supply from WRPs, but also by regional drought or other factors such as human activity. Because it may be difficult to determine the cause of the decline with absolute confidence, review of all the data and discussions by professional scientists, biologist, engineers and water experts are necessary and appropriate. Riparian vegetation within the Project area is naturally dynamic and may change in distribution and extent due to factors outside the control of the Sanitation Districts, such as flood events, fires, etc. Therefore, adaptive management is an appropriate method to analyze this dynamic system.

Data that can be used during these discussions to determine the cause of habitat decline include rainfall records, which are measured by Los Angeles County Public Works at a weather station in

Irwindale, California. A rolling 10-year average for monthly precipitation could be calculated, and that average compared with the current season monthly precipitation to help determine whether the vegetation decline is more likely attributable to drought or to a decrease in water releases. There are no published studies of the influence of precipitation or of other water-related phenomena or management actions on vegetation in this watershed, so the observed decline will need to be addressed in HMC discussions rather than by application of a numerical trigger.

The HMC will hold a scheduled annual meeting; however, if preliminary data review indicates water stress in the vegetation comprising the identified PCEs, a meeting will be scheduled immediately. The Sanitation Districts will increase water deliveries to pre-Project discharge levels. The duration of such delivery increases will be determined by the HMC once it meets. Discussions will be conducted in good faith by all parties, with the goal of protecting habitat reasonably observed to have been affected by Project activities. Adaptive management actions decided upon by the HMC will be implemented as soon as is feasible.

9.0 Tools for Adaptive Management

Adaptive management strategies that can be used by the Sanitation Districts to protect riparian habitat along the designated portions of the SJC and SGR are primarily related to water management. Under the conditions that this Project would implement, the Sanitation Districts would not be responsible for habitat losses from human disturbance, fire, earthquakes, or any “acts of God” or “natural disasters” not related to control of the flow of treated recycled water. Because the Project will reduce the discharge of water into the habitat from the baseline flows, restoring baseline flow as necessary is the only adaptive management strategy that is readily available and appropriate for addressing impacts from this Project.

Only four discharge points would potentially affect water flow in the AMP Groups of concern. The first is the Pomona WRP (PomWRP), which is upstream of Group 1 in the SJC. The next is SJC002, which is upstream of Group 1. The third is SJC003, which is upstream of Group 3. The fourth is WN001, which is upstream of the Group 4 area. These WRP discharge locations are shown in Figure 12. Releases from PomWRP and SJC002 would potentially augment flow in Groups 1, 2, 3, 4 and 5, while releases from SJC003 would affect only Groups 2, 3, 4 and 5. Depending on the AMP Group(s) that had been determined to be in decline, releases could be made from the appropriate WRP discharge location. Therefore, if the action triggers are exceeded, as measured by vegetation mapping, SWP, CV, habitat structure, recruitment, and/or species richness, the adaptive management strategy under discussion would be to increase flows. The Sanitation Districts can release water from the appropriate WRP discharge location up to the amount that would have been released historically at that time of year. Discharge would be returned to the river within one week of the identification of the action criteria exceedance sufficient to irrigate the affected areas. Discharges would be maintained through October of the same year, or as otherwise directed by the HMC following discussions on the year’s data report.

Some potential stresses may not be corrected by adaptive management actions in the form of increased water releases. For example, a flood event that scours the banks and removes trees

or shrubs would not be a stress attributable to the Project, and should not be reversed by adaptive management. Similarly, impacts on vegetation from disturbance by vehicles, human impacts such as trail development, temporary human occupation, fire, or herbicide application would not be stresses attributable to the Project, and should not be reversed by adaptive management. Finally, the polyphagous shot-hole borer (PSHB) may eventually stress vegetation; it has been affecting willows and cottonwoods throughout southern California and occurs upstream and downstream of this site (University of California Agricultural and Natural Resources [UCANR] 2017).

10.0 Rationale for Anticipating Success

The relationship between the water demands of the vegetation in the AMP area and potential patterns of water release from the SJCWRP were described in Section 2.0. This discussion shows that the water volume that has been sufficient to grow and sustain riparian habitat is, in most cases, not delivered or supplied in a manner that specifically supports riparian vegetation. In spite of this condition, the reduced supply during the months of peak demand that is the current delivery pattern continues to support the vegetation, as the soil water-holding capacity buffers the vegetation from experiencing drought stress. This pattern is well known in the American southwest, where riparian vegetation is often found where surface water disappears during the summer months (Levick et al. 2008). From what is known about the depth to groundwater in the AMP area, it can reasonably be assumed that the depth to water varies over the course of the year, but remains mostly below the root zones for riparian plant species. This condition pre-adapts the vegetation to develop resilience during periods when the water table is low (Williams and Cooper 2005).

It is the intention of the Sanitation Districts, however, to supply water in a manner that benefits riparian vegetation, even if the total amount of water delivered from the SJCWRP over a year is reduced. The proposed pattern of delivery will initially be scenario OS 1c or OS 2c, as shown in Table 11 (ESA 2019), to provide a discharge pattern that is more consistent than that of historical operations, thus actually reducing the time during which vegetation is not provided with any treatment plant recycled water in the identified Hydrological Assessment Areas (HAAs) (Table 12 and Figure 13, ESA 2019) that were delineated from a hydrological analysis conducted by ESA (2019). These patterns of water release are anticipated to provide overall benefits to riparian vegetation in all portions of the Project area by providing water that extends into portions of the Project area that have no other source of surface water during certain times of the year, thereby minimizing the dry periods over the course of a year.

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Table 11. Operational Scenarios for Releasing Water from San Jose Creek WRP Under Project Conditions

Operational Scenario	Description	Week 1							Week 2							Average Release MGD
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	
Existing conditions	9.5 MGD long-term average, variable day to day	variable – 9.5 MGD average							variable – 9.5 MGD average							9.5
OS 1a	5 MGD every day from SJC002	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.0
OS 1b	9 MGD 4 days per week from SJC002	0	0	0	9	9	9	9	9	9	9	9	0	0	0	5.1
OS 1c	15 MGD 2.5 days per week from SJC002	0	0	0	0	0	14	14	14	14	14	0	0	0	0	5.0
OS 2a	5 MGD every day alternating between SJC002 and SJC003	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5.0
OS 2b	9 MGD 4 days per week alternating between SJC002 and SJC003	0	0	0	9	9	9	9	9	9	9	9	0	0	0	5.1
OS 2c	15 MGD 2.5 days per week alternating between SJC002 and SJC003	0	0	0	0	0	14	14	14	14	14	0	0	0	0	5.0

Water released from SJC002
Water released from SJC003

Table 12. Duration of Dry Periods (Periods without Channel Wetting) Under Existing and Project Conditions

Duration of Longest Dry Period in Dry Season (average of 5 years) – Days											
Operational Scenario	**HAA1**	**HAA2**	**HAA3**	**HAA4**	**HAA5**	**HAA6**	**HAA7**	**HAA8**	**HAA9**	**HAA10**	**Mean**
Existing Conditions	4	13	25	35	49	58	64	65	35	37	39
OS1a	0	3	21	61	97	109	118	120	66	66	66
OS1b	1	6	8	20	59	105	112	112	66	66	56
OC1c	2	8	9	10	15	33	50	81	65	65	34
OS2a	2	3	6	73	109	122	129	132	66	66	71
OS2b	3	6	7	9	86	105	112	112	66	66	57
OS2c	4	9	9	10	11	12	70	88	65	65	34

>21	Longer than recommended watering interval for establishing plants
14–21	Within range of recommended watering interval
<14	More frequent than recommended watering interval

Quantifying water stress using the measurements of SWP, CV, and habitat structure measured as canopy volume in both upper-canopy and understory vegetation strata and monitoring species richness and recruitment allow for early detection of conditions that could ultimately, but not immediately, prove lethal to the critical vegetation (Rood et al. 2003). Riparian tree species will often abort individual branches during times of water stress, allowing the tree as a whole to survive and recover (Scott et al. 1999). Woody plants do have a point of permanent wilting, experienced as cavitation of the xylem. Such cavitation causes the death of a stem (Rood et al. 2003).

No single value identifies the SWP that would induce cavitation, so for this Project, changes from baseline measurements will be monitored closely. In addition, there is no firm percentage of canopy volume that reliably indicates significant stress on the vegetation. The metrics of habitat structure, recruitment, and species richness also provide information to assess changes in habitat condition, although there are also no known quantitative values for these metrics that allow for the defensible conclusion that the Project itself is occasioning the stress. With the information from monitoring, together with an evaluation of the current status of water supply, a fully informed and rational decision can be made during HMC discussions to determine the appropriate course of action regarding adaptive management strategies to address the observed stresses. Even preliminary indications that water stress is occurring will trigger immediate water release responses and HMC discussions so that adaptive management in the form of increased flows can be implemented before the stress is irreversible.

11.0 Other Monitoring, Control, Mapping, and Reporting Activities

Although habitat monitoring and mapping should be conducted annually, as described in Section 6.0, other monitoring efforts and frequencies may be considered by the HMC.

11.1 Monitoring for Presence of LBV

Although there are reasons that LBV may be absent from the AMP area in any given year that are unrelated to habitat condition, the presence of the species is an indication of good quality habitat. The United States Army Corps of Engineers (USACE) performs annual LBV protocol surveys on portions of the SJC and within the SGR downstream of SJWRP to the WND, and the results of these surveys are reported to the USFWS. If the Sanitation Districts cannot obtain results of the LBV protocol surveys from the USACE, the Sanitation Districts will conduct LBV protocol surveys as long as they are granted permission by the USACE to do so on USACE land. The presence of LBV is not intended to be used as a trigger to indicate that adaptive management is not required (regardless of the other monitoring results).

11.2 Control of Cowbird (*Molothrus ater*) in the Project Area Using Trapping

Trapping will be conducted on Sanitation Districts property in the AMP area for the first three years to reduce the level of LBV nest parasitism. Should the vegetation mapping trigger of a -2% change in arroyo and black willow alliance area be reached, trapping will be continued or reinstated for an additional period of three years.

11.3 Monitoring Following a "Natural Disaster"

In the event of a natural disaster that dramatically affected the condition or extent of habitat suitable for LBV, the monitoring would continue as specified, with a new post-disaster "baseline" condition from which recovery of the habitat would be anticipated. If the "natural disaster" affected the ability to identify the minimum 12 monitoring areas and 24 individual trees and shrubs/subshrubs, then new areas and individuals would be selected, and sampling for SWP would be continued.

11.4 Impact of Natural Conditions Such as Global Warming, Drought Conditions, or Variable Snow Melt

These conditions are beyond the control of the Sanitation Districts and cannot be subject to adaptive management strategies. Climate and weather data may be recorded and tabularized at the discretion of the Sanitation Districts. Precipitation data will be evaluated annually, with a rolling 10-year average, as described in Section 8.0.

11.5 Reporting

Monitoring will occur during the height of the growing season (August/September, as described in Section 6.0). A draft report with numerical findings and conclusions will be available within six weeks after the end of the monitoring period; by the end of October at the latest. Drafts will be made available to the resource agencies for review. The HMC will meet between the third week of October and the third week of November to determine whether the results trigger adaptive management actions. Final reports will be completed within four weeks after the conclusion of agency review.

Furthermore, other data will be provided on an annual basis to compare conditions in the Project area. These data sets include the following:

a. Flow data measured routinely at this time, as required under the conditions of the National Pollutant Discharge System (NPDS) permit, at existing weirs or monitoring points above, within, and below the segments monitored for the Project

b. Water quality data collected by the Sanitation Districts, including temperature, dissolved oxygen, and pH sampled from upstream water and downstream water at the segment outflow

c. Groundwater well depths from monitoring wells within the area

d. Existing maps that show where LBV has been detected in previous years

These data sets will be presented without summary or discussion, and can serve as a resource for evaluating factors that could contribute to habitat condition.

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FIGURE 1

Regional Location
San Gabriel River AMP
Los Angeles County, California

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Group 1
Group 2
Group 3
Group 4
Group 5

1 inch = 1,500 feet
0 1,500 Feet

FIGURE 2

Project Overview
San Gabriel River AMP
Los Angeles County, California

wood.

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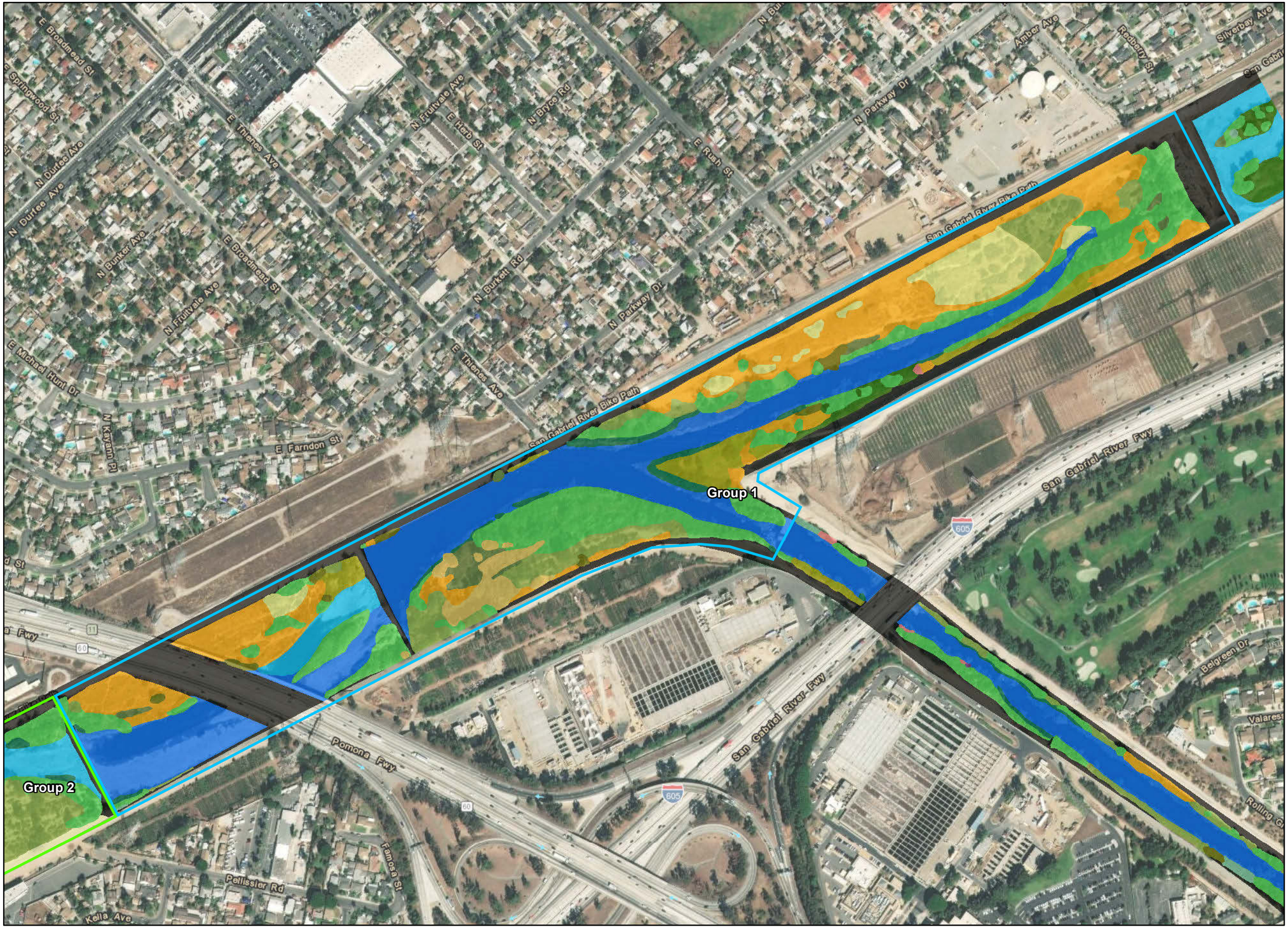

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Group 1

Group 2

Vegetation Communities

- Annual brome grassland
- Arroyo willow thickets
- Arroyo willow thickets - Disturbed
- Barren
- Black willow thickets
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Mulefat thickets - Disturbed
- Non-native woodland
- Open Water
- Sandbar willow thickets
- Sandbar willow thickets - Disturbed
- Smartweed - cocklebur patches
- Unvegetated streambed

1 inch = 400 feet

0 400 Feet

FIGURE 3

Vegetation Communities - Group 1
San Gabriel River AMP
Los Angeles County, California

wood.

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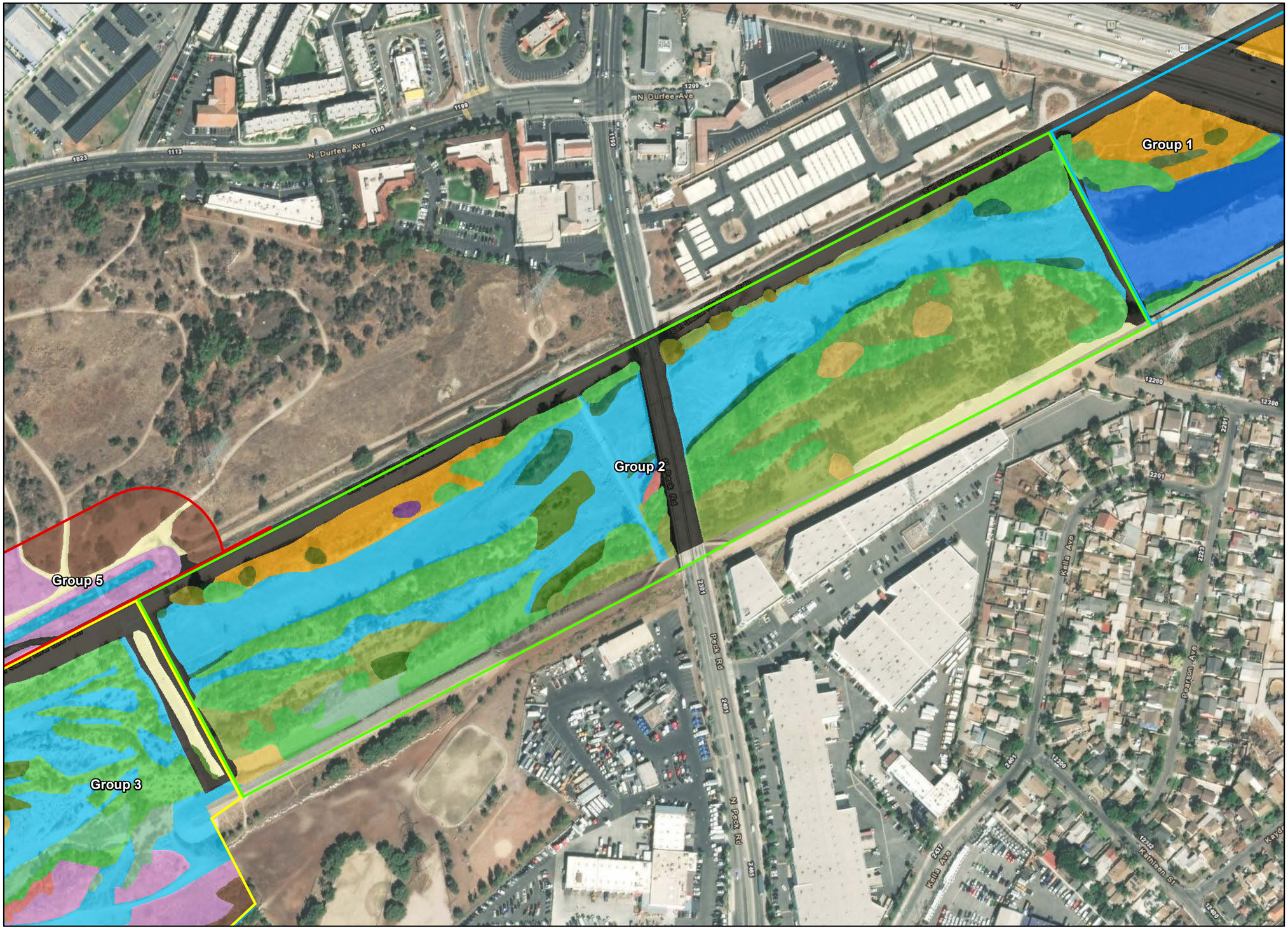

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Group 1
Group 2
Group 3
Group 5

Vegetation Communities

- Annual brome grassland
- Arroyo willow thickets
- Barren
- Black willow thickets
- Blue elderberry stands
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Mulefat thickets - Disturbed
- Non-native woodland
- Open Water
- Poison hemlock patches
- Sandbar willow thickets
- Smartweed - cocklebur patches
- Unvegetated streambed
- Mustard semi-natural stands

1 inch = 250 feet

0 250 Feet

FIGURE 4

Vegetation Communities - Group 2
San Gabriel River AMP
Los Angeles County, California

wood.

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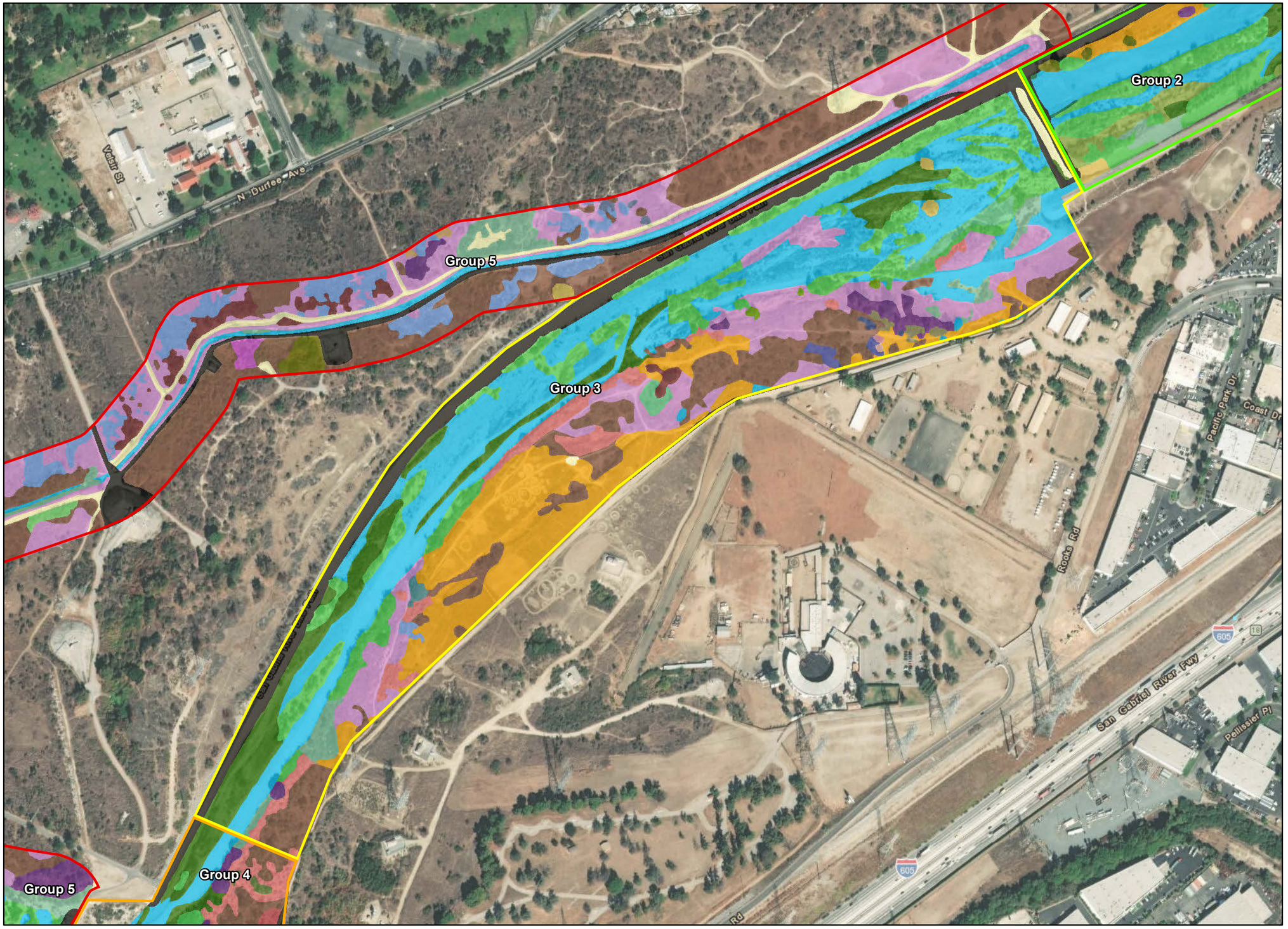

Group 2
Group 3
Group 4
Group 5

Vegetation Communities

- Annual brome grassland
- Arroyo willow thickets
- Barren
- Basket bush patches
- Black cottonwood forest
- Black willow thickets
- Blue elderberry stands
- Box-elder forest
- California buckwheat scrub
- California coffee berry scrub
- California sycamore woodlands
- California walnut groves
- California yerba santa scrub
- Cattail marshes
- Coast prickly pear scrub
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Mulefat thickets - Disturbed
- Non-native woodland
- Perennial pepper weed patches
- Poison hemlock patches
- Poison oak scrub
- Sandbar willow thickets
- Scalebroom scrub
- Smartweed - cocklebur patches
- Sugarbush chaparral
- Unvegetated streambed
- Mustard semi-natural stands
- Wild grape shrubland

1 inch = 400 feet

0 400 Feet

FIGURE 5

Vegetation Communities - Group 3
San Gabriel River AMP
Los Angeles County, California

wood.

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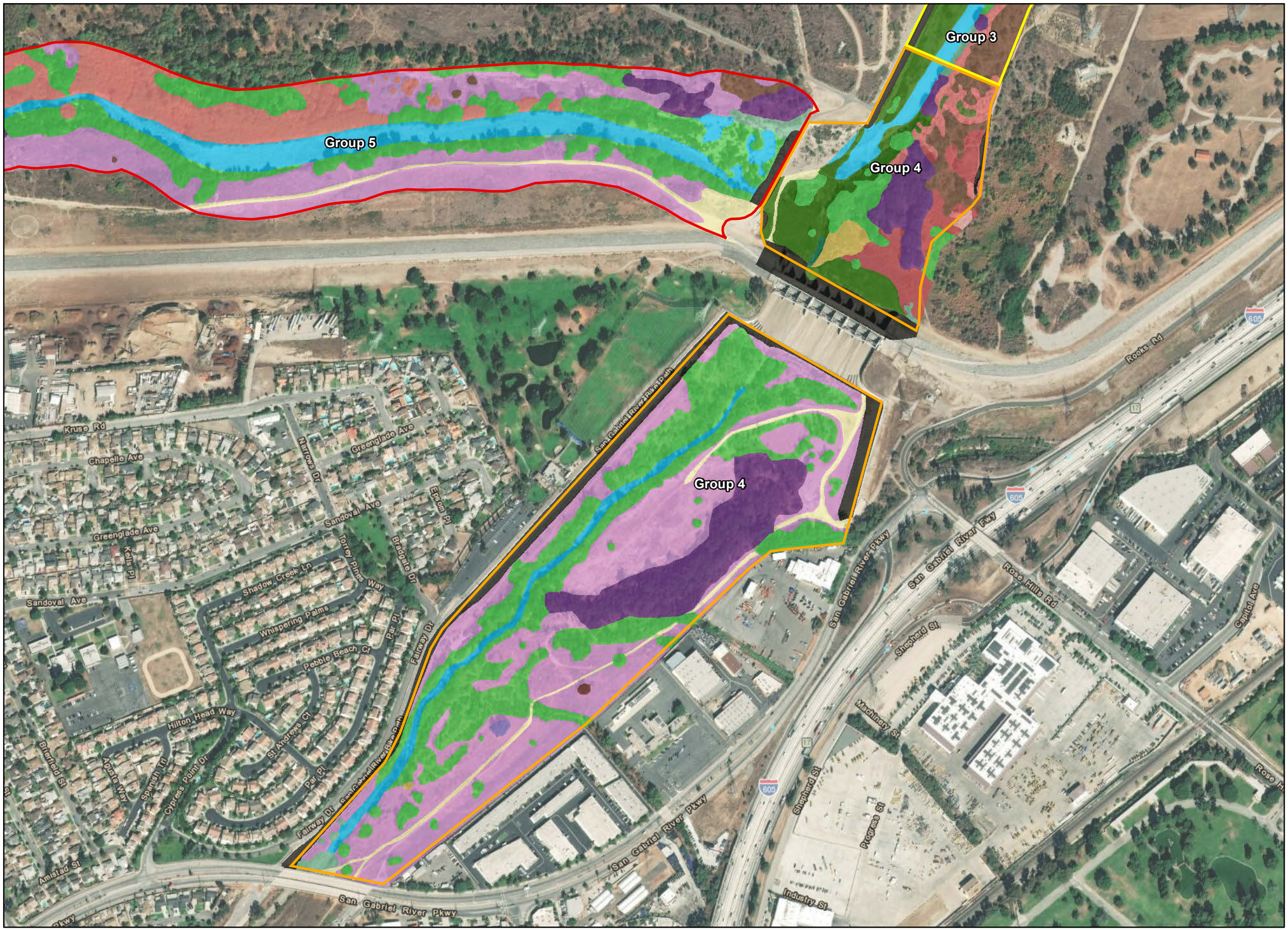

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Group 3
Group 4
Group 5

Vegetation Communities

- Annual brome grassland
- Barren
- Black willow thickets
- Blue elderberry stands
- California walnut groves
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Non-native woodland
- Perennial pepper weed patches
- Sandbar willow thickets
- Smartweed - cocklebur patches
- Unvegetated streambed
- Mustard semi-natural stands
- White alder groves
- Wild grape shrubland

1 inch = 439.695827 feet

0 400 Feet

FIGURE 6

Vegetation Communities - Group 4
San Gabriel River AMP
Los Angeles County, California

wood.

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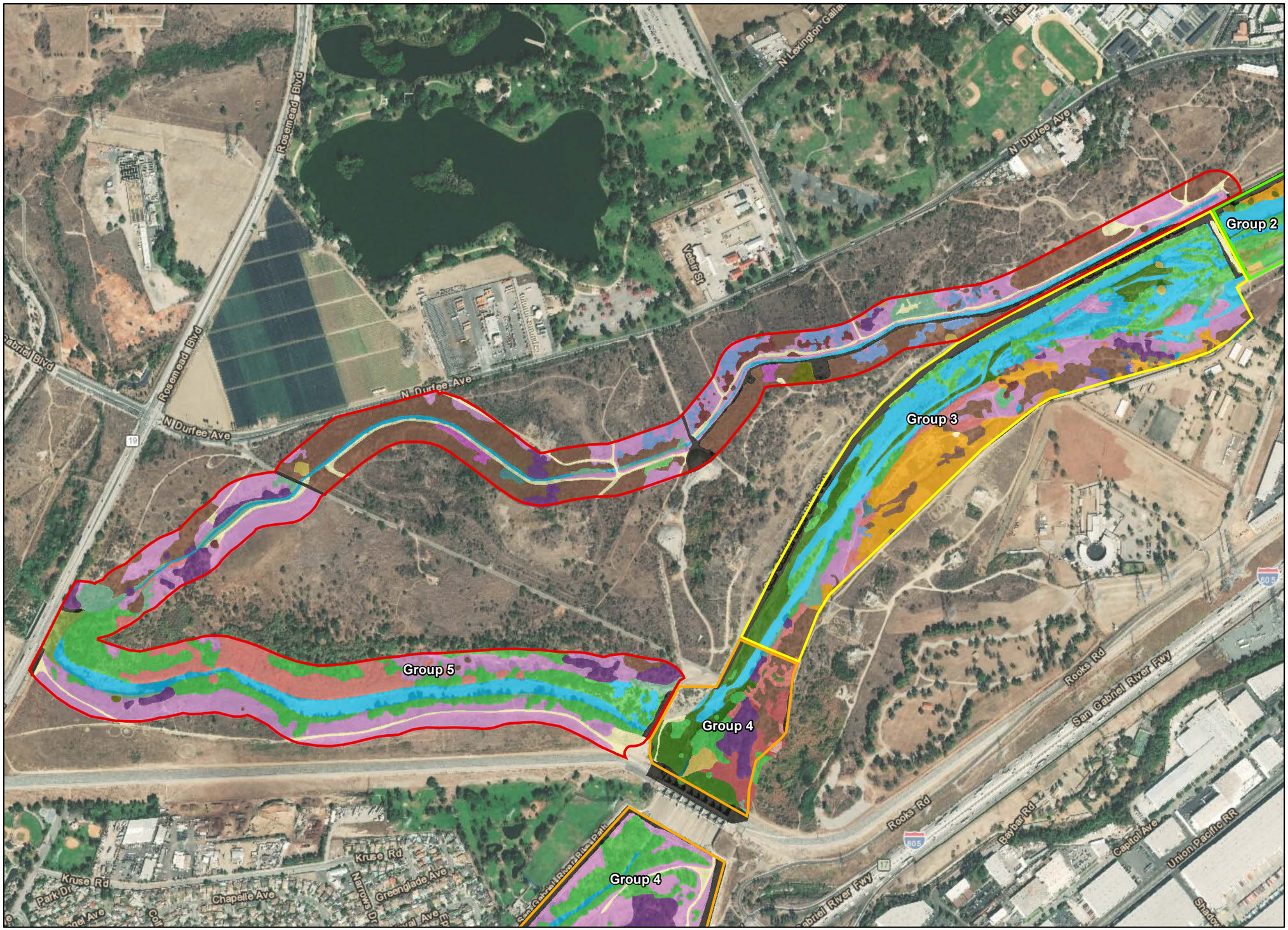

Group 2
Group 3
Group 4
Group 5

Vegetation Communities

- Annual brome grassland
- Arroyo willow thickets
- Barren
- Basket bush patches
- Black cottonwood forest
- Black willow thickets
- Blue elderberry stands
- Box-elder forest
- California buckwheat scrub
- California coffee berry scrub
- California sycamore woodlands
- California walnut groves
- California yerba santa scrub
- Cattail marshes
- Coast prickly pear scrub
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Mulefat thickets - Disturbed
- Non-native woodland
- Perennial pepper weed patches
- Poison hemlock patches
- Poison oak scrub
- Sandbar willow thickets
- Scalebroom scrub
- Smartweed - cocklebur patches
- Sugarbush chaparral
- Unvegetated streambed
- Mustard semi-natural stands
- Wild grape shrubland

1 inch = 700 feet

0 400 Feet

FIGURE 7

Vegetation Communities - Group 5
San Gabriel River AMP
Los Angeles County, California

wood.

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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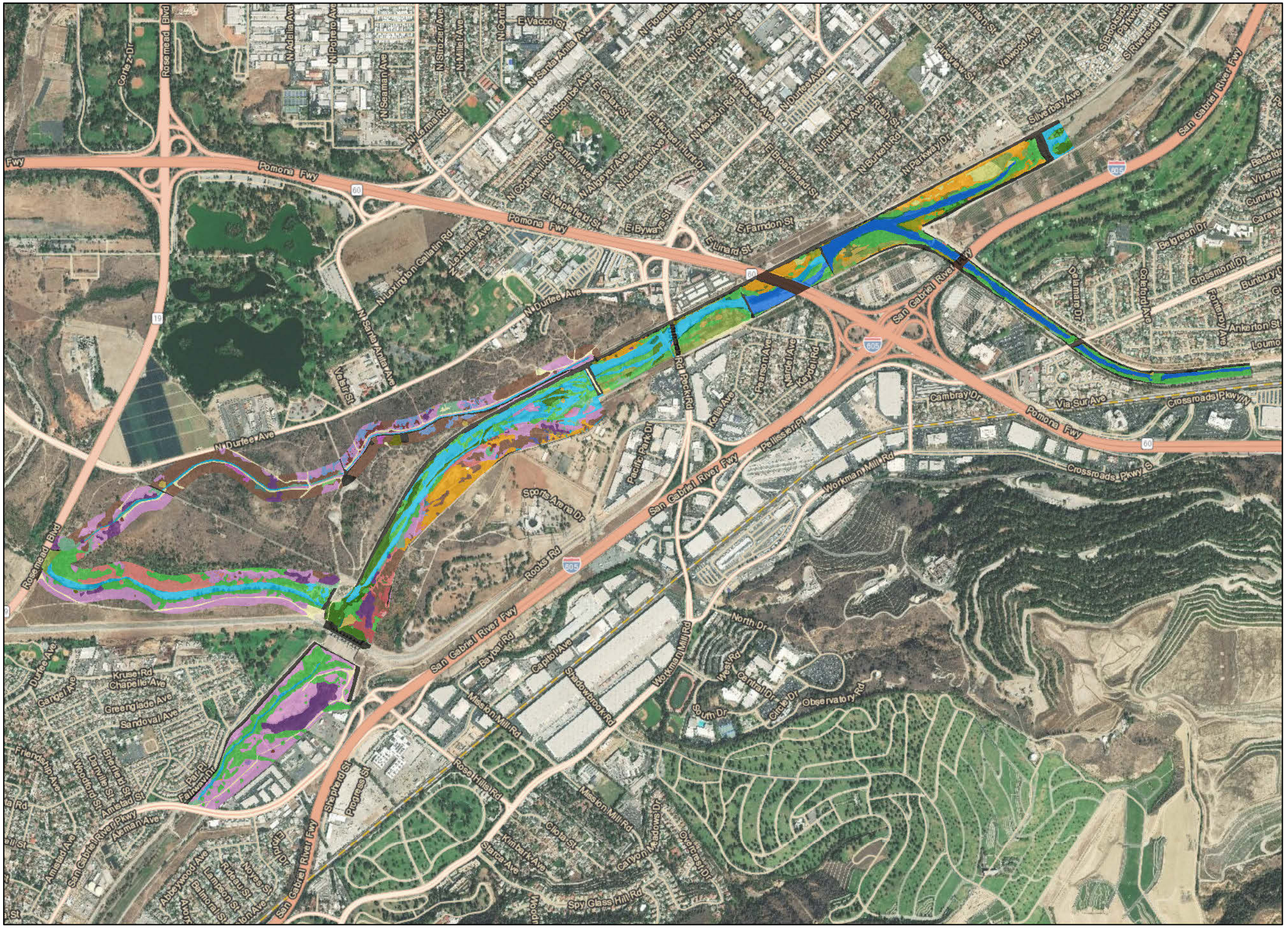

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Vegetation Communities

- Annual brome grassland
- Arroyo willow thickets
- Arroyo willow thickets - Disturbed
- Barren
- Basket bush patches
- Black cottonwood forest
- Black willow thickets
- Blue elderberry stands
- Box-elder forest
- California buckwheat scrub
- California coffee berry scrub
- California sycamore woodlands
- California walnut groves
- California yerba santa scrub
- Cattail marshes
- Coast prickly pear scrub
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Mulefat thickets - Disturbed
- Non-native woodland
- Open Water
- Perennial pepper weed patches
- Poison hemlock patches
- Poison oak scrub
- Sandbar willow thickets
- Sandbar willow thickets - Disturbed
- Scalebroom scrub
- Smartweed - cocklebur patches
- Sugarbush chaparral
- Unvegetated streambed
- Mustard semi-natural stands
- White alder groves
- Wild grape shrubland

1 inch = 1,500 feet

0 1,500 Feet

FIGURE 8

Vegetation Communities - Overview
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors
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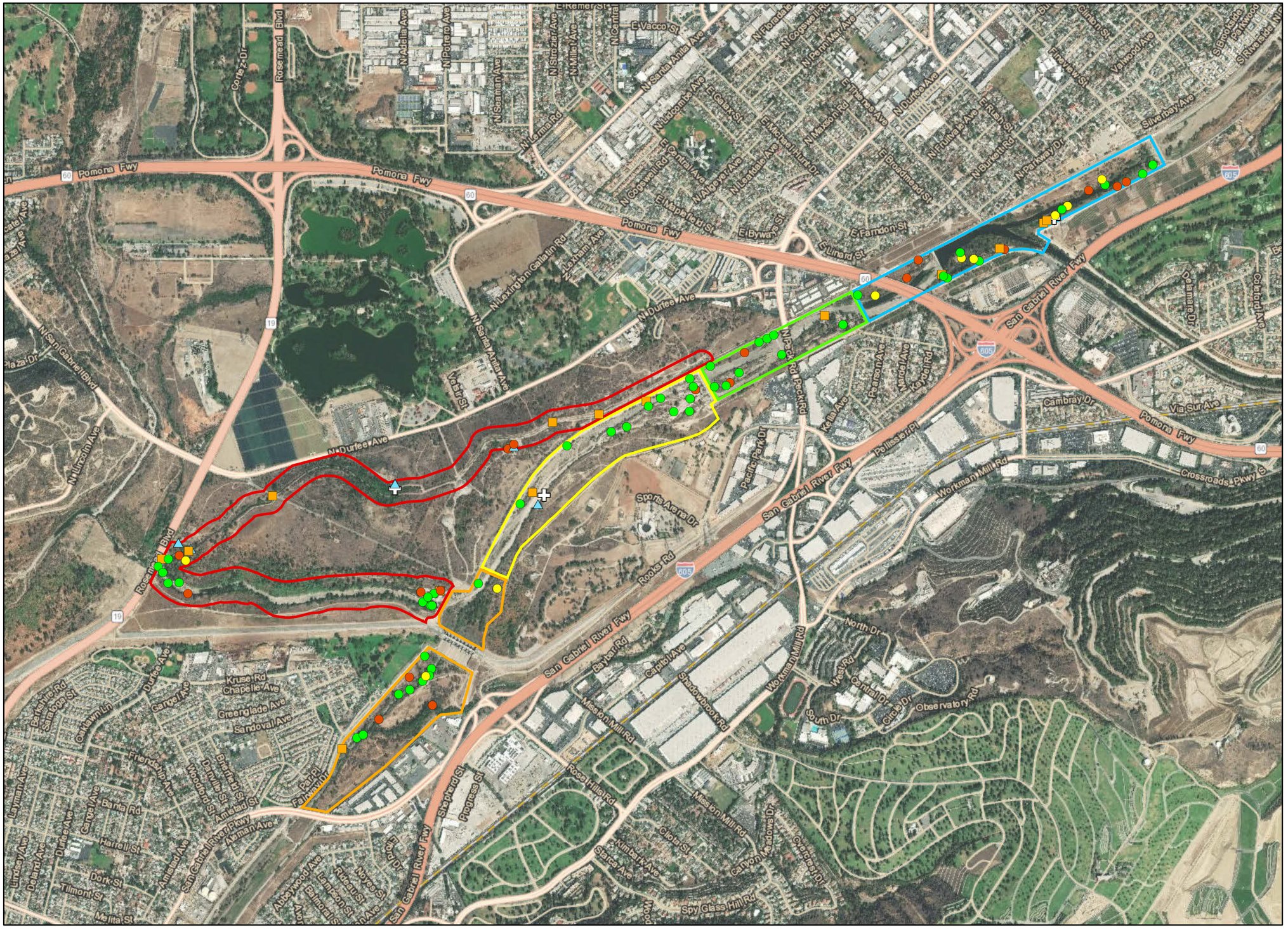

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FIGURE 9

Tree Locations
San Gabriel River AMP
Los Angeles County, California

wood.

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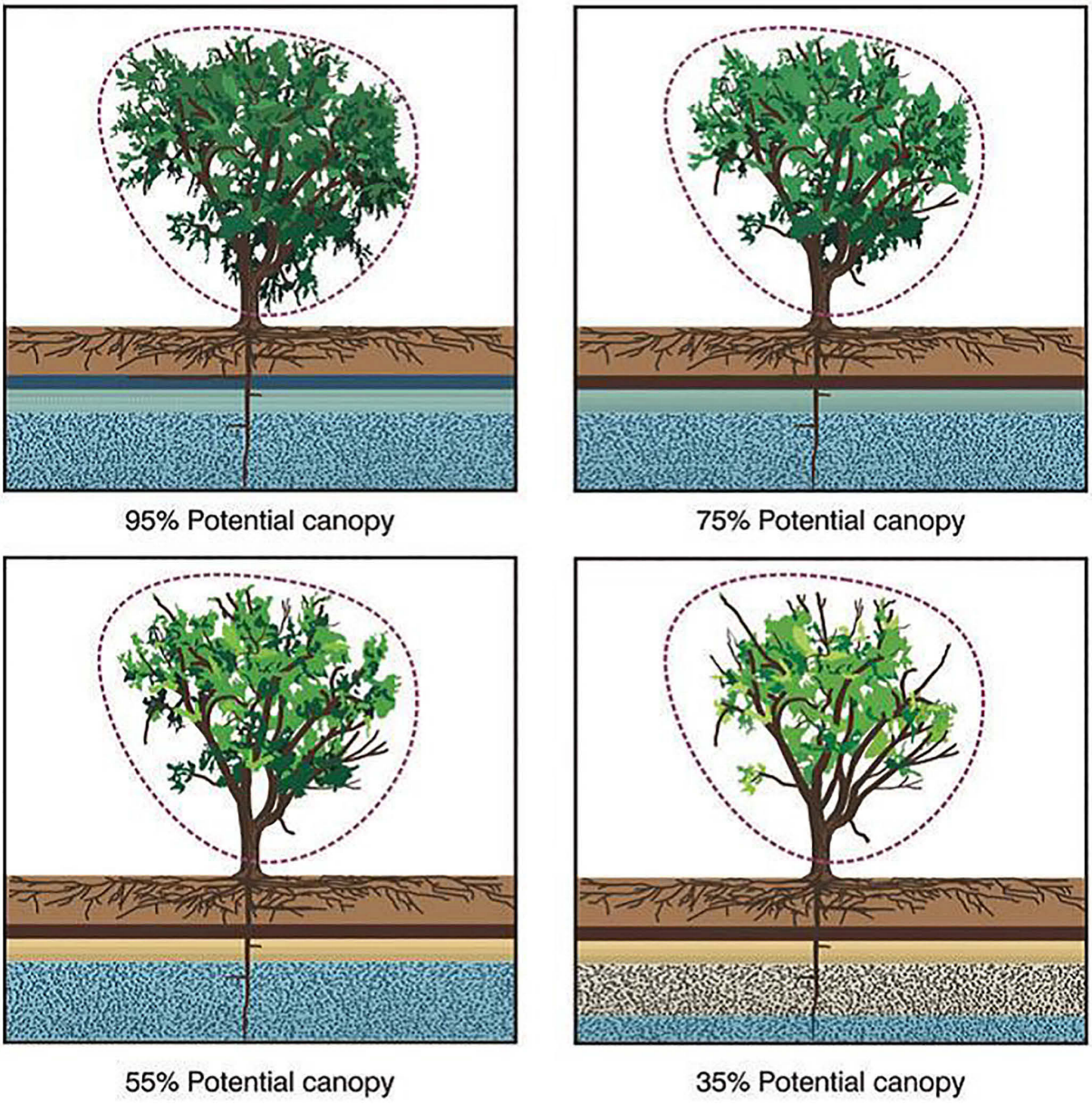

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FIGURE 10a

Estimated Canopy
San Gabriel River AMP
Los Angeles County, California

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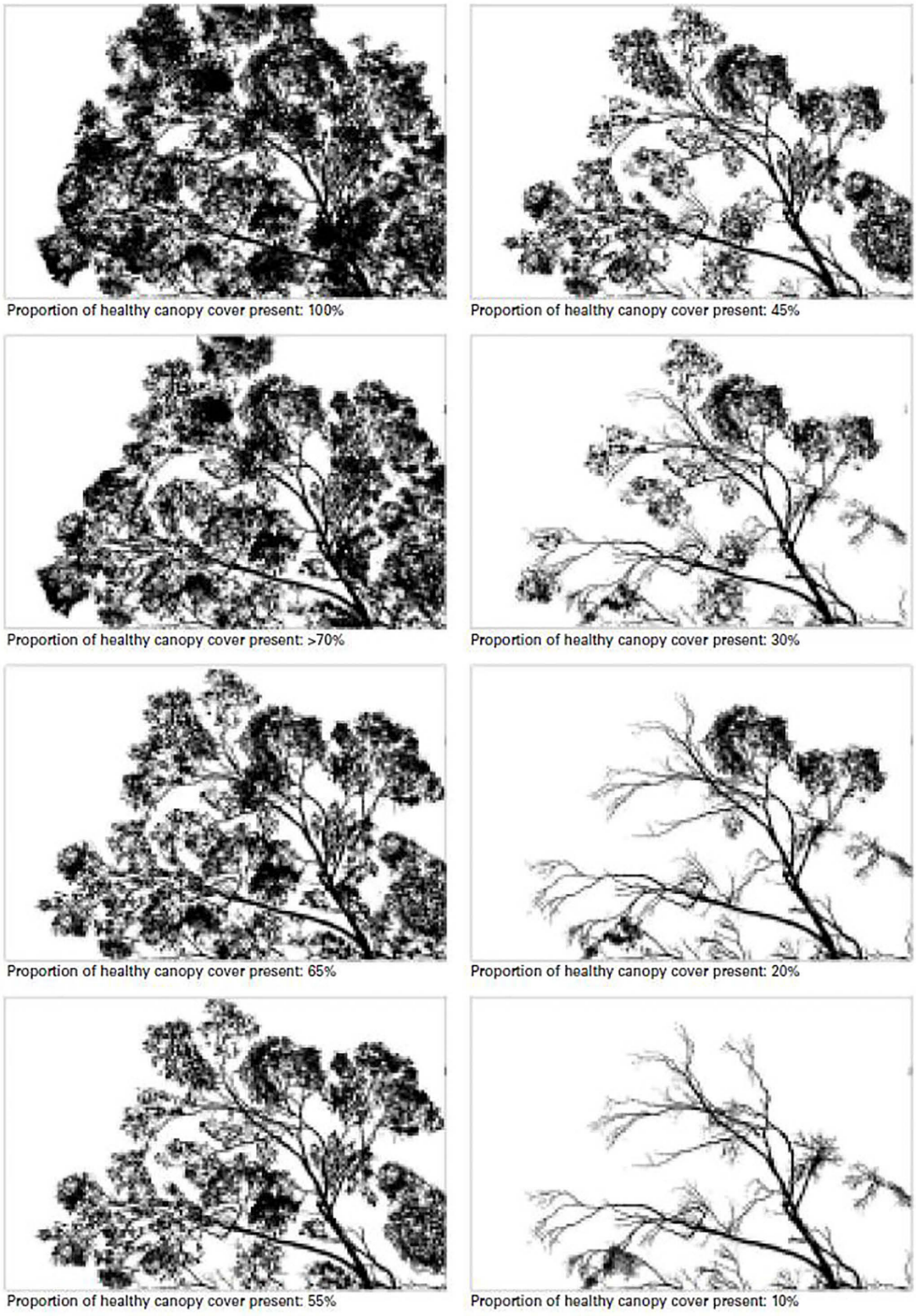

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wood.

FIGURE 10b

Estimated Canopy
San Gabriel River AMP
Los Angeles County, California

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FIGURE 11

Transects
Conceptual Locations
San Gabriel River AMP
Los Angeles County, California

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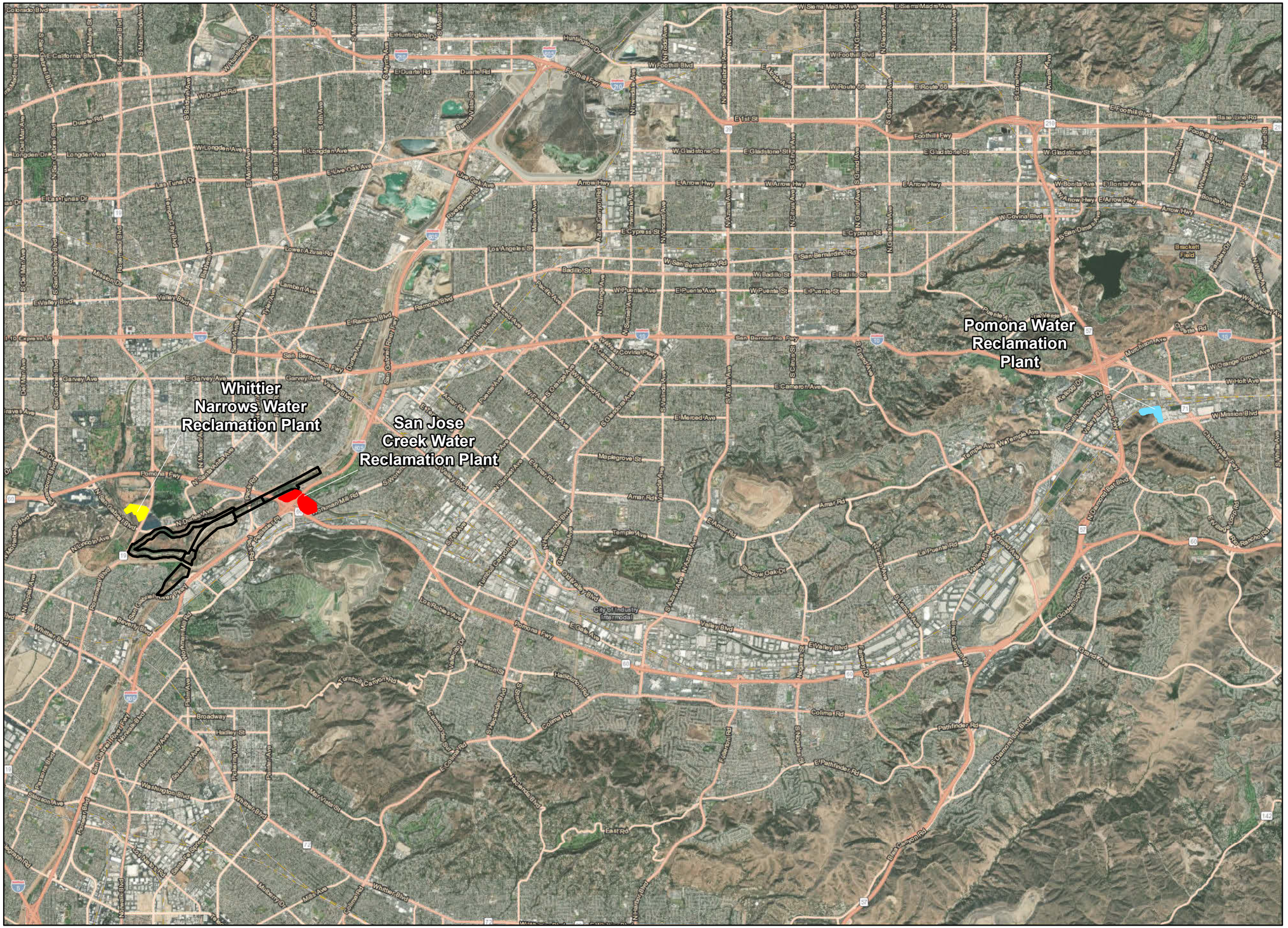

Project Location

Pomona Water Reclamation Plant

San Jose Creek Water Reclamation Plant

Whittier Narrows Water Reclamation Plant

1 inch = 1.5 miles

0 1.5 Miles

FIGURE 12

LACSD_Facilities
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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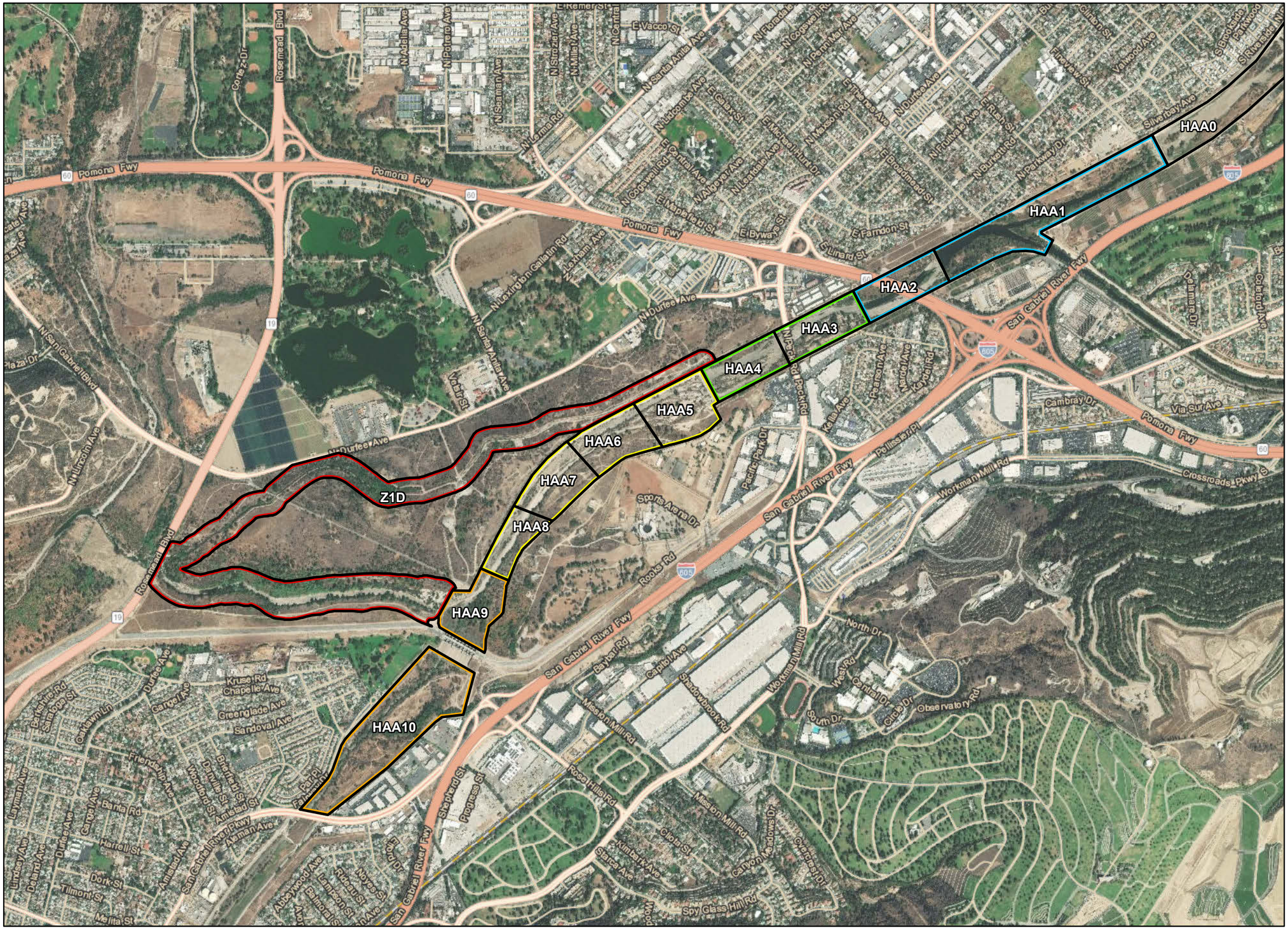

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FIGURE 13

Habitat Assessment Areas
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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APPENDIX A

User Manual for Stem Water Potential Pressure Chamber

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Model 615 Pressure Chamber Instrument

PMS Instrument Company

1725 Geary Street SE ✦ Albany OR 97322 ✦ USA
Phone: (541) 704-2299 ✦ FAX: (541) 704-2388
info@pmsinstrument.com
www.pmsinstrument.com

OPERATING INSTRUCTIONS

FOR A COMPLETE LIST OF PICTURE TUTORIALS AND VIDEOS - WWW.PMSINSTRUMENT.COM

Instrument Specifications:

Maximum Instrument Operating Pressure: 40 BAR/ 600 PSI
Chambers Construction: Anodized Solid Stock Aluminum
Maximum Portable Tank Pressure: 207 BAR/ 3000 PSI
Weight: 32 Pounds / 14 Kg

1) A lower canopy, shaded leaf is covered with foil-laminate bag.

2) The water in the stem is under tension.

3) The stem is cut and the leaf with bag is sealed inside chamber.

4) Pressure is applied to the leaf until water appears at the cut surface.

How it Works

Simply put, the pressure chamber is just a device for applying pressure to a leaf or small shoot. Most of the leaf is inside the chamber, but the cut end of the stem (the petiole) is exposed outside the chamber (see illustration above). The amount of pressure it takes to cause water to appear at the cut surface of the petiole tells you how much tension the leaf is experiencing on its water supply. A high value of pressure means a high value of tension and a high degree of water stress. These stress levels vary within different species. The unit of pressure most commonly used is Bar (1 Bar = 14.5 PSI).

What is Plant Moisture Stress?

The water status of plants, and how to measure it, has received much attention in recent years and for good reason. Plant moisture stress (PMS), or plant water potential, indicates the demand for water within a plant. A PMS measurement indicates the water status of a plant from the "plant's point of view." PMS also tells how the environment affects the plant. High PMS levels cause many physiological processes, such as slowing or stopping photosynthesis. Conditions producing high PMS reduce plant growth and may eventually result in the death of the plant. PMS information can be used to evaluate the plants need for water or how well it is adapted to its environment.

Why Measure Plant Moisture Stress?

Measuring PMS gives an indication of a plants ability to grow and function and can be used as a guide for managing the plants moisture environment so as to improve growth and crop yield. Air temperature, wind speed, humidity, and soil moisture are all integrated by the plant into one single value — PMS. A measure of PMS thus gives an evaluation of the moisture status of a plant from the plants point of view. It is an excellent tool for aiding in irrigation scheduling for crop plants such as almond, walnut, prunes, cotton, and wine grapes or for any application where plant growth is managed such as in nurseries, greenhouses, seedlings or reforestation.

Principle of Operation

The pressure chamber can be thought of as measuring the "blood pressure" of the plant — except that for plants it is water rather than blood. And the water is not pumped by a heart using pressure, but rather pulled with a suction force as water evaporates from the leaves. Water within the plant mainly moves through very small inter-connected cells, collectively called xylem, which are essentially a network of pipes carrying water from the roots to the leaves. The water in the xylem is under tension. As the soil dries or humidity, wind or heat load increases, it becomes increasingly difficult for the roots to keep pace with evaporation from the leaves. This causes the tension to increase. Under these conditions you could say that the plant begins to experience "high blood pressure."

Since tension is measured, negative values are typically reported. An easy way to remember this is to think of water stress as a "deficit." The more the stress the more the plant is experiencing a deficit of water. The scientific name given to this deficit is the "water potential" of the plant. The actual physics of how the water moves from the leaf is more complex than just "squeezing" water out of a leaf, or just bringing water back to where it was when the leaf was cut. However, in practice, the only important factor is for the operator to recognize when water just begins to appear at the cut end of the petiole.

The Plant Moisture Stress (PMS) reading at any given time reflects the plant's interaction with the water supply and the demand for water placed upon the plant by its environment (see diagram on back cover). Since these factors are almost always changing, PMS is nearly always changing. The time of measurement therefore requires careful consideration — PMS is most at midday and least just before sunrise. Pre-sunrise PMS values will usually reflect average soil moisture tension, if the soil is uniformly irrigated. Midday PMS values reflect the tension experienced by the plant as it pulls water from the soil to satisfy the water demand of the atmosphere.

GETTING STARTED

The instrument is complete with a 20 Cubic Foot Portable Nitrogen Tank. The Tank is fitted with a CGA-580 Nitrogen Valve which is standard for US Nitrogen Service.

Tank is rated for a maximum pressure of 207 Bar/3000 PSI. The tank may be safely filled by using the "Trans-filling" method described in "Filling the Portable Tank" or having it filled at a Gas Supply Store. The instrument is designed for use with nitrogen (N2). Welding Grade is sufficient. Maximum pressure in the Portable Tank or any tank connected to the instrument should not exceed 207 Bar/3000 PSI.

If the tank has not yet been filled, consult the tutorial on filling the tank.

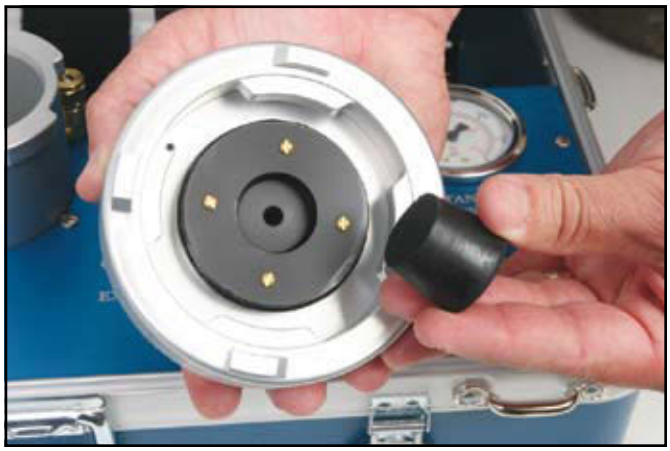
USING THE PRESSURE CHAMBER

1. Turn the **Control Valve** to the **"OFF"** position.

2. **Slowly** open the valve on the Portable Tank. One-half to one turn is normally sufficient. Pressure will register in the Tank Pressure gauge. If tank is empty refer to Filling Portable Tank tutorial.

3. Check the **Safety Valve** and set the **Rate Valve** using the following procedure.

4. Remove the lid from the chamber by turning the lid counter-clockwise and lifting. Place a solid rubber stopper inside the recessed area under the lid as shown. Put the lid back on the chamber by pushing down and turning clock-wise to the stop. Lid must be turned completely to the stop to close the brass Safety Valve. If the stainless steel piston is not depressed, chamber will not pressurize. This is a safety feature of the instrument to ensure lid is properly seated.



Turn **Control Valve** to **CHAMBER** position and pressurize the chamber. Adjust **Rate Valve** until pressure in the chamber increases at the desired rate. ½ Bar per second is a recommended rate of increase. Rate may be changed at any time, even while pressurizing a sample.

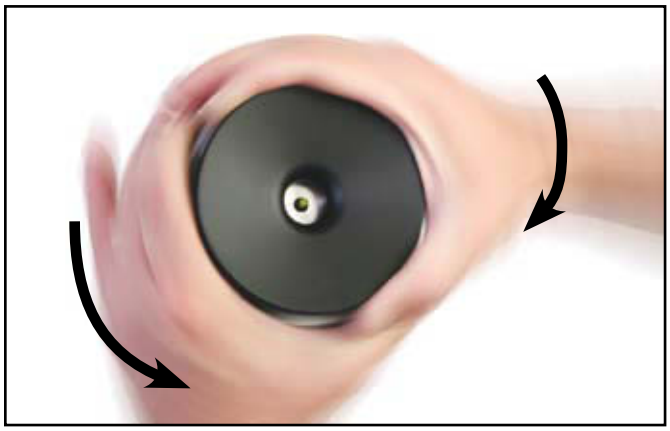
CAUTION

Do not close Rate Valve completely or use as a Shut-Off Valve.

Valve may be damaged as a result.

5. Turn the **Control Valve** to **EXHAUST** position to release pressure from the chamber. Remove the lid and solid rubber stopper from the inside of lid. You are now ready to take readings.

6. You can now select a leaf to test. To seal the sample, insert the cut end of the petiole (stem) through the hole from the bottom side of the chamber lid. Twist the **Compression Screw** clockwise to seal the sample in the lid. For more detailed information about sampling – consult our website.



WHEN YOU HAVE COMPLETED MEASUREMENTS

1. Close the Valve on the Portable Tank.

FILLING THE PORTABLE TANK

In order to successfully fill the Portable Tank, the following items are needed:

1. 6-Foot Filling Hose.
2. Nurse Tank (Large Tank).
3. Model 615 Pressure Chamber.

1. Ensure the **Portable Tank Valve** is closed. Check the **Tank Pressure Gauge** to ensure it reads zero and that there is no pressure in the instrument or **Tank Hose**. If there is still pressure, remove the lid of the instrument and cycle the **Control Valve** to **Chamber** position.

2. Detach the **Tank Hose** by releasing the quick coupler.

3. Connect the end of the **6-Foot Filling Hose** to the **Tank Hose**.

4. Connect the other end of the 6-Foot Filling Hose to a Nurse Tank that has 207 Bar/3000 PSI or less pressure in it.

5. Ensure that the **Control Valve** is in the **"OFF"** position.

6. Ensure that the **Nurse Tank Valve** is completely closed.

7. Ensure that the **Purge Valve** on the 6-Foot Filling Hose is completely closed.

8. Ensure that the **Portable Tank Valve** is completely closed.

9. The system should now look like this.

10. Next, open the valve on the **Nurse Tank** slowly.

This allows pressure down to the **Portable Tank** and you can verify quantity of pressure in **Nurse Tank** by looking at the 6-Foot Filling Hose gauge..

11. Next, open the **Portable Tank Valve** — just barely. 1/6 of a turn at first and you will hear the gas begin to enter the tank. Wait for the gas to equalize — you will be able to hear the gas enter the tank. When the noise stops, simply open the **Portable Tank Valve** a little more. Eventually you will have the valve completely open. The whole process should take about 4-5 minutes.

CAUTION

Ensure you fill the tank slowly.

Filling it too quickly will cause the valve to heat up and can cause damage to the valve.

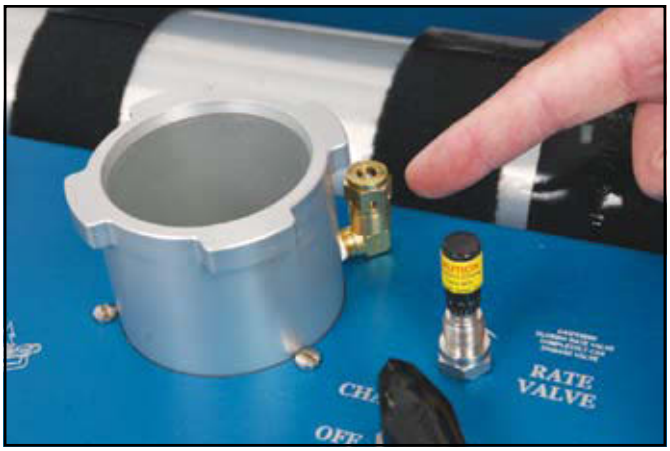
12. Now the tank is full, close the **Portable Tank Valve**. Close the **Nurse Tank Valve**.

13. Open the **Purge Valve** on the 6-Foot Filling Hose to release the pressure from the hose.

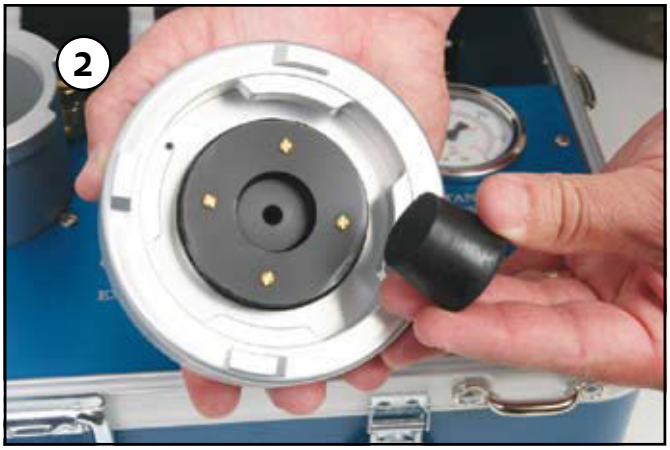
14. Reconnect the **Portable Tank Hose** to the **Tank Hose Connection** and give it a tug to ensure properly connected.

Testing the Safety Valve

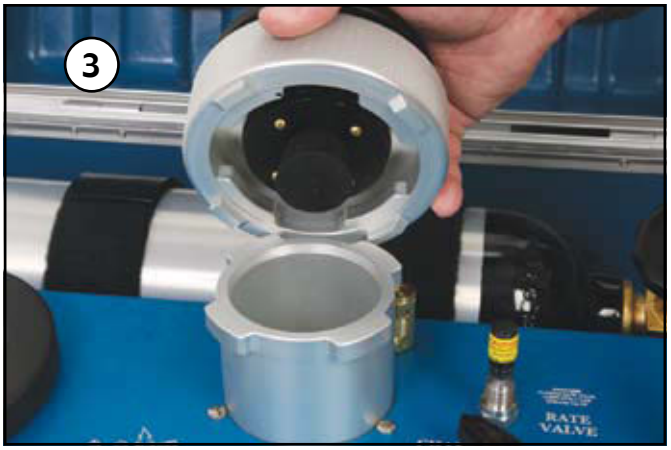
The instrument is fitted with a Safety Valve to ensure that the lid is properly seated prior to pressurizing the chamber. The Safety Valve will vent the chamber if the lid is not properly closed. **This valve MUST be tested at the beginning of each measurement session.**



First, use your finger to depress the piston so that it is inside the safety valve

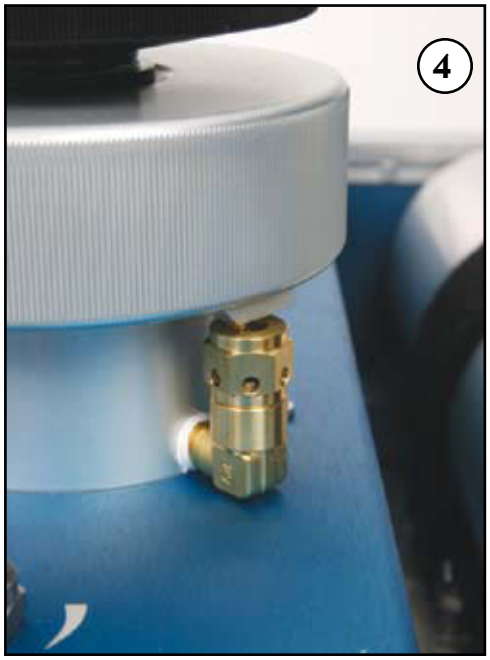


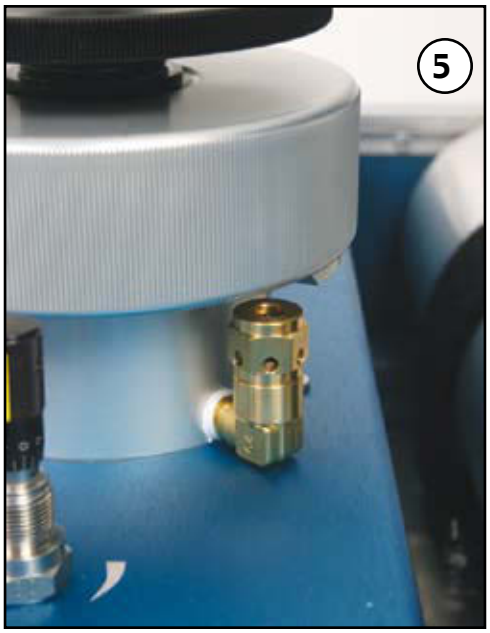
Insert a solid rubber gasket into the lid



Install the lid on the chamber

Turn the lid clockwise to the stop. Ensure the cam is directly over the piston

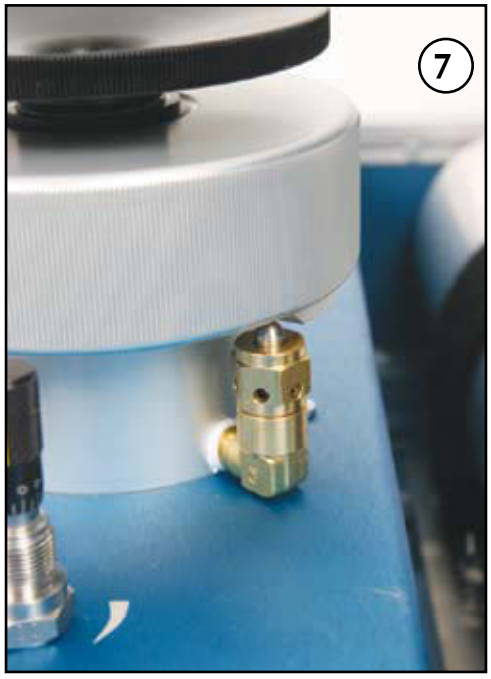




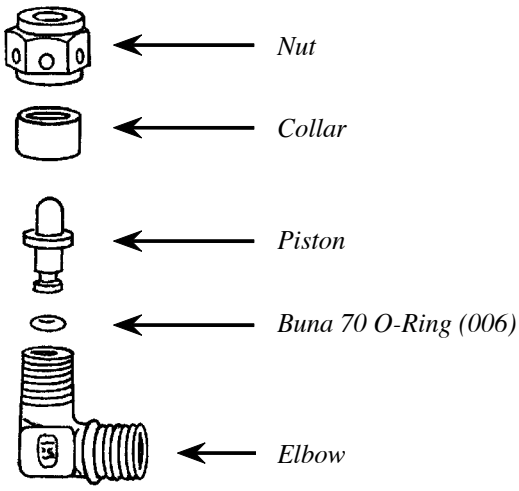
Then turn the lid back so that the cam is not blocking the piston

Begin to slowly apply pressure to the chamber

The safety valve should pop open before the pressure reaches 2 bar



SAFETY VALVE



You will hear nitrogen escaping from the valve and the pressure will not increase in the chamber. If it does not, turn the control to EXHAUST, then remove the nut and piston of the safety valve and lubricate the O-ring on the piston with petroleum jelly. Reassemble and test the safety valve again. When the safety valve opens, the pressure in the chamber should drop to near zero. This time the safety valve should open at a pressure below 2 bar. If it does not, remove the nut and piston of the safety valve and again clean and lubricate the O-ring on the piston with petroleum jelly. Check for any foreign debris then reassemble and test the safety valve again.

The safety valve is an important safety component of the instrument. Do not attempt to operate the instrument until the safety valve is operating properly; that is, until it is releasing the chamber pressure at less than 2 bar pressure,

As an added safety precaution, the cover should be left in only one of two positions:

1. On the chamber and completely locked in place; or
2. Completely removed from the chamber.

The lid should never be left in any intermediate position.

INSTRUMENT MAINTENANCE

1) Remove the O-Ring from around the lid. Clean with rag and lubricate with Petroleum Jelly for optimal performance.
2) Remove the Compression Gland Screw from the lid. Clean the threads of the Screw and the Compression Gland Base with a rag. Lubricate this with Lithium Grease (White Grease) for optimal performance.
3) Compression Gland Gasket can be cleaned with a rubber treatment such as used with automobile detailing (Armour All brand) for optimal performance. When Compression Gland Gasket becomes worn – replace with new gasket for optimal performance.

CONTROL VALVE ADJUSTMENT

The control valve will need periodic adjustment depending upon usage. Adjustment is required if leakage occurs in the pressurized instrument with the control valve in the OFF position. Two tools are needed and have been provided with your instrument. A 3/32 inch Allen Key is used to remove the Control Valve Handle. A 11/32 inch wrench is used to adjust the packing on the valve.

1. Pressurize the instrument with the control valve in the OFF position.

2. Loosen the hex screw with the Allen Key. It is located on the side of the Control Valve Handle.

3. Using the 11/32 wrench, slowly tighten the packing gland nut until the leak stops.

CAUTION

Do not overtighten the packing gland!

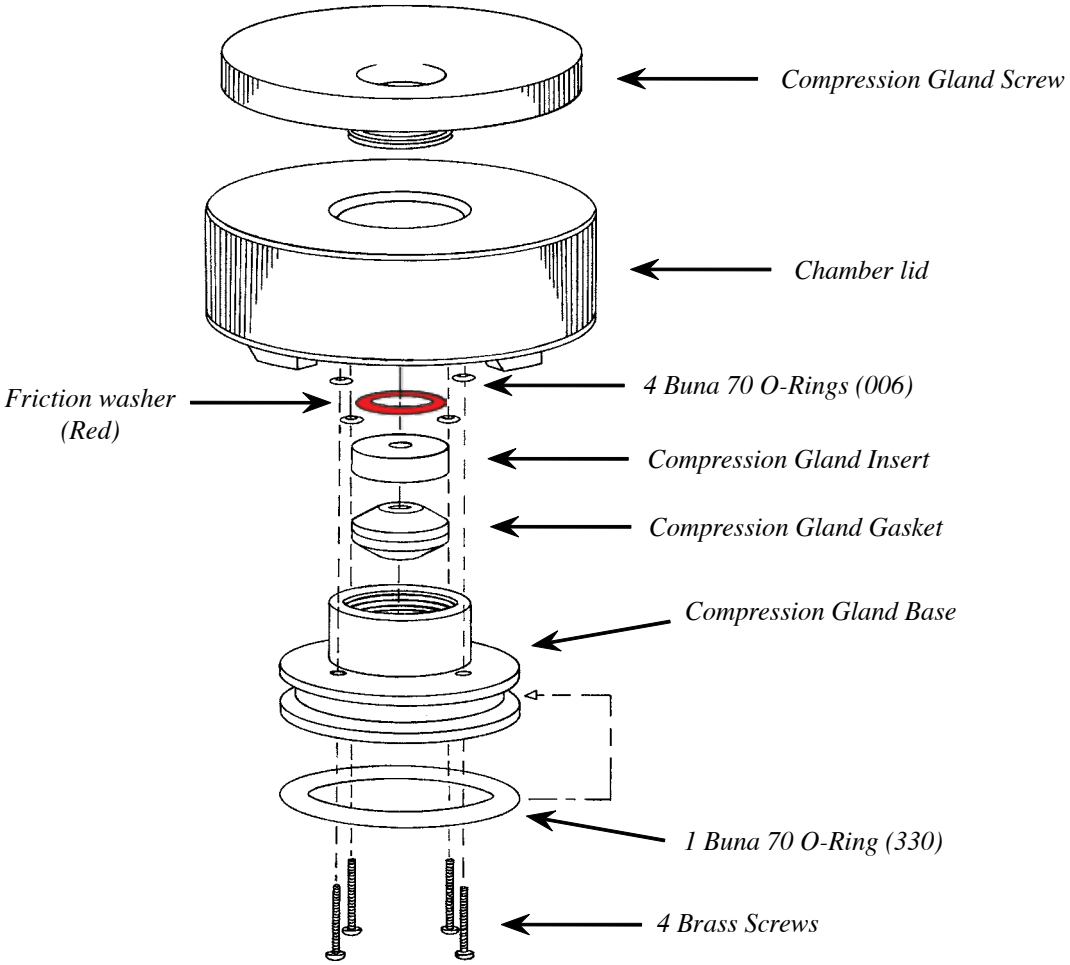
Permanent damage to the valve will result.

4. Replace the handle and tighten the hex screw.

For a complete list of picture tutorials and videos - www.pmsinstrument.com

Maintenance for Compression Gland Lid

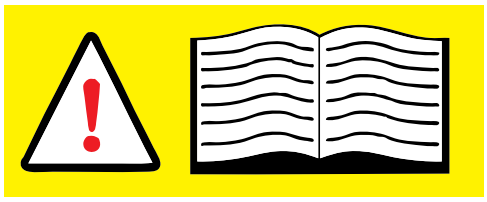
Maintaining the Compression Gland Lid is quite simple. Keep the O-ring around the Compression Gland Insert clean and lubricated with petroleum jelly. Occasionally unscrew the compression screw and take out the Compression Gland Insert and Compression Gland Gasket inside for cleaning. We recommend lubricating the compression screw threads with a Lithium based lubricant such as white grease or other lubricant to maintain the threads and ensure easy operation. Keeping these threads clean is important for ensuring operability of the cover. Clean the Compression Gland Gasket with ARMOR ALL or other similar cleaner. Over time the compression gland gasket will become worn, a replacement has been supplied for your convenience. If additional gaskets are needed, you may purchase them directly from PMS Instrument Company.



TO RE-ASSEMBLE THE COMPRESSION GLAND START BY:

1. Sliding the Compression Gland into the Chamber Lid
2. Insert the 4 brass screws and screw the insert down tight — make sure that the 4 small O-rings are in place first
3. Put the Compression Gland Gasket into the Compression Gland Base
4. Put the Compression Gland Insert on top of the gasket and the Friction Washer on top of the Compression Gland Insert
5. Be sure to lubricate the threads and screw the Compression Screw into the Compression Gland Base
6. The Compression Gland Cover is now ready for use

Warnings, Considerations and Limits



Intended Usage

The Pressure Chamber Instrument usage is intended for applying pressure to plant material to determine water potential or to extract water xylem from plants. It should not be used to pressurize anything other than plant material. Using this instrument for any other purpose or in an unsafe manner could result in harm to the user.

Upon receiving the instrument or using it for the first time, each user should familiarize themselves thoroughly with all safety features and set-up process to avoid damage of instrument or physical injury to operator.

Working Environment

The instrument is robust and durable and designed for outdoor use. It may be used in temperatures as high as 55º C and as low as –10º C. It is best to store inside where temperatures do not exceed 40º C or lower than 0º C. Keep in clean and dry area. Store on a flat surface that is protected from being struck or damaged. Normal vibration during use will not affect performance of the instrument such as travel in vehicle or all terrain vehicles. Excessive shaking and vibration can cause damage. If the instrument has received a hard blow or hit, it should be evaluated prior to further use. The instrument is not vulnerable to humidity but should never be submersed in water. If the instrument becomes submersed, allow it to dry and evaluate the instrument prior to further use.

Transporting Instrument

Transporting the instrument by any mode should be done with care as not to strike the instrument against anything hard as this might damage the instrument. If transporting by vehicle such as truck, car or all terrain vehicle; the instrument should be securely fastened in order to avoid any damage to the instrument.

Maintenance

Most maintenance issues can be done without much training. Consult the maintenance pages in this manual. However, any adjustments to piping or high pressure connectors should only be performed by factory or authorized personnel. Consult us directly for more information.

Disposal or Decommission of the Instrument

While the instrument should provide years of use, it is possible that sometime it will be disposed of. Local recycling guidelines should be followed for disposal.

PMS Instrument Company

1725 Geary Street SE ✦ Albany OR 97322
Phone: (541) 704-2299
FAX: (541) 704-2388
E-mail: info@pmsinstrument.com
www.pmsinstrument.com

EU
Declaration of Conformity

We,

PMS Instrument Company
1725 Geary Street SE
Albany, OR 97322 USA

Declare under our sole responsibility that the following products:

Pump-Up Chamber, 600 Pressure Chamber, 605 Pressure Chamber, 615 Pressure Chamber, 615D Pressure Chamber, 1000 Pressure Chamber, 1005 Pressure Chamber, 1000 "upgraded to 100 Bar" Pressure Chamber, 1005 "upgraded to 100 Bar" Pressure Chamber.

In addition, the following accessories are included:

Cavitation Chamber

To which this declaration relates is in conformity with the following Standards or other normative documents:

EN ISO 12100-1:2003, EN ISO 12100-2:2003, 97/37/EC Annex I

Following the provisions of Directives;

98/37/EC, 97/37/EC (Equipment is below class I limits per the PED)

SOLS MESURES
17, rue Jean Monnet - BP 44
78990 ELANCOURT - FRANCE
Tel. 01 30 50 34 50 - Fax 01 30 50 34 49
info@sols-mesures.com
www.sols-mesures.com

Responsible party in the European Union: _____

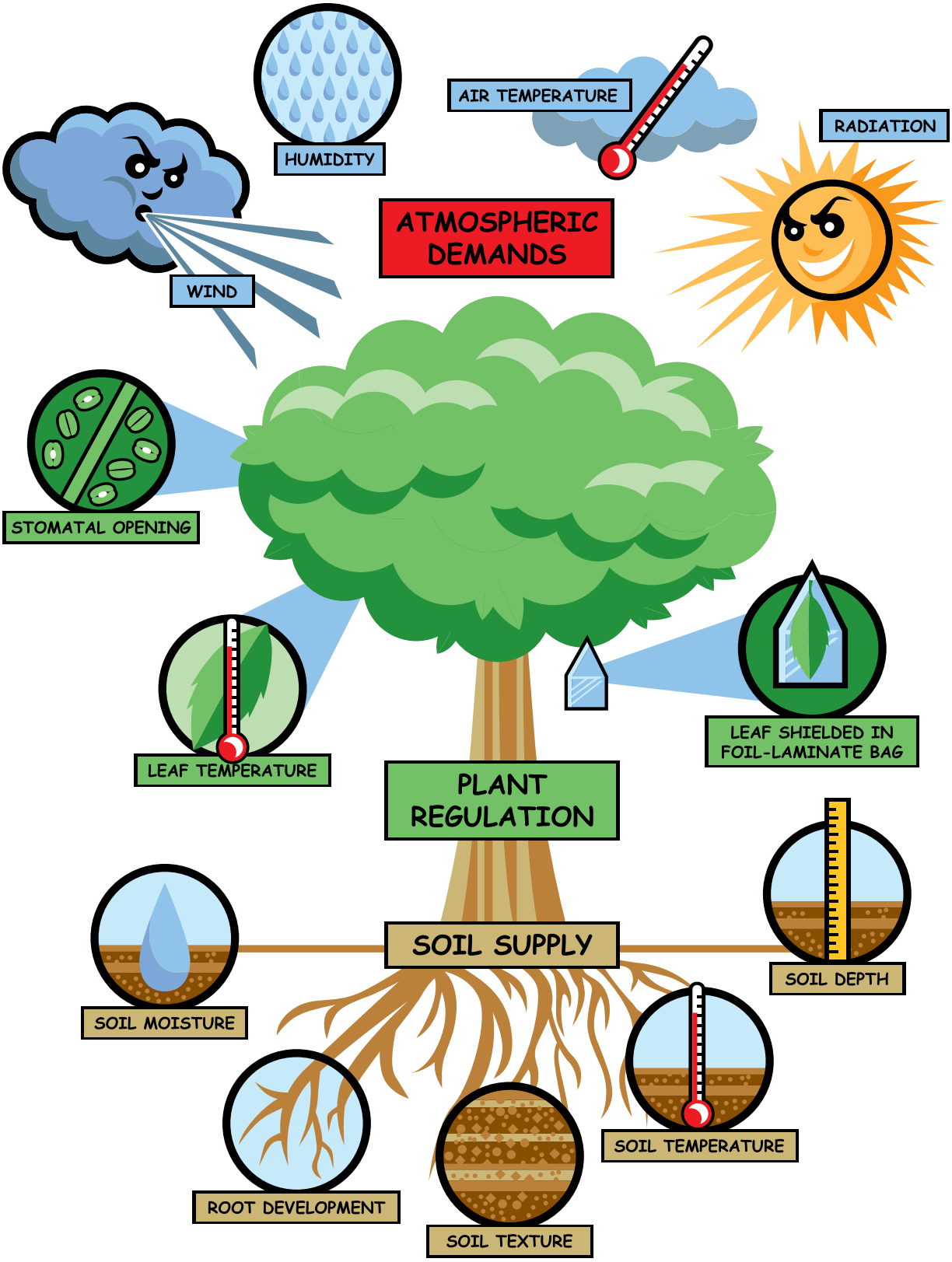
Officer: Jean-Luc AVERLAN
Sols Mesures

Place: Elancourt, France
Date: May 6, 2009

President, PMS Instrument Company: _____

Officer: Jeff Hamel, President
PMS Instrument Company

Place: Albany, Oregon, USA
Date: May 6, 2009



Atmospheric Demands: The atmosphere of the plant puts four different demands on the plant: wind, humidity, air temperature, and radiation.

Plant Regulation: The plant regulates water stress by opening and closing the stomata (small holes) on the backside of the leaf. Other regulators used are leaf flagging, rolling and leaf loss. Good root development is also key in regulating water stress.

Soil Supply: Soil composition is critical for the plant. Moisture content is a key factor in PMS. In addition, the temperature of the soil and depth will influence PMS. Depending upon the texture of the soil and how it holds moisture is another important aspect of the soil. Loose sandy soil will drain out moisture quickly while heavy clay will hold moisture longer.

APPENDIX B

Map Set for Locations of Sampled Trees and Transects

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Quadrat Location

Quadrat Transect

Group 1

Tree Species

Arroyo Willow

Black Willow

Sandbar Willow

Vegetation Communities

Arroyo willow thickets - Disturbed

Black willow thickets

Cattail marshes

Developed

Mulefat thickets - Disturbed

Non-target Vegetation

Open Water

Sandbar willow thickets

Sandbar willow thickets - Disturbed

Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4a

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

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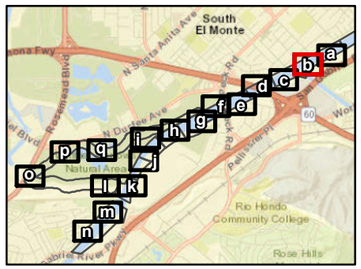

- Quadrat Location
- Quadrat Transect
- Group 1

Tree Species

- Arroyo Willow
- Black Willow
- Sandbar Willow
- Mulefat
- Sycamore

Vegetation Communities

- Arroyo willow thickets
- Arroyo willow thickets - Disturbed
- Black willow thickets
- Cattail marshes
- Developed
- Giant reed breaks
- Mulefat thickets - Disturbed
- Non-target Vegetation
- Open Water
- Sandbar willow thickets
- Sandbar willow thickets - Disturbed

1 inch = 100 feet

0 100 Feet

FIGURE 4b

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Path: \\sdg1-fs1\GIS\3554_NaturalResources\SanGabrielRiver_1655402001\MXD\ReportFigures\AMP_Update_Oct2019\Fig4_Quadrat_Transects_Mapbook.mxd, chris.nixon, 10/17/2019

- Quadrat Location
- Quadrat Transect
- Group 1

Tree Species

- Arroyo Willow
- Black Willow
- Sandbar Willow
- Mulefat

Vegetation Communities

- Arroyo willow thickets
- Arroyo willow thickets - Disturbed
- Black willow thickets
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Mulefat thickets - Disturbed
- Non-target Vegetation
- Open Water
- Sandbar willow thickets
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4c

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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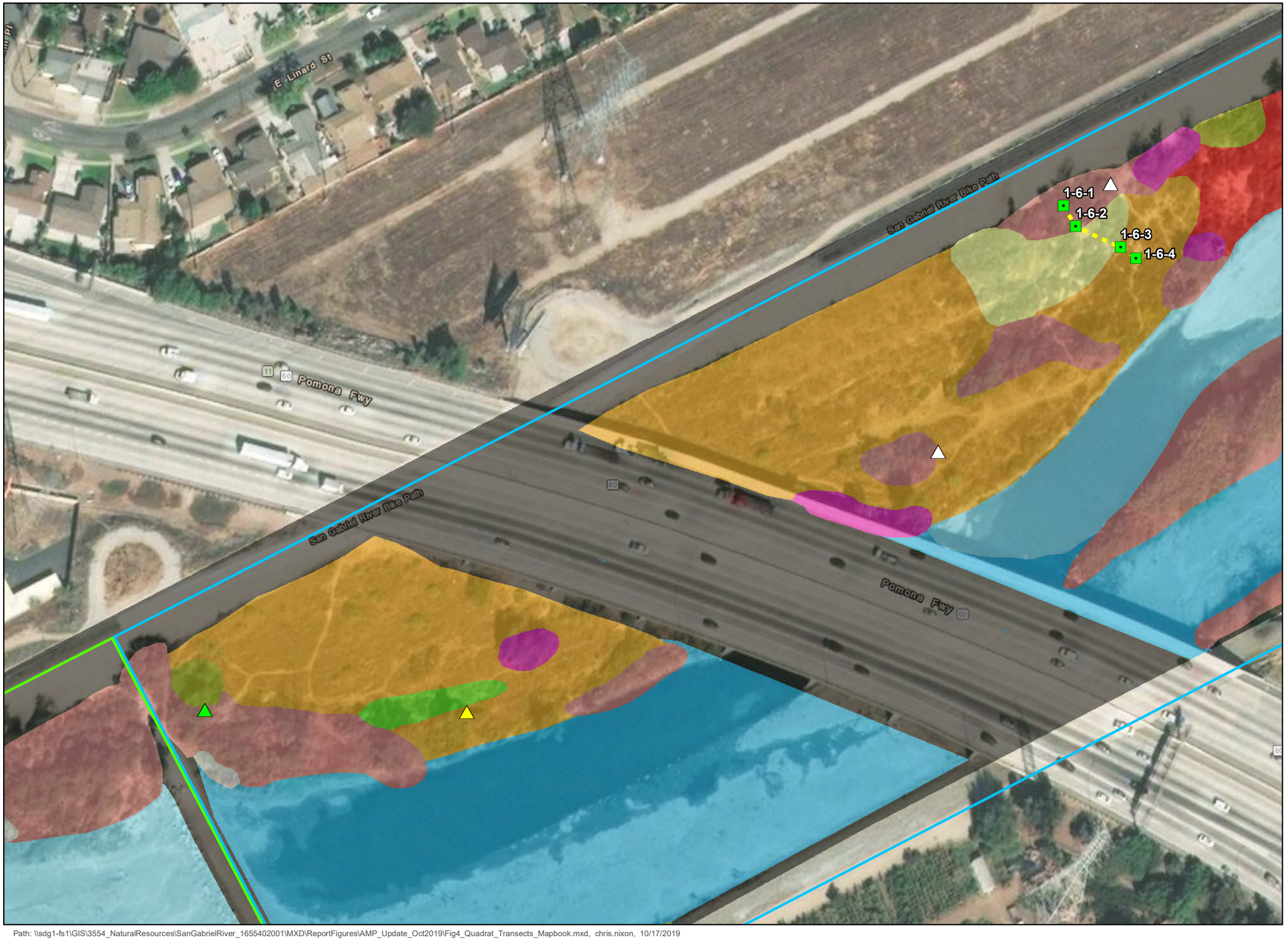


- Quadrat Location
- Quadrat Transect
- Group 1
- Group 2

Tree Species

- Arroyo Willow
- Black Willow
- Sandbar Willow

Vegetation Communities

- Arroyo willow thickets
- Arroyo willow thickets - Disturbed
- Black willow thickets
- Cattail marshes
- Developed
- Mulefat thickets - Disturbed
- Non-target Vegetation
- Open Water
- Sandbar willow thickets
- Sandbar willow thickets - Disturbed
- Unvegetated streambed

1 inch = 100 feet

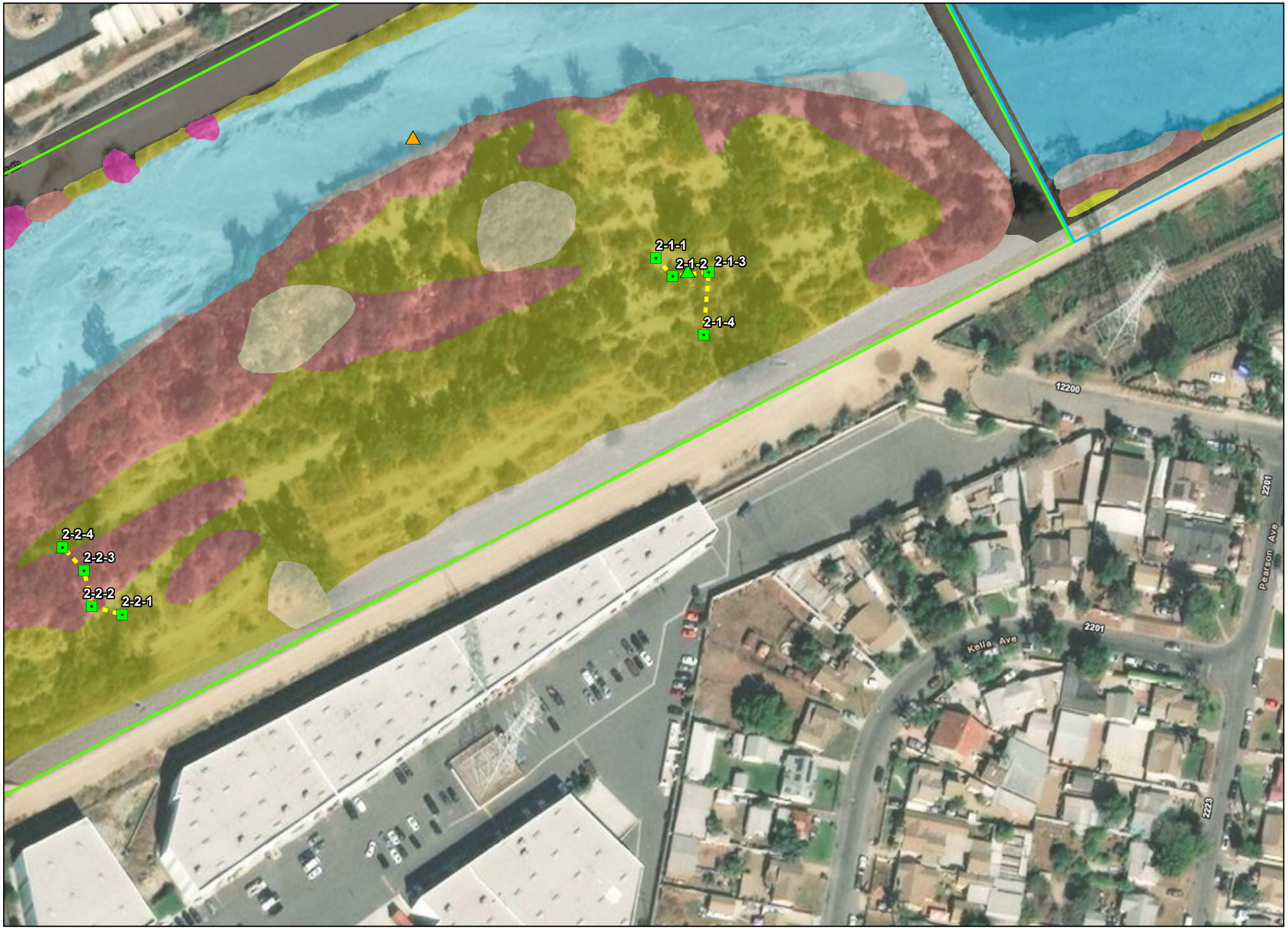
0 100 Feet

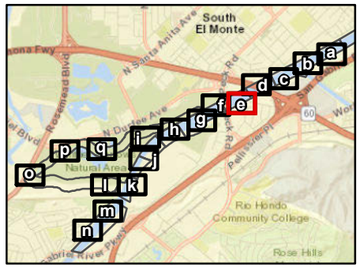
FIGURE 4d

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Path: \\sdg1-fs1\GIS\3554_NaturalResources\SanGabrielRiver_1655402001\MXD\ReportFigures\AMP_Update_Oct2019\Fig4_Quadrat_Transects_Mapbook.mxd, chris.nixon, 10/17/2019





- Quadrat Location
- Quadrat Transect
- Group 1
- Group 2

Tree Species

- Black Willow
- Mulefat

Vegetation Communities

- Arroyo willow thickets
- Barren
- Black willow thickets
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Mulefat thickets
- Mulefat thickets - Disturbed
- Open Water
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4e

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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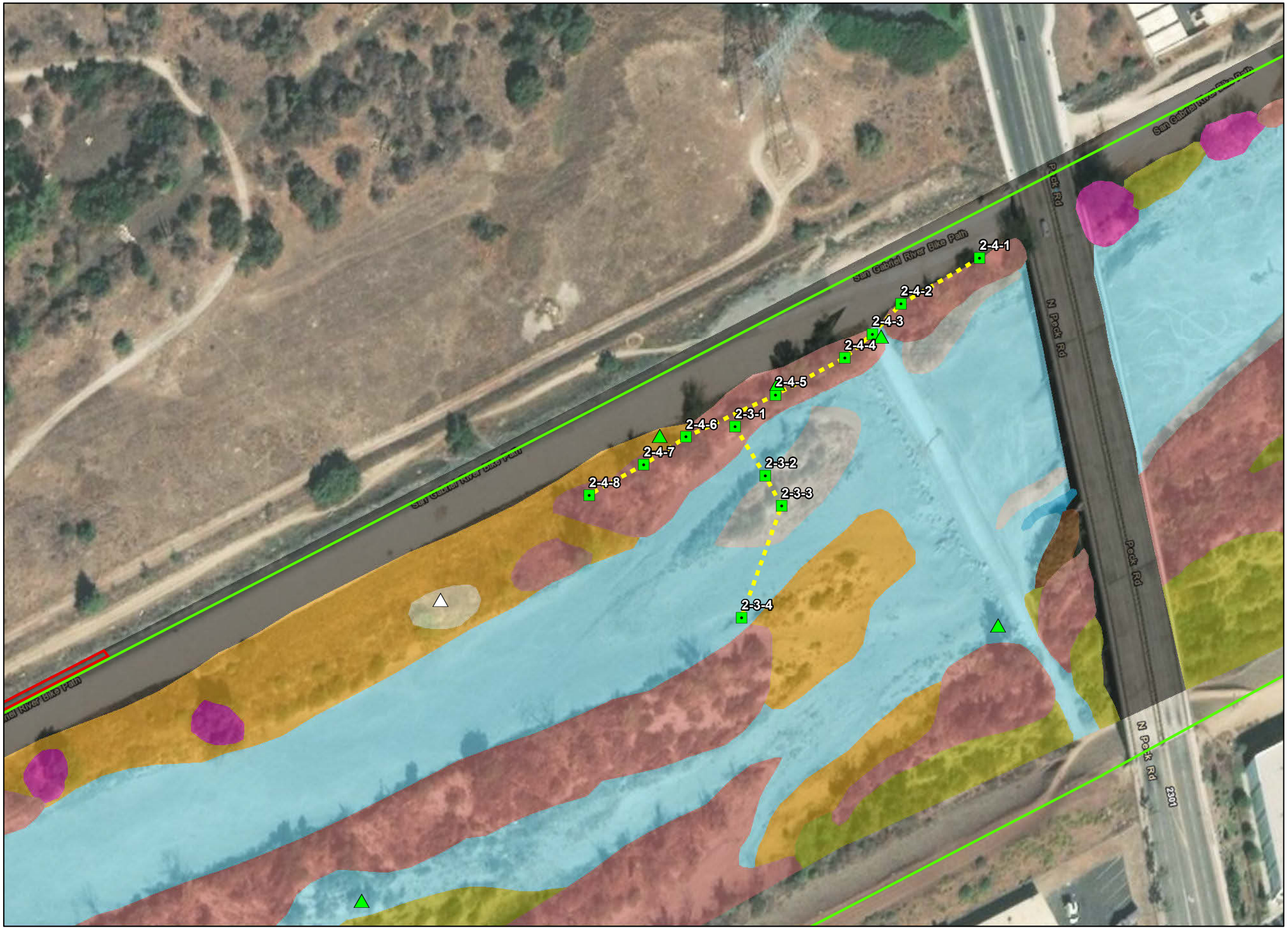

- Quadrat Location
- Quadrat Transect
- Group 2
- Group 5

Tree Species

- Arroyo Willow
- Black Willow

Vegetation Communities

- Arroyo willow thickets
- Black willow thickets
- Cattail marshes
- Developed
- Giant reed breaks
- Mulefat thickets - Disturbed
- Non-native woodland
- Non-target Vegetation
- Open Water
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4f

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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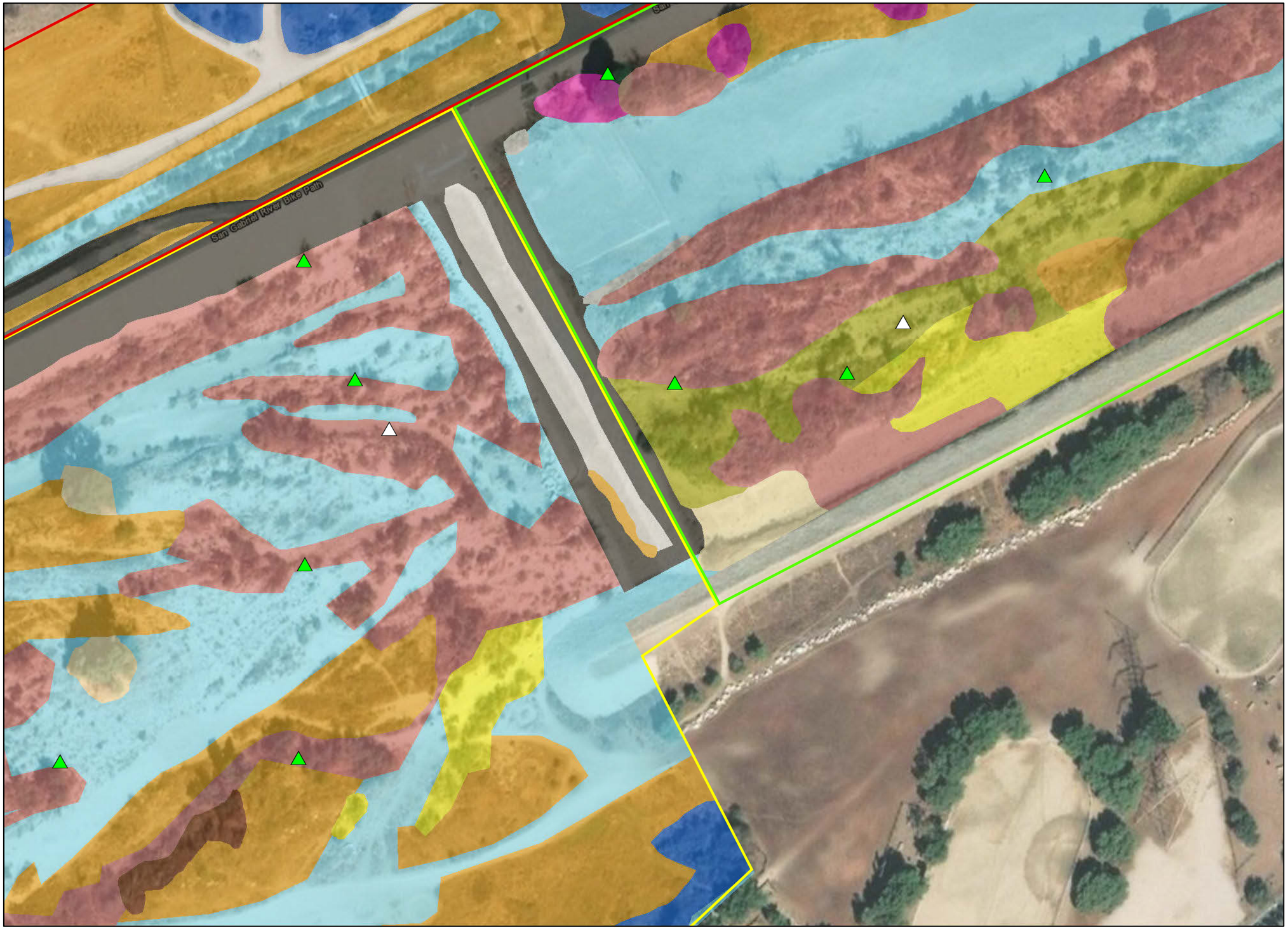


Group 2

Group 3

Group 5

Tree Species

Arroyo Willow

Black Willow

Vegetation Communities

Arroyo willow thickets

Barren

Black willow thickets

Blue elderberry stands

Cattail marshes

Developed

Eucalyptus semi-natural stands

Giant reed breaks

Mulefat thickets

Mulefat thickets - Disturbed

Non-target Vegetation

Unvegetated streambed

1 inch = 100 feet

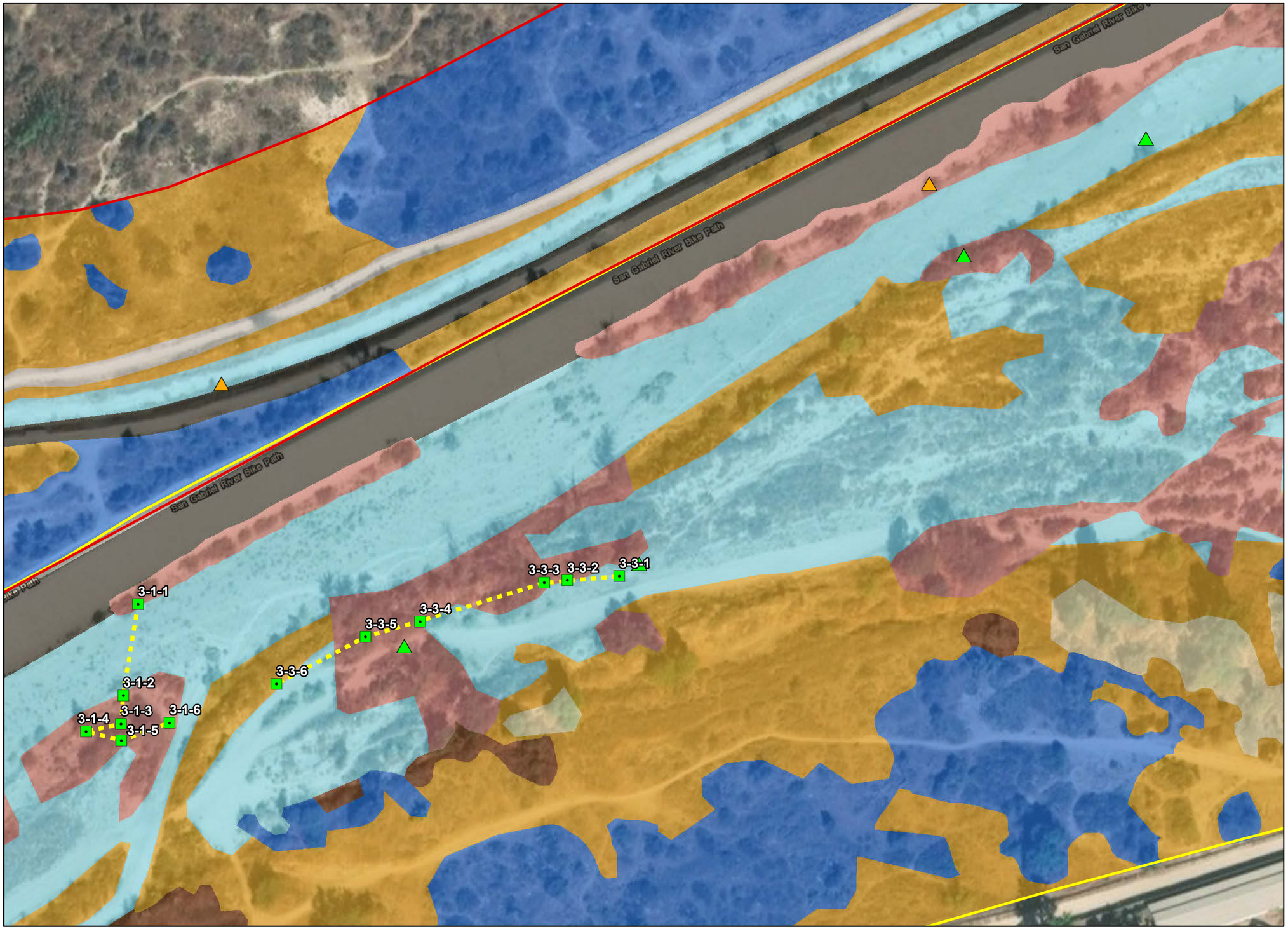
0 100 Feet

FIGURE 4g

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Path: \\sdg1-fs1\GIS\3554_NaturalResources\SanGabrielRiver_1655402001\MXD\ReportFigures\AMP_Update_Oct2019\Fig4_Quadrat_Transects_Mapbook.mxd, chris.nixon, 10/17/2019



- Quadrat Location
- Quadrat Transect
- Group 3
- Group 5

Tree Species

- Black Willow
- Mulefat

Vegetation Communities

- Barren
- Black willow thickets
- Blue elderberry stands
- Developed
- Giant reed breaks
- Non-native woodland
- Non-target Vegetation
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4h

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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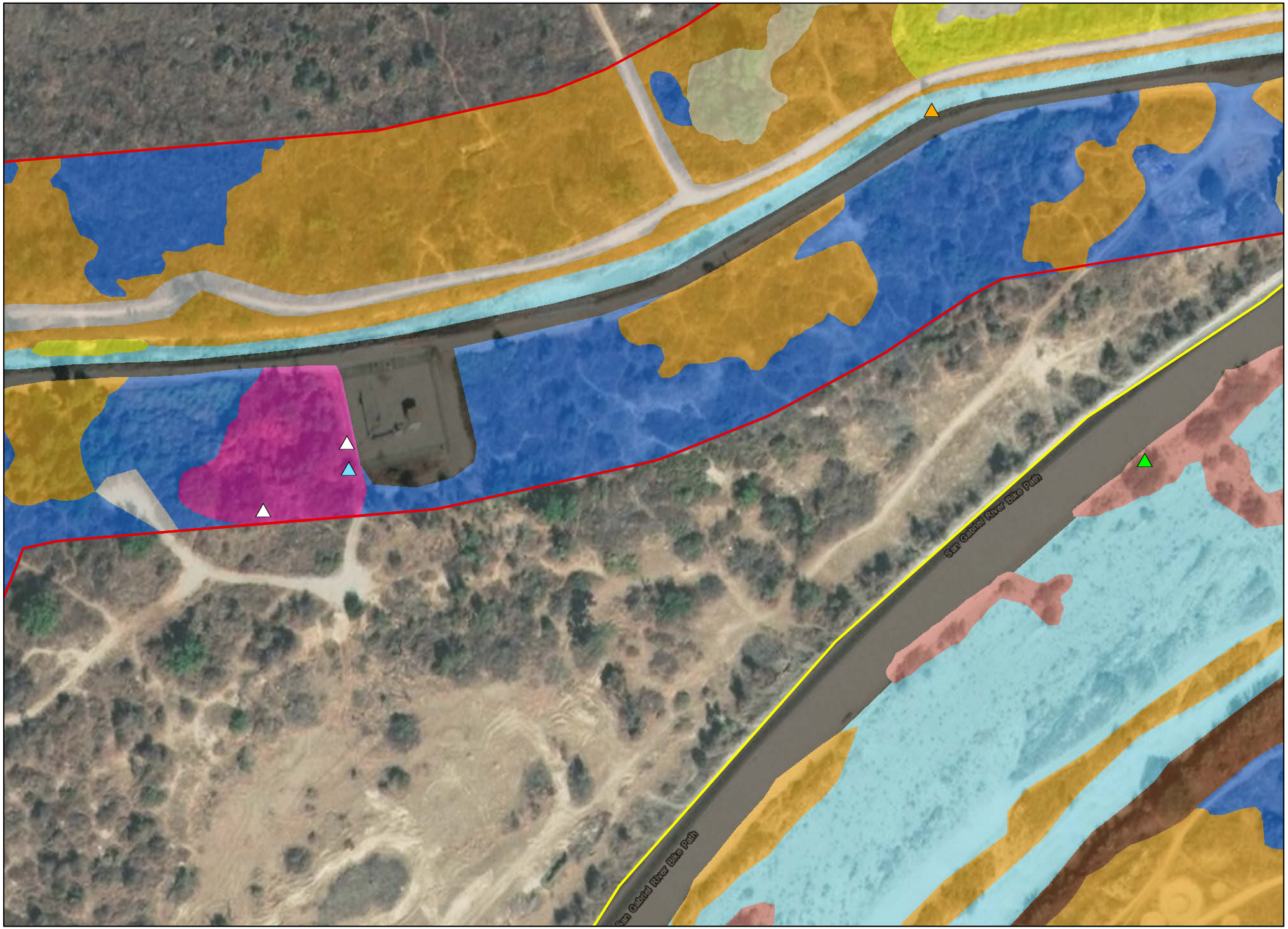

Group 3

Group 5

Tree Species

- Arroyo Willow
- Black Willow
- Blue Elderberry
- Mulefat

Vegetation Communities

- Arroyo willow thickets
- Barren
- Black willow thickets
- Blue elderberry stands
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Non-native woodland
- Non-target Vegetation
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4i

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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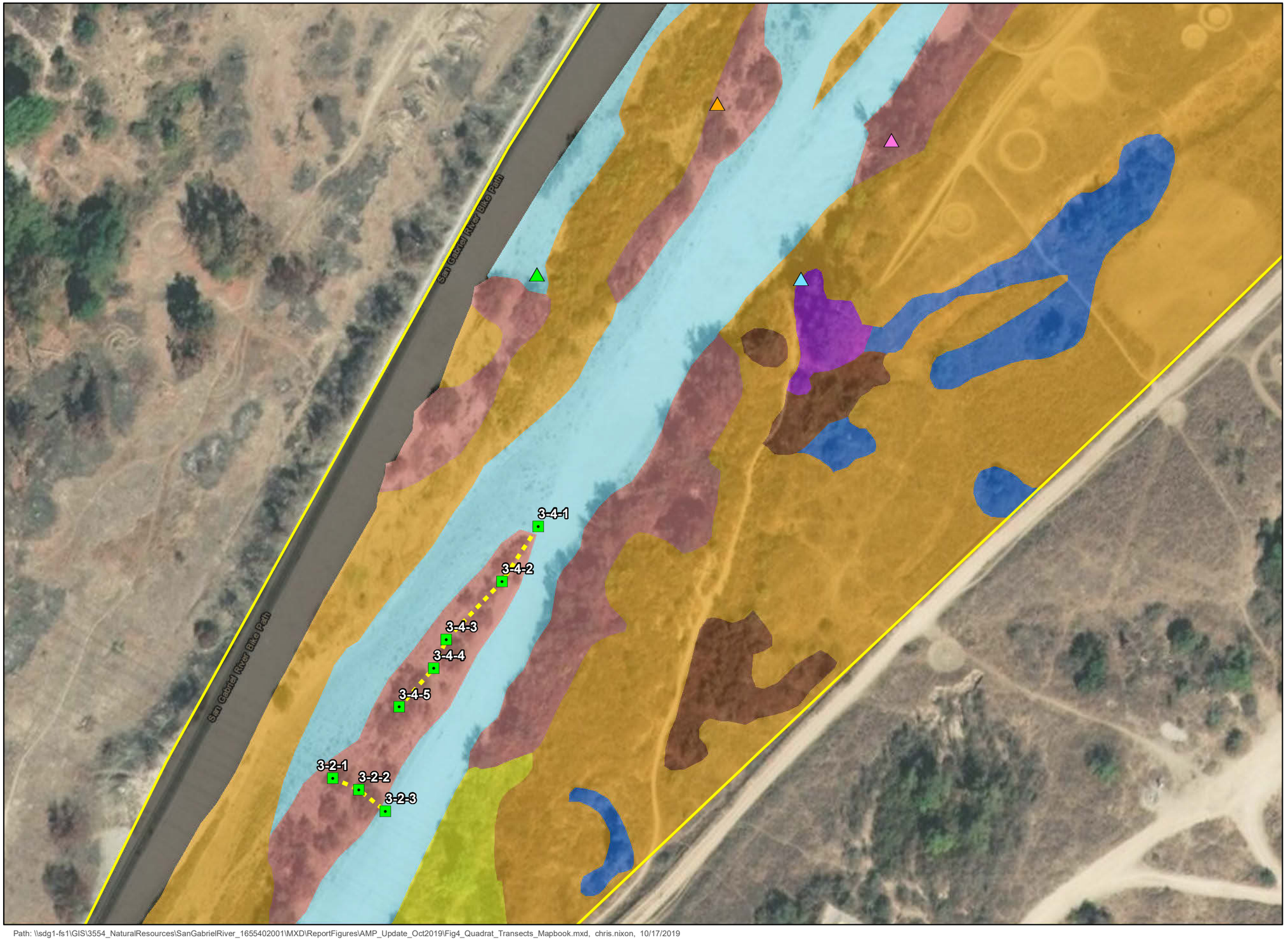

- Quadrat Location
- Quadrat Transect
- Group 3

Tree Species

- Black Willow
- Blue Elderberry
- Mulefat
- Sycamore

Vegetation Communities

- Black willow thickets
- Blue elderberry stands
- California sycamore woodlands
- Developed
- Giant reed breaks
- Mulefat thickets
- Non-target Vegetation
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4j

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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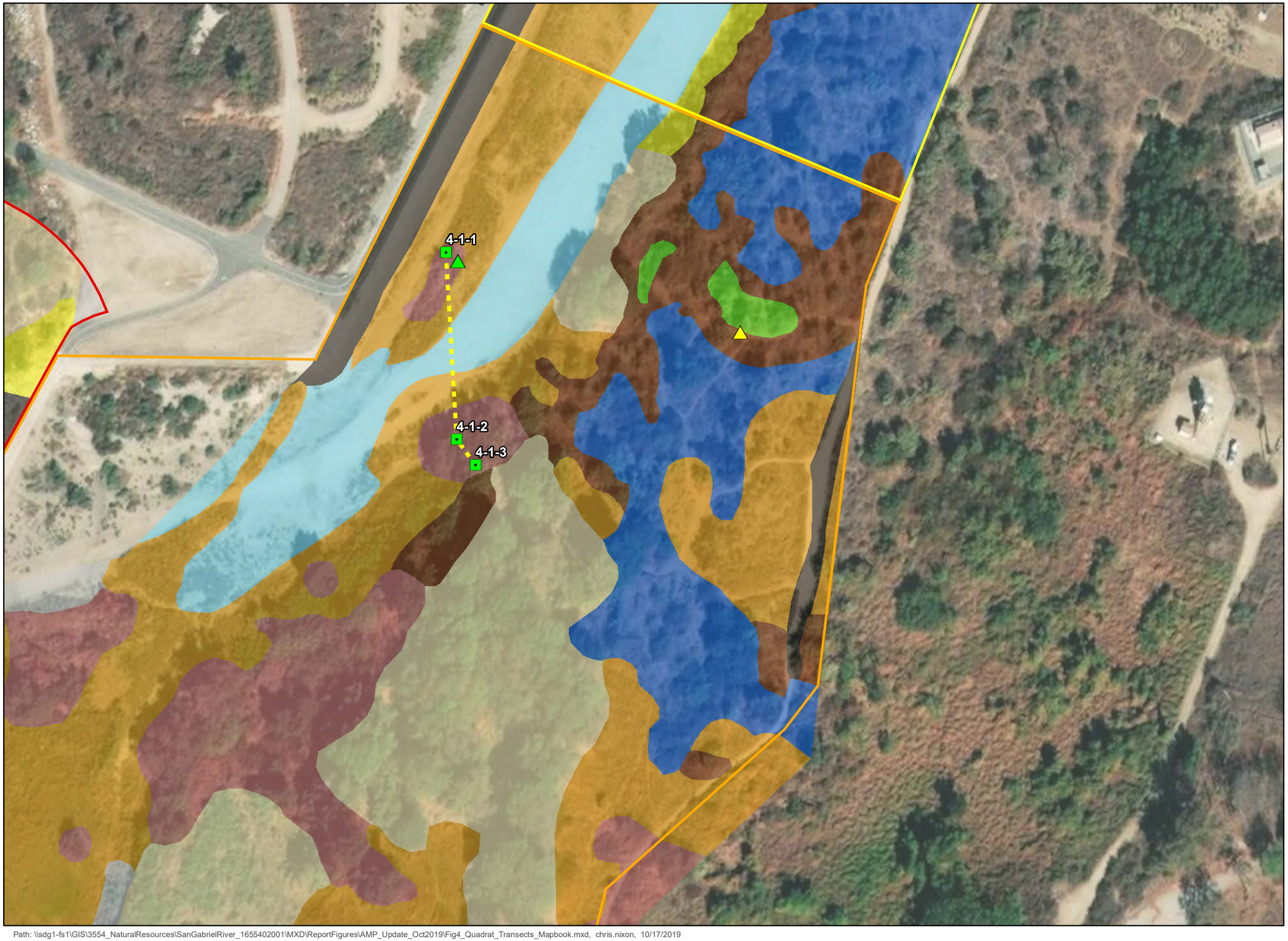

- Quadrat Location
- Quadrat Transect
- Group 3
- Group 4
- Group 5

Tree Species

- Black Willow
- Sandbar Willow

Vegetation Communities

- Barren
- Black willow thickets
- Blue elderberry stands
- Cattail marshes
- Developed
- Eucalyptus semi-natural stands
- Giant reed breaks
- Mulefat thickets
- Non-native woodland
- Non-target Vegetation
- Sandbar willow thickets
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4k

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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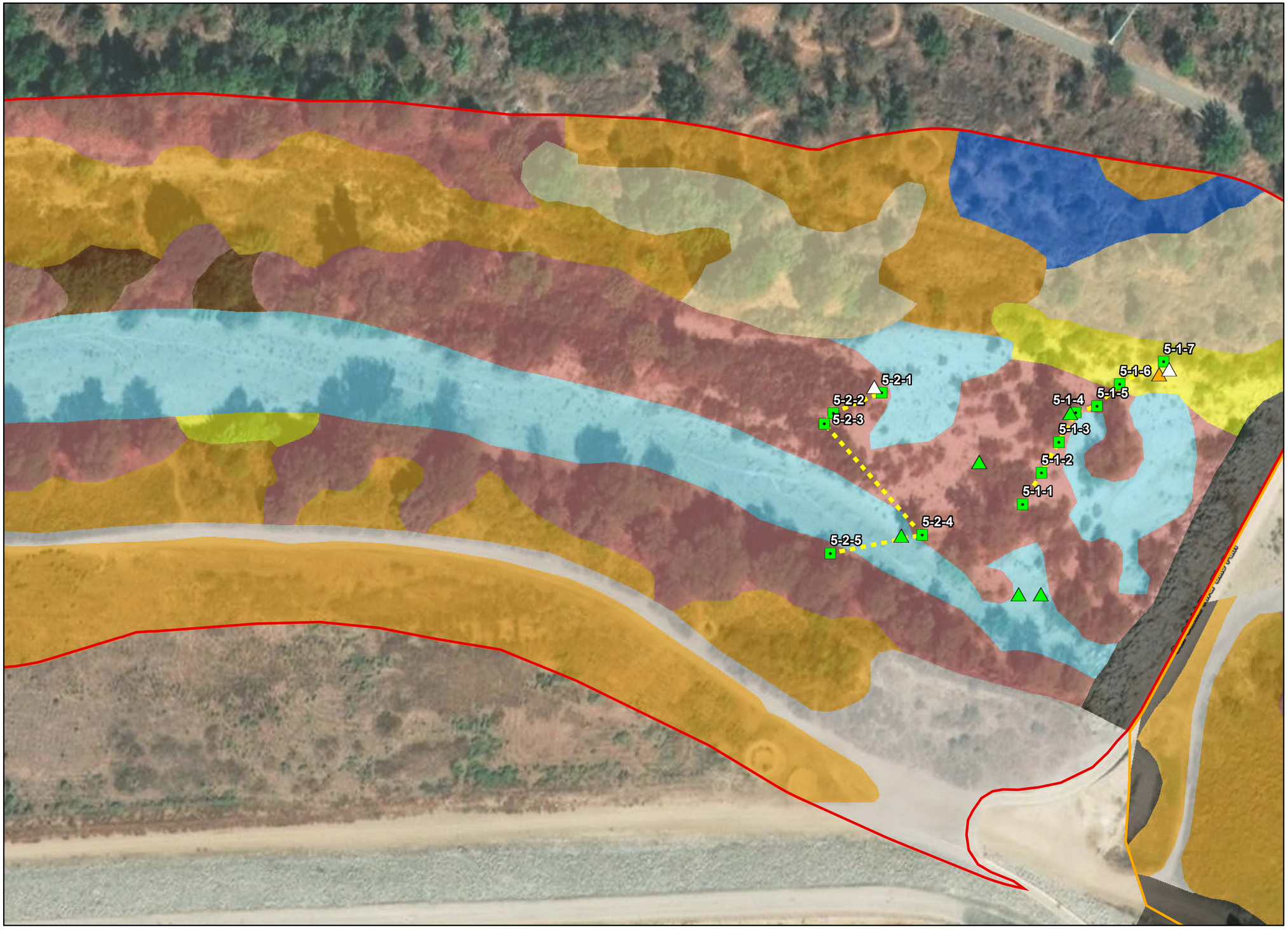

Quadrat Location
Quadrat Transect
Group 4
Group 5

Tree Species

Arroyo Willow
Black Willow
Mulefat

Vegetation Communities

Barren
Black willow thickets
Blue elderberry stands
Developed
Giant reed breaks
Mulefat thickets
Non-native woodland
Non-target Vegetation
Unvegetated streambed

1 inch = 100 feet
0 100 Feet

FIGURE 4l

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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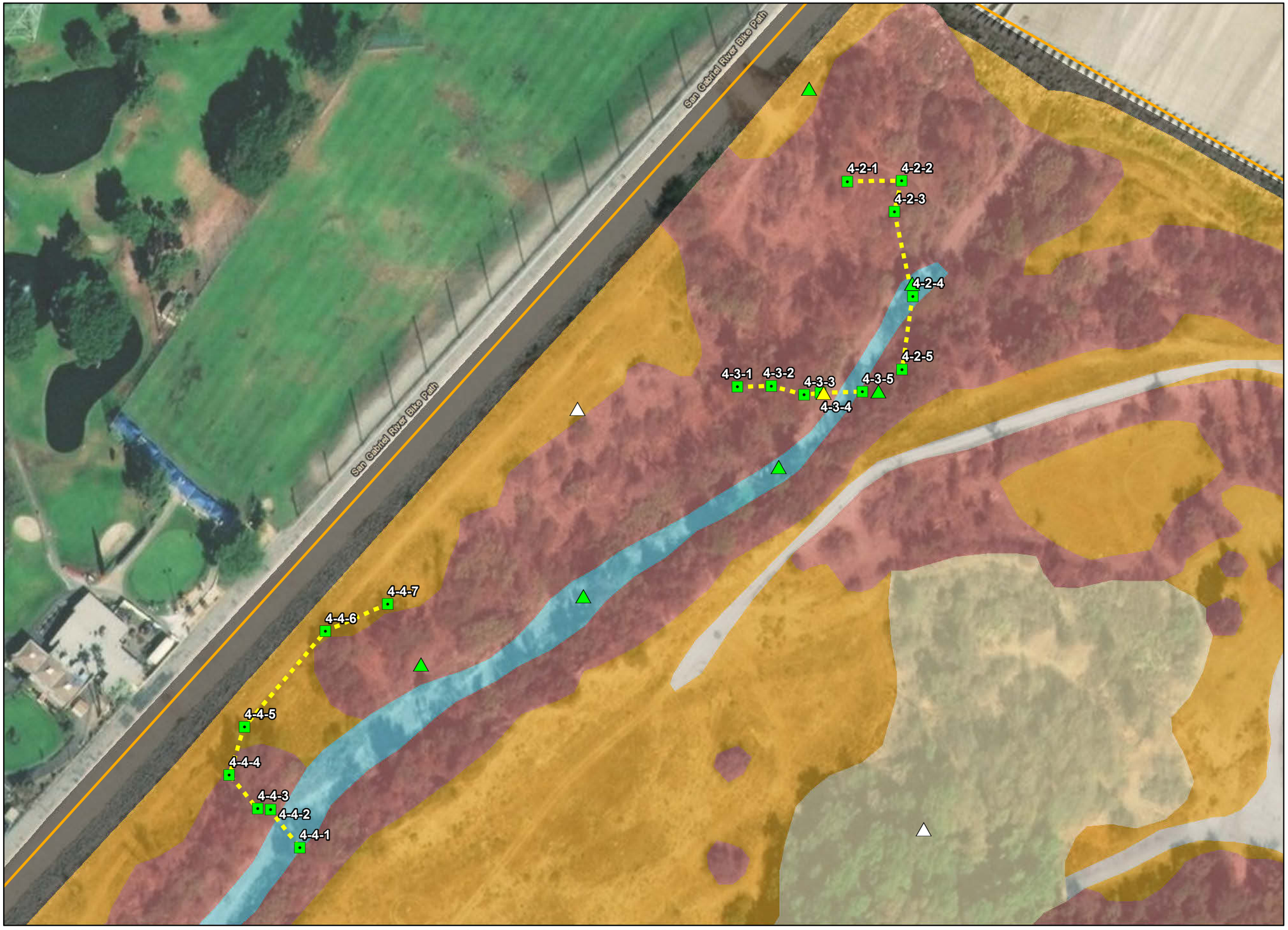
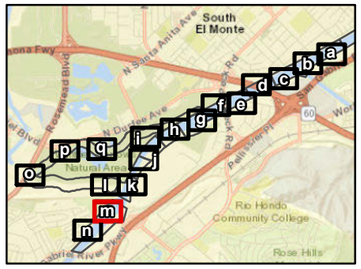




- Quadrat Location
- Quadrat Transect
- Group 4

Tree Species

- Arroyo Willow
- Black Willow
- Sandbar Willow

Vegetation Communities

- Barren
- Black willow thickets
- Developed
- Non-native woodland
- Non-target Vegetation
- Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4m

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Path: \\sdg1-fs1\GIS\3554_NaturalResources\SanGabrielRiver_1655402001\MXD\ReportFigures\AMP_Update_Oct2019\Fig4_Quadrat_Transects_Mapbook.mxd, chris.nixon, 10/17/2019

Group 4

Tree Species

- Arroyo Willow
- Black Willow
- Mulefat

Vegetation Communities

- Barren
- Black willow thickets
- Developed
- Non-native woodland
- Non-target Vegetation
- Unvegetated streambed

1 inch = 100 feet

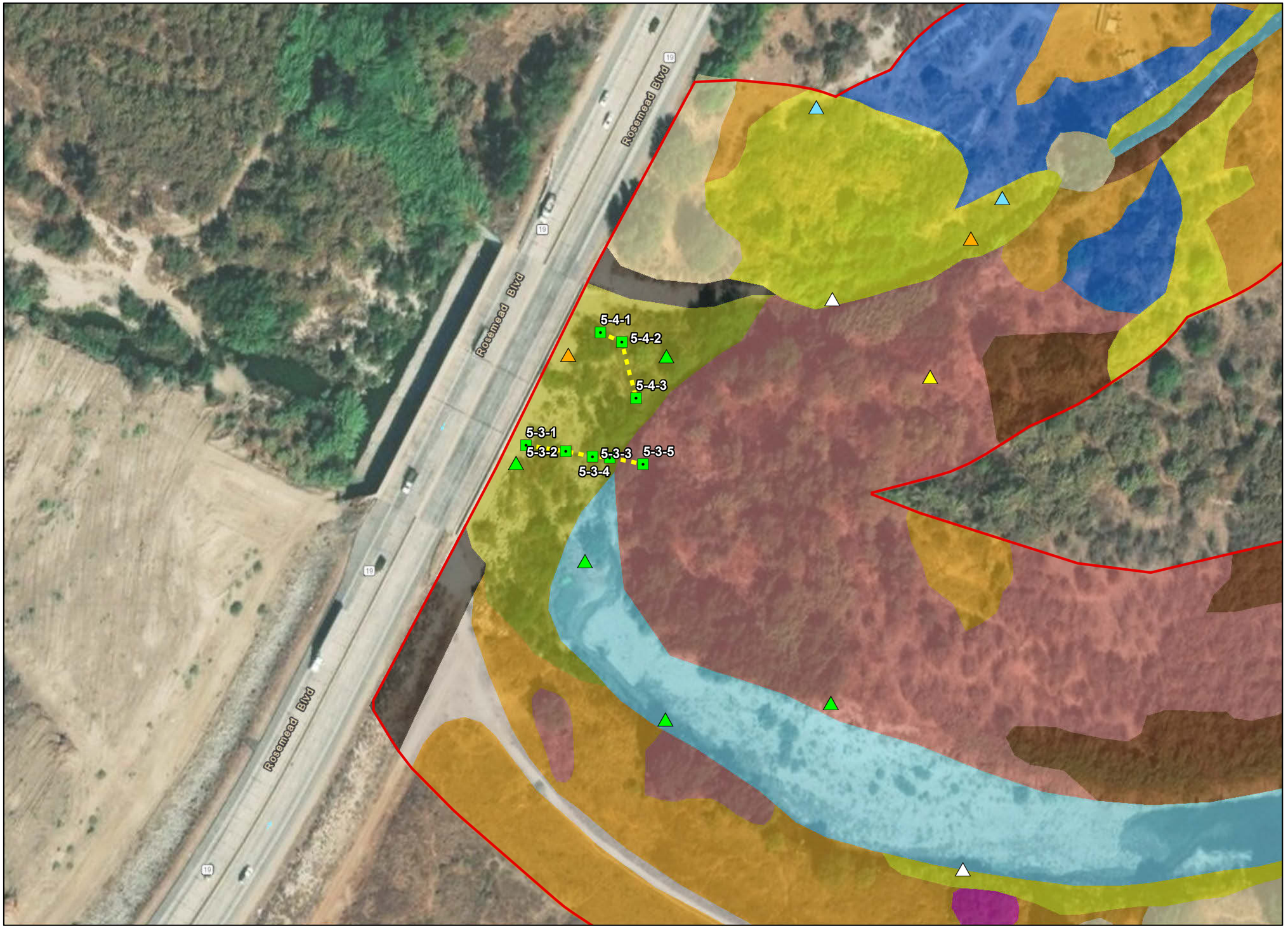
0 100 Feet

FIGURE 4n

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Path: \\sdg1-fs1\GIS\3554_NaturalResources\SanGabrielRiver_1655402001\MXD\ReportFigures\AMP_Update_Oct2019\Fig4_Quadrat_Transects_Mapbook.mxd, chris.nixon, 10/17/2019



Quadrat Location

Quadrat Transect

Group 5

Tree Species

Arroyo Willow

Black Willow

Sandbar Willow

Blue Elderberry

Mulefat

Vegetation Communities

Arroyo willow thickets

Barren

Black willow thickets

Blue elderberry stands

Developed

Giant reed breaks

Mulefat thickets

Mulefat thickets - Disturbed

Non-native woodland

Non-target Vegetation

Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4o

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Group 5

Tree Species

Mulefat

Vegetation Communities

- Barren
- Blue elderberry stands
- Developed
- Eucalyptus semi-natural stands
- Mulefat thickets
- Non-native woodland
- Non-target Vegetation
- Unvegetated streambed

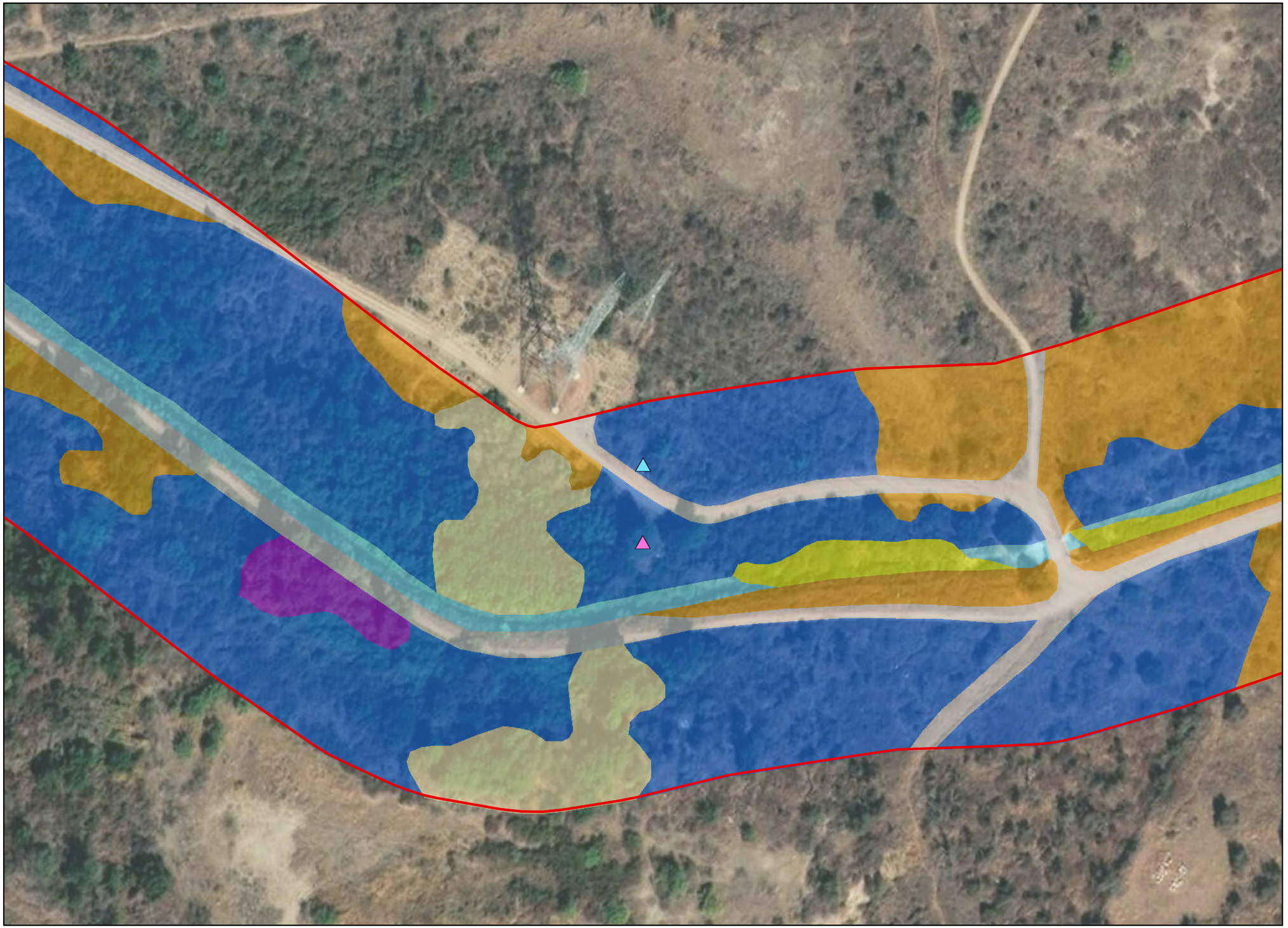
1 inch = 100 feet

0 100 Feet

FIGURE 4p

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.



Group 5

Tree Species

Blue Elderberry

Sycamore

Vegetation Communities

Barren

Blue elderberry stands

California sycamore woodlands

Mulefat thickets

Non-native woodland

Non-target Vegetation

Unvegetated streambed

1 inch = 100 feet

0 100 Feet

FIGURE 4q

Quadrat Transects
San Gabriel River AMP
Los Angeles County, California

wood.

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