

Section 2.0

Comments and Responses

2.1 INTRODUCTION TO COMMENTS AND RESPONSES

Table 2.0-1 below provides a list of those parties that provided written comments on the Draft EIR during the public review period. In addition, one comment letter was received after the close of the public review period. Each comment document has been assigned a letter as indicated in the table.

A copy of the written comments are provided in this section, and have been annotated with the assigned letter along with a number for each comment. Each comment document is followed by a written response which corresponds to the comments provided.

Table 2.0-1: Comments from Public Agencies, Organizations and Individuals

Letter	Organization/Name
Agencies	
A	U.S. Army Corps of Engineers
B	U.S. Army Corps of Engineers
C	State Water Resources Control Board
D	State Water Resources Control Board
E	San Bernardino County, Environmental Management Division
F	Inland Empire Utilities Agency
G	City of Riverside Public Utilities
H	California Department of Fish and Wildlife
I	East Valley Water District
J	San Bernardino International Airport Authority
K	San Bernardino Valley Municipal Water District
L	U.S. Fish and Wildlife Service
M	State Clearinghouse
Organizations	
N	Southern California Gas
O	The Center for Biological Diversity
P	SoCal Justice Alliance
Individuals	
Q	Various (1,916 individuals)
Late Agency Comment Letter	
R	Santa Ana Regional Water Quality Control Board (<i>received 8-5-2016</i>)

COMMENT LETTER A: U.S. ARMY CORPS OF ENGINEERS, JERRY HIDALGO, REGULATORY PROJECT MANAGER

COMMENT LETTER A

Donoghue, Christine

From: Hidalgo, Gerardo L SPL <Gerardo.L.Hidalgo@usace.army.mil>
Sent: Friday, April 22, 2016 9:21 AM
To: john.claus@sbmwd.org
Cc: Donoghue, Christine
Subject: Clean Water Factory Project (SPL-2016-00358-GLH)

Dear Mr. Claus:

It has come to my attention that you plan to install new conveyance infrastructure to convey treated recycled water directly to customers and existing recharge basins as part of the Clean Water Project in the City of San Bernardino, San Bernardino County, California.

1

This activity may require a Department of Army (DA) permit from the U.S. Army Corps of Engineers.

A Corps of Engineers permit is required for:

1. the discharge of dredged or fill material into, including any redeposit of dredged material other than incidental fallback within, "waters of the United States", including wetlands and adjacent wetlands pursuant to Section 404 of the Clean Water Act of 1972. Examples include, but are not limited to the following activities;

a. creating fills for residential or commercial development, placing bank protection, temporary or permanent stockpiling of excavated material, building road crossings, backfilling for utility line crossings and constructing outfall structures, dams, levees, groins, weirs, or other structures;

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b. mechanized land clearing and grading which involve filling low areas or land leveling, ditching, channelizing and other excavation activities that would have the effect of destroying or degrading waters of the U.S.;

c. allowing runoff or overflow from a contained land or water disposal area to re-enter a water of the U.S.; and

d. placing pilings when such placement has or would have the effect of a discharge of fill material.

An application for a DA permit is available on our website:

<http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx>. If you have any questions, please contact me at 213-452-3411 or via e-mail at Gerardo.L.Hidalgo@usace.army.mil.

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Please refer to this letter and SPL-2016-00358-GLH in your reply.

Sincerely,

Jerry Hidalgo
 Regulatory Project Manager

Department of the Army
 Los Angeles District, U.S. Army Corps of Engineers
 915 Wilshire Boulevard, Suite 930
 ATTN: Regulatory Division, CESPL-RGL
 Los Angeles, California 90017-3401

213-452-3411
213-452-4196 fax
<http://www.spl.usace.army.mil/Missions/Regulatory.aspx>

Assist us in better serving you!

You are invited to complete our customer survey, located at the following link:

http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Note: If the link is not active, copy and paste it into your internet browser.

RESPONSE TO COMMENT LETTER A: U.S. ARMY CORPS OF ENGINEERS, JERRY HIDALGO, REGULATORY PROJECT MANAGER***Response to Comment A1.***

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information. Responses to specific comments are provided below; no further response is required.

Response to Comment A2.

The commenter indicates the Project may require an Army Corps of Engineers permit and provides guidance on Section 404 permitting. The Draft EIR acknowledges that a Clean Water Act, Section 404 Permit is an anticipated Federal permit for the proposed Project; refer to Table 3.0-9, *Anticipated Agreements, Permits and Approvals for the Project* at page 3.0-39. This comment is duly noted. SBMWD will consider this information during Project deliberations. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment A3.

This comment serves as the conclusion to the letter. This comment provides general information. Responses to specific comments are provided above; no further response is required.

COMMENT LETTER B: U.S. ARMY CORPS OF ENGINEERS, SHANNON PANKRATZ, SENIOR PROJECT MANAGER



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

COMMENT LETTER B

May 23, 2016

John A. Claus, Director of Water Reclamation
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, California 92408

DEPARTMENT OF THE ARMY PERMIT APPLICATION REQUEST

Dear Mr. Claus:

It has come to my attention that you plan to construct the Clean Water Factory Project (SPL-2016-00413-LRS), involving facility improvements of the San Bernardino Water Reclamation Plant (SBWRP). The improvements include multiple alternative pipeline alignments for treated water conveyance, SBWRP conveyance to the Rapid Infiltration and Extraction (RIX) Facility, pump station and water storage infrastructure, and potential delivery to existing alternate recharge basins and/or direct use customers. The project is located along East Twin Creek and Santa Ana River near the City of San Bernardino, San Bernardino County, California.

This activity may require a Department of Army (DA) permit from the U.S. Army Corps of Engineers. A DA permit is required for the discharge of dredged or fill material into, including any redeposit of dredged material other than incidental fallback within, "waters of the United States", including wetlands and adjacent wetlands pursuant to Section 404 of the Clean Water Act of 1972. Examples include, but are not limited to the following activities;

- a. creating fills for residential or commercial development, placing bank protection, temporary or permanent stockpiling of excavated material, building road crossings, backfilling for utility line crossings and constructing outfall structures, dams, levees, groins, weirs, or other structures;
- b. mechanized land clearing and grading which involve filling low areas or land leveling, ditching, channelizing and other excavation activities that would have the effect of destroying or degrading waters of the U.S.;
- c. allowing runoff or overflow from a contained land or water disposal area to re-enter a water of the U.S.; and
- d. placing pilings when such placement has or would have the effect of a discharge of fill material.

An application for a DA permit is available on our website:
<http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx>. If you have any questions, please contact Lauren Sullivan at 213-452-3724 or via e-mail at Lauren.R.Sullivan@usace.army.mil. Please refer to this letter and SPL-2016-00413-LRS in your

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reply. Please help me to evaluate and improve the regulatory experience for others by completing the customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

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Cont.

 PANKRATZ.SHANNON.L.1291250579

Sincerely,

Digitally signed by
PANKRATZ.SHANNON.L.1291250579
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USA, cn=PANKRATZ.SHANNON.L.1291250579
Date: 2016.05.23 09:14:33 -07'00'

Shannon L. Pankratz
Senior Project Manager
LA and San Bernardino Counties Section
North Coast Branch
Regulatory Division

RESPONSE TO COMMENT LETTER B: U.S. ARMY CORPS OF ENGINEERS, SHANNON PANKRATZ, SENIOR PROJECT MANAGER***Response to Comment B1.***

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information. Responses to specific comments are provided below; no further response is required.

Response to Comment B2.

The commenter indicates the Project may require an Army Corps of Engineers permit and provides guidance on Section 404 permitting. The Draft EIR acknowledges that a Clean Water Act, Section 404 Permit is an anticipated Federal permit for the proposed Project; refer to Table 3.0-9, Anticipated Agreements, Permits and Approvals for the Project. This comment is duly noted. SBMWD will consider this information during Project deliberations. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

COMMENT LETTER C: STATE WATER RESOURCES CONTROL BOARD, TREVOR CLEAK, ENVIRONMENTAL SCIENTIST

 State Water Resources Control Board MAY 17 2016 John Claus City of San Bernardino 399 Chandler Place San Bernardino, CA 92408	COMMENT LETTER C  EDMUND G. BROWN JR. GOVERNOR MATTHEW RODRIGUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION	RECEIVED MAY 23 2016 SBMWD/WATER RECLAMATION DIRECTOR'S OFFICE
Dear Mr. Claus: ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE CITY OF SAN BERNARDINO (CITY); CLEAN WATER FACTORY (PROJECT); SAN BERNARDINO COUNTY; STATE CLEARINGHOUSE NO. 2014111012		
We understand that the City is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project (CWSRF No. C-06-8194-110). As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the EIR to be prepared for the Project.		
The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at: www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.		
The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.		
FELICIA MARCUS, CHAIR THOMAS HOWARD, EXECUTIVE DIRECTOR 1001 I Street, Sacramento, CA 95814 Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 www.waterboards.ca.gov ♻️ RECYCLED PAPER		

John Claus

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It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

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Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The City will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

5

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the City decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report.

6

Note that the City will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond Project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

7

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all federal requirements, please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf):

- A. An alternative analysis discussing environmental impacts of the Project in either the CEQA document (Negative Declaration, Mitigated Negative Declaration or Environmental Impact Report) or in a separate report.
- B. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.

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John Claus

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|---|----|
| C. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission. | 8c |
| D. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE. | 8d |
| E. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract. | 8e |
| F. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts. | 8f |
| G. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area. | 8g |
| H. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts. | 8h |
- Following are specific comments on the City's draft EIR:
- | | |
|--|----|
| 1. There is no reference to the Cultural Resources complying with Assembly Bill (AB) 52. The District should clarify if any consultations were conducted per AB 52. | 9 |
| 2. Southwestern willow flycatcher is identified in mitigation measure BIO-8, but is not included in table 4.4-2 and is not analyzed with the other sensitive species in the Biological Resources Section. Please clarify if Southwestern willow flycatcher is present within the Project vicinity and if there is a potential for impacts due to the Project's activities. | 10 |
| 3. Section 1.6 Significant and Unavoidable Environmental Impacts identifies a significant and unavoidable impact to the Federally Threatened Santa Ana sucker. However in the Biological Resources Section, it is stated that the implementation of Mitigation Measure BIO-7 and BIO-8 would reduce impacts to less than significant. Please clarify if there will be a significant and unavoidable impact to Santa Ana sucker. | 11 |
| 4. The State Water Board shall require the final Adaptive Management Plan for Santa Ana sucker to be approved prior to the Project's environmental application package's approval. | 12 |
| 5. The Air Quality Section states that the Project activity shall exceed the South Coast Air Quality Management District's Construction Thresholds and would result in a cumulatively considerable net increase of criteria pollutant for which the impact is considered significant and unavoidable. The CWSRF requires compliance with the federal Clean Air act and will not be able to approve the Project for funding if the South Coast Air Quality Management District's criteria are exceeded. | 13 |

John Claus

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6. The District must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106).

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Please provide us with the following documents applicable to the proposed Project following the City's California Environmental Quality Act (CEQA) process: (1) one copy of the draft and final EIR, (2) the resolution certifying the EIR and making CEQA findings, (3) all comments received during the review period and the City's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program (MMRP), and (5) the Notice of Determination filed with the San Bernardino County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

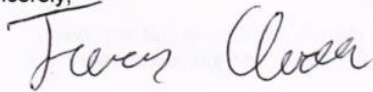
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Thank you for the opportunity to review the City's draft EIR. If you have any questions or concerns, please feel free to contact me at (916) 319 8574, or by email at Trevor.Cleak@waterboards.ca.gov, or contact Ahmad Kashkoli at (916) 341-5855, or by email at Ahmad.Kashkoli@waterboards.ca.gov.

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Sincerely,



Trevor Cleak
Environmental Scientist

Enclosures (3)

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse
(Re: SCH# 2014111012)
P.O. Box 3044
Sacramento, CA 95812-3044

CLEAN WATER STATE REVOLVING FUND

Basic Criteria for Cultural Resources Report Preparation

State Water Resources Control Board
Division of Financial Assistance

For Section 106 Consultation with the State Historic Preservation Officer (SHPO)
under the National Historic Preservation Act

CULTURAL RESOURCES REPORT

The Cultural Resources Report must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards. Please see the Professional Qualifications Standards at the following website at: http://www.cr.nps.gov/local-law/arch_stnds_9.htm

The Cultural Resources Report should include one of the four "findings" listed in Section 106. These include:

"No historic properties affected"

(no properties are within the area of potential effect (APE; including below the ground).

"No effect to historic properties"

(properties may be near the APE, but the project will not have any adverse effects).

"No adverse effect to historic properties"

(the project may affect "historic properties", but the effects will not be adverse).

"Adverse effect to historic properties"

Note: Consultation with the SHPO will be required if a "no adverse effect to historic properties" or an "adverse effect to historic properties" determination is made, to develop and evaluate alternatives or modifications to the proposed project that could avoid, minimize or mitigate adverse effects on "historic properties."

RECORDS SEARCH

- A records search (less than one year old) extending to a half-mile beyond the project APE from a geographically appropriate Information Center is required. The records search should include maps that show all recorded sites and surveys in relation to the APE for the proposed project, and copies of the confidential site records included as an appendix to the Cultural Resources Report.
- The APE is three-dimensional (depth, length and width) and all areas (e.g., new construction, easements, staging areas, and access roads) directly affected by the proposed project.



NATIVE AMERICAN and INTERESTED PARTY CONSULTATION

- Native American and interested party consultation should be initiated at the planning phase of the proposed project to gather information to assist with the preparation of an adequate Cultural Resources Report.
- The Native American Heritage Commission (NAHC) must be contacted to obtain documentation of a search of the Sacred Lands Files for or near the project APE.
- All local Native American tribal organizations or individuals identified by the NAHC must be contacted by certified mail, and the letter should include a map and a description of the proposed project.
- Follow-up contact should be made by telephone and a phone log maintained to document the contacts and responses.
- Letters of inquiry seeking historical information on the project area and local vicinity should be sent to local historical societies, preservation organizations, or individual members of the public with a demonstrated interest in the proposed project.

Copies of all documents mentioned above (project description, map, phone log and letters sent to the NAHC and Native American tribal organizations or individuals and interested parties) must be included in the Cultural Resources Report.

Contact Information: For more information related to the CWSRF Program Cultural Resources and Requirements, please contact Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

PRECAUTIONS

A finding of ***“no known resources”*** without supporting evidence is unacceptable. The Cultural Resources Report must identify resources within the APE or demonstrate with sufficient evidence that none are present.

“The area is sensitive for buried archaeological resources,” followed by a statement that ***“monitoring is recommended.”*** Monitoring is not an acceptable option without good-faith effort to demonstrate that no known resource is present.

If ***“the area is already disturbed by previous construction”*** documentation is still required to demonstrate that the proposed project will not affect ***“historic properties.”*** An existing road can be protecting a buried archaeological deposit or may itself be a ***“historic property.”*** Additionally, previous construction may have impacted an archaeological site that has not been previously documented.

SHPO CONSULTATION LETTER

Submit a draft consultation letter prepared by the qualified researcher with the Cultural Resources Report to the State Water Resources Control Board. A draft consultation letter template is available for download on the State Water Board webpage at:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/cwsrf_requirements.shtml



REVISED: JAN 2014

CLEAN WATER STATE REVOLVING FUND

California Environmental Quality Act Requirements

State Water Resources Control Board
Division of Financial Assistance

The State Water Resources Control Board (State Water Board), Division of Financial Assistance, administers the Clean Water State Revolving Fund (CWSRF) Program. The CWSRF Program is partially funded by grants from the United States Environmental Protection Agency. All applicants seeking CWSRF financing must comply with the California Environmental Quality Act (CEQA), and provide sufficient information so that the State Water Board can document compliance with federal environmental laws. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF Program financing. It is available at:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml



We've got the **green...**
to keep California's **water clean.**
CLEAN WATER STATE REVOLVING FUND

Contact Information: For more information related to the CWSRF Program environmental review process and requirements, please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

REVISED: FEB. 2014

LEAD AGENCY

The applicant is usually the "Lead Agency" and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the "Lead Agency" under CEQA. If a project will be completed by a non-governmental organization, "Lead Agency" responsibility goes to the first public agency providing discretionary approval for the project.

RESPONSIBLE AGENCY

The State Water Board is generally a "Responsible Agency" under CEQA. As a "Responsible Agency," the State Water Board must make findings based on information provided by the "Lead Agency" before financing a project.

ENVIRONMENTAL REVIEW

The State Water Board's environmental review of the project's compliance with both CEQA and federal cross-cutting regulations must be completed before a project can be financed by the CWSRF Program.

DOCUMENT REVIEW

Applicants are encouraged to consult with State Water Board staff early during preparation of CEQA document if considering CWSRF financing. Applicants shall also send their environmental documents to the State Water Board, Environmental Review Unit during the CEQA public review period. This way, any environmental concerns can be addressed early in the process.

REQUIRED DOCUMENTS

The Environmental Review Unit requires the documents listed below to make findings and complete its environmental review. Once the State Water Board receives all the required documents and makes its own findings, the environmental review for the project will be complete.

- ✓ Draft and Final Environmental Documents: Environmental Impact Report, Negative Declaration, and Mitigated Negative Declaration as appropriate to the project
- ✓ Resolution adopting/certifying the environmental document, making CEQA findings, and approving the project
- ✓ All comments received during the public review period and the "Lead Agency's" responses to those comments
- ✓ Adopted Mitigation Monitoring and Reporting Plan, if applicable
- ✓ Date-stamped copy of the Notice of Determination or Notice of Exemption filed with the County Clerk(s) and the Governor's Office of Planning and Research
- ✓ CWSRF Evaluation Form for Environmental Review and Federal Coordination with supporting documents



National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires an analysis of the effects on "historic properties." The Section 106 process is designed to accommodate historic preservation concerns for federal actions with the potential to affect historic properties. Early consultation with appropriate government agencies, Indian tribes, and members of the public, will ensure that their views and concerns are addressed during the planning phase.

Historic properties (i.e., buildings, structures, objects, and archaeological sites 50 years or older) are properties that are included in the National Register of Historic Places or meet the criteria for the National Register.

Required Documents:

- ✓ A draft State Historic Preservation Officer consultation request letter; and
- ✓ A cultural resources report on historic properties conducted according to the Secretary of the Interior's Standards, including:
 - A clearly defined Area of Potential Effect (APE), specifying the length, width, and depth of excavation, with a map clearly illustrating the project APE;
 - A records search, less than one year old, extending to a half-mile beyond the project APE;
 - Written description of field methods;
 - Identification and evaluation of historic properties within the project's APE; and
 - Documentation of consultation with the Native American Heritage Commission and local Native American tribes.

ADDITIONAL INFORMATION

If your project has the potential to affect biological resources or historic properties, the consultation process can be lengthy. Please contact the State Water Board staff early in your planning process to discuss what additional information may be needed for your specific project.

Please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at (916) 341-5855 or Ahmad.Kashkoli@waterboards.ca.gov for more information related to the CWSRF Program environmental review process and requirements.



CLEAN WATER STATE REVOLVING FUND

Environmental Review Requirements

State Water Resources Control Board
Division of Financial Assistance

ENVIRONMENTAL REVIEW REQUIREMENTS

The Clean Water State Revolving Fund (CWSRF) Program is partially funded by the United States Environmental Protection Agency (EPA), and is subject to federal environmental regulations as well as the California Environmental Quality Act (CEQA). All applicants seeking CWSRF financing must comply with both CEQA and the federal cross-cutting regulations. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF financing. The forms and instructions are available at: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml.

Lead Agency/Applicant

The applicant will generally act as the "Lead Agency" for environmental review. It will prepare, circulate, and consider the environmental documents prior to approving the project. It also provides the State Water Board with copies of the CEQA documents, and a completed "Environmental Evaluation Form for Environmental Review and Federal Coordination" (http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf) with supporting documents as part of the "Environmental Package."

Responsible Agency/State Water Board

The State Water Board acts on behalf of EPA to review and consider the environmental documents before approving financing. The State Water Board may require additional studies or documentation to make its own CEQA findings, as well as circulate CEQA documents and other environmental reports to relevant federal agencies for consultation before making a determination about the project financing.

The Applicant must address all relevant federal agencies' comments before project financing is approved.

FEDERAL CROSS-CUTTING REGULATIONS

The CWSRF Program requires consultation with relevant federal agencies on the following federal environmental regulations, if applicable to the project:

- Clean Air Act
- Coastal Barriers Resources Act
- Coastal Zone Management Act
- Endangered Species Act
- Environmental Justice
- Farmland Protection Policy Act
- Floodplain Management
- Magnuson-Stevens Fishery Conservation and Management Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Protection of Wetlands
- Safe Drinking Water Act, Sole Source Aquifer Protection
- Wild and Scenic Rivers Act

The following is a brief overview of requirements for some of the key regulations.

Clean Air Act (CAA)

The CAA general conformity analysis only applies to projects in areas not meeting the National Ambient Air Quality Standards or subject to a maintenance plan.

If project emissions are below the federal "de minimis" levels then:

- A general conformity analysis is not required.

If project emissions are above the federal "de minimis" levels then:

- A general conformity determination for the project must be made. A general conformity determination can be made if facilities are sized to meet the needs of current population projections used in an approved State Implementation Plan for air quality.

- Using population projections, applicants must explain how the proposed capacity increase was calculated.

An air quality modeling analysis is necessary of all projects for the following criteria pollutants, regardless of attainment status:

- Carbon monoxide
- Lead
- Oxides of nitrogen
- Ozone
- Particulate matter (PM_{2.5} and PM₁₀)
- Sulfur dioxide

Endangered Species Act (ESA)

The ESA requires an analysis of the effects on federally listed species. The State Water Board will determine the project's potential effects on federally listed species, and will initiate informal/formal consultation with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service, as necessary under Section 7 of the ESA.

Required Documents:

- ✓ A species list, less than one year old, from the USFWS and the California Department of Fish and Wildlife's Natural Diversity Database;
- ✓ A biological survey conducted during the appropriate time of year;
- ✓ Maps or documents (biological reports or biological assessments, if necessary); and
- ✓ An assessment of the direct or indirect impacts to any federally listed species and/or critical habitat. If no effects are expected, explain why and provide the supporting evidence.



RESPONSE TO COMMENT LETTER C: STATE WATER RESOURCES CONTROL BOARD, TREVOR CLEAK, ENVIRONMENTAL SCIENTIST

Response to Comment C1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information. Responses to specific comments are provided below; no further response is required.

Response to Comment C2.

This comment provides general information pertaining to the State Water Resources Control Board, Division of Financial Assistance and Clean Water State Revolving Fund (CWSRF) program financing. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Responses to specific comments are provided below; no further response is required. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C3.

This comment provides general information pertaining to the CWSRF funding, CEQA-Plus documentation/review, and the consultation process. The Draft EIR incorporates a discussion of the various CWSRF CEQA-Plus requirements anticipated for the proposed Project; refer to Section 2.3, Compliance with SRF CEQA-Plus at page 2.0-2. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Responses to specific comments are provided below; no further response is required. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C4.

This comment provides general information pertaining to the CWSRF financing, and compliance with the federal Endangered Species Act. Pursuant to CWSRF requirements, Draft EIR Section 4.4, Biological Resources, includes an analysis of the Project's compliance with Section 7 and Section 9 of the federal Endangered Species Act; refer to Draft EIR pages 2.0-2, 4.4-45, 4.4-72 and 4.4-74. Further, Mitigation Measure BIO-8 stipulates that SBMWD coordinate with the United States Army Corps of Engineers to initiate consultation with the USFWS pursuant to Section 7 of the federal Endangered Species Act. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Responses to specific comments are provided below; no further response is required. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C5.

The commenter indicates the City will need to identify whether the Project would involve direct impacts to federally threatened, endangered, or candidate species along with relevant mitigation measures to reduce potential impacts. Project-related impacts to federally threatened, endangered, or candidate

species are identified in Draft EIR [Section 4.4](#), along with relevant mitigation measures to reduce potential impacts. More specifically, Project impacts to candidate, sensitive, or special status species and relevant mitigation measures are described under Impact Statement 4.4-1; refer to Draft EIR page 4.4-66. Mitigation Measures BIO-1 through BIO-11 are proposed to reduce the Project's impacts to sensitive plant and wildlife species to a less than significant level.

In addition, the Project Mitigation Monitoring and Reporting Program (MMRP) to be adopted in concert with certification of the EIR will provide a clear framework on how the Project's mitigation measures will be implemented, who specifically will be the responsible party to ensure mitigation is implemented, and the specific location and timing of each mitigation measure. As such, SBMWD concludes that the Draft EIR has adequately identified whether the Project would involve direct impacts to federally threatened, endangered, or candidate species along with relevant mitigation measures to reduce potential significant impacts.

Response to Comment C6.

The commenter notes that, in order to pursue CWSRF, SBMWD will be required to comply with Section 106 of the National Historic Preservation Act. The Draft EIR acknowledges a National Historic Preservation Act Section 106 permit as an anticipated State permit for the proposed Project; refer to [Table 3.0-9, *Anticipated Agreements, Permits and Approvals for the Project*](#) at Draft EIR page 3.0-39. Draft EIR [Section 4.5, *Cultural and Paleontological Resources*](#), incorporates an analysis of the proposed Project's consistency with Section 106 of the National Historic Preservation Act. As concluded in this section, no historic properties or historical resources, as defined by Section 106 of the National Historic Preservation Act, would be affected by implementation of the proposed Project; refer to Draft EIR page 4.5-19. This comment is duly noted. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C7.

The commenter notes that SBMWD will be required to identify the Project's area of potential effects (APE) and perform a records search request for potential impacts to cultural resources in order to pursue CWSRF. The APE for cultural resources was delineated as part of the *Identification and Evaluation of Historic Properties Report* (January 13, 2015), prepared by CRM TECH. Refer to [Exhibits 4.5-1, *Area of Potential Effects \(Southerly Portion\)*](#) and [4.5-2, *Area of Potential Effects \(Northerly Portion\)*](#), as well as EIR [Appendix 10.6, *Identification and Evaluation of Historic Properties*](#). Further, a search for archeological and historical records was completed by the Archeological Information Center, San Bernardino County on March 17 and March 23, 2015. The results of the archaeological and historical records search are presented in [Table 4.5-1, *Archeological and Historic Resources within a 0.25-Mile Radius of the Project Site*](#). As such, SBMWD concludes that this CWSRF requirement has been satisfied.

Response to Comment C8a.

The commenter notes that SBMWD will be required to produce an alternatives analysis for the proposed Project in order to pursue CWSRF. In compliance with State CEQA Guidelines Section 15126.6, EIR [Section 6.0, *Alternatives*](#) presents eight alternatives to the proposed Clean Water Factory Project which would

reduce dependence on imported water and establish a reliable, sustainable source of clean water. Alternatives considered include the following:

- Alternative 1: No Project Alternative
- Alternative 2: Increased Conservation Alternative
- Alternative 3: Reduced Capacity Alternative
- Alternative 4: Project Variations Under Consideration
- Alternative 5: Imported Water Supply Alternative
- Alternative 6: In Lieu Water Supply Alternative
- Alternative 7: Hybrid Alternative
- Alternative 8: Regional Partnership Alternative

Refer to EIR [Section 6.0](#) for an expanded discussion of these alternatives. In addition, a new alternative, has been added to the Draft EIR. See [Section 3.0 Errata to the Draft EIR](#), for a description of Alternative 9—Flow Mitigation Alternative. SBMWD concludes that the CWSRF requirement has been satisfied.

Response to Comment C8b.

The commenter notes that the Project will be required to demonstrate compliance with the Federal Clean Air Act (FCAA) in order to pursue CWSRF. The comment further indicates that if emissions are above federal de minimis levels, and the Project is sized to meet population projections, it should be indicated how the capacity increased was calculated using population projections. EIR [Section 4.3, Air Quality and Greenhouse Gas Emissions](#), analyzes the Project's consistency with the National Ambient Air Quality Standards (NAAQS) stipulated under the FCAA. As described in [Section 4.3](#), despite the implementation of all feasible mitigation measures, construction emissions were found to exceed federal de minimis levels for NO_x during Construction Year 1; refer to EIR page 4.3-40. However, based on consultation with the SCAQMD, additional mitigation has been identified to reduce air quality impacts to a less than significant level. See EIR revisions including new Mitigation Measure AQ-4 in the [Section 3.0 Errata to the Draft EIR](#), which involves the purchase of off-set credits to reduce air quality impacts. With consideration of the additional mitigation, the Project would comply with the FCAA. We also note that the Project's objectives are identified in [Section 3.1.3](#) of the Draft EIR, and directly relate to meeting demand requirements and providing long-term water supply reliability.

Response to Comment C8c.

The commenter notes that the Project will be required to demonstrate compliance with the Coastal Zone Management Act, if applicable. None of the Project components are located within the Coastal Zone. For this reason, implementation of the Clean Water Factory Project would not be subject to the Coastal Zone Management Act.

Response to Comment C8d.

The commenter notes that SBMWD will be required to identify any portion of the Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (Corps), or requires permitting from USACE, and identify the status of Corps coordination in order to pursue CWSRF. As described in [Section 4.3 \(Impact 4.4-3\)](#), the Project site does not support federally protected wetlands as defined under Section 404 of the Clean Water Act, but may affect waters of the United States; refer to Draft EIR pages 4.4-76 to 4.4-78. In order to reduce impacts to jurisdictional

waters, Mitigation Measure BIO-12 is proposed to require SBMWD to coordinate with the Corps, California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (Regional Board) regarding potential indirect impacts to State and federal waters, and determine required mitigation once final Project design is available. Additionally, Mitigation Measure BIO-13 would require that excavated material be either removed or safeguarded to prevent erosion and transport of materials into riparian areas. Implementation of Mitigation Measures BIO-12 and BIO-13 would reduce the Project's impacts to jurisdictional waters to less than significant levels.

Response to Comment C8e.

The commenter notes that the Project will be required to demonstrate compliance with the Farmland Protection Act in order to pursue CWSRF. The Project area does not contain areas designated as Prime or Unique Farmland. In addition, Project implementation would not convert farmland to non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act Contract; refer to Section 7.0, Effects Found Not to be Significant at page 7.0-1. For these reasons, Project implementation would not conflict with the Farmland Protection Act.

Response to Comment C8f.

The commenter notes that the Project will be required to demonstrate compliance with the Migratory Bird Treaty Act (MBTA) in order to pursue CWSRF. The Draft EIR acknowledges that the Project would be required to demonstrate compliance with the MBTA; refer to Draft EIR pages 4.1-1 and 4.4-46. As described in Section 4.3, if Project construction occurs during avian breeding season, Mitigation Measure BIO-5 would be implemented to require pre-construction nesting bird clearance surveys and nest protection measures should active nests be identified during clearance surveying efforts. Mitigation Measure BIO-6 requires protocol-level surveys for Least Bell's vireo where suitable habitat is present near work areas. Also, Mitigation BIO-1 would require the implementation of a Worker's Education Awareness Program (WEAP) to educate construction personnel of the Project area's environmental concerns and conditions and Mitigation Measure BIO-4 would require all work areas to be visibly flagged and staked prior to construction. Implementation of Mitigation Measures BIO 1, BIO-4, BIO-5, and BIO-6 would ensure Project compliance with the MBTA.

Response to Comment C8g.

The commenter notes that the Project will be required to demonstrate compliance with the Flood Plain Management Act in order to pursue CWSRF. As described in Section 4.7, Hydrology and Water Quality, the improvements within the Waterman Basins, East Twin Creek Spreading Ground, and Chino Basins are partially located within a 100-year flood hazard area, as delineated by the Federal Emergency Management Agency (FEMA). However, Project implementation would improve recharge operations of the basins and would not impede or redirect flood flows; refer to Impact Statement 4.7-6 at page 4.7-36. Accordingly, Project implementation would comply with the Flood Plain Management Act.

Response to Comment C8h.

The commenter notes that the Project will be required to demonstrate compliance with the Wild and Scenic Rivers Act in order to pursue CWSRF. According to the National Wild and Scenic Rivers System, the segments of the Santa Ana River that are affected by the proposed Project are not designated as a wild,

scenic, or recreational river under the Wild and Scenic Rivers Act.¹ Therefore, the Project is not subject to and thus would not conflict with the Wild and Scenic Rivers Act.

Response to Comment C9.

The commenter notes that AB 52 consultation was not completed for the Project, and clarification regarding what consultations were completed should be provided. As outlined on Draft EIR page 4.5-8, consultation with the Native American Heritage Commission, as well as a list of eleven representatives recommended by the NAHC, was completed. In regards to AB 52, the statutes of AB 52 apply to projects for which a lead agency has issued a notice of preparation (NOP) for an environmental impact report or notice of intent (NOI) to adopt a negative declaration on or following July 1, 2015. As the proposed Project's NOP was released on November 5, 2014, the consultation requirements stipulated under AB 52 do not apply to the Clean Water Factory Project and SBMWD is not required to initiate consultation pursuant to AB 52.

Response to Comment C10.

The comment indicates that that the Draft EIR Biological Resources section should be revised to clarify whether Southwestern willow flycatcher is present within the Project vicinity and whether the Project would potentially impact this species. Although there is designated critical habitat for Southwestern willow flycatcher along the Santa Ana River, the riparian habitat found within the Project areas is not suitable to support Southwestern willow flycatcher which requires a very well developed riparian canopy. Southwestern willow flycatcher is not present and there is no potential for impact to the species. However, there is a potential for loss or adverse modification of Southwestern willow flycatcher designated Critical Habitat. Since this Project will require a Section 7 Consultation for potential impacts to Santa Ana sucker, designated Critical Habitat for Santa Ana sucker and Least Bell's vireo, designated Critical Habitat for Southwestern willow flycatcher will be included in the consultation process. Draft EIR page 4.4-74 will be revised further clarify this issue, as follows:

Least Bell's Vireo/Southwestern Willow Flycatcher

As described above, Least Bell's vireo has a potential to occur on the Project site and in the riparian habitats downstream of the Santa Ana River, and designated Critical Habitat for southwestern willow flycatcher occurs within the Project site. It should be noted that southwestern willow flycatcher is not present along the Santa Ana River; however, Project implementation could result in the loss or adverse modification of designated Critical Habitat for the species. The phased reduction in flows from RIX would result in loss to wetted width in the Santa Ana River (less than 5% for Reaches 1 and 3 for all five phases and up to 13% through Phase 5 for Reach 2). This change is within the range of natural variation, and thus is expected to have a less than significant effect on the riparian plant community. However, any identified impact on the riparian habitats along the Santa Ana River could have an impact on the avian species that forage and nest within these riparian habitats, in particular, Least Bell's vireo and southwestern willow flycatcher.

Mitigation Measures BIO-4, BIO-6, BIO-7, BIO-9, BIO-10, and BIO-11 would mitigate impacts to Least Bell's vireo and southwestern willow flycatcher to a less than significant level.

¹ National Wild and Scenic Rivers System, "California," <https://www.rivers.gov/california.php>, Accessed July 5, 2016.

This change provides a minor update, correction, or clarification and does not represent “significant new information” as defined in CEQA Guidelines Section 15088.5.

Response to Comment C11.

The Draft EIR’s identification of a Significant and Unavoidable Impact to the Santa Ana sucker in Section 1.6 was in error. This is a portion of the Executive Summary and the error does not appear elsewhere in the document. As indicated in the Executive Summary on page 1.0-5, and more specifically in the Biological Resources Analysis, Section 4.4, impacts to Santa Ana sucker would be less than significant with mitigation incorporated. To clarify this issue, page 1.0-27 of the EIR is revised to eliminate the following content from Section 1.6:

- ~~■ Santa Ana Sucker—The Project identifies a significant unavoidable impact to Santa Ana sucker. It is noted that even with the Project’s full implementation of BIO-7, BIO-14, other EIR mitigation measures and Project Design Features noted herein, as well as ongoing SBMWD commitment and participation in the HCP, the sheer listing of Santa Ana sucker in the federal ESA, along with the RIX Phased Discharge Reduction, would result in a significant unavoidable impact to Santa Ana sucker.~~

This change resolves an inconsistency and provides a minor update, correction, or clarification and does not represent “significant new information” as defined in CEQA Guidelines Section 15088.5.

Response to Comment C12.

The commenter notes that the State Water Board would require approval of the Project’s Adaptive Management Plan prior to the Project’s environmental application approval for CWSRF. This comment is duly noted. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR’s environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C13.

A federal action is exempt from the General Conformity Rule requirements if the action’s total net emissions are below the de minimis threshold or are otherwise exempt per 40 CFR 93.153. It should be noted that exceedance of the federal de minimis levels in 40 CFR 93.153 does not indicate that the Project is not in conformance with the Clean Air Act. The de minimis levels were developed to determine if a federal action would be exempt from the General Conformity Rule requirements. If net emissions exceed the relevant de minimis value, or if a Project is regionally significant, a formal conformity determination process must be followed. The comment indicates that the CWSRF requires compliance with the Clean Air Act and State Water Resources Control Board (SWRCB) may not be able to fund the Project if SCAQMD thresholds are exceeded. This comment, along with the relationship between population and capacity projection (refer to Response to Comment C8b above) is noted, and the SBMWD reserves the right to continue to coordinate with CWSRF program staff and SCAQMD regarding conformance with the Clean Air Act.

It should be noted that the Draft EIR’s identification that the Project would not result in a net increase of emissions that would exceed de minimis levels was in error. This is a portion of the Air Quality section (Impact 4.3-5) and the error does not appear elsewhere in the document. As indicated on Draft EIR page

4.3-41, Project implementation would potentially conflict with the federal de minimis levels during construction Year 1, despite the implementation of Mitigation Measures AQ-1 through AQ-3. However, based on consultation with the SCAQMD, additional mitigation has been identified to reduce air quality impacts to a less than significant level. See EIR revisions including new mitigation measure AQ-4 in Section 3.0 Errata to the Draft EIR, which involves the purchase of off-set credits to reduce impacts. Therefore, with implementation of Mitigation Measures AQ-1 through AQ-3, and new Mitigation Measure AQ-4 impacts would be reduced to less than significant.

Response to Comment C14.

The commenter notes that the Project is required to demonstrate compliance with Section 106 of the National Historic Preservation Act (NHPA) in order to pursue CWSRF. Section 4.5, *Cultural and Paleontological Resources* contains a discussion pertaining to the Project's consistency with Section 106 of the NHPA. The *Identification and Evaluation of Historic Properties* report prepared by CRM TECH concluded that no historic properties or historical resources, as defined by Section 106 of the NHPA and CEQA, would be affected by Project implementation; refer to Impact 4.5-1 at Draft EIR Page 4.5-17 as well as Appendix 10.6. As such, construction and operation of the proposed Project is anticipated to be fully compliant with Section 106 of the NHPA.

Response to Comment C15a.

The commenter requests a number of Final EIR documents. SBMWD acknowledges this request and would provide any required documents in conjunction with for a request for CWSRF funding, as applicable. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C15b.

The commenter requests notice of future Project hearings or meetings for projects to be funded by the State Water Board. SBMWD will continue to notify the State Water Board of future Project hearings or meetings. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment C16.

This comment serves as the conclusion to the letter and provides contact information. SBMWD appreciates and values your comments during the EIR participation process. Responses to specific comments are provided above; no further response is required.

COMMENT LETTER D: STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER RIGHTS, MATT MCCARTHY, SENIOR



COMMENT LETTER D



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

JUN 08 2016

In Reply Refer to:
MSM:WW0059

John A. Claus
Director of Water Reclamation
City of San Bernardino Municipal Water Department
john.claus@sbmwd.org

Dear Mr. Claus:

COMMENTS TO THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CLEAN WATER FACTORY PROJECT (SCH 2014111012) OF THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT IN RIVERSIDE COUNTY

The State Water Resources Control Board (State Water Board), Division of Water Rights appreciates the opportunity to comment, as a responsible agency, on the draft Environmental Impact Report (EIR) circulated for the Clean Water Factory Project proposed by City of San Bernardino Municipal Water Department (Petitioner).

1

Wastewater Change Petition

Water Code section 1211 requires the owner of any wastewater treatment plant to obtain approval from the State Water Board prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater, where changes in the discharge or use of treated wastewater result in decreasing the flow in any portion of a watercourse.

2a

According to the draft EIR, the project includes proposals to add tertiary filtration/disinfection facilities to the San Bernardino Water Reclamation Plant, and recycling at the Rapid Infiltration and Extraction facility. The project would also add 15 million gallons per day (mgd) of advanced wastewater treatment facilities to provide a source of clean water for groundwater replenishment for indirect potable reuse. The draft EIR indicates that current tertiary discharge from the Rapid Infiltration and Extraction facility to the Santa Ana River would be reduced from approximately 35.7 mgd (40,000 acre-feet per year), in phases, to approximately 11.9 mgd (13,300 acre-feet per year). The Petitioner also proposes to expand its service area to provide surplus recycled water to additional customers, for municipal and irrigation uses.

2b

Since the project will result in decreasing the flow to the Santa Ana River, on April 28, 2010, the Petitioner filed Wastewater Change Petition WW0059 (Petition), seeking water rights approval for the project, in accordance with Water Code section 1211. The State Water Board published public notice of the Petition on June 14, 2010, and received protests based on environmental, public trust, public interest and prior rights concerns.

2c

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov



Recycled Water Policy

The State Water Board has a Policy for Water Quality Control for Recycled Water (Recycled Water Policy), originally adopted on February 3, 2009 and amended on January 22, 2013. The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources, and one of the goals for California, as stipulated in the Recycled Water Policy, is to increase the use of recycled water over 2002 levels by at least one million acre-feet per year by 2020, and by at least two million acre-feet per year by 2030. The Petitioner's project, as proposed in the Petition, appears to be consistent with the purpose of the Recycled Water Policy, and should help California meet the goals of the Recycled Water Policy.

3

Impacts to Instream Resources and Riparian Habitat

The State Water Board is a California Environmental Quality Act responsible agency for purposes of considering whether to approve the Petition. As such, the State Water Board must consider the environmental documentation prepared by the lead agency, and any other relevant evidence in the record, and reach its own conclusions on whether and how to approve the project involved. (Cal. Code Regs., tit. 14, § 15096, subd. (a).) Before the State Water Board can approve the Petition, it must find that the project will not cause injury to other lawful users of water, nor have any adverse impacts on water resources within the State Water Board's purview for the Petition. In addition to any obligation the State Water Board may have under CEQA, the State Water Board has an independent obligation to consider the effect of the proposed change on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 [189 Cal.Rptr. 346].)

4a

The State Water Board recognizes the potential of the project to adversely affect instream and other public trust resources. In particular, the State Water Board is concerned about the effects of the flow reductions on the Santa Ana Sucker and its habitat. Since 1996, recycled water has been discharged from RIX into the Santa Ana River, maintaining continuous flows in this reach of the river, and providing habitat for the Santa Ana Sucker population. To assess the potential impacts of the flow reductions on the sucker, the DEIR summarizes the results of Petitioner's Clean Water Factory Low Flow study, which included a characterization of the hydrology downstream of the discharges, modeling of the effects of the reduction in flows on Santa Ana Sucker habitat, and an examination of the flows required to maintain cobble substrate. The study examined the effects of the proposed flow reductions in 5 phases, each modeled at the end of a 5 year time increment. The study recognized that changes of less than 10 percent in stream depth, width or available habitat are within the range of natural variability and thus would be unlikely to result in adverse effects to sucker habitat that would be measurable or of perceptible consequence to the species. Thus, changes of less than ten percent were described as having "no impact".

4b

The State Water Board supports a phased approach to discharge reduction at the RIX facility. Such an approach enables the design and implementation of a biological monitoring and adaptive management approach to effectively manage the stream environment through the various phases of flow reduction. The State Water Board supports the development and implementation of an Adaptive Management Plan (AMP), as recommended in MM BIO-7, to monitor and protect the in-stream and adjacent riparian habitat of designated reaches of the Santa Ana River. The AMP should be prepared in consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, and be sufficiently flexible to allow

4c

Delta Wetlands Properties
c/o David Forkel

- 3 -

JUN 08 2016

for increased discharges or other adequate measures when needed to maintain Santa Ana sucker and other instream resources in good condition.

4c
Cont.

It appears, as proposed in the draft EIR that the AMP will be implemented for Study Reaches 2 and 3 beginning with Phase 2 of the Project, adding Study Reach 1 at the beginning of Phase 4 of the Project. The draft EIR should clearly state this information.

4d

The draft EIR provides that implementation of MM BIO-7 would reduce impacts to Santa Ana sucker to less than significant, but does not include specific performance measures to be used in the AMP to determine whether the measures implemented would adequately address the potential adverse impacts to the Santa Ana sucker. The draft EIR should be updated to include these specific performance measures.

4e

Lawful Users of Water

The State Water Board must also make a determination as to whether the proposed project has the potential to cause injury to other lawful users of water, including both holders of post-1914 appropriative rights and adjudicated rights to groundwater. Although the draft EIR acknowledges the Petitioner's obligations pursuant to various dismissal agreements relating to the Western Judgment (*Western Municipal Water District of Riverside County v. East San Bernardino County Water District*, Superior Court of Riverside County, Case No. 78426 [April 17, 1969]) and the Orange County Judgment (*Orange County Water District v. City of Chino et. al*, Orange County Superior Court, Case No. 117628, [April 17, 1969]), the draft EIR lacks specificity with respect to the extent to which the rights of lawful users of water in the basin could be affected by the project, and how potential injury to their water rights is being addressed in the project proposal. Further detail concerning the impacts of the project on prior water right holders should be included in the draft EIR.

5a

5b

If you have any questions, please contact Mitchell Moody at (916) 341-5383 or mitchell.moody@waterboards.ca.gov. Written correspondence or inquiries should be addressed as follows: State Water Resources Control Board, Division of Water Rights, Attn: Mitchel Moody, P.O. Box 2000, Sacramento, CA, 95812-2000.

6

Sincerely,

ORIGINAL SIGNED BY:

Matt McCarthy, Senior
Coastal Lahontan Unit
Division of Water Rights

ec: Kurt Berchtold
Santa Ana Region
Regional Water Quality Control Board
kurt.berchtold@waterboards.ca.gov

Joanna Gibson
Inland Deserts Region
California Department of Fish and Wildlife
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**RESPONSE TO COMMENT LETTER D: STATE WATER RESOURCES CONTROL BOARD,
DIVISION OF WATER RIGHTS, MATT MCCARTHY, SENIOR*****Response to Comment D1.***

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides a general introduction. Responses to specific comments are provided below; no further response is required.

Response to Comment D2a.

This comment provides information about the State Water Resources Control Board's responsibility under Water Code section 1211. There are no comments raised about the Draft EIR. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment D2b.

This comment summarizes major features of the proposed Project and raises no comments on the Draft EIR. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment D2c.

This comment provides information about the proposed Change Petition (WWW0059) and process and raises no comments on the Draft EIR. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment D3.

This comment indicates that the Project appears to be consistent with the State's Recycled Water Policy and raises no comments on the Draft EIR. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment D4a.

Provides general information on the State Water Resources Control Board's role as a responsible agency, and raises no comments on the Draft EIR. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment D4b.

This comment summarizes the Project's potential flow reductions, raises a general concerns potential impacts to instream and other public trust resources including the Santa Ana sucker, and describe some of the analysis conducted for the Project. Project impacts to the Santa Ana sucker are fully evaluated in the Draft EIR Section 4.4 Biological Resources, and are supported by a series of hydrologic and flow studies.

Response to Comment D4c.

This comment supports a phased approach to discharge reduction, and identifies the benefits of this approach. This comment further supports the development and implementation of an Adaptive Management Plan consistent with Mitigation Measure BIO-7, and in consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. SBMWD acknowledge that these comments are consistent with the proposed approach for Project implementation. Also see revised Mitigation Measure BIO-7 in Section 3.0 *Errata to the Draft EIR*.

Response to Comment D4d.

The comment suggests that the proposed Adaptive Management Plan would be implemented for Study Resches 2 and 3 beginning with Phase 2 of the Project, and add Study Reach 1 at the beginning of Reach 4, and suggests that this topic be clarified in the EIR. The Draft EIR indicates that measureable and potentially significant impacts will not occur until Phase 2 for Reaches 2 and 3. For Reach 1, measureable and significant impacts are not expected until Phase 4. However, an effective Adaptive Management Plan does not wait until a potential adverse effect is imminent before starting the baseline monitoring and tracking of changes. Instead, that would begin with Project implementation for all three reaches in order to better define the conditions against which future changes will be measured. Also see revised Mitigation Measure BIO-7 in Section 3.0 *Errata to the Draft EIR* herein.

Response to Comment D4e.

SBMWD acknowledges the importance of having an Adaptive Management Plan in place. That said, the demand for a finished Adaptive Management Plan prior to permitting is not necessarily in keeping with what should be a collaborative effort between SBMWD and various stakeholders to preserve the Santa Ana sucker in a fully-managed urban stream.

As discussed in the Draft EIR, there is a lack of information about the precise ways in which the Santa Ana River ecosystem or the Santa Ana sucker will respond to the phased reduction in discharge of treated wastewater, which itself is a relatively new condition, having occurred only since 1996. SBMWD is in the process of preparing a robust and impact-specific Adaptive Management Plan based on the best available data regarding native fish habitat suitability modeling and trends in discharge and infiltration in Santa Ana sucker-occupied reaches below the RIX Facility, and has revised Mitigation Measure BIO-7 to better describe the specific performance measures will be developed and monitored in conjunction with sucker response. Revised Mitigation Measure BIO-7 specifies the SBMWD's commitment to monitor change and respond so that the Project does not result in adverse effects to the Santa Ana suckers or their habitat and clearly specifies the types of actions that can be taken, if needed, which satisfies CEQA's requirements for mitigation. Moreover, the Draft EIR includes Mitigation Measure BIO-8, which commits the SBMWD to engage in consultation under the federal Endangered Species Act, a process that is designed to ensure protection of listed species and their habitat, and to implement all conditions imposed on the Project as a result on consultation under the Endangered Species Act. For the reasons listed above, SBMWD affirms that revised Mitigation Measure BIO-7 and Mitigation Measure BIO-8 are adequate for satisfying CEQA's requirements for mitigation.

See revised Mitigation Measures BIO-7 and BIO-8 in Section 3.0 *Errata to the Draft EIR*.

Response to Comments D5a and D5B.

The comment indicates that the Draft EIR “lacks specificity with respect to extent to which the rights of lawful water users in the Basin would be affected by Project implementation.”

The purpose of an EIR is to evaluate a proposed Project’s potential impacts to the physical environment. The Draft EIR does not evaluate or reach a determination on legal issues such as injury to water rights. The appropriate forum for addressing effect of injury to legal users of water is the State Water Resources Control Board, where SBMWD has filed a wastewater change petition in support of the Project. On its website, the State Water Resources Control Board provides guidance regarding the issues that should be evaluated in a CEQA document to enable the Division of Water Rights to act on a wastewater change petition. There the State Water Resources Control Board identifies that the CEQA document should “identify the extent, if any, to which fish and wildlife would be affected by the change and a statement of any measures to be taken for the protection of fish and wildlife in connection with the change. Therefore, the CEQA document must include an evaluation of any impacts from the reduced flows. Depending on the individual situation, the Division’s review may also require evaluation of other impacts, such as secondary impacts from changing water uses, and groundwater recharge.”²

Draft EIR Section 4.4 includes an extensive analysis of the Project’s potential impacts to fish and wildlife, as well as mitigation measures to ensure that impacts would not be significant. Draft EIR Section 4.7 also evaluates the Project’s potential to affect surface and groundwater quality. Further, the Draft EIR acknowledges SBMWD’s intent to continue to perform under its agreement with the San Bernardino Valley Municipal Water District to discharge a minimum of 16,000 acre feet per year of effluent to the Santa Ana River; refer to Draft EIR page 3.0-4. Under State law, SBMWD owns the exclusive right to the wastewater it treats. As noted on Draft EIR page 6.0-21, 100 percent of SBMWD’s water supply is groundwater from the Bunker Hill Groundwater basin, which is considered “foreign” water. Thus, no downstream entity may claim a right to the amount of treated effluent corresponding to that treated groundwater, or suffer legal injury by the City’s use of that water for recycling rather than discharge.

As discussed in Draft EIR Section 3.1.1, water rights in the Santa Ana River watershed were determined in stipulated judgments of the Superior Courts of Orange County and Riverside County that require maintenance of certain minimum flows in the Santa Ana River and the replenishment of groundwater basins to maintain certain water levels. By recharging groundwater basins, the Project will have a beneficial impact on groundwater resources and will not adversely affect legal users of groundwater. The Project also will not cause minimum flows in the Santa Ana River to fall below those specified in the stipulated judgments. The Draft EIR evaluated potential water quality effects of the discharge reduction and found that the Project would not adversely affect water quality in the Santa Ana River or groundwater. For these reasons, the Project would not result in injury to legal users of water.

Response to Comment D6.

This comment serves as the conclusion to the letter and provides contact information. SBMWD appreciates and values your comments during the EIR participation process. Responses to specific comments are provided above; no further response is required.

² State Water Resources Control Board Website, “Wastewater Change Petition,” http://www.swrcb.ca.gov/waterrights/water_issues/programs/applications/wastewaterchange/index.shtml. Accessed July 19, 2016.

COMMENT LETTER E: SAN BERNARDINO COUNTY, ENVIRONMENTAL MANAGEMENT DIVISION, HAROLD ZAMORA, PE, CHIEF

COMMENT LETTER E

825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.7876

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Department of Public Works

Environmental & Construction • Flood Control
Operations • Solid Waste Management
Surveyor • Transportation

Gerry Newcombe
Director

May 27, 2016

City of San Bernardino
John Claus, Director of Water Reclamation
399 Chandler Place
San Bernardino, CA. 92408
John.claus@sbmwd.org

File: 10(ENV)-4.01

RE: CEQA - NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CLEAN WATER FACTORY PROJECT FOR THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Dear Mr. Claus:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on April 29, 2016** and pursuant to our review, the following comments are provided:

Permits/Operations Support Division (Melissa Walker, Chief, 909-387-7995):

1. Any works affecting the San Bernardino County Flood Control District (District) right-of-way would need a Flood Control Permit since this right-of-way is for Twin Creek system which is an existing facility.

Flood Control Planning Division (David Lovell, PWE III, 909-387-7964):

1. Any encroachments on District facilities, built by the US Army Corps of Engineers (USACE), will require the District to obtain approval (408 Permit) from the USACE.
2. The existing water spreading agreement between the City of San Bernardino Municipal Water District (SBMWD) and the District may need to be amended prior to the issuance of a permit for the proposed activity within District right-of-way.
3. The proposed alternative alignment "Alabama St. Effluent Pipeline" is proposed to cross protected habitat for endangered species within District right-of-way.

Environmental Management Division (Kim Romich, Ecological Resource Specialist, 909-387-7971):

1. Five technical studies associated with the Clean Water Factory Project (Project) were performed to determine whether the reduction in water discharge from the RIX facility has the potential to

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adversely affect sensitive species. In particular, the study area identified as Study Area 1 (SA-1), located from Rialto Drain downstream to 0.6 miles downstream of Riverside Avenue, is owned and maintained primarily by the District. Within this reach, three factors, streamflow velocity, wetted width, and changes in depth, were modeled for changes from 'baseline'. Historic aerially photographs were analyzed from 1938-1977 to review the baseline conditions for the Santa Ana River (WEI 2013a). The system has been, and continues to be, manipulated. Water and vegetation management are just a few examples that may need to also be considered when determining baseline conditions for the Project.

4a
Cont.

2. Seven Oaks Dam, located within the headwaters of the Santa Ana River, was constructed between 1993 and 2000. The dam greatly changed the water regime of the river by being designed to completely contain a 'Reservoir Design Flood' of 85,000 cubic feet per second (2,400 m³/s), corresponding to a 350-year flood event. Furthermore, the peak outflow has been reduced to 7,000 cubic feet per second (200 m³/s). Controlled releases from the dam currently allow approximately 10,000 acre feet (0.012 km³) of additional groundwater recharge in the upper Santa Ana River basin each year. As water needs increase, these flows may be further regulated, resulting in an additional loss of available water and sediment transport.

4b

3. Until recently, arundo (*Arundo donax*) was a major component of the Santa Ana River watershed. Arundo has been shown to contribute to the loss of surface flows and groundwater recharge through the plant's heavy consumption and rapid transpiration. A recent study measured water consumption in streambeds with dense colonies of arundo at 24-48 ac. ft. per acre. In addition, arundo can obstruct the floodplain's ability to evenly dissipate flood energy, leading to dramatic alteration and instability within the stream channel. Beginning in 2002, the Santa Ana Watershed Authority began a comprehensive eradication effort that included identification and mapping of exotic species, initial biomass removal, post treatment, and intensive biological surveying during all stages of eradication. Since this program commenced, the acreage of arundo within the Project's SA-1 has decreased dramatically over the years. Thus, not only could the water table level, but the water flow path, fluctuate depending on the arundo removal effort.

4c

4. The EIR mitigation measures to ensure certain sensitive species were not significantly impacted by the Project. A table that lists the species, along with the mitigation measures proposed to offset the direct and indirect impacts may be helpful in organizing the document. After reviewing the mitigation measures proposed, the following comments are being provided for each listed species.

4d

Least Bell's Vireo

It was concluded that the least Bell's vireo would not be significantly affected if construction is performed outside of nesting bird season (BIO-5) and nesting surveys are performed and avoidance measures are implemented (BIO-6). In addition, indirect impacts would be offset thorough mitigation measures BIO-4, BIO-6, BIO-7, BIO-9, BIO-10, and BIO-11.

5a

The phased reduction in flows from RIX would result in loss to wetted width in the Santa Ana River (less than 5% for Reaches 1 and 3 for all five phases and up to 13% through Phase 5 for Reach 2). It is unclear on how the reduction of wetted channel equates to a loss in the water table and riparian acreage. Regardless, it was concluded that the change in the wetted channel is within the range of natural variation; and thus, is expected to have a less than significant

5b

effect on the riparian plant community. It should be noted that past surveys conducted within SA-1 detected 14 territories of least Bell's vireo, resulting in 14 fledglings being observed (San Bernardino County, 2010). Reducing the availability of suitable habitat may indirectly impact these territories and should be addressed.

5c

Santa Ana Sucker

The Project impacts to Santa Ana sucker were based on the modeled changes in hydrologic conditions and resulting changes in the amount of useable sucker habitat. Furthermore, it was concluded that:

6a

"Changes less than 10% were recognized as being within the range of natural variability and thus unlikely to result in adverse effects to sucker habitat that would be measurable or of perceptible consequence to the species. Changes of less than 10 percent were described as having "no impact." Changes from 10 to 25% were characterized as potentially measureable, but not substantial, likely not outside the range of natural variability, and described as having "less than significant impact. Changes greater than 25% were considered to be measurable, substantial or potentially substantial, outside the range of natural variability, and were described as having "potentially significant impact."

A clear rationale on how these significant levels were determined should be provided. It was also concluded that the reduction in adult sucker useable habitat from baseline conditions for SA-1 was 2.7%, 6.8%, 12.5%, 19.7% and 27.6% for Phases 1 through 5, respectively. Juvenile useable habitat did not exceed a 10% reduction from baseline until Phase 4. Thus, it was determined that:

6b

"The greater negative impact designations in the later phases are largely associated with reduction in depth which would indicate that depth is important habitat variability in influencing sucker abundance."

Nearly one-third reduction in the adult population to a species that is already limited in distribution and individuals may contribute further to genetic bottle necking and may contribute to be interpreted as jeopardizing the species. In addition, it should be recognized that phasing the reduction of water is just one aspect that was considered. Currently, the RIX facility has routine maintenance activities that require the water to be shutoff for extended periods of time. This has resulted in large numbers of suckers being stranded and killed. Whether this maintenance will continue, or worsen, with the phase reduction should be addressed.

6c

Environmental Management Division (Marc Rodabaugh, Stormwater Program Manager, 909-387-8112):

1. The Project proponent needs to indicate in their EIR (Hydrology and Water Quality Section) that they will comply with the City's Water Quality Management Plan requirements (development and implementation) for the proposed expansion of the treatment facility.

7

Traffic Division (Ed Petre, PWE III, 909-387-8239):

1. The Traffic Division recommends circulating the construction traffic management plan for our review when available

8

John Claus City of San Bernardino
CEQA – NOA Draft EIR Clean Water Factory Project
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Page 4 of 4

If you have any questions, please contact the individuals who provided the specific comment, as listed above. 9

Sincerely,



HAROLD ZAMORA, P.E., Chief
Environmental Management Division

HZ:PE:sr

RESPONSE TO COMMENT LETTER E: SAN BERNARDINO COUNTY, ENVIRONMENTAL MANAGEMENT DIVISION, HAROLD ZAMORA, PE, CHIEF

Response to Comment E1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information. Responses to specific comments are provided below; no further response is required.

Response to Comment E2.

The commenter notes that the Project will require a Flood Control Permit for any work affecting the San Bernardino County Flood Control District (District) right-of-way. The Draft EIR acknowledges that an agreement between SBMWD and the District will be necessary to define the operational and maintenance requirements to ensure acceptable flood control function of the Waterman Basins and East Twin Creek Spreading Grounds; refer to Table 3.0-9, *Anticipated Agreements, Permits and Approvals for the Project.* This comment is duly noted.

Response to Comment E3a.

The commenter notes that any Project will require a Rivers and Harbors Act Section 408 permit from the United States Army Corps of Engineers (Corps) for any work occurring on District facilities that were built by the Corps. This comment is duly noted. SBMWD will consider this information during Project deliberations. A section 408 permit is identified as one of the anticipated approvals required for the Project in Table 3.0-9 of the Draft EIR; refer to Draft EIR page 3.0-39.

Response to Comment E3b.

The commenter notes that the existing water spreading agreement between the District and SBMWD may need to be amended prior to permit issuance for activities within District right-of-way. This comment is noted.

Response to Comment E3c.

The commenter notes that the proposed Alabama Street Effluent Pipeline would encroach on protected habitat for endangered species within District right-of-way. The Draft EIR acknowledges that the Alabama Street Effluent Pipeline alignment option would encroach upon protected habitat for endangered species; refer to Draft EIR Section 6.0, *Alternatives to the Proposed Action* and Appendix 10.10.1, *Habitat Assessment for the Alabama Street Effluent Pipeline/Redlands Basin Alignment Option for the Clean Water Factory Project.* In order to minimize impacts to the habitat conservation area, Mitigation Measure ASEP-1 is proposed to avoid significant adverse impact to sensitive species, including San Bernardino kangaroo rat and Santa Rana River woolly star and others, that are known to occur within the conservation management area; refer to Draft EIR page 6.0-14. Mitigation Measure ASEP-1 requires coordination with the San Bernardino International Airport Authority.

Response to Comment E4a.

SBMWD is not aware of any current proposal to reduce flows released from the Seven Oaks Dam; thus this scenario is not considered reasonably foreseeable and is not addressed specifically in the cumulative impact analysis. Any impacts from a proposal to reduce flows below Seven Oaks Dam would need to be considered by the agencies with approval authority over the change in operations (e.g., the local flood control districts that operate the dam). To the extent this comment indicates that the Santa Ana River is highly manipulated system and that water and vegetation management are just a few examples that need to be considered when determining baseline conditions, SBMWD agrees. These conditions will also be further characterized in conjunction with the Adaptive Management Plan required by revised Mitigation Measure BIO-7. See revised Mitigation Measure BIO-7 in Section 3.0 *Errata to the Draft EIR*.

Response to Comment E4b.

Reduced surface water flows in the Santa Ana River do not mean the operation of the RIX Facility at the reduced discharge levels proposed for the Project will not have the capacity to scour a sand blanket off the cobble substrate in the biologically sensitive Reaches 1 and 2 between the RIX Facility and Mission Ave. Reduced river flows below the Seven Oaks Dam reduce the potential for upstream river bed erosion and bedload transport, which in turn reduces the likelihood that a sand blanket will form over the cobble beds in the inset channel of Reaches 1 and 2. In addition, the scour modeling performed for the Draft EIR included scenarios when base flows in the inset channel of Reach 2 are as little as 3.23 mgd (6.0 cfs). That small amount of base flow is only 5% of the discharge capacity of the RIX Facility yet the modeling demonstrated that under those circumstances and even if base flow went to zero, the RIX Facility has sufficient capacity to scour a sand blanket in Reaches 1 and 2 during a time of biological necessity.

Response to Comment E4c.

The commenter provides information related to arundo in the Santa Ana River watershed, and potential impacts of the species to surface flow and groundwater recharge. Consideration of arundo removal will be a component of the Adaptive Management Plan required by Mitigation Measure BIO-7, and is a consideration of the proposed Project addressed in the Draft EIR; refer to page 4.1-6 and revised Mitigation Measure BIO-7. See revised Mitigation Measure BIO-7 in Section 3.0 *Errata to the Draft EIR*.

Response to Comment E4d.

San Bernardino County Environmental Division suggests that a table be developed that lists species, mitigation measures to offset direct and indirect impacts, as a means to better organize the Draft EIR. A species list is already included in the Draft EIR, and impacts and mitigation are sufficiently described in the impact analysis.

Response to Comment E5a.

This comment provides information from the Draft EIR regarding the Project's identified impacts to Least Bell's vireo. Responses to specific comments are provided below; no further response is required.

Response to Comments E5b and E5c.

The comment indicates that the Draft EIR should be revised to address how reducing the available Least Bell's vireo habitat may indirectly impact species. The relationship between reduced discharges and loss

of wetted width is not a linear or direct relationship. For example, with the maximum reduction of 52% at Phase 5, the change in wetted width in Reach 1 is only 5%, 7% in Reach 3 and 13% in Reach 2. How the change in wetted width relates to changes in groundwater and riparian habitat is also not likely a linear or direct relationship. Correlating groundwater levels with flow rates in the River is needed as part of the Adaptive Management Plan but has not been modeled. It will be key to the success of the Adaptive Management Plan that the relationship between those two hydrologic features be understood for each reach of the river as well as within each reach. Similarly, the riparian habitats in the Santa Ana River are highly adapted to the harsh and dynamic nature of changing flows in the river environment. Understanding this relationship will be part of the ongoing biological monitoring program and an important part of the adaptive management process. SBMWD is committed to developing a robust Adaptive Management Plan process that will become the foundation of a regional management program for not only the instream habitats but also for understanding the complexities of the hydrologic and ecological processes that influence the riverine, riparian and surrounding upland habitats; refer also to revised Mitigation Measure BIO-7 (see Section 3.0 *Errata to the Draft EIR*), which has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. The fact that Least Bell's vireo have been seen in the River, which is a dynamic environment with a history of significant fluctuations in flows, show that Least Bell's vireo are capable of adapting to changed circumstances within the range of historical effect. The Adaptive Management Plan proposes a mechanism by which flows, habitat and species response would be monitored and Project operations modified if needed to avoid significant impacts to sensitive species and their habitat. Further, Mitigation Measure BIO-8 is proposed to require Section 7 consultation with the USFWS in conjunction with CWA permitting (Section 404) for the loss and adverse modification of Least Bell's vireo Critical Habitat; refer to Draft EIR page 4.4-74. Although 14 Least Bell's vireo territories occur within Reach 1, the phasing approach and adaptive management measures, as well as the Draft EIR's analyses of impacts on riparian habitats and relevant mitigation measures, support the Draft EIR's determination that impacts to Least Bell's vireo would be less than significant.

Response to Comment E6a.

This comment provides general information from the Draft EIR regarding the Project's identified impacts to Santa Ana sucker. Responses to specific comments are provided below; no further response is required.

Response to Comment E6b.

The natural range of variability is arbitrary in any Environmental Impact Statement (EIS) or EIR, because in nearly all cases, the "natural range of variability" is unknown for a given species in a given system. Fish populations can fluctuate by as much as an order of magnitude between years, as is evidenced with the Santa Ana sucker population data. Furthermore, the link between habitat variability and population variability is rarely linear or tightly correlated.

Response to Comment E6c.

This comment mentions a "nearly one third reduction in the adult population." This reduction actually referred to a change in habitat, not a change in populations. The relationship between habitat changes and population responses is not one-to-one. For example, while the shutdowns are a major disturbance to the Santa Ana sucker, the species has persisted despite them. As discussed in Section 4.4, SBMWD is in the process of making improvements to its facility to reduce the need for shutdowns, and mitigate the

effects of any shutdowns that do occur, and thus, would not be a consideration in the long-term. Refer to Draft EIR page 4.4-82 as well as Mitigation Measure BIO-14.

Response to Comment E7.

The commenter requests that the EIR Section 4.7, Hydrology and Water Quality is revised to clarify that the RIX Facility expansion proposed under the Project would be required to demonstrate compliance with the City's Water Quality Management Plan requirements. Section 8.80.501 of the City's Stormwater Ordinance describes those projects subject to Storm Water Quality Management Plan (WQMP) requirements, and is generally applicable to development projects that would result in a sufficient increase in impermeable surfaces. Given the lack of structures and hardscapes associated with the Project, it is unlikely to trigger the need for a WQMP.

Response to Comment E8.

The commenter requests circulation of the Project's Traffic Management Plan (TMP) when available. The City will provide the County with a copy of the TMP when it is available. This comment is duly noted. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment E9.

This comment serves as the conclusion to the letter. SBMWD appreciates and values your comments during the EIR participation process. This comment provides general contact information. Responses to specific comments are provided above; no further response is required.

COMMENT LETTER F: INLAND EMPIRE UTILITIES AGENCY, CHRIS BERCH, PE, BCEE, EXECUTIVE MANAGER OF ENGINEERING/ASSISTANT GENERAL MANAGER



COMMENT LETTER F

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TEL (909) 993-1600 • FAX (909) 993-1985
www.ieua.org

Sent Via Email to: John.Claus@SBMWD.org

June 6, 2016

John A. Claus
Director of Water Reclamation
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, CA

RE: IEUA Response to Public Comment Request for Clean Water Factory Project Draft EIR

Dear Mr. Claus:

Inland Empire Utilities Agency (IEUA) has reviewed the City of San Bernardino Municipal Water Department (SBMWD) Clean Water Project Draft Environmental Impact Report (EIR) dated April 2016. As IEUA is mentioned throughout the document as a potential customer of the Clean Water Factory Project and in Mitigation Measure BIO-7, IEUA would like to offer the following comments.

1

As described, the project is the expansion of the SBMWD treatment plant (in the Bunker Hill Basin) to meet its 2035 projected demands. The expansion would include 5 million gallons per day (MGD) of added tertiary treatment capacity and three 5-MGD phases of membrane bioreactors (total 15 MGD). The project will be built in phases and remove up to a total of 17.9 MGD of recycled water from the RIX project downstream on the Santa Ana River. The project includes components for delivery to IEUA for direct use and groundwater recharge. A conveyance pipeline to IEUA and the Chino Basin is shown in the draft EIR generally oriented east to west from the RIX facility predominantly along Jurupa Avenue to IEUA's RP3 basin in Fontana. Inclusion of recycled water sources external to the Chino Basin is consistent with IEUA planning documents, such as the 2010 Recharge Master Plan.

2

The Draft EIR recognizes it will: 1) reduce flows in the Santa Ana River, 2) can impact the accounting of the Santa Ana River Watermaster, 3) can impact sucker habitat, and 4) can impact riparian habitat. It offers operational mitigation controls and SBMWD is preparing an Adaptive Management Program.

Water Smart – Thinking in Terms of Tomorrow

Terry Catlin
President

Michael E. Camacho
Vice President

Steven J. Elie
Secretary/Treasurer

Gene Koopman
Director

Jasmin A. Hall
Director

P. Joseph Grindstaff
General Manager

Mr. John A. Claus
Page 2
June 2, 2016

The draft EIR states:

The Inland Empire Utilities Agency is in the process of implementing biological monitoring and adaptive management program for Prado Basin for ensuring that riparian habitats in the basin, as well as the upstream riparian areas, are not affected by groundwater pumping. Mitigation Measure BIO-7 will seek to coordinate results gathered by IEUA with the SBMWD's long-term monitoring efforts for riparian habitats in Study Reaches 1 through 3, as well as any required adaptive management measures needed to address potential impacts to Santa Ana sucker habitats in the Santa Ana River. Mitigation Measure BIO-8, would require Section 7 consultation with the USFWS in conjunction with Clean Water Act permitting (Section 404).

2
Cont.

IEUA would like the Final EIR to clarify that the Prado Adaptive Manage Plan (AMP) developed by IEUA and Chino Basin Watermaster is for monitoring the impacts of pumping the Chino Desalter well fields to create hydraulic control of the Chino Basin on the Prado Basin water levels along its northern margin. The Prado AMP is not "for ensuring that . . . upstream riparian areas [along the Santa River], are not affected by groundwater pumping" from other projects such as those impacted by operation of the RIX or Clean Water Factory projects. The reference to "upstream riparian areas" in the Prado AMP is for the areas of Chino and Mill Creeks, which originate from the north of Pardo Basin within the Chino Basin. In reference to the Prado AMP, IEUA would also like the Final EIR to also clarify that while IEUA participated in the capital development of the Prado AMP with Chino Basin Watermaster, implementation of the annual plan is the responsibility of the Chino Basin Watermaster.

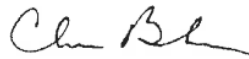
3a

3b

Thank you for giving IEUA the opportunity to provide comments to the draft EIR for the Clean Water Factory Project.

4

Sincerely,
Inland Empire Utilities Agency



Chris Berch, P.E., BCEE
Executive Manager of Engineering/Assistant General Manager

RESPONSE TO COMMENT LETTER F: INLAND EMPIRE UTILITIES AGENCY, CHRIS BERCH, PE, BCEE, EXECUTIVE MANAGER OF ENGINEERING/ASSISTANT GENERAL MANAGER

Response to Comment F1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information, and indicates that Inland Empire Utilities Agency (IEUA) is identified as a potential customer of the Project in the Draft EIR. Responses to specific comments are provided below; no further response is required.

Response to Comment F2.

This comment provides general background information regarding the Clean Water Factory Project components and findings of the Draft EIR. Responses to specific comments are provided below; no further response is required.

Response to Comments F3a and 3b.

These comments requests that the Final EIR is revised to clarify the purpose of the Prado Adaptive Management Plan, and to clarify that implementation of the Prado Adaptive Management Plan is the responsibility of the Chino Basin Watermaster. The requested clarifications have been made to the Regional Water Supply Projects section of the Draft EIR Section (page 4.4-77) and are reflected below and in Section 3.0 *Errata to the Draft EIR*.

The Inland Empire Utilities Agency (IEUA) and Chino Basin Watermaster developed the 2016 Adaptive Management Plan for the Prado Basin Habitat Sustainability Program (2016 AMP) to monitor the impacts of pumping the Chino Desalter well field to create hydraulic control of the Chino Basin on the Prado Basin water levels along its northern margin ~~is in the process of implementing biological monitoring and adaptive management program for Prado Basin for ensuring that riparian habitats in the basin, as well as the upstream riparian areas, are not affected by groundwater pumping.~~ Implementation of the Prado AMP is the responsibility of the Chino Basin Watermaster. Mitigation Measure BIO-7 will seek to coordinate results gathered by IEUA the Chino Basin Watermaster with the SBMWD's long-term monitoring efforts for riparian habitats in Study Reaches 1 through 3, as well as any required adaptive management measures needed to address potential impacts to Santa Ana sucker habitats in the Santa Ana River. Mitigation Measure BIO-8 would require Section 7 consultation with the USFWS in conjunction with Clean Water Act permitting (Section 404).

This change provides a minor update, correction, or clarification and does not represent "significant new information" as defined in CEQA Guidelines Section 15088.5.

Response to Comment F4.

This comment serves as the conclusion to the letter. SBMWD appreciates and values your comments during the EIR participation process. No further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

COMMENT LETTER G: CITY OF RIVERSIDE PUBLIC UTILITIES, TODD JORGENSON, ASSISTANT GENERAL MANAGER/WATER



City of Arts & Innovation

COMMENT LETTER G

June 7, 2016

John A. Claus
Director of Water Reclamation
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, CA 92408

RE: Clean Water Factory Project – Draft Environmental Impact Report Comments

Dear Mr. Claus:

The City of Riverside provided comments to the City of San Bernardino's Notice of Preparation of an Environmental Impact Statement/Environmental Impact Report for the Clean Water Factory Project on December 8, 2014. Riverside expressed 3 concerns in the NOP comment letter and after reviewing the DEIR, Riverside remains concerned with all three items and incorporates, by reference, all of the comments raised in our December 8, 2014 letter. Two of the items pertain to the 1969 Judgment in Western Municipal Water District, et al. v. East San Bernardino County Water District, et al., (Superior Court No. 784726) and the companion judgment in Orange County Water District v. City of Chino, et al. (Superior Court No. 117628). The third item pertains to the impact of the project on Riverside's groundwater production facilities located in the Riverside Basin.

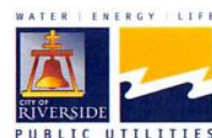
The City of San Bernardino's Commitment to Discharge 16,000 acre-feet annually

The City of San Bernardino has an agreement with San Bernardino Valley Municipal Water District (Valley District) to discharge 16,000 acre-feet of municipal effluent under the Judgment. This commitment protects Valley District's obligation at the Riverside Narrows and protects the area as a major source of groundwater supply available to satisfy the historic extractions therefrom for use within Riverside County.

The Project Description explains that the project will reduce the RIX discharge in a phased approach and will continue to have a minimum discharge of 13.4 MGD (approximately 15,000 acre-feet annually), which is less than the 16,000 acre-foot commitment made by the City of San Bernardino. Furthermore, the 13.4 MGD of RIX discharge will consist of effluent originating from the City of Colton and Loma Linda, in addition to the City of San Bernardino. The Cities of Colton and Loma Linda do not have commitments to discharge under the Judgment. Riverside needs assurance that discharge commitments and obligations specific to the Judgment will continue to be met now and into the future.

Riverside Public Utilities • Administration

3750 University Avenue, 3rd floor • Riverside, CA 92501 • 951.826.2135 • RiversidePublicUtilities.com



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Riverside North Export

The City of San Bernardino proposes to export water from RIX for use on lands not within Western Municipal Water District or tributary to the Riverside Narrows. This export will include effluent and groundwater originating from the Riverside North groundwater basin. The DEIR failed to fully explain how this export is permissible under the Judgment, which Riverside requested in its NOP comment letter.

4

Groundwater Recharge Impacts

Riverside remains concerned about how the project may impact its groundwater production facilities located in the Riverside Basin (North and South basins). The proposed project plans to greatly reduce a discharge which has historically and currently provides recharge to the Riverside Basin. Impact 4.7-2 of the DEIR found that the project will have a less than significant impact for substantially depleting groundwater supplies or interfering with groundwater recharge. However, the DEIR did not provide any analysis to support this claim. Furthermore, the DEIR did not provide appropriate mitigation measures should the project have an impact to Riverside Basin and the production wells located within the basin.

5a

5b

Riverside acknowledges that the Clean Water Factory is a regional water supply project that can have multiple benefits to the City of San Bernardino and to the Bunker Hill Basin. Riverside applauds the City of San Bernardino for their commitment to groundwater management and looks forward to working with the City of San Bernardino to address our concerns.

6

Sincerely,



Todd L. Jorgenson
Assistant General Manager/Water
Riverside Public Utilities

RESPONSE TO COMMENT LETTER G: CITY OF RIVERSIDE PUBLIC UTILITIES, TODD JORGENSEN, ASSISTANT GENERAL MANAGER/WATER

Response to Comment G1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment is duly noted. Although the comment notes specific concerns in regards to the adequacy of the EIR, it serves as an introduction to the comments addressed in more detail in the following sections of the letter. Refer to the responses below which address the in-depth explanation of concerns listed in the letter.

Response to Comment G2.

This comment provides general introductory information regarding the existing agreement between SBMWD and San Bernardino Valley Municipal Water District (Valley District) to discharge 16,000 AFY under the Western Judgment. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Responses to specific comments are provided below; no further response is required. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment G3.

The commenter requests assurance that SBMWD's discharge commitments and obligations stipulated under the Western Judgment (16,000 AFY) would continue to be met with Project implementation. As explained within an expansive footnote related to discussion of the Western Judgment within Section 3.1.3, even with full implementation of Clean Water Factory Project, a substantial quantity of treated wastewater and extracted groundwater will continue to be discharged from the RIX Facility to the Santa Ana River; refer to Draft EIR page 3.0-4. SBMWD's obligation under its agreement with SBVMWD to discharge 16,000 AFY to the Santa Ana River can be met with discharge from either or both of its wastewater treatment plants; also see Response to Comment K7. It should be noted that the City has a condition of dismissal from the water rights adjudication that resulted in the Orange Country Judgment agreed to the physical solution ordered under that judgment and to perform on its 1969 agreement with Valley District to continue discharging at least 16,000 AFY of effluent from SBMWD's treatment plants to the Santa Ana River. Depending on flows, SBMWD could recycle 28 mgd while still providing a minimum discharge of 16,000 AFY to the Santa Ana River. In any event, SBMWD will continue to discharge a minimum of 16,000 AFY, even if as a result it is unable in some years to produce the maximum amount of recycled water proposed by the Project. The Project would facilitate the objectives of the Western Judgment by replenishing groundwater supplies in the Bunker Hill Basin and therefore would help to ensure that annual pumping yield is safe.

Response to Comment G4.

The commenter argues that the Draft EIR fails to fully explain how Riverside North Groundwater Basin export is permissible under the Western Judgment. Water export would be feasible during periods of water surplus. Also see Response to Comment I3d.

Response to Comments G5a and G5b.

The commenter raises concerns that the Project may impact groundwater production facilities in the Riverside Basin.

As described on Draft EIR page 4.7-31, the intent of the Clean Water Factory Project is to replenish local groundwater basins by providing an alternate source of recycled, Title 22 treated water. As a result, the Project's proposed recharge of treated water would benefit groundwater recharge and supplies, reduce depletion with the direct use of recycled water for irrigation and other applications, as well as increase recharge in the Waterman Basins, East Twin Creek Spreading Grounds, and/or Chino Basin. The Project identifies a less than significant impact in this regard. In addition, as stipulated in the Western Judgment, SBMWD is required to maintain an average lowest static water level above 822.04 feet mean sea level (msl) for the Riverside Basin. If the Riverside Basin falls below this value, SBMWD is required to replenish the Basin with alternative water supplies.

It should be noted that the City of Riverside Public Utilities department is currently conducting an environmental review process for the Riverside North Aquifer Storage and Recovery (RNASR) project. The comment period for the Draft EIR closed on August 13, 2015 and the Riverside has not yet issued a Final EIR or concluded the CEQA process. The RNASR project includes a rubber dam that would span the Santa Ana River upstream of the RIX Facility to create an impoundment in the River which would serve to increase instream recharge and divert storm flows to off-river spreading basins for recharge. The Draft EIR for the RNASR project relies upon the information presented in a June 2011 report entitled *Riverside-Arlington Groundwater Flow Model (RAGFM) Model Development and Scenarios*³ (hereafter, RAGFM Report) to support the Draft EIR conclusion that project impacts on groundwater would be less than significant.⁴ The RAGFM Report includes a detailed assessment of hydrology of the Riverside Basin and estimate of safe yield with and without the RIX Facility and concludes that "Any change in future RIX operations is not expected to impact the groundwater available to water supply wells in the basin significantly."⁵ The RAGFM Report found that a change in RIX Facility operations would not result in impacts to Riverside Basin groundwater supplies. Also, the RNASR Draft EIR's evaluation of cumulative impacts included the Clean Water Factory Project and did not identify cumulative impacts to groundwater supplies.

For the reasons above, SBMWD affirms that the Clean Water Factory Project's individual and cumulative impacts to Riverside Basin groundwater levels would be less than significant.

Response to Comment G6.

This comment compliments SBMWD on its commitment to groundwater management and serves as the conclusion to the letter. SBMWD appreciates and values your comments during the EIR participation

³ See the Draft EIR Appendices located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, and specifically Appendix H.

⁴ See Draft EIR located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, Section 3.5, *Hydrology and Water Quality*; Section 3.5.4, *Impacts and Mitigation Measures, Groundwater Supplies*; and Section 3.10, *Water Supply*.

⁵ See the Draft EIR Appendices located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, and specifically Appendix H, RAGFM Report, Section 6.2.

process. No further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

COMMENT LETTER H1: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, LESLIE MACNAIR, REGIONAL MANAGER



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director



COMMENT LETTER H1

June 8, 2016 (Revised June 9, 2016)

Mr. John Claus
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, CA 92408

Subject: Draft Environmental Impact Report
Clean Water Factory Project
State Clearinghouse No. 2014111012

Dear Mr. Claus:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Clean Water Factory Project (project) [State Clearinghouse No. 2014111012]. The Department is responding to the DEIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 *et seq.*) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

1

The proposed project is located in the County of San Bernardino and consists of five components: reduction of up to 33.3 cubic feet per second (cfs) [17.9 million gallons per day (mgd) or 20,057.8 acre feet per year (afy)] of the Rapid Infiltration and Extraction (RIX) facility's discharge to the Santa Ana River and diversion to the San Bernardino Water Reclamation Plant (SBWRP) for treatment and conveyance for ground water recharge or direct use; upgrades to the SBWRP; construction of a water conveyance and storage system from the SBWRP to the existing Waterman Basins and East Twin Creek Spreading Grounds; modifications at potential direct use sites; and modifications for water recharge and continuing operations and maintenance at the existing Waterman Basins and East Twin Creek Spreading Grounds.

COMMENTS AND RECOMMENDATIONS

The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable

2

Conserving California's Wildlife Since 1870

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populations of those species (i.e., biological resources); and administers the Natural Community Conservation Planning Program (NCCP Program). As mentioned, the Department is a trustee agency with responsibility under CEQA for commenting on projects that could affect fish and wildlife resources (CEQA Guidelines Section 15386). As a trustee agency, the Department reviews and comments on environmental documents and impacts arising from project activities, as those terms are used under CEQA (Fish and Game Code section 1802).

2

The Department has concerns regarding the sufficiency and completeness of the DEIR. In order for the Department to provide substantive comments on project-related impacts to public trust fish, wildlife, native plants and habitat resources, the Department recommends that the following sections of the DEIR be revised: Environmental setting; Environmental Impacts (CEQA Guidelines § 15126), including Mitigation Measures Proposed to Minimize Significant Effects (CEQA Guidelines § 15126.4); and Cumulative Impacts. The Department recommends that following revision, the DEIR be recirculated for additional review.

3

Environmental Setting

The DEIR should include sufficient environmental setting information to provide a meaningful context to understand the project's, and its alternative's, environmental impacts, alternatives, and mitigation measures (CEQA Guidelines, §§ 15063, 15125 & 15360). The DEIR is required to provide a description of the physical environmental conditions in the vicinity of the project from both a local and regional perspective, and be sufficiently descriptive to support the analysis of significant environmental effects of the proposed project and its alternatives.

4

The Department has concerns regarding the sufficiency and completeness of the environmental setting information included in the DEIR by the City of San Bernardino Municipal Water Department (City; the CEQA Lead Agency). The Department requests that the City revise the DEIR to include the information listed below, which are critical to provide context for the City to assess the environmental impacts of this project:

RIX Planned Operations and Maintenance Shutdowns

The DEIR fails to describe or quantify the ongoing RIX's planned shutdowns; this information is critical to support the Lead Agency's analysis of significant environmental effects of the project and its alternatives, including the analysis of cumulative impacts. The Department requests that the DEIR be revised to include the following information at a minimum: frequency of planned shutdowns; length of shutdowns; impacts to downstream hydrology during and following the shutdowns; impacts to in-stream habitat (including sediment) during and following the shutdowns; and impacts to in-stream biological resources (including Santa Ana sucker and arroyo chub). Department staff have been present in the Santa Ana River, downstream of the RIX outfall location, during previous RIX planned shutdowns, and have witnessed changes to hydrology (including temporal drying of the river), and stranding and death of Santa Ana sucker and arroyo chub. The Department also recommends that the Lead Agency review and

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reference the US Fish and Wildlife Service's (Service) 2015 report (RIX Maintenance Shutdown, Santa Ana River Monitoring, and Native Fish Rescue September 3, 2015, Pg. 38 plus appendices), which was prepared following RIXs planned maintenance shutdown on September 3, 2015. Inclusion of information and analysis of the RIX Planned Operations and Maintenance Shutdowns is also germane to the Lead Agency's cumulative effects analysis.

5

Santa Ana River Baseline Hydrology and RIX and Rialto Discharges

The Department requests that baseline data include more recent data collected from 2012 to the present. Data may be analyzed collectively, but the Department specifically requests that an additional analysis be completed that includes only data collected over the last five years. The Department also requests accurate data on actual discharge volumes from RIX and Rialto, and a comparison of these values with nearby (downstream) USGS gauge data. The impacts of drought should be discussed in these analyses.

6

Groundwater

The Department requests quantitative groundwater data from within the study reaches of the Santa Ana River and a discussion of the relationship between surface and subsurface flow, and groundwater levels. The DEIR references an area of upwelling within Reach 4 of the river. The Department is specifically interested in current conditions within this area, and whether the area of upwelling still exists.

7

Comparison of RIX Planned Operations and Maintenance Shutdowns hydrology and hydrological models included in the DEIR

The Lead Agency is in a unique position to test the accuracy of the hydrological models used in the DEIR with data collected during a RIX planned shutdowns. The Department concedes that it may not be feasible for the entirety of the model(s) to be tested, but it should be possible to assess key assumptions. The Department requests that the DEIR be revised to include ground-truthing and that the DEIR be recirculated for public review.

8

Minimum In-stream Flow requirements for Native Fishes in the Santa Ana River

An understanding of minimum in-stream flow requirements for the Santa Ana sucker and arroyo chub in the Santa Ana River are paramount to understanding how the proposed project may impact these species. Although the DEIR recognizes the importance of in-stream flow requirements: "The project proposes...to maintain essential minimum flows into the Santa Ana River from RIX ..." (page 4.4-52) a quantification of "essential minimum flows" is lacking from the DEIR. Furthermore, the Lead Agency appears to be deferring this quantification to a later date, outside of the public review process: Mitigation Measure BIO-7 discusses that the proposed Adaptive Management Plan (AMP) will gather and document baseline data during the first year of the AMP implementation. Conditions to be monitored include: "river depths and widths, flow rates, interaction of groundwater and its contribution to river flows, substrate, and suitable sucker habitat." The importance of this information to support the analysis of

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significant environmental effects and the need to include this information in the DEIR was articulated to the Lead Agency by both the Service and Department during scoping meetings. Without a thorough understanding of baseline conditions within the Santa Ana River, and the use of this information in the DEIR to analyze potential project-related impacts to native fishes the Department is concerned that the City does not have the basis to approve the project or make "findings" as required by CEQA unless the environmental document is revised and recirculated.

9

The Department is concerned over the Lead Agency's use of a minimum depth of 3 cm to describe suitable habitat for Santa Ana sucker and the application of this "benchmark" to analyze phases of the proposed project: page 4.4-56 of the DEIR states "In all reached for all phases, depths would be substantially greater than the required minimum depth of 3 cm, as defined by the Primary Constituent Elements (PCE) for the Santa Ana sucker." Please note that water depth is not the only PCE essential to the conservation of the Santa Ana sucker, and the application of this one variable for use as a surrogate to analyze impacts associated with this project is inappropriate. The analysis needs to consider how the project will impact all PCE's essential to the Santa Ana sucker. The United States Geological Service (USGS) is currently collecting data on habitat usage by adult Santa Ana sucker. The Department recommends that the Lead Agency review and incorporate the 2015 data collected by the USGS in the revised and recirculated DEIR.

10

The Department is also concerned regarding the DEIR's characterization (page 4.4-57, referencing GEI 2014) that "most sucker species, including the Santa Ana sucker, show greater utilization at low velocities and decreasing utilization as velocities increased." Recent studies completed by the USGS have found that the highest abundance of adult sucker within Study Reach 1 were associated with high velocity, deep water habitat. The Department recommends that the Lead Agency review and incorporate data collected by the USGS in the revised and recirculated DEIR. Please note that the Department was unable to locate the GEI 2014 report (Evaluation of the Phased RIX Flow Reduction on Santa Ana Suckers Based on Predicted changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing, July 2014.) in the DEIR appendices, and requests that this document be made available in the revised and recirculated DEIR.

11

Red Algae

The DEIR fails to include a discussion of the invasive red algae (*Compsopogon coeruleus*), which currently occurs within the Santa Ana River. This species has been documented to significantly reduce the availability of Santa Ana sucker foraging and spawning habitat due to its smothering growth (USFWS 2014) and a discussion of the presence of this species in the DEIR is warranted. The Department recommends that the DEIR be revised to include a discussion of the algae and its potential impacts to Santa Ana sucker under current conditions, and under the proposed project.

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Project Area

Proposed phased reductions in flow may *directly reduce* the amount of water flowing downstream from RIX within the Santa Ana River into the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area. Indeed, study reaches 2 and 3 occur within the MSHCP area. The DEIR fails to include a discussion of the MSHCP or how the proposed project may affect the MSHCP.

13

Environmental Impacts

As stated on page 4.1-2 of the DEIR, the environmental impacts section of the DEIR "discusses the effects of the project on the environment" and includes a discussion on significance criteria, project-related impacts, and mitigation measures. Because the DEIR fails to include sufficient information on the current environmental conditions, particularly with respect to the current environmental conditions experienced by native fishes within the Santa Ana River, the Department is concerned that analysis of project-related impacts on biological resources discussed in the DEIR is flawed. As previously stated the DEIR should include sufficient environmental setting information to provide a meaningful context to understand the project's, and its alternative's, environmental impacts (CEQA Guidelines, §§ 15063, 15125 & 15360). The Department recommends that the DEIR be revised to incorporate the additional information/ data and analyses outlined under the Environmental Setting section of this letter, and that the Lead Agency re-evaluate the environmental impacts associated with the proposed project.

14

The Department is also confused by the inconsistencies in the DEIR pertaining to significant impacts to Santa Ana sucker, and requests that these inconsistencies be resolved in the revised and recirculated DEIR. The Department agrees with the Executive Summary statement under Significant Unavoidable Adverse Impacts of the Proposed Project (DEIR page 1.0-27): "The Project identifies a significant unavoidable impact to Santa Ana sucker. It is noted that even with the Project's full implementation of BIO-7, BIO-14, other EIR mitigation measures and Project Design Features noted herein, as well as ongoing SBMWD commitment and participation in the HCP, the sheer listing of Santa Ana sucker in the federal ESA, along with the RIX Phased Discharge Reduction, would result in a significant unavoidable impact to Santa Ana sucker." Is the City proposing to adopt a statement of overriding considerations?

15

The Department requests that the revised and recirculated DEIR clearly and thoroughly define the threshold of significance for each impact and explain the criteria used to judge whether an impact is above or below that threshold (Guidelines §15064(f)). The Department specifically requests how a benchmark of 10 percent was selected to represent a level of natural variation that would not be expected to result in measurable adverse impacts to the Santa Ana sucker. The Department requests that the revised and recirculated DEIR include a discussion of the scientific and factual data that this apparent "benchmark" is based on.

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Impacts to native fishes

The DEIR identifies impacts to Santa Ana sucker and arroyo chub. Mitigation Measure (MM) BIO-7 identifies the implementation of a future adaptive management plan, but fails to include *specific and enforceable mitigation* for the loss of individuals and their habitat. Because MM BIO-7 lacks specific and enforceable performance standards to mitigate for the loss of Santa Ana sucker, the Department cannot concur that MM BIO-7 is sufficient to reduce impacts to Santa Ana sucker to a less than significant standard.

17

The DEIR fails to include a Mitigation Measure (MM) to address impacts to arroyo chub, a California species of special concern. Without revising the DEIR to condition the inclusion of a new mitigation measure for arroyo chub the Department considers impacts to this sensitive species to be significant.

Impacts to small mammals

The DEIR identifies that sensitive small mammal species have the potential to occur within Waterman Basins and East Twin Creek Basins. Mitigation Measure (MM) BIO-3 identifies avoidance and minimization measures that may be implemented should future trapping efforts detect sensitive small mammal species prior to construction, but fails to include specific and enforceable mitigation for the loss of individuals and their habitat. Because MM BIO-3 lacks specific and enforceable performance standards to mitigate for the loss of sensitive small mammal species, the Department cannot concur that MM BIO-3 is sufficient to reduce impacts to small mammal species of special concern to a less than significant standard.

18

The Department recommends that the City revise the DEIR and condition MM BIO-3 to include the acquisition, restoration, enhancement (via non-native species removal), and conservation of adjacent vacant land to offset impacts to sensitive small mammal species. Please note that mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). Furthermore, in order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions.

Impacts to Riversidean Alluvial Fan Sage Scrub

The Department considers Riversidean Alluvial Fan Sage Scrub (RAFSS) to be a sensitive habitat that is declining at both the local and regional level. The DEIR identifies approximately 77 acres of RAFSS within Waterman Basins and East Twin Creek Basins, but the Department is unclear if impacts are proposed to RAFSS. If impacts to RAFSS are anticipated the Department recommends that the DEIR be revised to condition the inclusion of a new mitigation measure to offset project-related impacts to RAFSS. Due to the sensitivity and noted population and distributional declines (at both the local and regional level) of this plant community, the new mitigation measure should include measures to fully avoid and otherwise protect RAFSS from project-related direct and indirect impacts, and specific and enforceable compensatory mitigation where impacts are unavoidable. Without revising the DEIR to condition the inclusion of a new

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mitigation measure for RAFSS the Department considers impacts to this sensitive habitat to be significant.

↑ 19

Impacts to Southern Riparian Scrub

The Department considers Southern Riparian Scrub to be a sensitive habitat that is declining at both the local and regional level. The DEIR identifies approximately 3.9 acres of Southern Riparian Scrub within Waterman Basins, but the Department is unclear if impacts are proposed to Southern Riparian Scrub. If impacts to Southern Riparian Scrub are anticipated the Department recommends that the DEIR be revised to condition the inclusion of a new mitigation measure to offset project-related impacts to Southern Riparian Scrub. Without revising the DEIR to condition the inclusion of a new mitigation measure for Southern Riparian Scrub the Department considers impacts to this sensitive habitat to be significant.

20

Western Riverside County MSHCP

As previously stated, the project has the potential to impact the MSHCP. Compliance with approved habitat plans, such as the MSHCP, is discussed in CEQA. Section 15125(d) of the Guidelines for the Implementation of the California Environmental Quality Act requires that an EIR discuss any inconsistencies between a proposed project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. Subsection "f" of Section IV (Biological resources) of the recommended CEQA Initial Study form asks whether the project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plans.

21

The Department recommends that the City address the potential impacts of this project on the MSHCP.

Cumulative Impacts

The DEIR fails to include a meaningful analysis of the proposed project and reasonably foreseeable projects, including the Sterling Natural Resources Center Project (State Clearinghouse No. 2015101058) which proposes a reduction of 6 mgd from RIX, and the City of Rialto's Wastewater Change Petition WW0079, which proposes a 100 percent reduction (a reduction of approximately 9.10 cfs) in discharge from the City of Rialto's wastewater treatment plant to Rialto Channel, and thence the Santa Ana River. Please note that the DEIR must discuss the cumulative impacts to which a project would contribute and determine whether the project's incremental contribution to the effect is cumulatively considerable. The Department requests that the DEIR be revised to model the impacts associated with this current proposed project, assuming the approval of the Sterling Natural Resources Center Project and the City of Rialto's Wastewater Change Petition. The Department expects that the revised and recirculated DEIR will include a detailed evaluation of cumulative impacts.

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Protest of Wastewater Change Petition WW0059

The Department submitted a protest to WW0059 on April 22, 2010. The DEIR does not alleviate the Department concerns, and the Department's request for additional studies still stands. Please refer to the attached protest letter submitted by the Department.

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Further Coordination

The Department appreciates the opportunity to comment on the DEIR for the Clean Water Factory Project (SCH No. 2014111012). The Department requests that the DEIR be revised to address the Department's comments and concerns, and recirculated for public review. If you should have any questions pertaining to the comments provided in this letter, please contact Joanna Gibson at (909) 987-7449 or at Joanna.gibson@wildlife.ca.gov.

24

Sincerely,



Leslie MacNair
 Regional Manager

cc: State Clearinghouse, Sacramento
 Karin Cleary-Rose, USFWS
 Mitchell Moody, SWRCB

Literature Cited

U. S. Fish and Wildlife Service (USFWS). 2014. Draft Recovery Plan for the Santa Ana sucker. U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 61 pp.

U. S. Fish and Wildlife Service (USFWS). 2015. RIX Maintenance Shutdown, Santa Ana River Monitoring, and Native Fish Rescue September 3, 2015. Pg. 38 plus appendices.

State of California

Memorandum

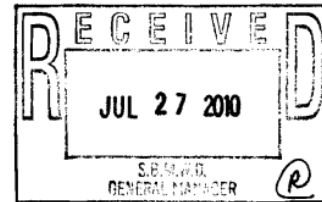
Date: July 22, 2010

To: By Facsimile and U.S. Mail

Ms. Kathleen Groody
 Environmental Scientist
 Division of Water Rights
 State Water Resources Control Board
 P.O. Box 2000
 Sacramento, CA 95812-2000

From: Mr. Jeff Brandt 
 Senior Environmental Scientist
 Department of Fish and Game
 Inland Deserts Region
 3602 Inland Empire Blvd., Suite C-220
 Ontario, CA 91764

Subject: **(REVISED)** Protest of Wastewater Change Petition WW0059 for the Change of Place of Use, Change of Purpose of Use, and Reduction of Discharge Quantity by the City of San Bernardino Municipal Water Department for its treated wastewater



COMMENT LETTER H2

The Department of Fish and Game ("Department") respectfully submits this protest to the above-referenced petition ("petition") and requests the State Water Resources Control Board ("Board") to accept this protest based on the information provided herein. The Department is filing this protest in its capacity as a trustee agency for the state's fish and wildlife resources under the Fish and Game Code (Fish & G. Code, § 1802) and the California Environmental Quality Act ("CEQA") (Pub. Resources Code, § 21070; Cal. Code Regs., Tit. 14, § 15386). Also, the Department could be required to act as a responsible agency under CEQA if the project will require a streambed alteration agreement under Fish and Game Code Section 1600 *et seq.* and/or take authorization under the California Endangered Species Act ("CESA") (Fish & G. Code, § 2050 *et seq.*).

Summary

The Department is protesting the petition because based on the limited information currently in its possession or control, the changes the petitioner, the City of San Bernardino Municipal Water Department ("SBMWD"), is proposing could adversely affect the fish and wildlife resources identified below. At this time, without more information regarding whether the changes proposed by SBMWD could adversely affect fish and wildlife resources, the Department is unable to determine whether there are any measures that if made conditions of approval by the Board would adequately

Ms. Kathleen Groody
Protest of Wastewater Change Petition 0059
July 22, 2010
Page 2 of 8

protect fish and wildlife resources. In order to make this determination, SBMWD should complete the studies described below as part of a study plan approved by the Department before the Board takes any action on the petition. If the SBMWD is unwilling to do so, the Board should require those studies in accordance with its authority under Water Code sections 1701.1, 1701.2, and 1701.3 and any other applicable authority. Based on the results of those studies, the information in the petition, and any documents SBMWD prepares or has prepared to comply with CEQA, the Department would be able to recommend the Board either that it deny the petition or approve it with specific conditions necessary to protect fish and wildlife resources.

Project Description

SBMWD has petitioned the Board to change the place of use, change the purpose of use, and reduce the quantity of discharge of the SBMWD's tertiary treated wastewater (also referred to as "recycled water") (collectively, "project") from its Rapid Infiltration and Extraction Facility (RIX facility) located at 1990 Agua Mansa Road, Colton, CA. At the present time, the RIX facility discharges 61.9 cfs of tertiary treated wastewater into Rialto Channel, which flows along the northeastern side of the facility and into the Santa Ana River. The changes proposed by SBMWD will reduce the amount of tertiary treated wastewater discharged into Rialto Channel and thus the Santa Ana River by 43.5 cfs (with an annual reduction in discharges of up to 31,500 acre-feet), which will reduce the total discharge from 61.9 cfs to 18.4 cfs. The 43.5 cfs of tertiary treated wastewater that is not discharged into Rialto Channel is proposed to be used for irrigation of 290 acres within the Inland Empire Utilities Agency service area, land within the SBMWD service area, and regional partners west of the RIX facility; and groundwater recharge within the Waterman Basins, East Twin Creek Basins, Devils Canyon Basins, and Sweetwater Basin.

SBMWD is proposing these changes to maximize the use of its recycled water and increase its water supply reliability while decreasing its dependence on imported water supplies.

Basis of Protest

Watershed and habitat protection are vital to the Department's management of California's diverse fish, wildlife, and plant resources.

The Santa Ana River Watershed drains approximately 3,200 square miles and provides habitat for at least 1,400 species of plants, 200 species of birds, 50 species of mammals, 13 species of reptiles, 7 species of amphibians, and 15 species of fish. Rialto Channel is a tributary to the Santa Ana River above Prado Dam. Rialto Channel originates from the San Bernardino County Flood Control District (SBCFCD) Cactus Flood Control Basins located north of North Etiwanda Avenue, east of North Cedar Avenue/North Ayala Drive, south of State Route 210, and west of North Cactus Avenue in the City of Rialto. The Rialto Channel is essentially a continuation of the Cactus

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Flood Control Channel, which originates near the City of Fontana and flows south into Cactus Flood Control Basin #5. Rialto Channel flows south from Cactus Flood Control Basin #1 for approximately 5.5 miles to where it meets the Santa Ana River approximately 2 miles north of the San Bernardino County/Riverside County line. The majority of Rialto Channel is concrete-lined. However, from where Rialto Channel crosses under Agua Mansa Road and flows south along the northeastern side of the RIX facility for approximately 0.32 miles, the drainage has a soft bottom and is bounded by earthen material and concrete riprap along the upper portions of its embankments. This section of the channel is vegetated with mature riparian vegetation along both banks, which forms a dense canopy over the channel. The vegetation is dominated by native plant species, including willow (*Salix* spp.), Fremont cottonwood (*Populus fremontii*), and mule fat (*Baccharis salicifolia*). The RIX facility discharges treated wastewater into Rialto Channel immediately south of Agua Mansa Road, which provides a perennial source of water in the vegetated section of the channel extending to the Santa Ana River.

As described above, the section of Rialto Channel downstream of the discharge point to where it meets the Santa Ana River supports mature riparian habitat. This section of Rialto Channel also provides aquatic habitat. The Santa Ana River immediately downstream of the confluence with Rialto Channel supports mature riparian habitat and aquatic habitat as well. Riparian and aquatic habitats within the vegetated section of Rialto Channel, and the Santa Ana River and its tributaries downstream of the confluence with Rialto Channel support several sensitive species listed as threatened or endangered under CESA and the federal Endangered Species Act ("ESA"), and California species of special concern (SSC), including, but not limited to: arroyo chub (*Gila orcutti*), Cooper's hawk (*Accipiter cooperii*), least Bell's vireo (*Vireo bellii pusillus*), Santa Ana sucker (*Catostomus santaanae*), southwestern pond turtle (*Clemmys tigris multiscutatus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), white-tailed kite (*Elanus leucurus*), yellow warbler (*Dendroica petechia*), and yellow-breasted chat (*Icteria virens*).

The streambed of Rialto Channel downstream of the RIX facility discharge point consists mostly of gravel, cobbles, and rocks. This substrate combined with the existing perennial flow in the drainage (as a result of the discharge from RIX) and riparian tree canopy, is regarded by many local experts, including the Department and other resources agencies and conservation entities, as high quality habitat for the Santa Ana sucker (SAS), a federally-listed threatened fish species and state-listed fish species of special concern. In fact, many local experts and surveying agencies consistently report the presence of SAS in Rialto Channel between the discharge point and the confluence with the Santa Ana River. It is assumed that SAS migrate from the Santa Ana River into Rialto Channel for refuge or to spawn because of the quality of habitat present in the drainage. Arroyo chub have also been identified within the aquatic habitat in Rialto Channel and the Santa Ana River downstream.

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Rialto Channel below the discharge point and the Santa Ana River downstream of the confluence with Rialto Channel contain riparian habitat that supports several sensitive bird species. SBCFCD has been monitoring the nesting activity and success of least Bell's vireo (LBV) and southwestern willow flycatcher (SWFL), both state- and federally-listed endangered bird species, within the Santa Ana River between the Tippecanoe Avenue overpass in San Bernardino downstream to the San Bernardino/Riverside county line since 2001. During the past several years, SBCFCD has documented numerous LBV territories with successful nesting (i.e., LBV fledglings observed) with the riparian habitat in the Santa Ana River from its confluence with Rialto Channel downstream approximately two miles to the San Bernardino/Riverside County line. During the 2008 nesting season, SBCFCD documented eight LBV territories containing 6 nests with one successful nest yielding two fledglings within the Santa Ana River from its confluence with Rialto Channel to the county line. As of early July 2010, SBCFCD has identified eight LBV territories within the riparian habitat in the Santa Ana River from its confluence with Rialto Channel downstream approximately two miles to the San Bernardino/Riverside County line. One of the eight LBV territories was identified at the confluence of Rialto Channel and the Santa Ana River. SBCFCD has reported at least three successful nests (i.e., LBV fledglings observed) thus far within the eight territories for the 2010 nesting season. The possibility of additional successful nests for the 2010 nesting season is highly likely due to the fact that LBV do not commonly leave their territories until September. For the 2010 nesting season thus far, SBCFCD has also reported observations of two migrant SWFL within the Santa Ana River between the confluence with Rialto Channel and the county line.

The Department is concerned that SBMWD's proposal to reduce the quantity of treated wastewater discharged from the RIX facility to the Rialto Channel from 61.9 cfs to 18.4 cfs will adversely impact the riparian and aquatic habitats present in the Rialto Channel below the discharge point and the Santa Ana River immediately downstream, which consequently may adversely impact the species that are dependent upon those habitats. Specifically, the reduction in discharge quantity of treated wastewater will decrease the amount of water available to sustain both the riparian and aquatic habitats within the Rialto Channel and the Santa Ana River downstream. A reduction in water availability in the aquatic habitat in Rialto Channel and the Santa Ana River downstream may: 1) reduce the quality of the habitat for SAS and other fish that utilize these areas for spawning, rearing, and refuge; and 2) hydrologically disconnect Rialto Channel from the Santa Ana River, ultimately affecting the movement of SAS and other fish from the Santa Ana River into Rialto Channel. A reduction in water availability for the riparian habitat in Rialto Channel and the Santa Ana River downstream may: 1) provide unfavorable hydrological conditions for native plant species in these areas, ultimately reducing the density, quality, and type of riparian habitat available for nesting birds, and fish species seeking canopy cover for spawning, rearing, or refuge; and 2) disconnect the riparian corridor in the Santa Ana River from the riparian corridor in Rialto Channel, ultimately impacting the movement and nesting behaviors of birds, and the movement, spawning, rearing, and refuge behaviors of the SAS and other fish species. Overall, the Department is concerned that the proposed reduction in discharge will reduce or eliminate the riparian and aquatic habitats present within Rialto

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Channel below the discharge point and in the Santa Ana River downstream, and ultimately reduce the presence and long-term viability of sensitive species such as LBV and SAS.

SBMWD's petition does not include a hydrologic study, biological report, or other information that identifies and analyzes the impacts that the proposed reduction in discharge will have on the riparian and aquatic habitats within Rialto Channel below the discharge point and the Santa Ana River downstream or the species dependent on these habitats. In addition, SBMWD's petition does not provide a habitat map or plant and animal species compendium for Rialto Channel or the Santa Ana River downstream.

Recommendations

As discussed above, the Department needs more information to determine the impacts the project could have on fish and wildlife resources in the project area. SBMWD stated the following in the *Fish and Wildlife Concerns* section of the petition: "There are no expected adverse impacts to fish, wildlife, or riparian habitat as a result of the implementation of this project". With respect to CEQA, SBMWD stated the following in its petition: "In 2003, the (District) prepared and certified a Program Environmental Impact Report titled 'RIX Facility Recycled Water Sales Program' that evaluated reducing the discharge from the RIX facility to the Santa Ana River, please see Attachment B. The project described in the PEIR is similar to the project described in this Petition for Change; however, there are differences and thus a new environmental document will be prepared to evaluate the details of this specific project." The Department has reviewed Attachment B. The reduction in discharge quantity from the RIX Facility into Rialto Channel as discussed in Attachment B, "RIX Facility Recycled Water Sales Program, Program Environmental Impact Report" dated 2003 (PEIR), is a reduction from 61.9 cfs to a minimum of 38.7 cfs, for a total reduction of 23.2 cfs. In SBMWD's petition, the proposed reduction in discharge quantity is a reduction from 61.9 cfs to 18.4 cfs, for a total reduction of 43.5 cfs. The reduction in discharge quantity proposed by SBMWD in the petition is nearly double that proposed and evaluated in the 2003 PEIR. Thus, as SBMWD stated in the petition, there are "differences" in the two proposals and "new environmental documents should be prepared to evaluate the details of this specific project." Furthermore, the Department does not concur with SBMWD's determination that "there are no expected adverse impacts to fish, wildlife, or riparian habitat as a result of the implementation of this project", as the proposal to reduce the quantity of discharge from the RIX Facility to Rialto Channel from 61.9 cfs to 18.4 cfs has not been evaluated by SBMWD under CEQA.

SBMWD has yet to determine whether the reduction in discharge quantity of tertiary treated wastewater from the RIX facility to Rialto Channel will have an adverse affect on biological resources. In short, the information on the project's potential impacts to fish and wildlife resources currently in the possession and control of the Department is very limited at this time. As a result, at this time, the Department cannot

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identify specific terms and conditions to dismiss this protest. However, the Department can recommend studies SBMWD should complete (perhaps as part of its analysis of the project under CEQA) that will generate information sufficient for the Department to recommend specific terms and conditions to protect fish and wildlife resources. Further, SBMWD is or could be required to undertake those studies (described below under "Study Plan") under Water Code sections 1701.1, 1701.2, and 1701.3. In the meantime, the Board should not take any action to approve or otherwise act on SBMWD's petition.

Study Plan

Where a project could affect the hydrologic regime of a watershed, the necessary elements to successfully maintain the downstream biological diversity needs to be identified to facilitate sound management decisions. Based on the general information SBMWD provided, a site-specific study to determine appropriate flow-related terms and conditions is needed. The study plan should include, at a minimum, the following:

1. Identification of minimum flows necessary to maintain the health and perpetuation of aquatic resources in Rialto Channel below the discharge point and the Santa Ana River downstream.
2. A hydrologic study to determine if the production of the watershed is sufficient to reduce the discharge flows as proposed without having significant adverse impacts to riparian and aquatic resources of Rialto Channel and the Santa Ana River downstream.
3. A habitat-based stream needs assessment that incorporates habitat, species, and life history criteria specific to Rialto Channel and the Santa Ana River downstream.
4. A complete updated (within the last two years) assessment of the flora and fauna within, adjacent to, and downstream of Rialto Channel, with particular emphasis on identifying endangered, threatened, and sensitive species and sensitive habitats, which includes protocol surveys (United States Fish and Wildlife Service and/or Department protocols) for the presence of threatened or endangered plant and animal species and species of special concern conducted on the entire project site, places of discharge (including downstream reaches affected by the discharge), and places of use. The Department's California Natural Diversity Data Base ("CNDDB") in Sacramento should be contacted at (916) 327-5960 to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 in the Fish and Game Code. (The Department notes that the CNDDB may have limited data for the project area, but any lack of data does not mean that sensitive resources do not occur in the project area.)
5. A quantification of the loss of biological resources that will occur as a result of the reduction of discharge in Rialto Channel and the Santa Ana River downstream and

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an evaluation of the impacts to resources based on the proposed amount of water flow that will be present as a result of the reduction of discharge. The CEQA document should contain a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. Project impacts should be analyzed relative to their effects on offsite habitats. Specifically, this should include nearby rivers, streams, or lakes located downstream of the project (including the entire floodplain for the waterway), public lands, open space, mitigation sites, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.

6. A specific proposal to provide minimum flows in Rialto Channel for maintenance of any existing riparian and aquatic habitat, fish, and wildlife resources.

7. A mitigation plan to replace lost plant, fish, and/or wildlife resources including, but not limited to, the species or habitats described above and in the CNDDB. This plan must include a survey which quantifies the loss of resources that will occur as a result of this project. It must also specify measures that will be taken to offset impacts to resources and outline specific mitigation and monitoring programs.

If after the Department receives the above-described information it can identify terms and conditions that if adopted by the Board as enforceable conditions of petition approval will mitigate any adverse impacts the project could have on habitat and fish and wildlife resources, it will recommend those to SBMWD and the Board. For example, such terms and conditions might include, but not be limited to, the following:

1. Maintain sufficient quantity and quality of flow in Rialto Channel to ensure the unimpeded passage of fish from the Santa Ana River upstream to Rialto Channel and to maintain in good condition any riparian and aquatic resources that are likely to exist in the Santa Ana River downstream under current flows.

2. Implement Department-approved mitigation plans.

3. Allow access for Department personnel to monitor compliance with Department- and Board-imposed terms and conditions.

4. Require SBMWD to notify the Department and, if necessary, obtain a streambed alteration agreement pursuant to Fish and Game Code Section 1600 *et seq.* for the proposed reduction in flow in Rialto Channel.

5. Require SBMWD to obtain take authorization under CESA if the proposed reduction in flow in Rialto Channel could result in "take" of CESA-listed species.

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The Department will be serving SBMWD a copy of this protest by mailing a duplicate copy to SBMWD, in accordance with Water Code section 1703.2, subdivision (e).

If you have any questions regarding this protest, please contact Ms. Anna Milloy, Environmental Scientist, by telephone at (909) 987-8176, by email at amilloy@dfg.ca.gov, or by mail at the above letterhead address.

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Ms. Nancy Ferguson
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Mr. Lee Reader
Santa Ana Watershed Association

Ms. Shelli Lamb
Riverside-Corona Resource Conservation District

**RESPONSE TO COMMENT LETTER H: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE,
LESLIE MACNAIR, REGIONAL MANAGER*****Response to Comment H1.***

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory information. Responses to specific comments are provided below; no further response is required.

Response to Comment H2.

This comment provides general information regarding the California Department of Fish and Wildlife's jurisdiction and role as a trustee agency under CEQA. No further response is required.

Response to Comment H3.

This comment provides raises a general concern regarding the sufficiency and completeness for the Draft EIR, suggests that specific sections be revised, and that the EIR be recirculated. This comment introduces specific comments further detailed later in the comment letter. Responses to specific comments are provided below; no further response is required.

Response to Comment H4.

This comment provides a general concern regarding the sufficiency of information in the environmental setting, and suggests that additional information be added. Responses to specific comments are provided below; no further response is required.

Response to Comment H5.

This comment suggests including detailed information related to planned maintenance shutdowns of the RIX Facility. Planned and automated shut-down of the RIX Facility is discussed in Draft EIR pages 4.4-79 through 4.4-82, and specifically considered in the cumulative impact analysis. As indicated in the Draft EIR, planned shutdowns occur approximately twice a year, while the frequency of automated shut-downs vary markedly from year to year. As also discussed in the Draft EIR, SBMWD is in the process of implementing RIX Facility improvements that would significantly reduce the frequency of shutdowns; refer to Draft EIR page 4.4-82 and Mitigation Measure BIO-14. While additional information regarding the shutdowns may be informative, SBMWD disagrees that this information is critical to support the analysis of significant environmental effects and its alternatives, and the comment provides no evidence that would suggest otherwise.

Response to Comment H6.

The study and analysis in the Draft EIR are based on the conditions at the time the Draft EIR was commenced, consistent with the Notice of Preparation of the Draft EIR. SBMWD acknowledges that the Santa Ana River is a dynamic system, and varies over the course of the year, and from year to year. Current and historic dry year conditions were incorporated into the baseline and impact analysis, through the evaluation of historic dry year conditions between 1938 and 1977 (1938, '48, '52, '53, '54, '59, '62, '66, '67, '74, '77) along with the Low Flow Study, which incorporates data from 2013 and 2014 in its analysis of the

hydrologic and biologic effects of the proposed discharge reduction. The use of both current and historic data shows that the predicted changes in hydrology and related habitat characteristics (e.g., weighted useable area, riparian habitat) are within the natural, historic range of variability; refer to Draft EIR pages 4.4-54 through 4.4-55. Analysis was conducted based on the best tools and information available at the time of analysis, to produce a reasonable analysis of the changes likely to result from the Project. SBMWD further acknowledges that additional data and tools may be available over time, and that as soon as data is gathered, it immediately becomes dated. That does not render the data invaluable or invalid in a dynamic and fluctuating hydrologic environment.

Response to Comment H7.

In response to the commenter's request for quantitative groundwater data from within the Santa Ana River study reaches, please review Riverside North Aquifer Storage and Recovery (RNASR) project's *Riverside-Arlington Groundwater Flow Model (RAGFM) Model Development and Scenarios*⁶ report prepared for the City of Riverside Public Utilities Department. The RAGFM report was prepared for the RNASR Draft EIR describes the subsurface and surface flows for long-period hydrology with near current land use and water use conditions and estimates the impact of RIX Facility operations on groundwater yield and surface flows at the Riverside Narrows. The USGS is working with local agencies to periodically monitor stream discharge in the area downstream of the RIX Facility and this information can be used to delineate the upwelling area. Refer also to Response to Comments G5a and G5b above.

Response to Comment H8.

The comment suggests a concern with the validity of the model used to assess Project-related effects on hydrology and habitat. However, the comment offers no explanation or evidence that would demonstrate that the model does not accurately represent Project effects. The model and Draft EIR analysis provide substantial evidence and analysis to demonstrate that the first phase of discharge reduction would not result in significant adverse impacts, and provides for a robust mitigation measure (BIO-7) from Project initiation to ensure that actual effects would not be substantial and adverse. The Adaptive Management Plan proposed under Mitigation Measure BIO-7 does this by requiring study, data collection and monitoring from Project initiation to identify whether observed changes are consistent with model predictions. The Adaptive Management Plan includes a rigorous hydrologic and biological monitoring program that will track Project-related changes in the hydrologic conditions of the Santa Ana River, including available in-stream habitat for the Santa Ana sucker as well as riparian vegetation. The Adaptive Management Plan will evaluate changes against an expected baseline range of variability to be developed in conjunction with U.S. Fish and Wildlife Service (USFWS). If observed results differ, and adverse effects to protected species or their habitat are indicated, Mitigation Measure BIO-7 requires implementation of corrective actions that include, among other things, increasing the rate of discharge from the RIX Facility; refer to Draft EIR pages 4.4-72 through 4.4-73. Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. Refer also to page 30 of the Low Flow Study ([Appendix 10.5](#)) for a comprehensive discussion regarding the development of the Adaptive Management Plan. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

⁶ Refer to the Riverside North Aquifer Storage and Recovery Project Draft EIR Appendices located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, and specifically Appendix H.

It is important to note that a total shutdown of the RIX Facility results in a zero discharge. The Project would reduce discharges, maintaining a minimum flow of 13.4 MGD, but would never reduce discharge to zero; refer to Draft EIR page 3.0-33. Moreover, in cooperation and coordination with resource agencies, including CDFW, USFWS, and the Regional Water Quality Control Board, SBMWD is implementing a Project that would significantly reduce the potential for RIX facility shutdowns, and would provide a supplemental supply of water to the Santa Ana River any time the facility were to shutdown, to avoid dewatering of the river from RIX Facility operations; refer to Draft EIR page 4.4-82 and Mitigation Measure BIO-14. These improvements will substantially improve conditions for the Santa Ana sucker and other species that depend on continuous flow in the Santa Ana River.

Response to Comment H9.

The Draft EIR's statement regarding minimum flows are based not merely on flow volumes but a sophisticated, detailed analysis of the effects of flow reduction on important habitat characteristics. That analysis demonstrated that the proposed reduction in discharge could be achieved without significant adverse effects on known habitat requirements. Minimum flow requirements are species and river-specific and are largely unknown for most species. It is anticipated that Mitigation Measure BIO-7 will result in a better understanding about minimum flow requirements for the Santa Ana River species through the review of historical data, current data, and new data collected under the Adaptive Management Plan. For these reasons, SBMWD affirms that Mitigation Measure BIO-7 is adequate for satisfying CEQA's requirements for mitigation. Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comments H10 to H11.

Contrary to the comment, the Draft EIR does not use water depth as the sole variable for analyzing Project impacts on the Santa Ana sucker. The Draft EIR clearly explains the multivariable analysis used to evaluate potential impacts to the sucker, which included consideration of changes in hydrology and associated effects on multiple habitat characteristics, including wetted stream width, stream velocity, coarse substrate availability, and effects on riparian vegetation. Because the USFWS has identified primary constituent elements (PCEs) for the Santa Ana sucker, it was appropriate for the Draft EIR to evaluate Project effects in light of the individual PCEs, one of which addressed minimum stream depth. However, the EIR's impact analysis was not based solely on any one PCE or all of them together. The Draft EIR analysis was based on consideration of effects in relation to PCEs as well as a sophisticated analysis of Project effects on hydrology and resulting changes in essential habitat characteristics using much more detailed habitat suitability criteria, which were consistent with or more conservative than the minimum limits defined by the PCEs. In discussing the PCEs, the Draft EIR acknowledges that the minimum depth of 3 cm is not necessarily protective but instead a bare minimum; refer to Draft EIR pages 4.4-29 through 4.4-30. The Draft EIR also explains that depth is not the only important variable defining habitat suitability. However, since available velocity and substrate data were not robust enough to use in construction of weighted useable area (WUA) estimates, the analysis was limited to depth. Incorporation of velocity information in WUA modeling would be an important aspect of defining baseline conditions, as also acknowledged in the Draft EIR.

The commenter also suggests that the *Evaluation of the Phased RIX Flow Reduction on Santa Ana Suckers Based on Predicted changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing* (GEI 2014) was missing from the Draft EIR and requests that this report is provided in a

recirculated Draft EIR. The GEI 2014 Report was included as Appendix D to the Low Flow Study; refer to Draft EIR [Appendix 10.5](#).

Response to Comment H12.

Red algae was discovered in the Santa Ana River in February 2014 and occurs in the upper reaches of the SBMWD's Project area. USFWS, CDFW, USGS and USACE, as well as the various water agencies discharging into the Santa Ana River have been meeting to better characterize the problem and to develop some immediate and long-term solutions. To date, no definitive solution has been proposed. The algae grows on the boulders and cobble surfaces within the river, the same surfaces needed by the Santa Ana sucker for foraging and breeding. This algal species has become a problem in many of the streams in northern California. Given this very recent discovery of red algae in the Santa Ana River, there is little information available on it or how to control it. The Department has been and will continue to work closely with USFWS during its investigation of red algae below the RIX Facility and defining solution for controlling the existing red algae population and preventing its expansion further downstream. Monitoring and responding to changes in the red algae populations will be integrated into the Adaptive Management Plan being prepared for this Project. Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment H13.

Reaches 2 and 3 of the study area, beginning at 0.6 mile below the Riverside Avenue Bridge downstream to the MWD Crossing, are within the Western Riverside County MSHCP. A review of the hydrologic study of the various phases of flow reduction show that river depth will be reduced from 1.3 feet to 1.2 feet in Reach 2 and from 0.5 to 0.4 feet in Reach 3 at Phase 5. River width remains constant at 50 feet wide in Reach 2 and at 80 feet wide in Reach 3 for all five phases of flow reduction. Although Reach 1 is a losing stream, Reaches 2 and 3 are gaining streams due to groundwater infiltration and, therefore, maintain their general depth and width throughout all five phases of flow reduction from RIX. There are not expected to be any impacts to the riverine or riparian environment within the Western Riverside County's MSHCP boundary as a result of flow reductions from RIX.

Response to Comment H14.

See Response to Comment H6 above.

Response to Comment H15.

SBMWD acknowledges that there is an error in the Executive Summary with the inclusion of the Santa Ana sucker in Draft EIR [Section 1.6](#) as a Significant and Unavoidable impact; please refer to Response to Comment C11 for clarification.

Response to Comment H16.

It is largely infeasible to define a hard ecological thresholds in the majority of cases, these thresholds are not identified until they are crossed. Because the Draft EIR identified some risk to the populations of several vulnerable species, and Adaptive Management Plan proposed under Mitigation Measure BIO-7 was proposed to detect population responses that could be indicative of proximity to a threshold. As described previously, implementation of the Adaptive Management Plan would involve a rigorous

hydrologic and biological monitoring program capable of tracking Project-related changes in the hydrologic conditions of the Santa Ana River, including available in-stream habitat for the Santa Ana sucker as well as riparian vegetation. The Adaptive Management Plan will evaluate changes against an expected baseline range of variability to be developed in conjunction with USFWS. Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

The commenter specifically requests an explanation of how the 10 percent benchmark was chosen to represent a range of natural variability. The 10 percent threshold is not arbitrary; as explained in the Draft EIR, this threshold was selected because it represents the range of historic variability in habitat in the River, based on analysis of historic conditions; refer to Draft EIR page 4.4-61.

Response to Comment H17.

SBMWD acknowledges that the Santa Ana sucker is the primary focus of analysis because it is generally more pervasive in the study area, and the majority of the Arroyo chub population is located further downstream. Nonetheless, any Adaptive Management Plan measures implemented for the benefit of the Santa Ana sucker would similarly benefit any Arroyo chub present. In addition, SBMWD supports the inclusion of specific management measures to benefit the Arroyo chub as part of the Adaptive Management Plan if appropriate. SBMWD affirms that revised Mitigation Measure BIO-7 is adequate for satisfying CEQA's requirements for mitigation; refer also to Response D4e above. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment H18.

Operations of the spreading basins would be of a similar nature as the existing use. However, minor modifications to the basins prior to operation, and annual maintenance would be required; refer to Draft EIR page 3.0-33. Small mammal trapping conducted as part of establishing baseline conditions, did not find any sensitive small mammal species in the recharge basins. Both Los Angeles pocket mouse and Northwestern San Diego pocket mouse were determined to have a moderate potential to occur within the Waterman and East Twin Creek Basin. However, neither species were trapped during trapping studies of the basins in August 2015 and are presumed absent. These basins will be re-trapped prior to any ground disturbing activities to ensure neither species will be impacted by the Project. If either species is detected by the subsequent trapping surveys, no ground disturbing activities will occur until the City consults with CDFW. It is the intent of SBMWD that all occupied habitat will be avoided. If the occupied habitat cannot be avoided, Mitigation Measure BIO-3 commits the City, in consultation with CDFW to provide mitigation, if needed, for loss of the occupied habitat.

Response to Comments H19 and H20

As indicated in response to comment H18, the Waterman Basins and East Twin Creek Spreading Grounds are existing spreading basins that would require minor modification if operated as part of the proposed Project. Additional impacts related to future use of the proposed Project is addressed throughout the EIR, specifically on Draft EIR page 4.4-63. The bottoms of the Waterman Basins and East Twin Creek Spreading Grounds no longer support Riversidean alluvial fan sage scrub as a result of routine maintenance and flooding; refer to [Appendix 10.4](#) page 19. Thus, selection of either of these recharge facilities would not

necessitate a new mitigation measure to offset Project-related impacts to Riversidean alluvial fan sage scrub.

Response to Comment H21.

See Response to Comment H13 above.

Response to Comment H22.

The commenter requests that the Draft EIR be revised to model the Project combined impacts assuming approval of the Sterling Natural Resources Center project and City of Rialto Wastewater Change Petition. The Draft EIR analyzes what is considered to be a cumulative worst-case condition for potential future wastewater treatment plant discharge reductions in the study reaches based on the limit of acceptable potential impacts to biological resources. There is a limit to the amount of discharge reduction that can occur without significant impacts; as a result, not all currently proposed or potential future discharge reductions are likely to be implemented. Depending on what happens with other proposed or future discharge reduction projects, the Project's contribution to a cumulative impact could be reduced. However, the Draft EIR assumes the maximum contribution of the Project within the reasonably foreseeable future cumulative condition. Therefore, SBMWD affirms that the Draft EIR satisfies State CEQA Guidelines Section 15130 requirements for discussion of cumulative impacts.

Response to Comment H23.

The commenter suggests that the Draft EIR does not address the concerns identified in the CDFW Protest of Wastewater Change Petition WW0059. The Draft EIR acknowledges the protests letters received on Wastewater Change Petition WW0059 and included the protest letters to the draft document; refer to Draft EIR page 2.0-3 and Appendix 10.2.2, *Protests to Wastewater Change Petition WW0059*. Further, Draft EIR page 1.0-34 identifies several of the issue areas identified in the protest letters as applicable Areas of Controversy and Issues to be Resolved, pursuant to CEQA Guidelines sections 15123 (b)(2) and (3) requirements.

Response to Comment H24

The commenter requests the Draft EIR be revised to reflect the CDFW's preceding comments and recirculated for public review. SBMWD has not identified anything in these comments to support a need for recirculation, and therefore finds no reason to recirculate the Draft EIR for public review.

COMMENT LETTER I: EAST VALLEY WATER DISTRICT, JANE ELLISON USHER OF MUSICK, PEELER & GARRETT LLP

COMMENT LETTER I

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June 8, 2016

VIA EMAIL
John.Claus@sbmwd.org

Mr. John Claus
Director of Water Reclamation
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, CA 92408

**Re: Draft Environmental Impact Report for the Clean Water Factory
City of San Bernardino, CA**

Dear Mr. Claus:

On behalf of the East Valley Water District (EVWD), we provide the following comments on the Draft Environmental Impact Report (DEIR) for the Clean Water Factory Project (Project). EVWD provides domestic water and wastewater services to unincorporated areas of San Bernardino County, the City of Highland, and to portions of the City of San Bernardino. Our comments are offered for the purposes of advancing the recycled water management objectives of the region shared by EVWD and the City of San Bernardino (City), with the further goal of ensuring that all of the affected water agencies remain true to their overarching public responsibility to provide the best possible service at the lowest possible rates consistent with the region's critical water management objectives.

1

I. INTRODUCTION

The Clean Water Factory assertively proposes to reduce effluent that is currently conveyed from the San Bernardino Water Reclamation Plant (SBWRP) to the Rapid Infiltration and Extraction (RIX) facility and then discharged to the Santa Ana River. The Project would construct new treatment facilities and conveyance facilities to pump water from the new treatment plant to existing recharge basins overlying the Bunker Hill Groundwater Basin and the Chino Groundwater Basin. The Project proposes to construct up to 15 MGD of advanced wastewater treatment facilities, including a 5 MGD membrane bioreactor expansion, a tertiary filtration process, a nano/reverse osmosis membrane treatment system and advanced oxidation disinfection process, to provide tertiary

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2a

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treated water for direct use to customers. Upgrades to the RIX facility would include the installation of a new disinfection system, storage and pumping facilities, and a conveyance pipeline connection to the Chino Basin for groundwater recharge. The Project would construct a system of pipelines, pumping stations, and storage tanks to convey advanced treated recycled water from SBWRP to existing recharge basins.

2a

For many years, EVWD has obtained its wastewater treatment services from the San Bernardino Municipal Water Department (SBMWD) under a pay-as-you-go contract with the City. In October 2015, EVWD entered into a Framework Agreement with the San Bernardino Valley Municipal Water District (Valley District) for the Construction and Operation of Potential Groundwater Replenishment Facilities (Framework Agreement). Valley District is the regional water supply and groundwater replenishment agency whose service area includes EVWD and the City of San Bernardino. The Framework Agreement contemplates the construction and operation of the Sterling Natural Resource Center (SNRC) by Valley District, which will then provide wastewater treatment services to EVWD by producing recycled water from EVWD's wastewater flows. The proven technology to be used by the SNRC will assist the region in reducing its reliance on imported water, will retain the region's water supplies higher in the watershed for regional benefit, and will contribute to the recharge of the Bunker Hill Groundwater Basin which is being depleted by drought and lack of recharge.

2b

The decision of EVWD to enter into the Framework Agreement was made with the City and the SBMWD very much in mind. At the time, EVWD hoped and anticipated that the City would become a signatory to the agreement, as a supportive partner in a series of regional water projects, including not only the SNRC but also a fully compatible, cost effective and correctly mitigated version of the Clean Water Factory. The Framework Agreement was the appropriate regional path forward, recognizing that the City's original concept for the Clean Water Factory had not ripened or materialized into a sustainable and ratepayer-conscious project despite more than a decade of investigation into and analysis by the SBMWD. Further, there was a pressing and immediate need for the Framework Agreement, triggered by the unilateral action of the City to enact a rate measure that purports to grant the City the right to terminate wastewater treatment service to the EVWD customers on ninety (90) days' notice.

2b

These regional and ratepayer realities informed EVWD's review of the Clean Water Factory DEIR. EVWD emphatically shares the stated objectives of the Clean Water Factory to increase the use of recycled water in the Bunker Hill Groundwater Basin, to reduce the need for imported water for the region, and to develop local recycled water resources. However, against this backdrop of conceptual support, EVWD has substantial concerns that, notwithstanding many years of study and review by SBMWD, the DEIR has been hastily and carelessly compiled. It is distressingly inattentive to the impacts of the Project on the environment.

2c

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We note, as others surely will, that the DEIR contains major internal inconsistencies. These include its vacillating statements regarding matters as fundamental as which of the Project's environmental impacts will be significant. For example, the Executive Summary lists the Project's impact to the Santa Ana sucker as significant and unavoidable, but the Biological Resources chapter concludes that there are no unavoidable significant impacts to biological resources. We are troubled by the project description, which offers a large, unrefined envelope of possible project locations, and compounds this imprecision by failing to analyze and mitigate the impacts of each potential choice. We have similar concerns with significant portions of the DEIR's technical analysis, which starts from an overly optimistic, unsupportable premise regarding the baseline flow from RIX into the Santa Ana River, and then escalates this foundational miscalculation by neglecting to address the reductions from this faulty baseline that will occur with the implementation of the SNRC and other pending projects. On this inaccurate record, the City's decisionmakers and the public are not able to determine the Project's real environmental impacts or an enforceable plan for their sincere and comprehensive mitigation.

2d

In light of the errors, large and small, in the DEIR, and the myriad ways in which its analysis runs roughshod over the true environmental impacts of the Project, we urge the City and the SBMWD to take this moment to reexamine the underlying question of Project feasibility. We have reviewed the companion comment letter of Valley District, which we endorse, and ask that you reevaluate the Clean Water Factory against your legal obligations under the Western Judgment, which will not allow the Project as proposed. We also hope that you will consider the revised project recommended by Valley District, which will meet the City's goals, while simultaneously fulfilling those of the region. Lastly, we direct you to the attached May 16, 2016 draft "Regional Recycled Water Concept Study Report" prepared for Valley District by Water Systems Consulting, Inc. (WSC). See attached Regional Recycled Water Concept Study and Appendix H, Draft May 2016. This report estimates the net present value (in 2015 dollars) of the water produced by the Clean Water Factory at \$576.5 million, with an average cost of the water produced over 30 years at \$2,270 per acre foot. These numbers compare unfavorably with the per acre foot estimates for water produced by the SNRC, which range from \$440 to \$750. We hope that this comparison can guide you to better options for your ratepayers.

2e

II. PROJECT DESCRIPTION

The Project description provides very few details of the proposed Project. There is not enough information to provide a meaningful assessment of potential impacts of the treatment facility. The following comments highlight some of these deficiencies:

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- The DEIR describes multiple options for each significant Project component including treatment process, facility expansion, conveyance, and end use, but no choices or further

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refinements are identified. Without a definitive Project description and specific identification that includes actual Project footprint, meaningful impact assessment is impossible. For example, energy use of each of the treatment process options may vary significantly, but details are not included. This missing energy analysis may also impact greenhouse gas emissions which is similarly not evaluated.

3a

- The Project description describes three pipeline alignment alternatives. The DEIR does not identify a preferred alignment, nor does it evaluate the environmental impacts of each potential alignment. For example, one pipeline alternative would be located within a flood control levee. The Project description provides no details on whether the pipeline would be within the channel, within the levee, or adjacent to the levee. With these details missing, flood control or other environmental impacts cannot be accurately assessed.

3b

- The Recycled Water Planning Report included in Appendix 10.2 Part C is six years old. Technology improvements and regulatory updates have occurred since the report was completed. It is unlikely that the treatment facility proposed in a six year old document is sufficient to meet the new Title 22 Groundwater Replenishment regulations adopted in 2014. This deficiency alone should cause the City to recirculate the DEIR after the preparation of a new report reflecting current standards.

3c

- The DEIR states that, “recycled water in excess of SBMWD needs would be conveyed to the IEUA service area...” However, this statement is made in a standalone manner, and completely lacks an analysis of potential impacts that would occur due to the transfer of recycled water supply out of the local system (to the Chino Basin). Further, transferring any recycled water outside of the local system contradicts all of the Project’s stated purposes, including enhancing local water supplies.

3d

- The DEIR lacks details necessary to justify the need for an expansion to the SBWRP at the magnitude that the Project proposes. Currently, SBWRP treats 22 MGD of wastewater, which the Project proposes to retrofit to a capacity of 33 MGD. However, the SNRC will divert 6 MGD of existing flow from RIX. Aside from one generic footnote reference to the potential for growth over 20 years, there is no information in the DEIR that substantiates the anticipated 33 MGD volume of available secondary effluent, or considers the possibility that other projects will be implemented in the area to maximize recycled water availability. Therefore, there is insufficient information to determine whether or not the SBWRP expansion is proposed at a reasonable size, or would be overbuilt considering available flows and the future near-term construction of additional facilities.

3e

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III. BASELINE CONDITIONS

The DEIR identifies baseline RIX discharges and flows in the river inconsistently and inaccurately. If the baseline is inaccurate, then the fundamental accuracy of all of the hydrology and habitat impact models is undermined. The following comments highlight some of the discrepancies in the DEIR regarding baseline conditions.

- The baseline condition for CEQA analysis is required to be an appropriate average of conditions existing at the time of the issuance of the NOP. The Clean Water Factory NOP was issued in November, 2014, yet the DEIR hydrology model inexplicably uses two seemingly random days of discharge flow in October, 2012 as a flow baseline for the entire hydrologic and habitat modeling effort. This baseline significantly overestimates actual average flow and does not reflect the condition at the time of the NOP based on Regional Board data and the records submitted by RIX to the U.S. Fish and Wildlife Service. See attached USFWS Summary of RIX Flows, 2012-2015, and RIX Discharge from CIWQS, November 2014. This overestimation leads to anomalous results in all aspects of the hydrologic analysis as well as the habitat modeling such that the public and decisionmakers cannot properly evaluate the potential environmental effects of the Project.

- The use of two days of flow data as a fundamental baseline value is not sufficiently representative of existing conditions. An appropriate DEIR upon recirculation must, at minimum, include measured discharge from RIX over the last five years to evaluate with confidence the daily average, monthly average, annual average, and trends over time. If the discharge volumes at RIX are decreasing over time, that should be included in the baseline condition and included as a baseline assumption in the model. The model outputs are dependent on the accuracy of the baseline condition. Therefore, hydrologic impacts may be far different than those shown in Table 3.0-7.

- Table 3.0-7 shows baseline as 34.3 MGD. Page 3.3-33 states that the discharge rate is 31.5 MGD. This inconsistency should be corrected and the corrected baseline should be the assumption from which the DEIR's remaining impacts analysis proceeds.

IV. INAPPROPRIATE USE OF MODELS

The DEIR describes four studies that are used to evaluate the Project's potential impact on the Santa Ana River hydrology and ecology. These studies include the results of hydrology, sediment transport, and habitat suitability models. Each of these studies is flawed and should be revised to reflect a more accurate method of evaluating potential impacts to Santa Ana sucker. Given the pervasive use of the Low Flow Study and its models, the adequacy of this work needs to be assessed to ensure that it was completed with sound technical input, and that it is an appropriate reference document upon which to base significance findings in the DEIR.

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Hydrology

- The hydrology study uses a 1D HEC-RAS model to assess impacts to future river flows. This model is effective for estimating flood flow depths in defined channel geometries, but is not appropriate to assess depth and velocity impacts over a linear river segment with varied bathymetry. The use of multiple 1D cross sections within a study reach cannot incorporate existing velocity or predict future variations in velocity with any confidence. Furthermore, the cross sections are too widely spaced (~450 foot spacing) to provide meaningful predictions of site specific impacts to a dynamic and varied river system that exhibits a changing variety of pools and riffle habitats.
- The study incorporates LiDAR data to establish an existing bathymetry. However, it appears that actual bathymetry data for the river channel were only available in the upper study reach. The model assumes a trapezoidal channel for the two lower reaches without any basis or discussion of actual conditions. The use of inaccurate bathymetry undermines the model's accuracy.
- The model appears to have been run using the same flow at all three study reaches. This misses the losing nature of the stream and renders the analysis entirely inaccurate for Reaches 2 and 3. The river has been demonstrated to lose at least 15 cfs to infiltration within the initial mile downstream of the RIX discharge. See attached USGS Presentation on Santa Ana River Flows, May 31, 2016. This omission is a fatal flaw of the hydrology and habitat suitability model which cannot be corrected without a complete re-evaluation based on accurate assumptions and data. This constitutes significant new information, and would require recirculation of the DEIR per CEQA Guidelines §15088.5.

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Habitat Suitability

- The PHABSIM habitat suitability model is flawed due to inappropriate inputs. A 2D model is necessary to predict spatially distributed velocity, which is the standard approach for providing inputs to the habitat assessment model PHABSIM. The 1D HEC-RAS used in the DEIR is an inappropriate method to determine the impacts to Santa Ana sucker habitat that is highly dependent upon substrate availability, which itself is closely tied to velocity of flows which are not accurately evaluated (see above). The use of 1D modeling as an input to the PHABSIM habitat assessment model is inappropriate, and renders the model output untrustworthy.
- The PHABSIM model uses habitat suitability curves developed from data that are based on a limited dataset of observed utilization rather than preferable conditions. Since the available data were limited, the model supplements the curves with criteria for different fish species. The use of non-peer-reviewed habitat suitability curves in the PHABSIM is a significant weakness in the model.

5b

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- The PHABSIM model applies bottom velocity rather than mean water column velocity to predict where fish are observed. This likely skewed the fish utilization curve to slower velocities. The conclusions show fish using much lower velocities than have been observed in current conditions.

5b

Scour

- Since the 1D HEC-RAS model cannot accurately predict velocity, it is not useful in assessing sediment transport needed to evaluate substrate impacts.

- The scour model used for calculating high flow events is not appropriate for the Santa Ana River. The appendix states that the model was used on the Missouri River. However, the Santa Ana River channel is fundamentally different from the Missouri River. A more suitable model should have been used.

5c

- The scour analysis assumes too small of a sand blanket on top of gravel following a storm (assuming full coverage of the inset channel results in approximately 1 mm over the inset channel), which greatly underestimates the computed times to remove the sand blanket using high flow events. The parameter should be varied over a reasonable range to evaluate model sensitivity.

V. SANTA ANA SUCKER IMPACTS

The DEIR underestimates impacts to Santa Ana sucker (SAS) and its habitat. The DEIR states that flow reductions of over 50 percent would result in less than significant impacts to the SAS. These conclusions are expressly based on the results of hydrology studies, which, as described above, are flawed. We have significant concerns about this conclusion as summarized below.

6

- The DEIR states on page 1.0-27 that impacts to Santa Ana sucker would be significant and unavoidable. EVWD supports this conclusion. Nowhere else in the document is this conclusion made. The inconsistency must be corrected. If the impacts to Santa Ana sucker are significant, the analysis in Chapter 4 must be wholly revised to reflect the rationale and its appropriate mitigation.

6a

- The DEIR states with no supporting justification or analysis that a 10 percent reduction in depth, width, or habitat availability would result in no impact at all to the aquatic environment. The DEIR concludes that this is within existing flow variability. No data is provided to support this variability. A 10 percent permanent reduction in flow would reduce habitat available to the fish such as pools, riffles, and exposed coarse substrate that have been shown to be important habitat features for the sucker, not mimic existing flow variability. See attached USGS Presentation

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of Santa Ana Sucker Habitat, May 31, 2016. Furthermore, a less than 10 percent flow reduction is a measurable effect and cannot be classified as No Impact under CEQA.

6b

- The DEIR predicts a 41 percent reduction of velocity in the most important reach of the River for Santa Ana sucker. Velocity is strongly correlated with the availability of suitable spawning habitat. No analysis was completed to show how the reduction of velocity would decrease the availability of this crucial component of sucker reproduction yet it is stated to be less than significant with no analysis to support this conclusion.

6c

- The fish habitat suitability is based on old data collected when the River had very different conditions and the population was geographically distributed differently. The data were collected when most suckers were found farther downstream around the MWD crossing and the confluence with Sunnyslope Creek. More recent data show very few observations downstream of Riverside Drive. See attached USGS Presentation of Fish Survey Results to SAR HCP, May 31, 2016. The most densely occupied sucker habitat is now upstream of Riverside Drive. Similarly, habitat utilization values used in the DEIR include data collected during a time when River conditions were very different than today, resulting in inappropriate habitat impact analysis. We suggest the use and analysis of current field data on habitat utilization within the area of impact.

6d

- The DEIR presents a proposed phased reduction of RIX discharge to maintain essential minimum flows into the SAR from RIX, which the DEIR states, will allow maintenance of SAR vegetation and habitat to be phased and monitored through an unspecified adaptive management program. But the DEIR does not identify how the tool of phasing would reduce or ameliorate impacts associated with reduced flows. Upon full implementation of the Project, aquatic and riparian habitat would still be reduced and populations of the Santa Ana sucker would still be in jeopardy. The presentation of a phased approach within the DEIR as a means to reduce impacts is, therefore, misleading and inaccurate and should be revised to fully disclose anticipated environmental impacts that would result from implementation of the Project in its entirety and in conjunction with other projects (4.4-52).

6e

- The DEIR concludes that a 50 percent reduction of flow may or may not reduce habitat significantly, and relies on the results of future monitoring after project implementation to make the determination. This defers the assessment of impact to post Project construction monitoring which is improper under CEQA. Furthermore, once the monitoring reveals an impact, it's too late to avoid it.

6f

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VI. GROUNDWATER IMPACT ANALYSIS

The DEIR provides superficial impact analysis of groundwater quality. The DEIR should include more information on the effects of recharge to groundwater quality and beneficial uses of the basins affected. See attached Santa Ana River Basin Plan, March 11, 1994, Title 22 Groundwater Replenishment Using Recycled Water Regulations, May 30, 2014, and Second Report of Recharge Parties, Santa Ana River Basin, July 18, 2013. Some of our concerns are summarized below.

- The portion of the environmental setting pertaining to groundwater basins is deficient in its description of the Bunker Hill subbasins. The Waterman Basins and the East Twin Creek Spreading Grounds are both in Bunker Hill A, that has no assimilative capacity as reported by the Santa Ana Regional Water Quality Control Board. This fact is not adequately addressed or discussed in the DEIR in a manner that makes it clear that the DEIR analysis takes the lack of assimilative capacity into account in a real and meaningful way. This portion of the environmental setting should be revised to ensure that the analysis appropriately accounted for existing conditions when analyzing potential effects of the Project.

- The portion of the environmental setting pertaining to groundwater quality is also deficient in that it does not adequately address groundwater quality specific to the Bunker Hill subbasins. Rather, the analysis focuses on water quality of the larger San Bernardino Basin Area, which is not sufficient to establish an adequate baseline for the environmental analysis. As stated in the DEIR, the Project plans to use State Water Project (SWP) water or Advanced Treated Water for blending and dilution in compliance with Title 22 regulations (4.7-30). Further, the DEIR states, without analysis or explanation, that the Project will meet the water quality objectives of the groundwater basins (Bunker Hill A and Bunker Hill B), including objectives for total dissolved solids (TDS) and nitrate. The DEIR fails to adequately disclose that the Waterman Basins and East Twin Creek Spreading Grounds are located in Bunker Hill A, which has no assimilative capacity. Further analysis is also necessary to assess Project-related effects of SNRC recycled water recharge plans and Title 22 compliance. Groundwater modeling showing that retention time and RWC requirements can be met at the two recharge basins should be included in a recirculated DEIR in order to support statements like these made in the DEIR.

- The DEIR lacks any analysis of the Chino Basin ambient groundwater quality, basin plan objectives, and impacts associated with groundwater recharge. As such, the DEIR is not justified in claiming less than significant impacts associated with Impact 4.7-1, as it does not adequately consider or disclose the environmental setting or potential to violate applicable standards (4.7-30).

- Project impacts on the Bunker Hill A groundwater basin and nearby active municipal wells from proposed recharge activities are not adequately addressed. The analysis does not include

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information about the implications of the Project on water quality, diluent water calculations, retention time, or permitting from the Division of Drinking Water (DDW). A paragraph refers to the underground retention time requirement but the DEIR does not include groundwater modeling that demonstrates that there would be sufficient underground retention time for the Project. An impact analysis relying on site specific groundwater modeling is necessary to evaluate the potential for groundwater quality impacts to occur at neighboring wells.

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VII. HARM TO THE HCP

Valley District (along with many partners in the watershed including East Valley and SBMWD) is in the process of preparing a Habitat Conservation Plan (HCP) for the Santa Ana River that will include the Clean Water Factory as a covered project. The HCP team has invested millions of dollars in conservation activities to support this effort. As currently described and evaluated, East Valley is concerned that the impact analysis in the Clean Water Factory DEIR is insufficient to support inclusion of this important project into the HCP. We are concerned that an insufficient CEQA compliance document could jeopardize approval of the HCP by the resource agencies.

8

VIII. INADEQUATE MITIGATION MEASURES

Several mitigation measures in the DEIR are insufficient under CEQA to effectively avoid, minimize, or compensate impacts. Some of our concerns are summarized below.

9

- Mitigation Measure GHG-1 appears to state that one way of avoiding a potential GHG emission significant impact would be to construct facilities that emit less than predicted. Future technologies or reduced project demands may result in emissions less than the 10,000 MTCO₂eq/yr threshold. Although this may be true, it is not a mitigation measure to state that the impact may not occur in the future due to technologies not evaluated in the DEIR. Nor is there any mechanism provided in the mitigation measure to determine whether the impact will occur or to what degree. The mitigation measure must establish a mechanism to accurately estimate or measure GHG emissions to determine whether the threshold is reached. Mitigation Measure GHG-1 has no such mechanism. There is nothing in the mitigation measure that suggests that emissions monitoring will determine whether mitigation is required. Since the impact analysis states that as currently estimated, impacts would be significant, the mitigation measure should require implementation of the mitigation including solar power facilities or GHG offsets. As currently stated in the DEIR, the mitigation measure does not require either action to occur, and provides no solution for determining whether they should occur or not.

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- Mitigation Measure BIO-7 includes a list of actions that would be implemented once the Project related reductions result in 10 percent less SAS habitat. However, the mitigation measure does not describe how that 10 percent threshold would be measured. Nor is the definition of SAS

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habitat clearly described. Mitigation Measure BIO-7 doesn't appear to apply until the 10 percent threshold is exceeded. Without any mechanism for quantifying a 10 percent reduction in habitat, there is no assurance that BIO-7 would ever be implemented. Furthermore, use of a 10 percent flow reduction as a mitigation trigger is arbitrary and unsubstantiated. Since the model is potentially inaccurate, 10 percent flow reduction may result in greater depth and velocity impacts than predicted by the DEIR, particularly in River segments affected by substantial infiltration. Therefore, Mitigation BIO-7 should be implemented immediately and not after an initial 10 percent reduction in habitat.

- The DEIR states on page 4.4-58, without analysis or explanation, that impacts to SAS from the project would not be significant and, therefore, Mitigation Measure BIO-7 is unnecessary to mitigate a significant effect. This leaves the possibility open that the City will choose not to implement the measure, while improperly determining there is no significant impact.

- Even if the monitoring program described in Mitigation BIO-7 is triggered and implemented, there are no criteria set in the measure that would trigger the listed mitigation actions that depend on the identification of adverse effects. Without specific trigger criteria defining what constitutes an adverse effect (e.g., depth and velocity), implementation of meaningful mitigation actions is not assured. The mitigation is therefore ineffective and cannot be relied upon to support the DEIR's analysis.

- Mitigation Measure BIO-7 does not identify impact thresholds that would trigger mitigation actions. Since reductions of depth and habitat acreage are not limited through Phase 5, what would constitute an adverse effect warranting corrective actions? This is unclear. From the mitigation measure, it appears that a decline in fish abundance might be such a trigger for corrective action. The magnitude and duration of a population decline necessary to trigger corrective action is unclear. This is an improper use of mitigation to wait for an effect to occur prior to implementing impact avoidance measures.

- BIO-7 commits SBMWD to implementing mitigation actions for effects observed in the River attributed only to the Clean Water Factory. As written, SBMWD could argue that even if impacts were observed, they would be the result of cumulative flow reductions and therefore not require action by the City.

- As noted in Table 3.0-7, the project phases are inclusive of cumulative flow reductions. However, Mitigation Measure BIO-7 states that corrective actions would be implemented when 10 percent of Project-induced reductions occur. The corrective actions and monitoring should be triggered by actual minimum flow rates, not by a percentage caused by Project-induced reductions, which determination could be made arbitrarily.

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IX. FEASIBILITY OF PROJECT

East Valley is concerned that the project may not be feasible for several reasons. The following comments address the feasibility of the project.

Economic Feasibility

- A recent draft of the Regional Recycled Water Concept Study Report prepared for Valley District by WSC dated May 16, 2016 included the Clean Water Factory project with groundwater recharge at the East Twin Creek Spreading Grounds and existing non potable users near SBWRP. See attached Regional Recycled Water Concept Study and Appendix H, Draft May 2016. Based on this report, the cost in 2015 dollars of the Advanced Recycled Water System is estimated at \$576.5 million with an average (over 30 years) of cost of water produced at \$2,270 per acre foot. These numbers compare unfavorably with the per acre foot estimates for water produced by the SNRC, which range from \$440 to \$750. This suggests that there may be necessary modifications to the Clean Water Factory to ensure that it is a cost effective regional water supply alternative.

Water Availability

- On Page 1.0-28 the DEIR acknowledges that “SBMWD would continue reducing water usage from water conservation (SBX7-7) based on the 2010 Urban Water Management Plan (UWMP) for 13,574 AFY by 2035 exceeding the States mandatory target of 26%.” On Page 1.0-29, the DEIR states that “increased conservation would likely reduce the wastewater flow to SBWRP and RIX Facility.” However, the DEIR fails to analyze the effects of reduced inflows to SBWRP or RIX resulting from mandatory and/or voluntary conservation. Further, environmental considerations and the Western Judgment described as a Project objective on page 1.0-1 of the DEIR require that a minimum base flow be maintained to satisfy surface water rights and maintain biological beneficial uses. The uncertainty of the availability of this water puts the Project’s feasibility in doubt.

X. CUMULATIVE IMPACTS ANALYSIS

The cumulative analysis underestimates the Project’s contribution to impacts on future Santa Ana River habitat. Our comments are summarized below.

- The DEIR does not address how cumulative reductions in River flow from other projects will affect River water quality, downstream water rights, aquatic habitats or riparian habitats. This is a fundamental flaw in the analysis.

- In order to assess cumulative impacts of reduced flow in the Santa Ana River, the predicted flow reductions presented in Table 3.0-7 should represent cumulative conditions. The

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DEIR should then acknowledge that cumulative reductions in river flow (including from RIX shutdowns) may adversely affect habitat values. The Project's contribution to the potential cumulative impact should be significant and unavoidable. Mitigation BIO-14 should be modified to work cooperatively within the context of the HCP towards a watershed-wide solution to maximizing water supply while minimizing effects to the listed Santa Ana sucker.

11b

- The DEIR states that the periodic elimination of discharges during maintenance of the RIX facility is a component of the cumulative impact to aquatic habitats in the SAR. Mitigation Measure BIO-14 is identified to mitigate this impact to less than significant levels. The mitigation provides only vague commitments to facility improvements to fix the problem. No substantive or detailed solutions are described, let alone analyzed. Furthermore, the mitigation measure states that if facility improvements are not implemented, a team would collect fish stranded without water during the shutdown periods. The collection of dewatered fish is not a measure that avoids or even substantively mitigates impacts to fish as is seen in USFWS records on native fish salvage during these shutdowns. See attached USFWS Records of Native Fish Salvage During RIX Shutdowns, 2014-2016. The conclusion should state that the periodic elimination of discharges results in a cumulatively significant impact to aquatic wildlife including the listed SAS and should, at minimum, identify a response to that significant and unavoidable impact on a listed species.

11c

- The DEIR does not analyze potential adverse effects on downstream water supply and quality with reduction of RIX flow and other proposed projects. The DEIR should be modified to consider the full potential cumulative effects on hydrology, water quality, water rights, riparian habitat, and Santa Ana sucker habitat.

11d

- Table 1.0-2 states that cumulative greenhouse gas emissions would result in a significant and unavoidable impact. However, it also states that the Project's contribution to GHG emissions would be reduced to less than significant levels with implementation of mitigation. The adverse impact associated with GHG emissions is described as climate change. This effect is widely acknowledged to be by its nature a cumulative effect, resulting from the cumulative emissions around the globe. As a result, the DEIR's conclusion that direct GHG emissions are less than significant due to mitigation, but that the contribution is cumulatively considerable and significant is contradictory.

11e

* * *

We appreciate this opportunity to provide these comments on the Clean Water Factory DEIR. We are confident that the Clean Water Factory can be reconceived in a manner that resolves the deficiencies that are typical of the DEIR. EVWD requests that additional analysis be conducted on the Project and that the DEIR be revised and recirculated, addressing the concerns presented in our comments and in those of Valley District. We will also want to review the comments of the various

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MUSICK, PEELER & GARRETT LLP
ATTORNEYS AT LAW

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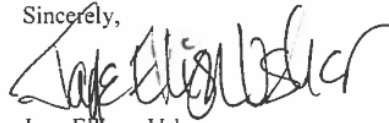
regulatory agencies to ensure that their issues are fully resolved in the recirculated environmental documents for the Clean Water Factory.

↑ 12

We have attached a series of relevant documents to this letter, for your inclusion in the record of these proceedings, and for your consideration and response. We look forward to working cooperatively with the City in promoting recycled water as an important contribution to future local water supply development.

↑ 13

Sincerely,



Jane Ellison Usher
for MUSICK, PEELER & GARRETT LLP

cc: Board of Directors, East Valley Water District
John Mura, East Valley Water District
Board of Directors, San Bernardino Valley Municipal Water District
Doug Headrick, San Bernardino Valley Municipal Water District
City Council, City of San Bernardino
Board of Commissioners, San Bernardino Municipal Water Department

Attachments:

1. Santa Ana River Basin Plan, March 11, 1994
2. Regional Recycled Water Concept Study, Draft May 2016
3. Regional Recycled Water Concept Study, Appendix H, Draft May 2016
4. RIX Discharge from CIWQS, November 2014
5. USGS Presentation on Santa Ana River Flows, May 31, 2016
6. USGS Presentation of Santa Ana Sucker Habitat, May 31, 2016
7. USGS Presentation of Fish Survey Results to SAR HCP, May 31, 2016
8. USFWS Summary of RIX Flows, 2012-2015
9. USFWS Records of Native Fish Salvage During RIX Shutdowns, 2014-2016
10. Title 22 Groundwater Replenishment Using Recycled Water Regulations, May 30, 2014
11. Second Report of Recharge Parties, Santa Ana River Basin, July 18, 2013

996608.5

RESPONSE TO COMMENT LETTER I: EAST VALLEY WATER DISTRICT, JANE ELLISON USHER OF MUSICK, PEELER & GARRETT LLP

Response to Comment I1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the environmental impact report participation process. This comment provides general introductory information and indicates East Valley Water District's purpose for providing comments. Responses to specific comments are provided below; no further response is required.

Response to Comment I2a.

This comment provides general information about the Project. This comment does not identify a specific concern with the adequacy of the Draft EIR or raise an issue or comment specifically related to the Draft EIR's environmental analysis. Therefore, no further response is warranted. (State CEQA Guidelines §15088(a) requires that a lead agency only evaluate and respond to comments raised on environmental issues.)

Response to Comment I2b.

This comment indicates that East Valley Water District (EVWD) has been a SBMWD customer, provides information about the Valley District's Sterling Natural Resource Center Project, and the Framework Agreement. This comment also references a pay-as-you-go contract, a unilateral rate measure with the potential to terminate wastewater treatment services, and suggests that EVWD pursued the Framework Agreement as a result of the 90 days' notice language, and indicates that EVWD anticipated that SBMWD would become a supportive partner of the Framework Agreement.

The comment does not directly address issues that would require a response under CEQA. In any event, SBMWD notes that the pay-as-you-go-contract is a joint power agreement and the provision of SBMWD's rate ordinance that gives SBMWD the right to terminate wastewater treatment services with 90 days' notice was not new or a surprise to either district; that provision has been in place, and included in every rate-setting resolution, since 1973. The comment inaccurately suggests the so-called Framework Agreement was developed in consultation with SBMWD, in response to rate increases. The agreement was developed exclusively between EVWD and San Bernardino Valley Municipal Water District (Valley District); SBMWD was not a party to or participant in any discussions relating to the development of the agreement. EVWD and Valley District entered into the agreement 6 years after SBMWD began the study and planning process that led to the proposed Clean Water Factory Project (which commenced in 2009 with SBMWD's initiation of the Recycled Water Planning Investigation Study), which is substantially less than "a decade." The statement that the Framework Agreement was "triggered" by a rate increase by SBMWD that included a right to terminate wastewater treatment to EVWD is not supported by the facts. Moreover, the Framework Agreement was agendaized for action by Valley District on its September 1, 2015 agenda, suggesting that negotiation and development of the agreement had been underway for some time before that. SBMWD's action on wastewater treatment rates did not go before the City Council until September 21, 2015, and thus, could not have "triggered" the Framework Agreement. In addition, the Framework Agreement was developed exclusively between EVWD and Valley District, and was only known by SBMWD the day before the Valley District was to take action.

Response to Comment I2c.

This comment indicates support for the stated objectives of the Project, and recognizes the many years of study conducted for the Project, but expresses concern that the Draft EIR has been hastily and carelessly compiled. SBMWD has dedicated substantial effort, time and attention to the careful evaluation of Project's impacts under CEQA and disputes this assertion.

Response to Comment I2d.

SBMWD acknowledges there is an error in the Executive Summary; please refer to Response to Comment C11 above.

The Project Description, coupled with the Alternatives Analysis appropriately provides a complete description of the potential Project activities that could result from implementation of the Project. Where warranted, appropriate mitigation is identified for the Project. This comment also provides a vague assertion about an unsupportable premise regarding baseline flow. Without specificity, SBMWD cannot address this assertion.

Regarding consideration of the Sterling Natural Resource Center (SNRC) Project, see Response to Comment P9 below.

Response to Comment I2e.

This comment suggests reexamination of Project feasibility and legal obligations of the Western Judgment, references the comment letter submitted by Valley District, and provides financial information about the Clean Water Factory and SNRC projects. SBMWD agrees that feasibility is an important component of the Project from a technical, environmental, and regulatory perspective, and will be considered by the SBMWD decision-makers. Regarding the comment letter from Valley District, please refer to Response to Comments for Letter K herein.

SBMWD disagrees with the comment that the Western Judgment creates legal obligations on the City that would prohibit the Project. As noted in the Draft EIR, SBMWD is not a party to the Western Judgment and thus the Western Judgment does not control SBMWD's actions with regard to wastewater treatment and disposal; refer to Draft EIR page 3.0-4. SBMWD has a condition of dismissal from the water rights adjudication that resulted in the Orange Country Judgment agreed to the physical solution ordered under that judgment and to perform on its 1969 agreement with Valley District to continue discharging at least 16,000 acre feet per year of effluent from SBMWD's treatment plants to the Santa Ana River. In addition, SBMWD's obligation under its agreement with SBVMWD to discharge 16,000 AFY to the Santa Ana River can be met with discharge from either or both of its wastewater treatment plants; also see Response to Comment K7. In any event, SBMWD will continue to discharge a minimum of 16,000 acre feet per year, even if as a result it is unable in some years to produce the maximum amount of recycled water proposed by the Project. The Project would facilitate the objectives of the Western Judgment by replenishing groundwater supplies in the Bunker Hill Basin, and therefore, would help to ensure that annual pumping yield is safe.

SBMWD also disagrees with the commenter's assertion that the alternative recommended by Valley District—that SBMWD implement Alternatives 2b or 3b from the Regional Recycled Water Study (See Valley District Comment on alternatives, p. 14)—would meet SBMWD's objectives for the Project. Alternatives 2b or 3b from the Regional Recycled Water Study would generate only 2,500 afy of recycled

water benefit to the SBMWD water supply portfolio, compared to the 31,000 afy which would be produced under the Project. Moreover, the treated water produced under Alternatives 2b or 3b would be of an inferior quality, which is a primary objective of the Clean Water Factory Project. The substantial reduction in recycled water would not meet SBMWD's needs going forward and likely would result in the continued and increased reliance on imported supplies. Thus, Alternative 2b and 3b would not meet the Project objectives of: 1) reducing dependence on imported water or minimizing risk to existing and potential future supply reliability and system operations associated with imported water, regulatory requirements and other factors; 2) maximizing availability of recycled water; or 3) providing an alternate source of recycled Title 22 treated water. Moreover, for the reasons stated in SBMWD's comments on the SNRC EIR, to the extent either of those alternatives assumes that recycled water would be produced by the SNRC as proposed, those alternatives would have more significant environmental impacts, because the SNRC proposes an inferior, lower level of wastewater treatment, leading to potential degradation of the Bunker Hill sub-basin. Because those alternatives would increase the treatment and disposal from the SNRC, they would have greater impacts than both the SNRC as proposed and the proposed Project. As Alternatives 2b and 3b would result in greater environmental impacts as compared to the proposed Project, and would fail to meet the Project Objectives, finds them to be infeasible and unacceptable.

SBMWD further disagrees with the argument and claims relating to the claimed costs of the Sterling Natural Resource Center compared to the Clean Water Factory Project. The claimed costs of reclaimed water that might be produced by the SNRC project are dramatically understated and inaccurate, as they do not provide an accurate representation of the substantial costs associated with the design, construction, and operation of the wastewater treatment plant required to produce the reclaimed water. That treatment plant does not exist (it is the subject of the Sterling Natural Resource Center EIR that was certified by Valley District in March 2016). The best available evidence concerning the cost of the Sterling Natural Resource Center wastewater treatment plant demonstrates that the cost of that facility is likely \$310M. When the cost of that required facility is included, as it must be since the reclaimed water cannot be produced without the facility, the cost of reclaimed water produced by SNRC is substantially higher than the cost of reclaimed water produced under the Project, on the order of \$185M; \$200M with advanced treatment. The City further maintains that the true cost of the Sterling Project reclaimed water will in fact be even higher, as the estimated costs for the Sterling Project do not include the cost of advanced treatment included in the Clean Water Factory (i.e., desalting). Desalting is necessary to avoid significant impacts to groundwater quality that the Sterling Project, as approved by Valley District and EVWD, will cause as a result of discharging treated wastewater with total dissolved solids levels that area substantially higher than the background levels in the recharge area. This additional level of treatment is essential to avoid substantial degradation of groundwater quality and a cost that Valley District has improperly and misleadingly excluded from its claimed costs to produce recycled water. With advanced treatment the Sterling Project would cost approximately \$370M. When all relevant costs are included in the Sterling Project, the proposed CWF Project provides a clear financial advantage.

Response to Comment 13.

This comment provides general introductory comments about the Project description. Responses to specific comments are provided below; no further response is required.

Response to Comment 13a.

SBMWD agrees that the Draft EIR identifies a number of different options for Project implementation. In order to provide both Project flexibility and full disclosure of potential impacts, the Draft EIR (including

the Project Description and Alternatives Analysis) appropriately includes and evaluates the potential environmental impacts associated with all of these facilities. In addition, the greenhouse gas analysis considers energy use, and evaluates the most energy consumptive aspect of the Project options (e.g. reverse osmosis treatment). As identified several times throughout the Draft EIR, the Draft EIR analysis is conservative and based on worst case scenarios.

Response to Comment I3b.

The Draft EIR provides as follows: "Several different pipeline alignments could potentially be developed, including an alternative alignment that consists of a combination of two different alignments. Therefore, the scenario with the maximum potential impact was quantified and analyzed," Refer to Draft EIR Page 4.3-21. The preferred alignment (Alignment 1) is clearly identified in the Preliminary Design Report, DEIR Section 10.2.4. Draft EIR Section 3.2.2 describes each of the three possible individual pipeline alignment option, provides detail regarding the essential components of each alignment option, and evaluates the potential to result in impacts along each of these possible pipeline alignments; refer to Draft EIR page 3.0-10. Because one alignment option would involve combining two alignment options (Alternative 1 and Alternative 2), the impact analysis and determinations considers the impacts of combining these two alternatives and thus considers the maximum potential impact of the Project's pipeline component. The potential for adverse effects to flood control facilities is discussed in Draft EIR page 4.7-6. There the Draft EIR explains that pipelines would be located underground, except those that would be located within recharge basins themselves, and thus impacts to flood control facilities would be less than significant. Refer to Draft EIR Section 4.4 for a discussion of the conveyance components' potential construction-related impacts to biological resources.

Response to Comment I3c.

This comment indicates that the *Recycled Water Planning Investigation Report* (Planning Report) is outdated, and unlikely to meet current regulations under Title 22. In fact, the technologies involved in water treatment remain fundamentally the same (reverse osmosis is still reverse osmosis, micro-filtration is still micro-filtration, etc.). Many agencies that are using the technologies that the Planning Report identified, are undergoing expansion and the expanded facilities are not changing significantly. As with any technology that is in high demand, competition drives improvements and increases in efficiencies—such is the case with the technologies identified by the Draft EIR, so they remain unchanged regarding environmental impact. If anything, the costs are decreasing and efficiency is increasing. Increased efficiency may result in reduced energy use and consequently, reduced greenhouse gas emissions. In addition, in some respects, regulations have actually eased, leading to reduced retention time, use of a running average for diluent water has increased. Thus, the findings in the report are actually conservative compared to current requirements. The comment provides no evidence that to support its arguments that the Project's technology may be incapable of meeting groundwater replenishment regulations, or that the Draft EIR should be recirculated.

Response to Comment I3d.

The ability to export water is important during periods of excess water, and is not inconsistent with the Project Objective of providing for improved flexibility. In the not too distant past, groundwater levels in the Bunker Hill Basin have previously been too high, leading to flooding and increase risk of liquefaction. The Project accounts for this future possibility and allows for the reuse of the water in times of excess. Transferring water that cannot be put to use within the San Bernardino Basin Area (SBBA) so that it can

be beneficially used nearby within the upper basins is consistent with State policy favoring the maximum use of recycled water.

Response to Comment 13e.

This comment suggests the Project would result in an unjustified increase in capacity of the SBWRP to 33 MGD. However, the SBWRP already has the capacity to treat 33 MGD to the secondary level; refer to Draft EIR Table 3.0-1, Summary of Project Components. Although the proposed Project would entail process expansions at the SBWRP to produce and convey recycled water, Project implementation would not include an expansion in overall treatment capacity. Given the potential for regional growth, concerns about groundwater supplies, and the unreliability of imported water, it is reasonable to assume there will be ample demand for all the recycled water produced under the proposed Project; refer to Draft EIR page 5.0-1.

Response to Comment 14.

This comment provides a general introductory assertion regarding baseline inconsistency. Responses to specific comments are provided below; no further response is required.

Response to Comment 14a.

The comment misstates CEQA's requirements for establishing a baseline condition. CEQA does not mandate that the baseline for a wastewater treatment plant modification be "an appropriate average of conditions existing at the time of the issuance of the NOP." Rather, the CEQA Guidelines direct that the existing conditions are the condition existing at the time of the issuance of the NOP. Refer to the response to comments below for a more specific discussion concerning the Project's baseline.

Response to Comment 14b.

High-resolution LiDAR mapping was used to characterize channel geometry of the Santa Ana River under very low and normal discharge conditions. For the lowest stage, LiDAR acquisition coincided with scheduled maintenance at the RIX Facility, and its resulting temporary discharge shutdown. For its highest stage, LiDAR acquisition coincided with normal discharge conditions for the RIX Facility. These two dates were selected based on their potential to provide flow data representative of normal and low-flow baseline conditions at the Santa Ana River. Due to the high natural fluctuation of the Santa Ana River, the existing flow of the River is not a singular flow rate, and as such represents a range of flows. As such, the baseline data collected captured both a high and low flow rate to better address the varying flow of the River. The baseline data, as collected, characterizes the existing flow of the River and provides a baseline flow that can be used to model potential Project impacts. The Southern California climate is dynamic and highly variable due to climate cycles of about 20-30 years duration known as the Pacific Decadal Oscillation, (PDO). These dry/wet cycles are apparent in the historic rainfall records throughout Southern California.^{7,8} Cumulative residual analysis of long-term rain gage and stream flow gage data reveals a dry period extended from about 1945-1977, followed by an episodically wet period from 1978-1998 that

⁷ Inman, D.L. and S.A. Jenkins, *Climate change and the episodicity of sediment flux of small California rivers*, Journal of Geology, v. 107, p. 251-270, 1999.

⁸ Inman, D.L. and S.A. Jenkins, *Climate patterns in the coastal zone*, *Encyclopedia of Coastal Science*, p. 301-305 2004.

included the occurrence of 6 strong El Niño events.^{9,10} Following the 1997-98 El Niño event, the Pacific Decadal Oscillation Index turned negative, indicating a return to the dry climate that had prevailed in the previous drought, 1945-1977.¹¹ Hence we are presently in the midst of a multi-decadal period of drought, and while there can be variations in rainfall and ground water levels from year to year, what has come to pass with flows in the Santa Ana River and its associated water table is the cumulative effect of 1.5 decades of dry years. No particular year, or even 5-year period within that multi-decadal drought can be singled out (and especially not anticipated a priori) as characterizing the entire climate regime in which this project is presently being planned. As described above, the fluctuating nature of River hydrology cannot be characterized in a single point in time; thus, the two dates selected to represent the Project baseline were selected based on their potential to represent normal and low-flow conditions and best capture the range of effects expected from Project implementation. Given the necessity for this Project to help remediate projected municipal water supply shortfalls, it is imperative that Project planning continue using available databases, and be allowed to adjust to future conditions through the proposed Adaptive Management Plan identified under revised Mitigation Measure BIO-7. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment 14c.

The commenter suggests there is an inconsistency between the baseline RIX Facility discharges presented in Table 3.0-7, *Proposed RIX Wastewater Discharge Phased Reduction Scenarios* and “page 3.3-33.” It should be noted that “page 3.3-33” does not exist. Further, the Draft EIR never refers to a discharge rate of “31.5 MGD.” As such, SBMWD cannot address the alleged inconsistency in the document. However, SBMWD affirms that the Project baseline identified in Table 3.0-7 is accurate.

Response to Comment 15.

The commenter asserts that the hydrology, sediment transport, and habitat sustainability models which make up the Low Flow Study are flawed. However, the commenter does not specify how or why the Low Flow Study is flawed. Refer to the responses below for a specific discussion concerning the findings of the Low Flow Study.

Response to Comment 15a.

The comment in the first bullet alleges that the HEC-RAS model is “effective for estimating flood flow depths in defined channel geometries but is inappropriate to assess depth and velocity impact over a linear segment with varied bathymetry.” This comment is factually incorrect. The HEC-RAS model was developed to simulate variable natural river geometry, and its accuracy in predicting velocity and depth are based on the accuracy of the information used to develop a model. In the present case, the model is based on detailed LiDAR-based topography and surveyed cross-sections, and it was calibrated to reproduce the depth of flow under normal and low flow conditions (i.e. river flow with the RIX Facility discharging normally and river flow under a temporary RIX Facility shutdown event). HEC-RAS can be used to model low flow and high flows with the same level of accuracy. The computational methods in HEC-RAS enable it to compute the depth and velocity profiles across a cross-section. The commenter provides no technical basis for stating that the cross-sections are too far apart. The model provides sufficient spatial resolution to characterize the depth and velocity in the study reach for the intended purposes of the

⁹ Inman, D.L. and S.A. Jenkins, 1997.

¹⁰ Goddard and Graham, 2007.

¹¹ White and Cayan 2015.

analysis. All hydraulic models produce computational results at a specific location in the model domain, and it is an accepted standard practice to interpolate computed depths and velocities between the points where they are computed.

SBMWD disagrees with the commenter's assertion that the use of a trapezoidal section to represent the channel cross-section where the channel geometry could not be estimated with LiDAR "undermines the model's accuracy." The use of a hydraulically equivalent trapezoidal section is common practice, provided that the top-width and conveyance of the section are maintained. Note that Manning's 'n' was calibrated to the low flow trapezoidal section when RIX Facility discharge was zero and when RIX Facility discharged normally.¹²

The comment in the third bullet asserts that the model appears to "have been run using the same flow at all three study reaches." This is incorrect. The model incorporates streambed infiltration in the losing reach and rising water in the gaining reach.

Response to Comment 15b.

The comment in the first bullet alleges that the PHABSIM habitat suitability model is flawed since it used a one-dimensional input rather than a two dimensional. See the response to comment 5a above. The one-dimensional HEC-RAS model as implemented by WEI for analysis in the Draft EIR incorporates fine scale topography and yields discharge, velocity, and depth profiles across each cross-section in addition to the average velocity and depth at each cross-section. The velocity profile across each cross-section is estimated between each adjacent pair of adjacent points in the cross-section. So if a cross-section has 20 points below the water surface, the model will produce 19 velocity and associated depth estimates across the cross-section. This is a relatively fine-level of detail. The velocity and depth is influenced by the channel substrate roughness represented in Manning's equation and specifically Manning's "n" coefficient. Manning's "n" was calibrated so the hydraulic effect of the substrate material was incorporated into the model and localized velocity estimates.

The comment in the second bullet critiques the non-peer-reviewed habitat suitability curves used for the PHABSIM model. The habitat suitability curves identified in the report were based on "utilization," or the depths, bottom velocities, and substrates which suckers were observed using. To ensure the depths, bottom, velocities, and substrates identified for the Project were accurate, the relationships were compared to other published curves for other sucker species. The habitat suitability curves relationships were compared to combined juvenile and adult white sucker curves (*Catostomus commersonii*) and the curves for several life stages of mountain sucker (*Catostomus platyrhynchus*).^{13,14} As described in the *Evaluation of the Phased RIX Flow Reduction Plan on Santa Ana Suckers, Based on Predicted Changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing* report (GEI, 2014), there are no other existing utilization curves or preference curves which have been developed for the Santa Ana sucker.

¹² "Manning's n," or the channel bottom roughness coefficient, is a key parameter in determining changes in river depth and discharge for various RIX discharge rates.

¹³ Twomey et al., "Habitat Suitability index models and instream flow suitability curves: white sucker," U.S. Fish and Wildlife Service, 1984.

¹⁴ Rempel et al., "Lower Fraser River juvenile fish habitat suitability criteria," Canadian Technical Report of Fisheries and Aquatic Sciences, page 2991, 2012.

The comment in the third bullet suggests that the application of bottom velocity rather than mean water column velocity in the PHABISM model likely skewed the fish utilization curve. There is a biological basis for the selection of a bottom water velocity, as opposed to a mid-column water velocity: Santa Ana Suckers are benthic (i.e., bottom dwelling) fish. However, it should be noted that models incorporating velocity data were not used in the assessment of impacts to Santa Ana sucker habitat. Depth-only models were selected due to velocity modeling constraints that would have biased the habitat estimates.

Response to Comment 15c.

The comment in the first bullet makes the same factually incorrect assertion regarding the HEC-RAS model that was made in Comment 5a; refer to Response to Comment 5a above. The commenter apparently does not understand that the HEC-RAS analysis was not used to assess sediment transport directly, but rather used to provide fluid forcing inputs to a scour model that subsequently performed the sediment transport calculations. The HEC-RAS analysis by WEI provided all the essential fluid forcing inputs required by the scour model, including: fine scale topography, discharge, velocity, and depth profiles across each channel cross-section, in addition to the average velocity and depth at each cross-section. The scour model uses the HEC-RAS velocity inputs to calculate bottom boundary layers over sand beds and vortex shedding from exposed or partially exposed cobbles using the vortex lattice method, and then embeds those fine scale flow features in the HEC-RAS velocity field. The resulting composite velocity field is then used to drive state-of-art (peer reviewed) sediment transport algorithms for ideal granular (sandy) sediments, including: incipient motion, bedload and suspended load transport.

As an initial matter, there is no model other than the Vortex Lattice Scour-Burial Model that could have been appropriately used for the scour analysis. This model was peer reviewed and published in a professional engineering journal, (Jour.Oc.Eng, vol.32, no. 1, pp 78-90). Model selection was a subject of detailed scrutiny by USGS scientists (Dr. Scott Wright and his colleagues at the USGS California Water Science Center, Sacramento), who approved the use of this model on the Santa Ana River cobble scour problem at RIX, and also provided invaluable databases on cobble and sand grain sizes, Santa Ana River flow rates and measured sediment transport rates, which were used to calibrate the model. In fact, the model was calibrated with USGS field data collected in the inset channel of the Santa Ana River near the Riverside Avenue Bridge in 2014 and 2015. Thus the commenter's allegation that the model is, "not appropriate for the Santa Ana River" is incorrect. The fact that the model also performed well in the Missouri River also adds to the credibility and pedigree of the model.

The comment in the third bullet, that the scour analysis assumes a sand blanket "approximately 1 mm over the inset channel," is incorrect and not supported by any evidence. Calculating the thickness of the sand blanket that corresponds to a particular volume of sand in the inset channel is a very a complex 3-dimensional geometric problem. In order to make such a calculation, one would need to assimilate all of the channel cross section surveys that were measured as part of the Project hydrologic study because the sand blanket is not a flat surface, and its width and thickness varies continuously along the river with variations in channel depth, bends, bifurcations and with the cobble size distribution. In addition, one also has to account for the volume of sand that already exists under the biological baseline conditions in order to estimate the thickness of the volume which must be scoured to restore that baseline. SBMWD agrees there is value in running additional sand blanket scenarios in terms of providing guidance for potential adaptive management program formulation, but from the standpoint of proving feasibility of the RIX Facility discharge scour remediation proposal, the present analysis is adequate. For these reasons, SBMWD affirms that the scour analysis accurately depicts to the greatest extent feasible using the best

available tools and information the Project's reasonably anticipated effects on sediment transport within the Santa Ana River.

Response to Comment I6.

This comment provides a general introductory assertion regarding impacts to Santa Ana sucker. Response to specific comments are provided below; no further response is required.

Response to Comment I6a.

The Draft EIR analysis of impacts to biological resources concludes that impacts to Santa Ana sucker would be less than significant. The Draft EIR Executive Summary erroneously identified a significant impact. Refer to Response C11 for additional clarification.

Response to Comment I6b.

This comment states that: 1) a 10% reduction in flow would result in a 10% reduction of habitat; 2) a permanent 10% reduction in flow would be outside the current range of flow variability; and 3) no data are provided to support the conclusion of "no impact" to the Santa Ana sucker.

As an initial matter, the Draft EIR does not conclude that Project implementation will have no impact to the Santa Ana sucker. The Draft EIR concludes that with the incorporation of proposed mitigation, the Project will not have a significant impact (defined under CEQA as a substantial adverse impact) to Santa Ana sucker. SBMWD disagrees with the assertion that a 10% reduction in flow automatically results in a 10% reduction in habitat quality and quantity. These comments, and the implication that habitat would inevitably change to the detriment of the Santa Ana sucker, are not supported by any evidence or analysis. Although stream flow and aquatic habitat are inextricably linked, the correlation between flow and volume of habitat is typically less than 0.5, indicating that fish habitat is shaped by a multitude of factors in addition to flow. The Draft EIR's determination that the Project as mitigated will not have a substantial adverse impact on the Santa Ana sucker is supported by substantial evidence and analysis, including all of the best available data at the time of analysis and multiple studies designed specifically for answering the question of whether impacts would occur; refer to [Appendix 10.5, *Low Flow Study*](#).

Response to Comment I6c.

This comment presents concerns about the lack of velocity modeling in the habitat suitability curves. SBMWD agrees that incorporation of velocity data into the habitat models would have improved them. However, this was not possible due to modeling and data constraints, as explained in the supplemental study, *Evaluation of the Phased RIX Flow Reduction Plan on Santa Ana Suckers, Based on Predicted Changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing* (GEI 2014). However, SBMWD also suspects that water velocity is an important component of habitat suitability *because of its role in sediment transport*. The *Clean Water Factory Rapid Infiltration/Extraction (RIX) Low-Flow Sediment Scour and Transport Modeling in the Santa Ana River* (Michael Baker International 2015) explains that water velocities with the Project would be sufficient to restore clean cobble within the study reach in the event that the cobble were buried in fine sediment as a result of a storm. The new water velocity data mentioned by the commenter was not available at the time of GEI's study, but these may be a consideration for the Adaptive Management Plan.

Response to Comment I6d.

This comment asserts that all habitat suitability information used in the *Evaluation of the Phased RIX Flow Reduction Plan on Santa Ana Suckers, Based on Predicted Changes in Physical Habitat in the Santa Ana River from the Rialto Drain to the MWD Crossing* (GEI 2014) study is invalid because the geographic range of the Santa Ana sucker has shifted since the original suitability data were collected. SBMWD disagrees that a shift in the geographic range of the Santa Ana sucker invalidates the data used in the GEI 2014 study. Although this range shift was substantial, the data used in the 2014 study still shows that the Santa Ana sucker prefer higher-than-average depths and velocities in the River and are strongly associated with coarse substrate, which provides spawning habitat and a food source. This existing information was used to construct habitat models that provide a starting point for the Adaptive Management Plan that should, by definition, support development of refined and improved models and hypotheses as new information becomes available. Moreover, the analysis and impact determination is based not on the specific number of fish at any particular location but the known habitat requirements of Santa Ana sucker, and the predicted changes in hydrology and habitat.

Response to Comment I6e.

The phased approach was developed for a gradual transition and will be done in small increments. This will allow SBMWD to implement a continual assessment of Project operations, as well as a continual assessment of the impacts of each phase on the environment. The phased approach for reducing discharges will assist in avoiding or minimizing impacts to the Santa Ana River and the species it supports.

And as noted in the Draft EIR, impacts from the first two phases, and based on modeling, are expected to be less than significant. Despite these expectations of less than significant impacts, an Adaptive Management Plan (revised Mitigation Measure BIO-7) would be initiated to provide continual monitoring of the environment, including Santa Ana sucker, throughout each phase. As described on Draft EIR page 4.4-72, the Adaptive Management Plan “will be designed to monitor river hydrology, document annual changes in hydrology, aquatic and riparian habitats, as well as changes in Santa Ana sucker distribution, population densities, and to respond to any documented Project-related change that exceeds the expected baseline range of variability developed for the riverine environment, suitable sucker habitat and riparian habitat, so that the Project does not result in adverse effects to Santa Ana suckers or their habitat.” Data gathered during this process will be used to provide continual feedback and adjustments to the operations of the Clean Water Factory Project as well as improvements in biological monitoring and the Adaptive Management Program. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment I6f.

SBMWD disagrees with this assertion. While sophisticated modeling as was performed for the Draft EIR is capable of predicting changes in habitat, the Draft EIR acknowledges that because the Santa Ana River is a dynamic system, subject to multiple variables, it is not possible to know with certainty the specific changes that will occur in the River or its associated habitat over the life of the Project, or exactly how the fish and other species that inhabit the River will respond over time. As described in the Draft EIR, modeling has been conducted to document the fact that the initial phases will result in less than 10% impacts, which are in the range of natural variation and therefore, considered a less than significant impact. Continual monitoring is necessary to track and respond to natural changes, as well as Project-related changes, which are the foundation of the adaptive management process (learn by doing). With a dynamic hydrologic

system like the Santa Ana River, SBMWD acknowledges that there are unknowns in the hydrologic relationships with surface flows and groundwater throughout the length of the River, and that an adaptive management approach is a component of a long-term management process of Santa Ana sucker in the river. Because it cannot be known with certainty, the Draft EIR proposes Mitigation Measure BIO-7, which would require the preparation and implementation of an Adaptive Management Plan with specific monitoring and performance criteria designed to carefully monitor changes and respond to them in real time. Because substantial year to year and even daily hydrologic variation is typical within the Santa Ana River, this variation is part of the existing condition to which species that live there have adapted. As Project-related changes in discharge would occur gradually over time, the Adaptive Management Plan provides a mechanism to respond to potentially adverse changes in habitat before such changes result in substantial adverse impacts. As described in revised Mitigation Measure BIO-7, response actions include increasing the discharge rate if needed to avoid significant impacts. The Adaptive Management Plan thus ensures that Project-related changes in hydrology will not have a substantial adverse impact on species within the Santa Ana River. Refer also to revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment 17.

SBMWD disagrees with the commenter's opinion articulated in the first bullet that the Draft EIR's environmental setting discussion on groundwater basins is deficient in its description of the Bunker Hill sub-basins. SBMWD also disagrees with the commenter's opinion identified in the second bullet that the Draft EIR's environmental setting discussion on groundwater quality is deficient in addressing groundwater quality specific to the Bunker Hill sub-basins. It appears the commenter did not read the Draft EIR's analysis of potential water quality impacts from groundwater recharge, as each of the issues identified in the comment were addressed in the Draft EIR [Section 4.7](#) and Impact 4.7-1 in particular, which provides evidence and analysis of the Project's ability to recharge water with TDS and nitrate concentrations less than the water quality objectives of the Bunker Hill "A" and "B" groundwater subbasins. As noted on Draft EIR page 4.7-30, the Project would produce water for recharge that would have TDS and nitrate levels well below Basin Plan objectives for both Bunker Hill "A" and "B" subbasins, and thus, the Project would not require the use of any assimilative capacity.

SBMWD disagrees with the commenter's opinion, articulated in the second bullet, that the Draft EIR is deficient in that it does not adequately address groundwater quality specific to the Bunker Hill subbasins. The Draft EIR contains a report entitled *Recycled Water Planning Investigation Report* prepared by WEI (Draft EIR [Appendix 10.2.5](#)). Sections 2 and 3 of this report contains a description of significant groundwater quality issues in the San Bernardino Basin Area, as well as for the Bunker Hill "A" and "B" subbasins, as defined in the Basin Plan.

SBMWD disagrees with the commenter's opinion articulated in the second bullet that the Draft EIR "states without analysis or explanation, that the Project will meet water quality objectives of the groundwater basins (Bunker Hill "A" and Bunker Hill "B"), including objectives for total dissolved solids and nitrate." The [Preliminary Design Report](#) included in the Draft EIR describes the analysis that leads to the TDS and nitrate concentration in water produced and recharged with the Project (see Project Description in Draft EIR [Appendix 10.2.4](#)). The Draft EIR on page 4.7-30 also cites this report as footnote 8.

SBMWD disagrees with the commenter's opinion articulated in the second bullet that the Draft EIR "fails to adequately disclose that the Waterman and Twin Creeks Spreading Grounds are located in the Bunker Hill A subbasin, which has no assimilative capacity." The Draft EIR contains a report entitled *Recycled*

Water Planning Investigation Report prepared by WEI (Draft EIR [Appendix 10.2.5](#)). Figure 3-4 in this report contains a map that clearly shows the location of the Waterman and Twin Creeks Spreading Grounds in the Bunker Hill “A” subbasin, and clearly indicates that the Bunker Hill “A” subbasin has no assimilative capacity.

SBMWD disagrees with the commenter’s opinion articulated in the second bullet stating that “Groundwater modeling showing the retention time and RWC requirements can be met at the two recharge basins should be included in a recirculated DEIR in order to support statements like these made in the DEIR.” It is unclear as to what “these statements” mean. Please refer to the *Recycled Water Planning Investigation Report* (WEI 2010; Draft EIR [Appendix 10.2.5](#)). In the preparation of this report, WEI performed groundwater-modeling studies to determine which active municipal wells would likely be impacted by the Project’s recharge activities, the underground retention time, and the recycled water contribution at those wells; refer to Draft EIR [Appendix 10.2.5](#): Section 8, *Groundwater Recharge with Recycled Water*, and [Appendix C](#), *Estimated Time Series of Projected Recycled Water Contribution at Wells Down Gradient of the Recharge Facilities* therein. In compliance with the States’ Division of Drinking Water groundwater replenishment reuse regulations, SBMWD will be required to repeat this modeling exercise as part of a Title 22 Engineering Report. This report will include a detailed hydrogeologic assessment (including modeling) of the proposed recharge on the Basin and nearby active wells.

The third bullet alleges that the Draft EIR “lacks any analysis of the Chino Basin ambient groundwater quality, basin plan objectives, and impacts associated with groundwater recharge,” and thus cannot claim less than significant impacts for Impact 4.7-1. Recharge in the Chino Basin could not occur without approval of the Inland Empire Utilities Agency (IEUA), which has the primary responsibility for approving such recharge. If the Chino Basin were selected for groundwater recharge, it would be the responsibility of the IEUA as lead agency to assess the potential impacts of accepting water supplies produced under the proposed Project, if needed, before any recharge with recycled water from the Clean Water Factory could occur. This is standard practice for supply wheeling between agencies. This analysis is beyond the scope of the Draft EIR. The identification of the potential use of recycled water from the Clean Water Factory for recharge in the Chino Basin in the Clean Water Factory EIR does not commit SBMWD to a course of action with respect to discharge in the Chino Basin, and sufficient information is provided in the EIR for SBMWD to make an environmentally informed decision on the Project.

SBMWD disagrees with the commenter’s opinion articulated in the fourth bullet alleging that the Draft EIR does not adequately assess “impacts on the Bunker Hill “A” groundwater basin and nearby active municipal wells from proposed recharge activities.” Impacts on the Bunker Hill “A” groundwater basin and nearby active municipal wells were analyzed as part of the *Recycled Water Planning Investigation Report*; refer to Draft EIR [Appendix 10.2.5](#). As part of this report, WEI conducted groundwater-modeling studies to determine which active municipal wells would likely be impacted by the Project’s recharge activities, the underground retention time, and the recycled water contribution at those wells; refer to Draft EIR [Appendix 10.2.5](#): Section 8, and [Appendix C](#) therein. As described previously, this modeling exercise will be repeated as part of the Project’s Title 22 Engineering Report pursuant to the DDW Groundwater Replenishment Reuse regulations. This report will include a detailed hydrogeologic assessment (including modeling) of the proposed recharge on the Basin and nearby active wells.

Response to Comment 18.

This comment raises concerns regarding the relationship between the Project and the *Upper Santa Ana River Habitat Conservation Plan* (HCP). While the Project may be a covered activity under the HCP, the HCP is not dependent on the Project. SBMWD is confident that the Draft EIR fully complies with CEQA requirements. The HCP will have its own environmental impact report and neither the HCP nor its EIR are dependent on the Clean Water Factor Draft EIR. Refer to Draft EIR page 4.1-6 for an expanded discussion on the HCP.

Response to Comment 19.

This comment provides a general introductory assertion regarding mitigation. Response to specific comments are provided below; no further response is required.

Response to Comment 19a.

Mitigation Measure GHG-1 provides a variety of options to feasibly reduce GHG emissions below the significance threshold. These measures include limiting advanced water treatment production, providing onsite renewable energy, purchasing GHG offsets, or a combination thereof. Furthermore, other options can be identified if future technology is available and updated emissions factors are available. However, neither the analysis, nor Mitigation Measure GHG-1 rely on the implementation of future efficiencies as mitigation.

Mitigation Measure GHG-1 does not require emissions monitoring. As stated above, it includes options to reduce the Project emissions to a less than significant level.

Mitigation Measure GHG-1 pertains to energy consumption during operations of the facility and would be implemented prior to operation. The timing and verification mechanisms of the mitigation measures will also be identified in the Mitigation Monitoring and Reporting Program for the Project. SBMWD thus affirms that the Project's mitigation measures, including GHG-1, are fully enforceable and consistent with CEQA Guidelines Section 15126.4(a)(2).

Response to Comment 19b.

As indicated in Draft EIR Section 4.4, Mitigation Measure BIO-7 would be implemented prior to Project-related reduction in RIX discharge that results in a greater than a 10 percent reduction in available habitat in any reach where suckers may be affected. As discussed in the Draft EIR and in Mitigation Measure BIO-7, the conditions under which the 10 percent reduction in habitat are predicted to occur are based on the results of the Low Flow Study performed for the EIR and the specific flow rates at which those reductions would occur are identified in the Draft EIR. The 10 percent threshold is not arbitrary; as explained in the Draft EIR, this threshold was selected because it represents the range of historic variability in habitat in the River, based on analysis of historic conditions; refer to Draft EIR page 4.4-61. The Draft EIR also explains that the model is conservative and thus results are likely to be less than predicted in the model. What constitutes Santa Ana sucker habitat as referenced in the Draft EIR and Mitigation Measure BIO-7 is clearly and thoroughly described in the Draft EIR as being Weighted Usable Area, which includes a variety of characteristics important to the juvenile and adult Santa Ana sucker, including river depth, width, and substrate, among other factors. Refer to Draft EIR Section 4.4 for an expanded discussion.

Response to Comment I10.

This comment provides a general introductory assertion regarding Project feasibility. Response to specific comments are provided below; no further response is required.

Response to Comment I10a.

Comment noted. The comment does not raise issues regarding the adequacy of the Draft EIR's analysis of environmental impacts, and thus no further response is required. Regarding the suggested cost information, SBMWD notes that the Sterling Natural Resource Center (SNRC) Project cost figures do not include the costs associated with the design, construction, and operation of the sewer treatment plant that will need to be constructed in order to produce water. In addition, the Concept Study found that the Clean Water Factory is a very viable Project and ranked among the top (No. 1 Project scored 0.78, No. 2, SNRC, scored 0.78; No. 3 scored 0.75; and No. 4, CWF, 0.74). The study continued to state the Clean Water Factory Project was among "...the highest ranked Projects that would result in the desired near term yield." Refer also to Response to Comment I2e above, concerning the anticipated costs associated with the Clean Water Factory Project.

Response to Comment I10b.

While the water conservation is expected to reduce water usage, growth, including new connections, is also anticipated. There is no evidence to suggest that inflows will be insufficient to meet obligations under the Western Judgment. Mitigation Measure BIO-7 ensures that the Project's potential biological impacts to the Santa Ana River are less than significant.

Response to Comment I11.

This comment provides a general assertion that cumulative analysis underestimates impacts to Santa Ana River habitat. Response to specific comments are provided below; no further response is required.

Response to Comment I11a.

The Draft EIR analyzes what is considered to be a cumulative worst-case condition for potential future wastewater treatment plant discharge reductions in the study reaches based on the limit of acceptable potential impacts to biological resources; refer to Draft EIR page 3.0-36, 4.4-80, 4.7-23, and 4.7-39. There is a limit to the amount of discharge reduction that can occur without significant impacts; as a result, not all currently proposed or potential future discharge reductions are likely to be implemented. Depending on what happens with other proposed or future discharge reduction projects, the Project's contribution to a cumulative impact could be reduced. However, the Draft EIR assumes the maximum contribution of the Project within the reasonably foreseeable future cumulative condition.

Response to Comment I11b.

This comment suggests specific revisions to the cumulative impact analysis approach and findings, and suggests that cumulative impacts to Santa Ana River habitat be identified as significant. However, based on the analysis in the Draft EIR, impacts would be less than significant. SBMWD declines to make these suggested revisions.

Response to Comment I11c.

SBMWD is actively working with the USFWS to implement measures and improvements to mitigate impacts to Santa Ana sucker associated with on-going RIX Facility shutdowns. Fish capture during River dewatering has been encouraged by the USFWS until more effective fixes can be implemented and is part of the existing baseline; however, in the long-term that measure is expected to become obsolete as a result of improvements to the RIX Facility that will reduce the frequency and duration of any shutdowns, and mitigate the effect of any shutdowns by providing a supplemental water supply to the Santa Ana River for the benefit of Santa Ana sucker. Further, the Draft EIR proposes Mitigation Measure BIO-14, which would commit SBMWD to the implementation and ongoing funding measures to minimize potential adverse effects associated with temporary RIX Facility shutdowns; refer to Draft EIR page 4.4-83. Contrary to comment assertions, these measures are appropriate and sufficiently defined to support a finding that they would improve conditions.

Response to Comment I11d.

Impacts to water quality and hydrology and biological resources, including cumulative effects are fully evaluated in the Draft EIR. With regard to downstream water supply, as discussed in Draft EIR [Section 3.1.1](#), water rights in the Santa Ana River watershed were determined in stipulated judgments of the Superior Courts of Orange County and Riverside County that require maintenance of certain minimum flows in the Santa Ana River and the replenishment of groundwater basins to maintain certain water levels. By recharging groundwater basins, the Project will have a beneficial impact on groundwater resources and will not adversely affect legal users of groundwater. The Project also would not result in minimum flows in the Santa Ana River to fall below those specified in the stipulated judgments.

Response to Comment I11e.

The comment incorrectly states that the Draft EIR finds that GHG emissions would be significant and unavoidable on a cumulative level. Cumulative GHG emissions were found to be less than significant with the implementation of Mitigation Measure GHG; refer to Draft EIR page 4.3-43. It should be noted that the cumulative significant and unavoidable finding in Draft EIR [Table 1.0-2, *Summary of Impacts and Mitigation Measures*](#) refers to cumulatively considerable construction air quality impacts (criteria pollutants). However, these impacts are now mitigated to a less than significant level with new Mitigation Measure AQ-4. See new Mitigation Measure AQ-4 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment I12.

This comment provides conclusory remarks. Response to specific comments are provided above. No further response is needed.

Response to Comment I13.

The provided attachments have been included as part of the final EIR considered in addressing the comments of EVWD and will be included in the record of proceedings for the Project.

COMMENT LETTER J: SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY, MARK GIBBS, DIRECTOR OF AVIATION



San Bernardino International Airport

COMMENT LETTER J

June 8, 2016

City of San Bernardino Municipal Water Department
c/o John Claus, Director of Water Reclamation
399 Chandler Place
San Bernardino, CA 92408

RE: Clean Water Factory Project DEIR

Dear Mr. Claus:

This letter is in response the Draft Environmental Impact Report (DEIR) on the proposed Clean Water Factory Project located within the City of San Bernardino and the City of Highland.

The San Bernardino International Airport Authority (SBIAA) operates the San Bernardino International Airport, a commercial Federal Aviation Administration (FAA) certificated airport. The Airport is a 24-hour operation serving various types of aeronautical activities including air cargo, law enforcement air support, and essential US Forest Service fire response. As a commercial airport certificated by the FAA, there are specific requirements set forth in the Federal Aviation Regulations (FARs), Public Law, and State of California guidelines which SBIAA maintains compliance with in order to ensure the safety of aircraft operations.

The proposed Project is located within the western Airport Influence Area where low-flying aircraft routinely operate. The SBIAA requests that the City of San Bernardino Municipal Water Department (SBMWD) carefully consider the potential impacts of the limited facilities proposed for development within this area and specifically address the concerns set forth in FAA Advisory Circulars 150/5200-33B, 150/5200-34, as well as Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181), and State guidelines including the provisions set forth in the California Airport Land Use Planning Handbook.

The fourth alternative (Alternative 4, Chapter 6) discussed in the DEIR includes the "Alabama Street Effluent Pipeline and Redlands Recharge Basin" project component. This alternative includes the Alabama Street Effluent Pipeline and Redlands Recharge Basin project. Based on a preliminary review, the San Bernardino Municipal Water District (SBMWD) would consider utilizing this pipeline and a proposed extension to deliver recycled water to the Redlands Recharge Basins, adjacent to Alabama Street. Both the existing pipeline and the proposed extension to Alabama Street are located within SBIAA property, with a Conservation Area that was established by agreement between the SBIA and the U.S. Fish and Wildlife Service (USFWS). Due to this designation, SBMWD should not assume that any above ground disturbance may be permitted within the designated Conservation Management Area (CMA).

1601 East Third Street, Suite 100 • San Bernardino, CA 92408 • (909) 382-4100 • FAX (909) 382-4106
www.sbdairport.com

City of San Bernardino Water Department

2

June 8, 2016

The CMA is located within critical habitat for the San Bernardino kangaroo rat and the CMA also contains a large population of Santa Ana Woolly Star, a federally listed as “endangered” plant. These constraints are acknowledged within the discussion of Alternative 4 in Chapter 6 of the DEIR, but the significance of any proposed disturbances within the CMA should be taken into account of the sub-alternative in Alternative 4 is selected for implementation. SBIAA seeks a commitment from the District to directly involve it in any consultations with the USFWS for activities proposed within the CMA. We have an important stewardship role with our USFWS partners and need to ensure that any regulatory consultations do not conflict with the SBIAA stewardship role or with future Airport operations. The SBMWD should note that because of the State of California drought conditions, trapping of the Kangaroo Rat is not currently allowed within the Airport CMA. If SBMWD selects implementation of this alternative, substantially greater details on expected maintenance or upgrades to this pipeline must be provided.

4a

4b

4c

4d

Also, the Redlands Basin is located approximately 1/2 mile southwest of the Airport and can provide wildlife, particularly birds, with ideal locations for feeding, loafing, and reproduction and the potential for creating hazards to aircraft operations. The SBIAA requests additional information on mitigation efforts addressing the use of the Redlands Recharge Basins as a wildlife attractants and methods to manage the Basins to prevent conflicts with future Airport operations.

5

The SBMWD should ensure that both construction activities and the Project adhere to requirements set forth by the FAA, Public Law, and the State of California for the continued safety of pilots operating in the vicinity of the San Bernardino International Airport. For more information on these requirements, please reference the following: FAA Advisory Circular 150/5200-33B; FAA Advisory Circular 150/5200-34; Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181); and the California Land Use Planning Handbook. SBIAA requests that SBMWD take into consideration and address the aforementioned concerns as they relate to the proposed design and construction of the Project on or in the vicinity of the San Bernardino International Airport.

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Sincerely,

Mark Gibbs
 Director of Aviation
 San Bernardino International Airport Authority
 (909) 382-4100 Ext. 131

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RESPONSE TO COMMENT LETTER J: SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY, MARK GIBBS, DIRECTOR OF AVIATION

Response to Comment J1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information about the San Bernardino International Airport Authority (SBIAA). Responses to specific comments are provided below; no further response is required.

Response to Comment J2.

The commenter requests that the SBMWD consider the impact of facilities proposed within the SBIAA Airport Influence Area, and address the concerns set forth in Federal Airport Administration (FAA) Advisory 150/5200-33B, 150/5200 34 and Section 503 of the Aviation Investment and Reform Act. Implementation of the Clean Water Factory Project would not involve a land use which would affect aircraft or the airspace within the Project area; refer to Draft EIR Impact 4.6-7 at page 4.6-21. As such, construction and operation of the proposed Project would not impact the daily operations of the SBIAA and would not conflict with FAA Advisory 150/5200-33B, 150/5200-34 and Section 502 of the Aviation Investment and Reform Act.

Response to Comment J3.

The commenter notes that the Alabama Street Effluent Pipeline Alternative encroaches into the SBIAA Conservation Management Area (CMA) and as a result, it should not be assumed that above ground disturbance would be allowed. The Draft EIR acknowledges the potential impact within the CMA and identifies that jack and bore construction might be utilized to avoid ground disturbance within this area; refer to Draft EIR pages 6.0-14 and 6.0-15. The Draft EIR also proposes Mitigation Measure ASEP-1 to avoid significant adverse impact to sensitive species, including San Bernardino kangaroo rat, Santa Rana River wooly star, and others that are known to occur within the conservation management area. Mitigation Measure ASEP-1 requires coordination with the San Bernardino International Airport Authority.

Additionally, Draft EIR page 6.0-12 has been revised to further elaborate on the Alabama Street Effluent Pipeline Alternative as follows:

The Alabama Street Effluent Pipeline would transport water... An approximately 200-foot section would traverse undeveloped land within the San Bernardino International Airport Authority (SBIAA) habitat conservation area. This area is subject to a Conservation Management Plan (CMP), and encompasses a portion of the eastern and southeastern airport property that was dedicated when the U.S. Air Force initiated the process of closing Norton Air Force Base and transferring operations and ultimately ownership of the Base airport facilities to the SBIAA. The CMP identifies three management areas: Core Management Area-1 (CMA-1); Core Management Area-2 (CMA-2); and Open Space Management Area-1 (OSMA-1). The 200-foot segment would border the southern boundaries of CMA-1 and OSMA-1. As such, any construction or staging associated with this segment would require coordination with the SBIAA and United States Fish and Wildlife

Service (USFWS), and, if necessary, this relatively short pipeline section may be constructed using jack and bore or other trenchless construction methods to avoid sensitive habitat.¹⁵

This change provides a minor update, correction, or clarification and does not represent “significant new information” as defined in CEQA Guidelines Section 15088.5.

Response to Comment J4a.

Although no impacts are expected to the CMA, Draft EIR page 4.4-49 acknowledges the Conservation Management Plan in place for the SBIAA and explains that the Conservation Management Plan would only apply to the potential pipeline alternatives described under Section 6, *Alternatives to the Proposed Project*. If impacts were later identified, SBMWD would coordinate with SBIAA, and include SBIAA in any consultation with the wildlife agencies that may occur.

Response to Comment J4b.

The commenter requests participation in any United States Fish and Wildlife Service (USFWS) consultation for any Project-related activities within the SBIAA CMA. This comment is duly noted, and SBIAA responsibility with respect to the SBIAA, and its interest in consultation participation will be recognized in the EIR; refer to Response to Comment J3 above.

Response to Comment J4c.

The commenter notes that San Bernardino kangaroo rat trapping is not currently permitted in the CMA due to the State’s ongoing drought. This comment is duly noted. SBMWD will consider this information during Project deliberations.

Response to Comment J4d.

The commenter notes that if the Alabama Street Effluent Pipeline Alternative is selected, additional information will need to be provided regarding the Project’s expected maintenance or upgrades. The Alabama Street Effluent Pipeline and Redlands Recharge Basin Alternative are evaluated as part of Alternative 4 (*Project Variations under Consideration*); refer to Draft EIR page 6.0-10. Alternative 4 includes a description of the Alabama Street Effluent Pipeline and Redlands Recharge Basin along with the relevant assumptions and concepts identified for this Project variation. In compliance with CEQA Guidelines Section 15126.6, the Draft EIR includes an analysis of the Alabama Street Effluent Pipeline Alternative’s impacts as compared to the proposed Project and identifies whether any of the potentially significant Project effects would be avoided or substantially reduced through implementation of this alternative; refer to EIR page 6.0-12. This analysis is the result of two separate technical reports prepared for this alternative, which are provided in Appendix 10.10, *Alabama Street Effluent Pipeline Studies*.

Response to Comment J5.

The commenter requests additional information on mitigation efforts addressing the use of the Redlands Recharge Basins as a wildlife attractant and methods to prevent potential conflicts with SBIA operations.

¹⁵ Note: SBMWD has included this recycled water recharge option consistent with regional recycled water stakeholder discussions. The actual recharge location and end user extraction would be the responsibility of the appropriate municipal entity with recharge authority over the affected basin.

It should be noted that the Redlands Recharge Basin are currently active and operated by the City of Redlands. As such, selection of this alternative would not involve a change in operation that would exacerbate wildlife interference with airport operations. No additional mitigation efforts would be necessary in this regard.

Response to Comment J6.

The commenter requests that SBMWD ensures construction and operation of the proposed Project is in compliance with the requirements set forth by the FAA, Public Law, and State of California, and that other concerns raised in this letter be addressed. Construction and operation of the Project would comply with all applicable laws and SBMWD will coordinate with SBIAA as appropriate.

COMMENT LETTER K: SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT, DOUGLAS HEADRICK, GENERAL MANAGER



COMMENT LETTER K

June 8, 2016

VIA ELECTRONIC MAIL: john.claus@sbmwd.org

John A. Claus
City of San Bernardino Municipal Water Dept.
399 Chandler Place
San Bernardino, CA 92408

Re: Comments of San Bernardino Valley Municipal Water District on Clean Water Factory
Draft Environmental Impact Report

1. *Introduction and Summary of Comments*

The San Bernardino Valley Municipal Water District (Valley District) appreciates the opportunity to comment on the Draft Environmental Impact Report (Draft EIR) for the Clean Water Factory (Project) issued by the City of San Bernardino Municipal Water Department (City). Valley District also appreciates the City's extending the time period for the submission of comments due to the publishing errors that occurred upon release of the Draft EIR.

1

The Clean Water Factory project aims to reduce secondary effluent that is currently conveyed from the San Bernardino Water Reclamation Plant (SBWRP) to the Rapid Infiltration and Extraction (RIX) facility and discharged to the Santa Ana River. The proposed project would construct new treatment facilities and conveyance facilities to pump water from the new treatment plant to existing recharge basins overlying the Bunker Hill Groundwater Basin and the Chino Groundwater Basin. The project proposes to construct up to 15 MGD of advanced wastewater treatment facilities, including a 5 MGD membrane bioreactor expansion, a tertiary filtration process, a nano/reverse osmosis membrane treatment system and advanced oxidation disinfection process, to provide tertiary treated water for direct use to customers. Minor updates to the RIX facility would include the installation of a new disinfection system, storage and pumping facilities, and a conveyance pipeline connection to Chino Basin for groundwater recharge. The project would construct a system of pipelines, pump stations, and storage tanks to convey advanced treated recycled water from SBWRP to existing recharge basins.

Valley District wishes to make three points at the outset of these comments. First, Valley District takes its role as the regional wholesale water supplier and, by virtue of the *Orange County* and *Western* Judgments, co-Watermaster of the San Bernardino Basin Area (SBBA),¹

2

¹ The San Bernardino Basin Area (SBBA) is the groundwater basin lying generally to the north and east of the San Jacinto Fault (which has sometimes been described as the Bunker Hill Dike). The SBBA is composed of the

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Division 1

GIL NAVARRO
Division 2

SUSAN LONGVILLE
Division 3

MARK BULOT
Division 4

STEVE COPELAN
Division 5

DOUGLAS D. HEADRICK
General Manager

John Claus
June 8, 2016
Page 2

very seriously. As a result, Valley District has taken the lead on a number of regional water supply projects (most recently, the Santa Ana River Conservation and Conjunctive Use Project), water supply planning studies (most recently, the Regional Recycled Water Concept Study), and efforts to streamline the permitting of water supply projects (most recently, the proposed aquatic Upper Santa Ana River Habitat Conservation Plan). We are concerned that the Draft EIR fails to understand the nature of these projects, wishes to reject these projects, or – most poignantly – wishes to advance only the City’s projects at the expense of other water supply projects that would serve the region. Valley District is convinced that the most effective way forward for all of the people of the San Bernardino Valley is for public agencies to cooperate and work together to build a coordinated set of projects to provide water supply reliability to our region. Seeking to advance the City’s interests at the expense of others in the region is a recipe for disaster.

2

Second, Valley District believes that it is important for public agencies to act with integrity and in a straightforward manner. The Draft EIR – most notably in its discussion of biological resources but also in other places – adopts many of the same mitigation measures and strategies as Valley District employed in the Draft and Final EIRs for the Sterling Natural Resource Center (SNRC) project². Yet, the City has sued Valley District and East Valley Water District over that EIR, alleging that many of the mitigation measures and strategies that Valley District used in the Sterling Natural Resource Center EIR and that are incorporated – in many cases word for word – in the Draft EIR (Draft EIR, p. 4.4-73) violate the California Environmental Quality Act (CEQA). Valley District believes that when the City engages in this type of duplicity, it becomes very difficult to develop the type of regional cooperation that best serves the people of the San Bernardino Valley.

3

In the present case, the City has sued Valley District over a project that will serve over 66,000 of the City’s residents, those who reside within the boundaries of East Valley Water District. Those residents – about 30% of the City – are now forced to pay the lawyers on both sides of that lawsuit over alleged violations of CEQA relating to measures that the City has incorporated – in some cases, lock, stock and barrel – into its own EIR. It is unfortunate that a bankrupt city has chosen to use public funds in such an impetuous and improvident manner.

Third, Valley District believes that it is important for public agencies to invest scarce public resources in a cost-effective manner. The cost of recycled water generated by the Project is estimated at approximately \$2,200/acre-foot. This high cost is due to the need for advanced treatment required simply because the City has chosen to deliver the recycled water to a basin that does not have assimilative capacity. This is in contrast to the SNRC which does not require advanced treatment thus substantially reducing the cost of the recycled water. Moreover, as discussed below, the Regional Recycled Water Concept study, a copy of which is attached to

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Bunker Hill groundwater basin and the Lytle basin, which originally were thought to be separate groundwater basins but are now properly understood to be part of a single groundwater basin.

² The Draft EIR, at pages 4.4-72 and -73, lists five potential “responses to variations” that may be employed should monitoring identify conditions that fall outside the adopted acceptable range for physical and biological conditions. Four of these measures were committed as Mitigation Measures in the Sterling Natural Resource Center FEIR to offset direct and indirect impacts to Santa Ana sucker.

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these comments, indicates that expanding the SNRC project to accept some of the effluent that would be generated by the City of San Bernardino could result in groundwater replenishment of up to 17,600 acre feet/year at a cost that is substantially lower than the CWF. This alternative provides approximately 81% of the water benefit for about 60% of the cost of the proposed Clean Water Factory (Regional Recycled Water Concept Study, Appendix B "Conceptual Project Summary Sheet," page 86 of PDF). Thus, Valley District believes that the new water supply generated by the Project, as proposed, is simply too expensive at this time and that there are more cost-effective ways for the City of San Bernardino to obtain the water supply benefits of the Project. Valley District believes that CEQA requires the City not only to acknowledge those alternatives, but also requires the City to abandon a cost-prohibitive project in favor of a regional project that meets the goals and objectives of the Project.

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In summary, and as described in more detail below, Valley District believes that the Draft EIR fails to satisfy the standards for an adequate EIR in a number of important ways. As a result, the City must substantially revise the Draft EIR and then recirculate the Revised Draft EIR for public review. Valley District hopes that the City will accept this letter as an offer of a better direction for all the people that we jointly serve. Valley District officials and staff stand ready to meet with representatives of the City to revise the Project along the lines described in these comments.

2. *The Western Judgment*

Much of the Draft EIR is based on the false assumption that the City has an obligation to replenish the groundwater basins in the San Bernardino Valley under the 1969 *Western Judgment*. (E.g., Draft EIR, p. 1.0-1). The City, due to the fact that its groundwater production has increased 150% since the 1960's when the Judgment was approved, *does* have a responsibility to provide the funding for recharge water to the basin. However, in consideration of the City's ratepayers who will be forced to pay for the CWF, the City should implement the alternative that provides the best value. Instead the City has chosen to move forward with essentially the same project it envisioned almost a decade ago even though it is now known to be the most expensive alternative available to them.

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Further, while the Project could result in additional groundwater replenishment in the SBBA, it would be inaccurate to describe that replenishment as legally required or capable of meeting replenishment obligations as they are defined by the 1969 *Western Judgment*. There is no environmental benefit to recharging treated effluent in the Bunker Hill A groundwater basin rather than in Bunker Hill B groundwater basin, as proposed in the Draft EIR. Those two basins are hydraulically connected, with the Bunker Hill A groundwater basin generally downgradient of the Bunker Hill B groundwater basin. Accordingly, the comparison of those replenishment locations for treated effluent can be made on the basis of cost and environmental impacts, both of which favor replenishment of treated effluent in the Bunker Hill B groundwater basin. Replenishment of the Bunker Hill A groundwater basin is better done through the use of State Water Project water. This is because Valley District has a high capacity turnout from the State Water Project that delivers water to roughly the same location as that proposed for the CWF.

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Instead of spending an additional \$1,500 per acre-foot, the City should enter into an agreement with Valley District under which Valley District would provide the City with State Water Project water (which can be used to recharge the Bunker Hill A groundwater basin due to its good water quality) and the City would purchase that water and deliver the water to its customers, thereby creating “in-lieu” recharge of the Bunker Hill A groundwater basin.

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a. Groundwater Replenishment Under the Terms of the *Western Judgment*

The *Western Judgment* implements the regional allocation of water supplies from the Santa Ana River found in the *Orange County Judgment*. Copies of both Judgments are attached to these comments for the City’s reference. Under the terms of the *Orange County Judgment*, Valley District, Inland Empire Utilities Agency (formerly the Chino Basin Municipal Water District) and Western Municipal Water District of Riverside County have obligations to release specified quantities of water to ensure that Orange County Water District receives 42,000 acre-feet/year of “Base Flow” at the Prado Dam. The *Western Judgment* goes into greater detail on the management of the groundwater basins in the “Upper Area” (the SBBA and the Rialto-Colton Basin). Under the terms of the *Western Judgment*, the City and other so-called “non-Plaintiffs” may pump groundwater from the SBBA for reasonable and beneficial use within their boundaries *without incurring the obligation physically to replenish the groundwater basin*. If the total pumping over a five-year period by the non-Plaintiffs exceeds the safe yield of the SBBA, then *Valley District* is obliged to provide the water to replenish the SBBA either by using credits accrued from previous years or by importing water from the State Water Project for others like the City of San Bernardino to purchase for recharge or otherwise. To date, as shown in the most recent report of the *Western Watermaster*, Valley District has been able to rely on credits to meet any replenishment obligations. Thus, any claims in the Draft EIR that the City has an obligation physically to replenish the groundwater basin per the 1969 *Western Judgment* are incorrect.

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However, the fact that the City of San Bernardino may not have an obligation physically to replenish the groundwater basin under the terms of the *Western Judgment* does not mean that the City may pump any quantity of water that it chooses and demand that Valley District import water to meet that need. The *Western Judgment* expressly did not make provision for the allocation of the costs of importing replenishment water. Part of the reason for this probably stems from the fact that, under the *Four Cities Judgment* (*Orange County Water District v. City of Riverside*, San Bernardino County Superior Court No. 84671), the City of San Bernardino was substantially limited in its ability to deliver water to its residents. The 1969 agreement between the City and Valley District lifted that restriction, thereby enabling the City to grow and develop. In light of the fact that water use within the City of San Bernardino has subsequently increased from about 20,000 acre-feet/year in the 1960’s to about 50,000 acre-feet/year at present, it would be unreasonable for the City to suggest that it has no obligation to pay for replenishment water. Recognizing this reality, the City – together with many other cities and water districts in the San Bernardino Valley – are working to develop a Groundwater Sustainability Council that would fairly allocate the obligation to pay the costs of bringing replenishment water to the San Bernardino Valley from Northern California.

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b. The City is Required to Release 16,000 afy

By contrast, the City *does* have an important obligation to Valley District which the Draft EIR seems to ignore. By means of an agreement dated April 10, 1969 and in response to the City being released from severe water supply restrictions under the terms of the *Four Cities* Judgment, the City of San Bernardino agreed that it would – in perpetuity – discharge at least 16,000 acre-feet/year of treated effluent that meets the water quality standard established by the Regional Water Quality Control Board into the Santa Ana River. A copy of that agreement is attached to these comments. As discussed below, the 16,000 acre-feet/year requirement translates into approximately 14.3 million gallons/day (MGD) or approximately 22 cubic feet/second (cfs). Therefore, the City has a contractual obligation to discharge 14.3 MGD into the Santa Ana River. As shown below, because phase 5 of the Project would reduce discharges by the City to below 22 cfs (Draft EIR, p. 4.7-24), that phase of the Project is legally infeasible and must be excluded from any final approval of the Project by the City. To do otherwise is to require Valley District to file suit seeking a declaration of rights and an injunction requiring specific performance of the 1969 agreement.

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c. The City May Not Export Any Water from the San Bernardino Basin Area

The Draft EIR also notes at several points that treated effluent from the Project could be exported by the City to purchasers in the Chino Basin or other areas not tributary to Riverside Narrows. (Draft EIR, p. 1.0-3) Such export of water would violate the *Western* Judgment, for two reasons. First, non-Plaintiffs like the City only have a right under the *Western* Judgment, as noted above, to use water within their boundaries for reasonable and beneficial purposes and quantities. Nothing in the *Western* Judgment grants the City any right to export treated effluent originating in the SBBA and the *Western* Judgment certainly does not give the City the right to export treated effluent that, in part, was formerly imported from the State Water Project. Second, even if the City had the right to control treated effluent, still the provisions of the *Western* Judgment that forbid out-of-basin export would also forbid the export of such treated effluent. The *Western* Judgment carefully balances the need for the extraction of groundwater for municipal purposes against the need to limit the place of use of those extractions so as not to undermine the regional allocation of water supplies contained in the *Orange County* Judgment. Valley District is currently engaged in litigation on this very issue against San Gabriel Valley Water Company. Thus, the City must reject any element of the Project that involves the export of water outside the City's service area as legally infeasible and not include that element of the Project in the final approval of the Project. To do otherwise is to require Valley District to file suit seeking to enjoin the Project as violating the *Western* Judgment.

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d. Conclusion

Thus, the legal infirmities associated with the Project have three major consequences. First, exporting treated effluent to the Chino Basin or elsewhere would violate the *Western Judgment* and so is legally infeasible. Second, reducing the discharge of treated effluent below 14.3 MGD or 22 cfs as proposed in Phase 5 would violate the 1969 agreement between the City and Valley District, and so that element of the Project is also legally infeasible. Third, any proposed groundwater replenishment should be conducted in the location(s) and in the manner(s) that: (i) have the least adverse impacts on the environment and (ii) can be accomplished at the least cost per acre-foot. As will be shown below, these criteria mean that the City should abandon the Project as proposed and instead adopt and implement a smaller regional recycled water project as suggested by Valley District.

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3. *Improper Baseline*

One of the key elements in analyzing the potential effects of the Project on the environment is to properly identify the environmental baseline for the analysis. If the analysis is conducted using an incorrect baseline, then the environmental analysis will either overestimate or underestimate the effects of the Project. In neither case, however, will the public have a fair and accurate evaluation of the potential effects of the Project on the environment, which is the fundamental purpose of CEQA. The Draft EIR improperly defined the baseline for its analysis of hydrology and biology and so the Draft EIR must be recirculated. Moreover, because the Draft EIR used an inaccurate baseline, much of the analysis in the Draft EIR must be redone before the document is recirculated, so as to reflect an appropriate baseline.

10a

Table 4.7-5 (Draft EIR, p 4.7-24) describes the baseline that was used for the Project's analysis of impacts on the Santa Ana River: "For the model, baseline discharge was based on average RIX discharge measured on October 18-19, 2012. Average discharge was approximately 53 cfs. Annual RIX discharge has varied from 55.7 cfs in 2010 to 48.4 cfs in 2013." However, the Draft EIR's estimate of baseline discharge from the RIX facility does not tell the whole story. Figure 1, which is a figure recently presented by the U.S. Geological Survey (USGS), provides the information needed to evaluate the Draft EIR's discussion of the appropriate baseline for flows in the Santa Ana River.

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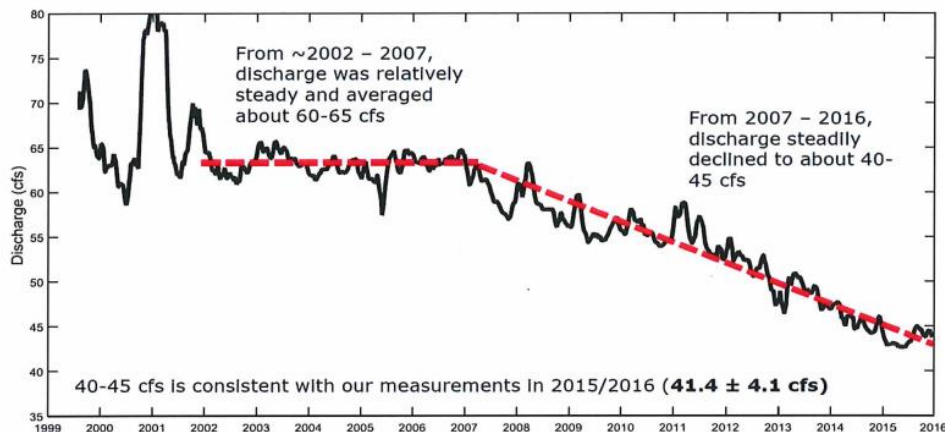


Figure 1. RIX Discharge Record showing steady decline of discharge amounts from 1999 to 2016 and current discharge amounts of approximately 40-45 cfs (Data source: USFWS April 2016, Figure: USGS Jun 2016).

10a

Two points in Figure 1 merit mention. First, the USGS currently estimates discharge from RIX at between 40 and 45 cfs, not the 53 cfs used as the baseline estimate in the Draft EIR. If the real discharge rate is 40 cfs, then the Draft EIR overestimated the baseline (and consequently underestimated the potential effects of the Project by about 1/3. If the discharge rate is 45 cfs, then the Draft EIR overestimated the baseline and underestimated the effects of the Project by 17%. The USGS measurements in 2015/16 were about 41.4 cfs, which would mean that the baseline underestimated potential effects on the environment by about 28%.

Second, the discussion in Table 4.7-5 entirely ignores the very consistent trend line extending from 2007 to the present that has resulted in substantial reductions in the discharge from the RIX facility. As shown in Figure 1 above, this trend has continued for almost a decade in a fairly consistent manner. The baseline should have incorporated this trend into its analysis or given reasons why the trend will not continue. In the absence of those reasons, the Draft EIR's analysis underestimates all effects relating to the discharge of treated effluent into the Santa Ana River by at least 28-33% and probably by a greater factor. This error requires that the City completely revise the Draft EIR and recirculate a revised draft EIR for public review and comment.

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4. Hydrology

Table 4.7-5 also summarizes the Draft EIR's conclusions regarding the potential effects of the Project on the Santa Ana River's hydrology. The Draft EIR states (at page 4.7-24):

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“The reduction of discharge from the RIX facility, as outlined in Table 4.7-5, Proposed RIX Discharge Phased Reduction Scenarios, below, would have impacts to the hydrology of the Santa Ana River in proximity to the outfall due to the reduced flow leaving the facility. The later phases of the discharge reduction would alter the depth, width and velocity of flow at the Santa Ana River proximal to the outfall. However, the RIX Phased Discharge Reduction *would have no impact* on the River’s natural hydrology and would be implemented in a phased approach in order to minimize any potential hydrological effects that would occur otherwise.” (emphasis added)

The Draft EIR continues its analysis, concluding that the 52% reduction in flow proposed for the Project would only result in a 13-14% reduction in the depth of the Santa Ana River, in a 5-13% reduction in stream width, and a 10-41% reduction in velocity, depending on stream reach.

There are two fundamental errors with this analysis under CEQA. First, the analysis does not comport with basic principles of hydrology. The Project proposes to reduce flows in the Santa Ana River by about half and claims that the width and depth of the stream will be reduced by only about 10%. This is unlikely to occur unless the channel were highly incised and fixed (i.e., with steep banks), which is not the case in the Santa Ana River. The Santa Ana continually exhibits frequently shifting low-flow channel(s) with changing channel morphology based on flow conditions. In order to gain a true understanding of how flow would affect depth and width, a fine-scaled (every few meters) field survey that measures current topography of the low-flow channel would need to be collected for use in a multi-dimensional model. This was not performed for the Project analysis and a multi-dimensional model was not created. Thus, because the Project’s modeling must not conform to the physical geometry of the Santa Ana River, the analysis in the Draft EIR is not adequate under CEQA. Second, assuming that there could be a 52% reduction in flows with about a 10% reduction in width and depth, the reduction in velocity (estimated by the Draft EIR as up to 41%) would need to be significant. But, the Draft EIR claims that the reduction of 41% in velocity is not a significant impact on the environment, though it fails to provide any reason for that conclusion. Again, this analysis fails to meet the standards established in CEQA to provide a clear and accurate understanding of the potential effects of the Project on the environment.

Perhaps the reason that the Draft EIR’s analysis of hydrology yields counter-intuitive results is that the Draft EIR used a modeling tool that was not suited for the task. HEC-RAS is a 1D model. A 2D model is necessary for spatially distributed velocity and it is the standard approach for PHABSIM analysis of fish habitat impacts which was used by the study authors to assess impacts to Santa Ana sucker. However, the authors of the GEI Santa Ana Sucker Habitat Impacts Report (GEI 2014), which was included as an appendix to the Draft EIR, acknowledge that there are “limitations of the modeled velocity data, where the results do not reflect the fine-scale variability in velocity that would occur in the river and is needed for PHABSIM modeling” (Appendix 10.5, p. 773). However, despite this caution in their own report, the Project then goes

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on to determine impacts that may be significant based on the faulty PHABSIM model. The EIR states, “The intensity of effects on Santa Ana suckers (i.e., “No Impact”, “Less than Significant Impact”, and “Potentially Significant Impact”) were evaluated on a case-by-case basis for each stream reach using the PHABSIM output” (Appendix 10.5, p 766). Table 6 of the GEI report (Appendix 10.5, p. 767), illustrates how the intensity of effects to the Weighted Usable Area (WUA) for Santa Ana sucker are used as a threshold for significance determination (*e.g.* “No Impact” category is defined as less than 10% changes to the WUA, “Less than Significant” category is defined as 10-25% changed in adult WUA, etc.). However, regarding the Weighted Usable Area impact analysis, the GEI study authors caution that:

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“given that modeled velocities do not reflect the fine-scale variability in velocity in the river, and the absence of any modeled data that reflect the deep and slow velocities that is the preferred habitat for Santa Ana suckers based on observational data collected by SMEA (2003, 2004) in the river, the HEC-RAS velocity data is not suitable for use in this PHABSIM modeling. As such, WUA results that incorporate velocity as a modeling parameter should be used with caution when interpreting impacts.” (Appendix 10.5, p. 792)

In other words, the Draft EIR inadequately analyzes the potential impacts of the Project on Santa Ana sucker habitat suitability because the modeling only captures results for one variable (depth). This unacceptable analysis of impacts to a protected species was done at the same time as the study authors caution, as detailed above, that the modeling used for the Draft EIR yields unreliable results for velocity.

There was also no analysis of sediment transport as a function of velocity changes and the subsequent effect on spawning and forage substrate availability. This is a fundamental flaw in the effects analysis as velocity is a crucial component for Santa Ana sucker habitat suitability due to the relationship between water velocities and the movement of sand off coarse substrate material. Without a strong analysis of the effects of velocity, it is impossible to assess potential impacts to Santa Ana sucker and its habitat. In this case, the study’s own authors admit that “without such fine-scale velocity modeling, the habitat availability results that incorporate velocity as a modeling parameter *should not be considered* in the effects analyses until velocity modeling can be refined” (Appendix 10.5, p. 786, emphasis added). It is clear that additional effects analyses and modeling should be completed in order to have a full understanding of the Santa Ana sucker impacts. In short, the modeling tools used are simply not appropriate to the tasks. This failing – by itself – requires that the Draft EIR be recirculated to provide the public with an adequate and accurate understanding of the potential effects of the Project.

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In addition to using the wrong modeling tool, the Draft EIR’s analysis of Santa River hydrology relies on an outdated assumption. Prior to about 2000, the reach of the Santa Ana River below the RIX discharge was generally understood to be a “gaining” reach, i.e. a reach in which the groundwater table is higher in elevation than the streambed, so that groundwater flows into the stream from the sides of the channel. Since the early 2000’s, though, it has become clear that the reach of the Santa Ana River below RIX is a “losing” reach, i.e., a reach in which the

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groundwater table is lower in elevation than the streambed, so that surface water flows out of the Santa Ana River and into the adjacent groundwater basin(s). Attached is a graph (Figure 2) showing losses in surface flow between the RIX outfall and Mission Blvd. and also compares the current losing condition to that of gaining river conditions between Riverside Ave. and Mission Blvd. in 2001. The USGS estimates that on average 15 cfs of surface flow is being lost to infiltration between RIX and Riverside Ave. and another 5 cfs between Riverside Ave and Mission Blvd.

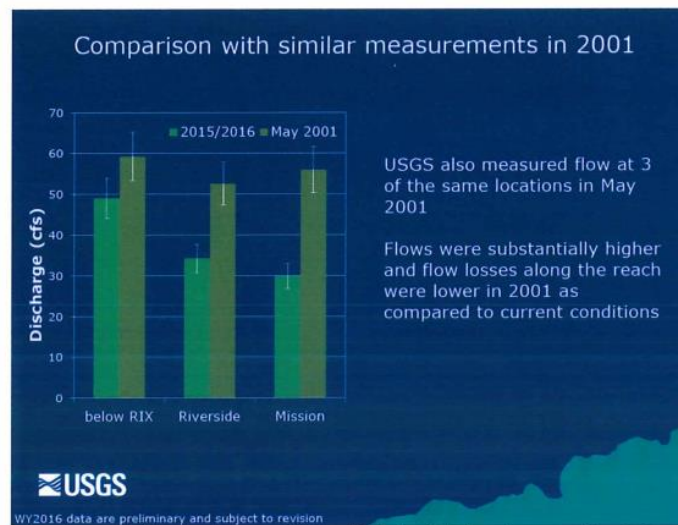


Figure 2. Surface flow lost to infiltration between RIX and Mission Blvd. and a comparison between conditions in 2016 versus 2001 at the same locations (USGS 2016)

Because the reach of the Santa Ana River below the RIX discharge is a losing reach, the analysis in Table 4.7-5 does not fairly or accurately reflect flows in the Santa Ana River *with* the Project. That table purports to show flows in the Santa Ana River but it ignores the fact that between 10 and 20 cfs of the water discharged into the Santa Ana River is lost between the RIX discharge and Riverside Narrows. If the loss is 10 cfs and that loss rate is added to the effects of the Project described in Table 4.7-5, then the effects of Project would be as follows:

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Phase	Proposed Project	Percentage Reduction in Flow	With Downstream Losses (10 cfs)	Percentage Reduction in Flow	With Downstream Losses (20 cfs)	Percentage Reduction in Flow
Baseline	53.0		43.0		33.0	
Phase 1	44.9	15	34.9	34	24.9	53
Phase 2	38.4	28	28.4	46	18.4	65
Phase 3	32.2	39	22.2	58	12.2	77
Phase 4	26.3	50	16.3	69	6.3	88
Phase 5	20.8	61	10.8	80	0.8	98

It simply is not plausible for the Draft EIR to contend – as it implicitly does – that a reduction of 1/3 of the flows in the Santa Ana River (as would occur during Phase 1 if the loss downstream of RIX is only 10 cfs) is less than significant. This conclusion is reinforced by the fact that the model purporting to show a less than significant result is not a model that can properly be used to model this reach of the Santa Ana River (as discussed above). Thus, because the Project by itself would have a significant adverse effect on the hydrology of the Santa Ana River, the Draft EIR must be recirculated to provide the public with an accurate accounting of the effects of the project.

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Not only are the project-specific effects of the Project significant on the Santa Ana River's hydrology, the cumulative effects of the Project together with all other past, present and reasonably foreseeable future projects are also significant, as illustrated in the following table:

Project Phase	Project Proposed Discharge	Sterling Natural Resource Center	Available Discharge	Contractually Required Discharge	Downstream Losses to Riverbed Infiltration		Total Available for Project	
					10 cfs	20 cfs	10 cfs losses	20 cfs losses
Baseline	53.0	-9.3	43.7	-22.1	-10	-20	11.6	1.6
Phase 1	44.9	-9.3	25.6	-22.1	-10	-20	3.5	-6.5
Phase 2	38.4	-9.3	29.1	-22.1	-10	-20	-3	-13
Phase 3	32.2	-9.3	22.9	-22.1	-10	-20	-9.2	-19.2
Phase 4	26.3	-9.3	17.0	-22.1	-10	-20	-15.1	-25.1
Phase 5	20.8	-9.3	11.5	-22.1	-10	-20	-20.6	-30.6

Thus, if we assume that the current baseline discharge from the RIX facility is 45 cfs (which is generous, given the USGS data referred to above) and assume only 10 cfs of downstream losses, there will be about 3.5 cfs or about 2,500 acre-feet/year available for diversion from the water discharged to the Santa Ana River after accounting for the City's obligations under the 1969 Agreement with Valley District and the reduction in influent due to the Sterling Natural Resource Center Project.

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In short, in order to confirm the Draft EIR's conclusion that the effects of the Project on the Santa Ana River hydrology would be less than significant, the replenishment of the groundwater basin from the Project must be limited to at most approximately 2,500 acre-feet/year. The diversion of any quantity of treated effluent greater than about 2,500 acre-feet/year would cause the cumulative impact of the Project to be significant and require recirculation. Thus, the City must either limit the Project's replenishment to about 2,500 acre-feet/year or recirculate the Draft EIR. Or, in the alternative, the City could opt for a regional project as discussed below.

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5. *Biology*

One of the key deficiencies in the Draft EIR is its discussion of the potential effects of the Project on the Santa Ana sucker. The Draft EIR acknowledges that the Project would reduce the depth of the Santa Ana River for Reach 1 by at least 13% (DEIR, p. 4.4-55). Additionally, on Table 4.4-8 the DEIR states that there would be a reduction of Weighted Usable Area (WUA) for Santa Ana sucker of 23% in Reach 1, 48.6% in Reach 2, and 42% in Reach 3. The Draft EIR then says that, given the sheer number of other factors, there will be a significant and unavoidable impact on the Santa Ana sucker. However, the Draft EIR never clearly admits that the Project will have a significant and unavoidable impact on the Santa Ana sucker.³ As discussed below, the Draft EIR's analysis of the potential effects of the Project on the Santa Ana sucker does not meet the standards established by CEQA; thus, the City must revise and recirculate the Draft EIR for additional public review and comment.

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To begin, the modeling that the Draft EIR uses is fatally flawed. The Draft EIR relies (in the form of the Low Flow Study) on a 1D HEC-RAS model to assess impacts to future river flows. This model is effective for estimating flood flow depths in defined channel geometries, but is not appropriate to assess depth and velocity impacts over a linear river segment with varied bathymetry; simply put, a one-dimensional model cannot replicate the results of a two-dimensional model. The Low Flow Study attempts to address this failing in the model by using multiple one-dimensional cross-sections within the study reach. However, these cross-sections cannot incorporate existing velocity or predict velocity because – again – that is a function of a two-dimensional model. Moreover, even if using cross-sections might simulate a two-dimensional model, in the case of the Low Flow Study the cross sections were too widely spaced (~450 foot spacing) to provide meaningful predictions of site specific impacts to a dynamic and varied river system that exhibits a changing variety of pools and riffle habitats. Finally, as noted

15b

³ At page 1.0-27, the Draft EIR acknowledges that there will be a significant and unavoidable impact on the Santa Ana sucker, albeit without linking that impact to the Project. Table 1.0-2 summarizes the impacts and mitigation measures in the Draft EIR and consistently finds the impacts of the Project on the Santa Ana sucker to be less than significant. These comments assume that the Draft EIR meant to declare the impacts of the Project on the Santa Ana sucker to be significant and unavoidable. If that is not correct, then the Draft EIR is wholly deficient because it: (i) adopts an arbitrary 10% significance threshold without any supporting rationale, (ii) uses incorrect modeling to assess the impacts of the Project, (iii) includes mitigation measures that – without the commitments outlined in the text – fail to satisfy the demands of CEQA, and (iv) fail to satisfy common sense, for the Draft EIR would then claim that substantial reductions in flows and velocity would not have a significant adverse effect on a threatened species, with no serious scientific support for that assertion.

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above, the Santa Ana River below the RIX facility discharge is a losing reach; thus, any modeling should have incorporated that loss into the model. However, the Low Flow Study modeling was run using the same flow in all three study reaches, thereby making the modeling output entirely inaccurate for Reaches 2 and 3.

15b

Data from the San Marino Environmental Associates 2003/2004 (SMEA 2003/2004; attached) study was used as the basis for this Project's habitat utilization even though it does not reflect changes in habitat or distribution of the population over the past 12 years and it was not collected within the primary areas of Project impacts to Santa Ana sucker. As noted by the 2014 GEI report:

"The Santa Ana sucker population has shifted from being most abundant at the downstream sites (i.e., Highway 60 and Mission Boulevard) from 2001 through 2004 to being most abundant at the upstream Riverside Avenue site in the remaining years from 2005 through 2011. The shift in Santa Ana sucker density from the MWD Crossing to near Riverside Avenue is likely a result of improved water quality and habitat over time in the Riverside Avenue reach compared to during the pre-RIX time period, which is at least, in part, a result of the RIX discharge" (Appendix 10.5, p. 23, 24).

It is inappropriate to use the SMEA 2003/2004 data as the foundation of impact analysis because it is from a period when the habitat conditions and fish distribution were very different than the current conditions. Current habitat utilization data should have been collected at minimum within Reach 1, which the GEI report acknowledges by stating it

15c

"coincides with the greatest density of Santa Ana suckers currently, which is likely related to the consistent coarse substrate present within this reach and also to the deeper habitats available in this reach compared to downstream reaches" and where a 14% reduction in maximum velocity (Appendix 10.5, p. 773) would occur due to the project. depth and a 41% reduction in velocity (p. 44) would occur due to the Project (Appendix 10.5, p. 768).

Compounding the errors in the Low Flow Study modeling that was the basis for the conclusions in the Draft EIR are the errors associated with the PHABSIM habitat suitability model that was used to model effects of the Project on the Santa Ana sucker. As mentioned above, the Low Flow Study used a one-dimensional HEC-RAS model, not a two-dimensional model. PHABSIM requires a two-dimensional model in order to predict the spatially distributed velocity needed to assess the effects of a project on potential habitat. This was unachievable based on the study methods, as admitted by the authors (Appendix 10.5, p. 786), and so is not appropriate for use in the effects analysis. Ignoring potential effects to velocity is unacceptable as it is key to a robust population. Particularly in the case of the Santa Ana sucker, the effects of the Project are chiefly related to velocity because a reduction in the velocity of water in the Santa Ana River means that there will be less scour of gravel and cobbles in the channel. These substrates are the primary sources of food and a requirement for successful spawning for the Santa Ana sucker. Thus, a reduction in Santa Ana River velocity is likely to have a very

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significant adverse effect on food availability and reproduction, and in the end, survival of Santa Ana sucker populations.

15c

Mitigation Measure Bio-7 cannot make up for these errors. Examination of MM Bio-7 indicates that it is a long list of general “adaptive management” and monitoring requirements, with no clear performance standards and with no firm commitment to potential “responses to variations” in physical or biological conditions that may be identified during monitoring.

15d

6. *Feasible Alternatives*

As noted above, in order to avoid violating its contract with Valley District and dewatering the Santa Ana River downstream of the RIX facility, the City must limit its groundwater replenishment to about 2,500 acre-feet/year or about 3.5 cfs. Given the fixed costs of the project are \$576.5 million, the estimated cost of the Project if it is limited to 2,500 acre-feet/year the cost would far exceed \$2,270 per acre-foot as calculated by the Regional Recycled Water Concept Study (p. 43).

The City, to its credit, has already recognized that a regional effort might be the most cost-effective way to achieve the Project’s goals. Page 6.0-26 of the Draft EIR states:

16a

SBMWD would consider implementation of the Regional Partnership Alternative at the request of Valley District or other Santa Ana River stakeholders. Alternative 8 would satisfy the Project Objectives identified above. The construction-related and operational impacts across all environmental topic areas would likely be similar under this Alternative, as the project would involve shared conveyance facilities and recharge basins.

Because Alternative 8 would involve the recharge of treated effluent into the Bunker Hill A groundwater basin, which lacks assimilative capacity, that alternative would require advanced treatment and the large costs associated with advanced treatment. By contrast, a regional partnership alternative that would recharge treated effluent in the Bunker Hill B groundwater basin, which does have assimilative capacity, would not require advanced treatment. Given the reduced costs associate with recharging the Bunker Hill B groundwater basin, Valley District at this time proposes that the City adopt either Project 2b or Project 3b from the Regional Recycled Water Concept Study instead of either the Project or Alternative 8.

Adopting either Project 2b or Project 3b would allow the City to devote 2,500 acre-feet/year to groundwater replenishment, would avoid any adverse impacts on Santa Ana River hydrology, would achieve the goals of the Project, and would cost substantially less than the Project. In these ways, adoption of either Project 2b or Project 3b would not only be the most cost-effective project, it also is the environmentally superior alternative.

16b

John Claus
June 8, 2016
Page 15

7. *Incorporation of East Valley Water District Comments*

Valley District is pleased to incorporate by reference the comments submitted today under separate cover by East Valley Water District as if those comments were set forth herein in full.

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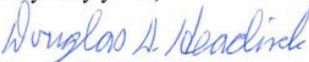
8. *Conclusion*

In conclusion, for the reasons discussed above, the Draft EIR fails to comply with CEQA. Valley District urges the City to limit the project in the ways described above, which would involve only discharging 2,500 acre-feet/year for groundwater replenishment, and to adopt either Project 2b or Project 3b from the Regional Recycled Water Concept Study. Valley District believes that such a project can be permitted, constructed, and operated in a cost-effective way that would benefit all of the people of the San Bernardino Valley.

18

Thank you for the opportunity to submit these comments

Very truly yours,


Douglas D. Headrick
General Manager

cc: Board of Directors
John Mura, East Valley Water District
City Council, City of San Bernardino
Board of Commissioners, San Bernardino Municipal Water Department

Enclosures

1. *Western and Orange County* Judgments
2. 1969 Agreement Between City of San Bernardino and Valley District
3. Regional Recycled Water Concept Study
4. San Marino Environmental Associates Santa Ana sucker Studies 2003, 2004

RESPONSE TO COMMENT LETTER K: SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT, DOUGLAS HEADRICK, GENERAL MANAGER

Response to Comment K1.

San Bernardino Municipal Water Department (SBMWD) appreciates and values your comments during the Environmental Impact Report participation process. This comment provides general introductory and background information. Responses to specific comments are provided below; no further response is required.

Response to Comment K2.

This comment offers a characterization and opinion regarding Valley District's role with respect to regional water supply projects. The City has worked extensively to cooperate with applicable resource agencies, neighboring jurisdictions, and potential regional partners. The comment raises no specific issue related to the Draft EIR's analysis of the Project's environmental impacts, and thus no further response is required.

Response to Comment K3.

SBMWD issues with the Sterling Natural Resources Center (SNRC) EIR are limited to very specific environmental topic areas. Since SBMWD is an active member of the Upper Santa Ana River Habitat Conservation Plan (HCP) development team, and continues to coordinate efforts on a regional basis, SBMWD often sees eye-to-eye with San Bernardino Municipal Water District (Valley District), and has participated in and supported some of the same mitigation measures. The Draft EIR reflects these areas of agreement.

Response to Comment K4.

SBMWD agrees with the prudent investment of public monies in service to its constituents. Regarding the cost comparison between Clean Water Factory (CWF) and SNRC, we note that the SNRC project cost figures do not include the costs associated with the design, construction, and operation of the sewer treatment plant that will need to be constructed in order to produce water; refer also to Response to Comments I2e and I10a above. SBMWD further disagrees with the statement that the SNRC "does not require advanced treatment." The impacts of the SNRC on groundwater are one of the issues in the pending litigation over the adequacy of the SNRC EIR.

The balance of this comment provides an introduction for subsequent comments addressed below.

Response to Comment K5.

There are numerous pressures on State Water Project (SWP) supplies including recent drought, climate change and impacts to endangered species from pumping water through the Sacramento San Joaquin Delta, which render it an unreliable source for recharge. SBMWD proposes a project which provides additional flexibility, cost-effectiveness, and reduced reliance on SWP water. Given the SWP supply unreliability, it is appropriate to consider potential options to improve reliability; refer to Draft EIR page 6.0-19 for an expanded discussion related to SWP reliability issues. The Project responsibly promotes regional self-reliance, rather than dependence on unreliable supplies that have significant environmental

impacts. Nevertheless, the Project does not preclude, and even anticipates, the use of SWP supplies for recharge when they are available.

The remainder of the comment expresses the commenter's opinion with respect to relative merits of providing groundwater recharge within the Bunker Hill sub-basins and are not comments on the adequacy of the Draft EIR; no further response is required. Refer also to Response to Comment K6 below.

Response to Comment K6.

The Draft EIR does not assert that SBMWD has an obligation under the 1969 Agreement with Valley District to replenish groundwater in the Upper Basin (Rialto Colton or San Bernardino Basin Area). The primary objective of the Clean Water Factory Project is to provide a reliable and sustainable water supply for the SBMWD service area. SBMWD obtains all of its water supply from groundwater, pumping from the Bunker Hill "A" groundwater basin. Valley District replenishes the pumped groundwater using surface water from the SWP. However, SWP supplies are not reliable, and are of relatively low quality; refer to Draft EIR page 6.0-19. The current drought has highlighted the need to develop additional sources of water to recharge groundwater basins, as groundwater levels in local groundwater basins have declined and current pumping outpaces replenishment. Groundwater drawdown has impacted SBMWD as a water supplier because declining groundwater levels have required SBMWD to deepen its wells, and pump from greater depths, in order to produce water for residents. The recycled water produced by the Clean Water Factory Project would be used to recharge the area from which the SBMWD pumps – the Bunker Hill "A" sub-basin, thus enhancing the reliability of its supply. Because SBMWD derives its supply from wells in the Bunker Hill "A" sub-basin, recharging the Bunker Hill "B" groundwater basin would not improve the reliability of the City's water supply and thus would not meet Project objectives. While it may not have a legal obligation to replenish groundwater supplies from the basin where it pumps groundwater, SBMWD as a responsible water provider is proposing the Clean Water Factory Project to ensure that groundwater supplies upon which its residents depend are sustainably managed and available to meet current and future demands. Finally, SBMWD does not agree with the commenter's statements regarding SBMWD's involvement in the development of a groundwater sustainability council or the role of that proposed entity.

Response to Comment K7.

The commenter requests assurance that SBMWD's discharge commitments and obligations stipulated under the Western Judgment of 16,000 acre-feet per year (AFY) would continue to be met with Project implementation.

The Draft EIR acknowledges SBMWD's obligation to ensure that a minimum 16,000 AFY of treated effluent is discharged to the Santa Ana River; refer to Draft EIR page 3.0-4. SBMWD's obligation under its agreement with SBVMWD to discharge 16,000 AFY to the Santa Ana River can be met with discharge from either or both of its wastewater treatment plants. The agreement does not require that the 16,000 AFY be discharged from the RIX Facility. If discharge were reduced at the RIX below 16,000 AFY, the City would discharge sufficient wastewater from its Water Reclamation Plant (WRP) to ensure the minimum discharge obligation is fulfilled. The City currently discharges from the WRP in wet weather and during releases from Seven Oaks Dam, and will continue to do so, and such discharges are available to meet all discharge obligations. In other words, the City must meet 16,000 afy, but it doesn't matter which of the City's treatment plants contributes to this total. Thus, RIX discharges can drop below 16,000 AFY so long as 16,000 AFY in total is discharged, and any difference can be met through discharges at WRP.

Nevertheless, the City recognizes that there is the potential that if total effluent volumes were to decrease (as a result of factors such as drought or increased water conservation), there may be times when SBMWD may not be able to recycle the full amount of recycled water the CWF and/or RIX facility would be capable of producing and still meet its 16,000 acre foot discharge obligation. Because SBMWD's fully intends to meet its commitments under the agreement, there is a possibility that the maximum possible recycled water production from the Clean Water Factory may not be available in every year. By designing and building the Clean Water Factory as proposed, SBMWD will have the ability to produce the full amount of recycled water when effluent flows are sufficient to meet discharge obligations. It is important to note that under its agreement with Valley District, SBMWD could reduce discharge below 16,000 acre feet per year by applying discharge credits accumulated by Valley District. In fact, Valley District has previously discussed a proposal to make available to SBMWD discharge credits equal to 2,500 acre feet per year.

Response to Comment K8.

SBMWD disagrees with the assertion that the Western Judgment prohibits entities within the upper basin from exporting water to other areas within the upper basin. The ability to export water is important and feasible during periods of water surplus, and is consistent with the objective of providing for improved flexibility. In the not too distant past, groundwater levels in the Bunker Hill Basin were too high, leading to flooding and increase risk of liquefaction. The proposed Project provides for this future possibility and allows for the reuse of the water.

Response to Comment K9.

Refer to Response to Comments K6, K7, and K8 above. The commenter outlines two criteria for groundwater replenishment, lowest cost and least environmental impact; however, the source of these criteria is not provided. While the listed considerations are important to future water projects, including the proposed Project, a number of other considerations have been included in the design of the Project and the environmental analysis. SBMWD will consider these comments in determining whether to approve the Project or an alternative.

Response to Comments K10a and K10b.

Consistent with CEQA, the baseline for the environmental analysis in the Draft EIR is the conditions that existed at the time of the Notice of Preparation of the Project EIR. SBMWD acknowledges that with respect to Santa Ana River flows and the volume of RIX Facility discharge, the baseline has fluctuated considerably over time, and that in recent years RIX Facility discharge has declined. As such, substantial modeling was completed, which included an analysis of historic flows along the Santa Ana River in order to best summarize the baseline conditions of the Santa Ana River. While current conditions may be lower than the baseline data provided, it would be inaccurate to characterize the baseline flow of the Santa Ana River based on a period of low flow. Similarly, SBMWD did not use years of extremely high flow as the baseline data. The large fluctuations within the watershed required research of long-term river trends, in conjunction with hydraulic modeling.

The commenter makes a number of assertions related to RIX Facility discharge in response to a graphic published by USGS in 2016. While the points regarding the recent trend in RIX Facility discharge are noted, they did not provide the proper context to the historical trend. The trend identified in the commenter's Figure 1 is the result of the significant economic decline in the service area, which reduced inflow to the RIX Facility, and the elimination of the past practice of maintaining an excessively high rate of

over-extraction at the RIX Facility (which resulted in a higher level of discharge to the Santa Ana River), and to a lesser degree, by the drought and conservation. While conservation will continue, the area has undergone substantial economic recovery that expected to continue. Further, the hydrologic period of record reflects a wide variety of climatic conditions, including both dry and wet years; when wet years recur, the volume of discharge will increase. In addition, the rate of over-extraction has been reduced. This information provides a minor clarification and is not considered significant new information under CEQA and is thereby not subject to recirculation.

The discharge levels identified in the recent later years of this extended five year drought approximate the discharges evaluated in the Draft EIR under Phase 2 of the proposed phased discharge reduction. As such, the effects of the Project have been fully addressed within the scope of the EIR's analysis.

Response to Comment K11.

The commenter disagrees with the EIR's determination about the Project's effects on Santa Ana River hydrology and notes a number of concerns related to the hydraulic modeling methods used in the EIR analysis.

First, the commenter disagrees with the EIR's conclusion's regarding the effect of Project-related flow reductions on river width and depth, arguing that the Project modeling "must not conform to the physical geometry of the Santa Ana River" and asserting that the specified reductions identified by the Project modeling would be "highly unlikely unless the channel were highly incised and fixed (i.e. with steep banks), which is not the case here."

This comment is based on the further assumption that the modeling is invalid because a one-dimensional model was used; specifically the commenter argues that a two-dimensional model is necessary to adequately evaluate impacts on velocity and states that use of a two-dimensional model is "the standard approach" for the type of analysis used in the EIR's evaluation of fish habitat impacts.

As the comment letter states, GEI did caution against using modeled velocity output because the 1-D HEC-RAS model cannot account for low-velocity deep areas (i.e., pools) that are the preferred habitat of the SAS. Instead, habitat changes were estimated using depth, which is a primary habitat limitation in the Santa Ana River, under current and future conditions. The estimated impacts of each alternative were based on habitat changes relating to depth, not depth and velocity.

It is true that 2-D hydrodynamic models are quickly replacing 1-D hydrodynamic models in studies assessing changes to fish habitat as a function of flow. However, 2-D modeling output was not used by GEI because none was available when their study was conducted. Furthermore, the current EIR does contain estimated quantitative changes in habitat as a result of Project alternatives, while EIRs for similar projects contain only qualitative estimates. The modeled habitat changes in the Clean Water Factory EIR serve as a solid, quantitative starting point for the Adaptive Management Plan, and should not be viewed as a final and definitive statement of impact, but as a relative one. There is considerable uncertainty surrounding any study of the relationships between flow changes and their effects on fish habitat, and a major goal of the Adaptive Management Plan is to better address this uncertainty. The incorporation of the Adaptive Management Plan to provide ongoing evaluation and adjustment of operations in response to observed changes represents a much more scientific approach than is typically employed in the CEQA process.

Second, the commenter asserts, without explanation or evidence, that the identified reduction in velocity should be considered significant.

With respect to the comment regarding effects of flow reduction on river width and depth, the commenter seems to imply that they expected a change in velocity, depth, and top width comparable to the change in discharge at RIX due to the operation of the Project. This comment uses an imprecise term: “highly incised and fixed,” and it is unclear what “highly incised” is relative to. In many parts of the modeled reach, there is a well-defined low-flow channel that fully contains dry-weather discharge and reductions in discharge would not necessitate a significant change in top width. Hydraulic theory and observation indicate that the relationship of discharge with velocity and depth of flow is nonlinear. Channels become more hydraulically efficient with increasing depth and vice versa; doubling the discharge would result in a less than doubling of the flow depth. This occurs because the velocity and the cross-sectional area carrying the discharge both increase. The velocity increases because as the depth increases, the effect of friction on discharge is lessened. Therefore, halving the discharge, were that to occur, would result in less than halving depth and velocity. The commenter states that the channel geometry should be defined by a survey with a resolution of at least two meters. The channel geometry presented in the Draft EIR is based on included a LiDAR survey in October 2012 with a spatial resolution of one foot (0.3048 meter). As to the appropriateness of the use of HECRAS model, please see the Response to Comment 15b.

In addition, the reach below the Rialto and RIX discharge points generally provides streambed infiltration that is proportional to discharge. As such, the greater the discharge the greater the losses to infiltration and vice versa. This means that the magnitude of the streambed infiltration will decline with decreases in RIX Facility discharge and partially offset the impact of the reduced RIX Facility discharge. A 52 percent reduction in discharge at RIX is not a 52 percent reduction in the flow of the Santa Ana River: the reduction in Santa Ana River flows downstream of the RIX Facility will always be less than the reduction in the discharge at the RIX Facility.

With respect to the comments about the suitability of the model used to evaluate impacts to velocity, page 63 of the GEI 2014 report explains that velocity values produced by the HEC-RAS model increased with depth and therefore do not reflect the fine-scale variability in velocity that would likely occur in the Santa Ana River. HEC-RAS model constraints forced lower depths to be tightly correlated with lower velocities, so lower-velocity, deep areas (i.e., pools, the preferred habitat of SAS) were not measured by the model, and weighted useable area (WUA) increased with decreases in flow. Using a combination of depth and velocity data skewed the analytical results. As a result, GEI chose to base the impact assessments off of the depth-only habitat models.

SBMWD disagrees with the commenter’s argument and the assertion that the Draft EIR does not provide any explanation for its conclusion that a 41% reduction in velocity would not be significant. The Draft EIR incorporates an extensive analysis of the reductions in velocity as it relates to sediment transport since bottom substrate or sediment is an integral component of suitable Santa Ana sucker habitat. As described on Draft EIR page 4.4-57, average velocity for Study Reach 1 would be reduced by 41% for baseline to Phase 5 flows. The “Evaluation of the Phased RIX Flow Reduction Plan on Santa Ana suckers, Based on Predicted Changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing” (GEI, 2014) report explains previous habitat utilization studies have shown that Santa Ana sucker seem prefer deeper and slower velocity habitat. Further, as described on Draft EIR page 4.7-35, Mitigation Measure BIO-7 would require that SBMWD prepare and implement an Adaptive Management Plan which includes hydro-geologic performance standards for stream velocity. In addition, Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for

the Adaptive Management Plan. Therefore, SBMWD affirms that the reduction in flow from baseline which would occur in Study Reach 1 would be fully mitigated through compliance with Mitigation Measure BIO-7. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment K12.

The comments that “there was also no analysis of sediment transport as a function of velocity changes and the subsequent effect on spawning and forage substrate availability”, or that “the modeling tools used are not appropriate,” are without merit. The commenter appears to be unaware of the Draft EIR technical study, *Clean Water Factory Rapid Infiltration/Extraction (RIX) Low-Flow Sediment Scour and Transport Modeling in the Santa Ana River*; refer to page 38 of the report. This study invoked the *Vortex Lattice Scour-Burial Model* to determine if variable discharges under dry weather conditions from the RIX Facility can scour and clear sand blankets that could potentially bury cobble substrate in the inset channel of the Santa Ana River. The study area is in the biologically sensitive upper reaches of the Santa Ana River downstream of the RIX Facility that are inhabited by the Santa Ana sucker. The scour model has been peer reviewed and published in a professional engineering journal; and was run for 10 different stream flow rates normalized to the USGS Riverside Avenue Bridge monitoring site ($Q = 0$ mgd, 4.8 mgd, 6.1 mgd, 19.5 mgd, 23.6 mgd, 26.9 mgd, 29 mgd, 35.1 mgd, 40.4 mgd and 64 mgd). In addition the model was calibrated using stream flow rates, cobble and sand grain size distributions and sediment transport rates measured by USGS in June 2014 and January 2015 near the Riverside Avenue Bridge. The scour model uses the HEC-RAS velocity inputs to calculate bottom boundary layers over sand beds and vortex shedding from exposed or partially exposed cobbles using the *vortex lattice method*, and then embeds those fine scale flow features in the HEC-RAS velocity field. The resulting composite velocity field is then used to drive state-of-art (peer reviewed) sediment transport algorithms for ideal granular (sandy) sediments, including: incipient motion, bedload and suspended load transport. Draft EIR [Section 4.4](#) incorporates an extensive discussion on the Project’s potential operational impacts to USFWS-designated Santa Ana sucker Critical Habitat Subunit 1B, Santa Ana River, including the Project’s potential to impact Primary Constituent Element 1, which is identified as a segment of the River which could support spawning and rearing of fry and juvenile fish; refer to Impact Statement 4.4-1 and [Exhibit 4.4-2, Critical Habitat](#). As explained in Impact Statement 4.4-1, and further elaborated in the Low Flow Study, operation of the proposed Project would not substantially reduce or eliminate any of the Primary Constituent Elements identified by the USFWS. Although the low-flow sediment transport study conducted by Baker is separate from the GEI habitat/low-flow study, it supports the finding that sand transport would occur over a range of flows, thus allowing continued availability of coarse substrate for Santa Ana sucker. The modeled velocities in the Baker low-flow sediment transport study do account for finer scale spatial variability, and they were *not* the same modeled velocities that were omitted from GEI’s low flow/habitat study.

Response to Comment K13.

The first sentence of the comment states: “[...] the Draft EIR’s analysis relies on an outdated assumption” but never states what that assumption is; no further response to that comment is possible. The second sentence of the comment states: “Prior to about 2000, the reach of the Santa River below the RIX discharge was generally understood to be a gaining reach, i.e., a reach which groundwater flows into the stream from the side of the channel.” The commenter provides no evidence for this statement, and, in fact, it is incorrect. The upstream end of the rising groundwater or gaining reach of the river is located near Riverside Avenue, and since the early 1970s, the Regional Board believed it started at Mission Bridge (see the 1973 Basin Plan). The commenter may be relying on the PowerPoint slide included in the comment that compares discharge measurements in one month (May) of 2001 to what appears to be

more measurements that were made over an entire year (2015/16) – the chart being a comparison of a few seasonally influenced discharge measurements to discharge measurements over an entire year and provides no hydrologic/climatic context.

The rest of the comment refers to a PowerPoint slide that describes the losing reach of the Santa Ana River, and the commenter does not connect it to the Low Flow Analysis in the Draft EIR. The streambed infiltration observed by the USGS in 2015/16 is very comparable to the streambed infiltration measured by WEI in 2012, the latter of which was used to compute streambed infiltration in the HEC-RAS model projections relied on in the Draft EIR. The Draft EIR modeling fully accounted for the range of discharge proposed under the Project as well as the existing “losses” within the river (from infiltration) and demonstrates the ability to maintain the minimum flows required under the Western Judgment without having a substantial adverse effect on hydrologic or biologic resources. SBMWD acknowledges that it is unlikely that all currently proposed projects that would reduce discharges to the Santa Ana River can be implemented in full due to legal obligations of the Western Judgment and potential biological impacts, and the Draft EIR thus evaluates the cumulative worst case condition that could reasonably be expected to occur.

For additional information, refer to Response to Comment K11 above and the WEI report dated May 13, 2014 that was relied upon in the Draft EIR and has been included in [Appendix 10.5](#).

Response to Comment K14.

The commenter is incorrect. In fact, the information shown in [Table 4.7.5](#) does include the reductions in Santa Ana River flow due to streambed infiltration in the losing reach. The commenter erroneously assumes that, as the flow at RIX is reduced, streambed infiltration would remain constant. In actuality, streambed infiltration will decrease with decreasing RIX Facility discharge and decreasing flow in the River. The reach below the Rialto and RIX discharge points generally provides streambed infiltration that is proportional to discharge. As such, the greater the discharge the greater the losses to infiltration and vice versa. This means that the magnitude of the streambed infiltration will decline with decreases in RIX Facility discharge and partially offset the impact of the reduced RIX Facility discharge. Thus the reduction in Santa Ana River flows downstream of the RIX Facility will always be less than the reduction in the discharge at the RIX Facility.

Response to Comment K15a.

The Draft EIR analysis of impacts to biological resources concludes that impacts to Santa Ana sucker would be less than significant. The Draft EIR Executive Summary erroneously identified a significant impact. Refer to Response to Comment C11 above.

Response to Comment K15b.

The modeling used in the preparation of the Draft EIR is not fatally flawed. The commenter erroneously states that the HEC-RAS model cannot be used to accurately estimate depth and velocity “impacts over a linear river segment with varied bathymetry.” The HEC-RAS model was developed to simulate variable natural river geometry, and its accuracy in predicting velocity and depth is based on the accuracy of the information used in its development. In the present case, the model is based on detailed topography and surveyed cross-sections, and it was calibrated to reproduce the depth of flow under dry-weather, low flow conditions (i.e. RIX Facility discharging normally and under a temporary RIX Facility shutdown event). The

commenter's statement that a one-dimensional model cannot "replicate" the results of a two-dimensional model is true but irrelevant.

The commenter states, "The Low Flow Study attempts to address this failing in the model by using multiple cross-sections within the study reach. However, these cross-sections cannot incorporate existing velocity or predict velocity because – again – that is a function of two-dimensional model." The commenter is incorrect because:

- No failing is being addressed. One-dimensional models routinely use multiple cross-sections.
- The one-dimensional HEC-RAS model, as implemented by WEI for the analysis in the Draft EIR, incorporates fine-scale topography and yields discharge, velocity, and depth profiles across each cross-section in addition to the average velocity, and depth at each cross-section. The velocity profile across each cross-section is estimated between each adjacent pair of points in the cross-section. So if a cross-section has 20 points below the water surface, the model will produce 19 velocity and associated depth estimates across the cross-section. This is a relatively fine-level of detail.
- The HEC-RAS model was calibrated at different RIX Facility discharges to reproduce the observed depths and discharges downstream of RIX Facility; thus, it can predict depth and velocity for existing discharge conditions and for future changes in the discharge at the RIX Facility.

The commenter states: "Moreover, even if using cross-sections might simulate a two-dimensional model, in the case of the Low Flow Study the cross-sections were too widely spaced (approximately 450 feet spacing) to provide meaningful prediction of site specific impacts to a dynamic and varied river system that exhibits a changing variety of pools and riffle habitats." The commenter provides no technical basis for stating that the cross-sections are too far apart. In the professional opinion of the technical consultants who conducted the EIR's hydrologic and biologic analyses, the model provides sufficient spatial resolution to characterize the depth and velocity in the study reach for the intended purposes of the analysis. All hydraulic models produce computational results at specific locations in the model domain, and it is an accepted standard practice to interpolate computed depths and velocities between the points where they are computed by the model.

The commenter states: "Finally, as noted above, the Santa Ana River below the RIX Facility is a losing reach; thus, any modeling should have incorporated that loss into the model. However, the Low Flow Study modeling was run using the same flow in all three study reaches, thereby making the modeling output entirely inaccurate for Reaches 2 and 3." The commenter is incorrect. See the Response to Comments I5a, K11, K13, and K14 above.

Response to Comment K15c.

Potential Project effects on Santa Ana sucker were estimated using the best available flow data and habitat utilization data that were available at the time the Draft EIR was prepared. Although the limitations of 1D hydraulic model use in habitat suitability studies have been well-documented, PHABSIM was developed before the advent of 2D models and can be used with both 1D and 2D models. The models used for the Draft EIR analysis represent the best available tools for predicting potential habitat effects from discharge reduction. The commenter alleges that the models used were not sufficient without suggesting a different tool that would have done a better job. The analysis also relied on a Project-specific sediment transport study as well as past analyses to determine changes in substrate suitability as a result

of the Project. The commenter appears to disagree with the sediment transport study without providing any evidence or analysis to support its criticisms. As of this writing, to SBMWD's knowledge, the new data collected by the U.S. Geological Survey regarding fish distribution are provisional and cannot yet be cited. Regardless, changes in fish distribution during the study period do not invalidate the analysis, which is based on species requirements (such as coarse substrate availability) and associated effects on habitat, in light of the modeled characteristics of the Santa Ana River within each study reach.

Despite its limitations, the Low Flow Study developed for the Draft EIR represents the only completed study to date that has quantitatively estimated changes in Santa Ana sucker habitat as a function of flow changes. No other environmental document, including the EIR for the commenter's proposed SNRC, has attempted such a robust analysis. The Project's Draft EIR and supporting studies provide a starting point for an Adaptive Management Plan, and it is anticipated that the scientific community's understanding of the relationship between flow and habitat changes will grow as new and more detailed data become available.

Response to Comment K15d.

The commenter argues that the Adaptive Management Plan does not incorporate clear performance standards or a firm commitment to mitigation. SBMWD disagrees with this notion and affirms that specific performance measures will be developed and monitored as part of The Adaptive Management Plan process. Mitigation Measure BIO-7 specifies the SBMWD's commitment to monitor change and respond so that the Project does not result in adverse effects to the Santa Ana sucker or their habitat and clearly specifies the types of actions that can be taken, if needed, which satisfies CEQA's requirements for mitigation. Refer also to revised Mitigation Measure BIO-7 (see Section 3.0, *Errata to the Draft EIR*), as well as Response to Comments D4e and P23a on the Adaptive Management Plan.

Response to Comments K16a and 16b.

This comment expresses a number of alternatives. The commenter begins by asserting that the SBMWD must limit its groundwater replenishment to 2,500 AFY, which would make water cost \$2,270 per acre-foot. Refer to the responses above for a discussion concerning SBMWD's obligation for groundwater recharge.

The commenter states that they would prefer a regional supply alternative that would recharge water into Bunker Hill Groundwater Basin "A." As such, the commenter notes support for Project 2C or 3B of the Regional Recycled Water Supply Concept Study, as opposed to Alternative 8 of the EIR, which would recharge into Bunker Hill Groundwater Basin "B." It should be noted that Projects 2b and 3b would involve environmental tradeoffs, including water quality related impacts on Bunker Hill "B" groundwater basin. There is no evidence to support a finding that the Bunker Hill "B" groundwater basin has sufficient assimilative capacity to accommodate recharge with the lower quality effluent proposed to be produced by SNRC. Refer also to Response to Comment I2e above.

Response to Comment K17.

See response to East Valley Water District comments for letter I.

Response to Comment K18.

This comment provides a conclusion to the letter and asserts that based on the preceding comments, the Draft EIR fails to comply with CEQA, and suggests that SBMWD limit the Project. SBMWD has not identified anything in these comments to support this assertion, and therefore finds no reason to limit the Project.

COMMENT LETTER L: U.S. FISH AND WILDLIFE SERVICE, KARIN CLEARY-ROSE FOR KENNON COREY, ASSISTANT FIELD SUPERVISOR

COMMENT LETTER L



United States Department of the Interior

FISH AND WILDLIFE Service
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008



In Reply Refer To:
FWS-SB-16B0274-16CPA0303

June 8, 2016

John A. Claus
Director of Water Reclamation
City of San Bernardino Municipal Water Department
399 Chandler Place
San Bernardino, California 92408

Re: Comments on the Draft Environmental Impact Report for the Clean Water Factory Project
State Clearinghouse No. 2014111012

Dear Mr. Claus:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) for the Clean Water Factory Project (Project) and offer the following comments and recommendations regarding project-associated effects to biological resources. The City of San Bernardino Municipal Water Department (SBMWD) proposes to divert up to 33.3 cubic feet per second (cfs) [17.9 million gallons per day (mgd) or 20,057.8 acre feet per year (afy)] from the Rapid Infiltration and Extraction (RIX) facility's current discharge to the San Bernardino Water Reclamation Plant, where the water would be treated and conveyed for recharge or direct reuse. The Rix facility is located in the City of Colton and discharges into the Santa Ana River (SAR or river). The proposed phased diversion of up to 17.9 mgd is equivalent to a reduction of approximately 54% percent of maximum permitted discharge (33 mgd) of the RIX facility and approximately a 76% percent reduction of the current RIX discharge (based on 44 cfs) (Service 2015). The expected benefits from the proposed Project include reducing dependence on imported water, maximizing availability of recycled water to local users, and satisfying the SBMWD obligations to the Western Judgment (*Western Municipal Water District of Riverside County v. East San Bernardino County Water District, et al.*, Riverside Superior Court No. 78426). Among other things, the Judgment determines the rights of the named Plaintiffs to extract water from the San Bernardino Basin Area (SBBA), and defines the annual "adjusted right" of each Plaintiff to extract water from the SBBA.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The

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Service is also responsible for administering the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). Our comments are based on our review of the DEIR, information presented at meetings to discuss the Project, and observations made during monitoring and native fish rescue efforts in the SAR during shutdowns of the RIX Facility January 2015, September 2015, December 2015, and February 2016.

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Project Description

The proposed Project involves two water treatment facilities: the RIX Facility on the SAR and to the north the San Bernardino Water Reclamation Plant (SBWRP). There are five components to the Project: 1) the phased reduction in RIX effluent discharge to the SAR by up to 17.9 mgd; 2) upgrade of the SBWRP to provide enhanced treatment of the 17.9 mgd diverted from the RIX Facility; 3) construction of conveyance and storage systems to convey the advanced-treated water and/or recycled water to recharge basins for surface spreading or to direct use customers near the conveyance alignment; 4) conveyance pipelines for delivery of 5 mgd of tertiary water treated at the SBWRP for direct use by local municipal facilities and other recycled water users; 5) recharge basins within the SBMWD Service Area including East Twin Creek Spreading Grounds and the Waterman Basins, and potentially water would be conveyed outside SBMWD Service Area along new conveyance pipelines to existing IEUA recharge basins in the Chino Basin.

3a

Since conveyance pipeline options have not been finalized, construction assumptions were calculated using the worst-case, highest intensity construction requirements to ensure construction impact analysis did not underestimate potential Project impacts.

SBWRP Improvements (within SBWRP complex): Improvements to the SBWRP is expected to last 396 days and require 23 worker trips per day. No earthwork is associated with this phase of the project.

3b

Pipeline/Conveyance Construction: Construction of new conveyance pipelines is estimated to entail excavation of 269,185 cubic yards and last 519 days. Total hauling trips for demolished pavement and soil replaced by pipe is estimated to take 1,886 total hauling trips over 38 days. Most excavation would be backfilled.

Pump Stations and Reservoir Sites: Necessary work is expected to last 132 days, involve 44,187 cubic yards of earthwork, 15 worker trips/day, and 4,972 total hauling trips.

Recharge Site Improvements: The work on recharge sites would last 6 months, involve 250,000 cubic yards of earth work and require 20 worker trips per day.

Federally Listed Species That May be Affected by Project

Several species that are federally listed as endangered or threatened are present in the project vicinity. These include the endangered Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*; DSF), southwestern willow flycatcher (*Empidonax traillii extimus*; flycatcher), least Bell's vireo (*Vireo bellii pusillus*; vireo) and San Bernardino kangaroo rat (*Dipodomys*

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merriami parvus; SBKR); and the threatened Santa Ana sucker (*Catostomus santaanae*; sucker) and coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The mainstem of the SAR, including the vicinity of the RIX plant, is designated critical habitat for the sucker and flycatcher. Potential project impacts from a decrease in RIX discharge could also include downstream impacts to designated critical habitat for vireo, which begins south of Highway 60 in Rancho Jurupa and extends further south to Prado Basin and beyond.

Of the federally listed species potentially impacted by the proposed project, the sucker is the most dependent on perennial hydrology of sufficient velocity to maintain suitable habitat for spawning, nursery habitat and foraging downstream of the Project area (Service 2014) and would potentially suffer the most immediate population impacts resulting from a further reduction in river discharge related to the Project. Our comments and requests are therefore focused on the sucker and its life history needs.

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Because decisions about Project related infrastructure have not been finalized, we cannot fully evaluate the potential for the Project to affect the DSF, SBKR or gnatcatcher. We request that an analysis of effects to federally listed species that are known from the Project vicinity be conducted prior to approval of Project-related infrastructure which includes ground disturbing activities.

Comments and Recommendations

We have substantive concerns about the assumptions in the modeling and completeness of the information provided in the DEIR. In order for the Service to understand the proposed project and complete our analysis of the project's potential effects on federally-listed species and their habitats and public trust fish, wildlife and native plants, we request that the following comments, recommendations and information requests be addressed and included in a revised and recirculated DEIR.

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Comments, Questions, Clarifications

Impacts Analysis of Santa Ana sucker designated Critical Habitat

Comments related to Table 4.4-2: Suitable Habitats and Potentially Occurring Sensitive Plant and Wildlife Species

1. Reconsider categorization of direct and indirect impacts throughout the DEIR

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Page 4.4-14j (206), taxa *Catostomus santaanae*, Potential to occur: "Present. Suitable habitat exists in the downstream portions of the Santa Ana River that are expected to be indirectly affected during Project operation."

Impacts to Santa Ana sucker resulting from reduced RIX effluent discharge, sedimentation, and changes to temporal hydrology will have a direct impact upon Santa Ana sucker and impacts are likely to vary depending on timing and extent of Project Alternative chosen, and timing of implementation. Please refer to the Service's report

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describing the effects to Santa Ana sucker during RIX's planned maintenance shutdown on September 3, 2015 (Service 2015). Within 30 minutes of a reduction of RIX discharge from 20 cfs to 15 cfs at 8:00 a.m. Santa Ana sucker became stranded below RIX outfall. These fish would have died had volunteers not been monitoring the shutdown and salvaged the fish and placed them in aerated buckets with water. Despite rescue volunteer efforts, sucker and arroyo chub perished from anoxia and dewatering during the September 2015 shutdown (Service 2015).

Page 4.4-70 (262) – Under discussion of direct impacts to sucker. “Potential indirect impacts that may occur from reduced flow as a result of the Project include the long-term loss of in-stream habitats due to reduced water availability, reduction of exposed gravel beds due to reduced water velocity and associated sand transport, increased water temperature, increased stress, reduced fitness, reduced survivorship of eggs, and loss and/or degradation of riparian habitat along the Santa Ana River due to a reduction in water.”

Long-term loss of in-stream habitats due to reduced water discharge, reduction of exposed gravel beds due to reduced water velocity and associated sand transport, increased water temperature, and increased stress of aquatic biota are all direct impacts that would happen immediately, within hours or a few days upon implementation of the proposed Project due to a significant reduction in effluent discharged.

Indirect effects are effects linked to growth related effects stemming from the project and are reasonably likely to occur at a later time and through interaction of the direct effects with changes in the environment. Indirect effects reasonably expected to occur as a result of the proposed project weeks to a few years include in rank order of time to see effects: reduced survivorship of sucker eggs, reduced fitness (related to water quality impacts, reductions in spawning habitat and reductions in habitat quality), and loss and degradation of riparian habitat along the Santa Ana River with effects potentially extending and including Prado Basin and Prado treatment wetlands.

The Service requests that subsequent environmental documentation acknowledge, distinguish, and quantify the direct and indirect effects to sucker populations and other trust species.

2. Concern over use of minimum depth of 3 cm as suitable sucker habitat

Page 4.4-56 (246) – “In all reaches for all phases, depths would be substantially greater than the required minimum depth of 3 cm, as defined in the Primary Constituent Elements for the Santa Ana sucker.”

As stated in the DEIR, a depth of 3 cm is used to describe the minimum appropriate habitat for sucker. This depth is the minimum depth where sucker have been found and it should not be used as a surrogate for appropriate habitat for the species. Edgewater habitat is appropriate for very young fish. Larger, adult fish need rapid, deep water habitat

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for foraging and sheltering. Rapid, turbulent flowing water increases dissolved oxygen, provides refuge from terrestrial predators, and provides appropriate habitat for high quality sucker forage – diatomaceous algal species. Data collected by USGS in 2015 (USGS 2015) more accurately describes habitat usage by adult sucker in Study Reaches 1 and 2. These data should be used to reassess potential impacts to sucker a reduction of flows and loss of depth in the revised DEIR (USGS 2015).

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3. Adult sucker preferred velocities

Page 4.4-57 (247) – “Average velocity in Study Reach 1 was reduced by 41%, from 1.77 to 1.04 ft/s for baseline to Phase 5 flows.... Most sucker species, including the Santa Ana sucker, show greater utilization at low velocities and decreasing utilization as velocities increased (GEI 2014).”

Study Reach 1 provides high quality habitat for sucker due to the presence of rocky substrate. The reason for abundant rocky substrate is the high velocity, sediment-free flows this area receives from RIX discharge. The 2015 USGS Native Fish Survey of the SAR found the highest abundance of adult sucker associated with high velocity, deep water habitat in Study Reach 1. Most suckers (90 percent of the total fish located in Study Reaches 1 and 2) were located in the upper portion of Study Reach 1 (RIX discharge pool downstream 0.5 miles), and one pool-run complex comprised approximately 60 percent of all sucker in Study Reaches 1 and 2. It should be noted that this area of designated sucker critical habitat is affected by RIX shutdowns and this portion of the river was observed without flow during the September 3, 2015 and February 25, 2016 RIX shutdowns. Pools in excess of 1 meter deep in the area have velocities in excess of 1 meter per second. Please use USGS data to reassess potential Project-related impacts to sucker and designated sucker critical habitat in the revised DEIR.

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4. Assumptions regarding existing conditions in the Santa Ana River and the significance of Project related changes in the function of designated critical habitat

Page 4.4-68 (258) – “Given the dynamic nature of the Santa Ana River riverine environment, a reduction in depth, width or available habitat of 10% or less is within the expected levels of natural variation and would not be expected to result in measurable adverse impacts to the Santa Ana sucker. The gradual changes that would occur under the Project are expected to be within the natural range of variability, and would not be expected to reduce the available sucker habitat to an extent that it could not sustain the existing population of sucker.”

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The DEIR predicts a loss of habitat, this negative change in the function of habitat for sucker is therefore foreseen, expected, and measurable. The identification of 10 percent seems both arbitrary and unsupportable. Santa Ana sucker is a federally threatened species and its status in the in the Santa Ana River is precarious. The reach of the river that supports the greatest number of suckers (Study Reach 1), is also the portion of the river that is expected to be most affected by the proposed Project. Anything that further

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reduces or limits the distribution of the sucker population, or the physical and biological features which support it, in the Santa Ana River, threatens the continued existence of the species in the Santa Ana River watershed, which in turn would delay or limit recovery of the species (Service 2015). The DEIR indicates that the Project will be the subject of a section 7 consultation. The purpose of consultation under section 7 of the Endangered Species Act is to ensure that federal actions do not reduce the likelihood of survival and recovery in the wild for any listed species or adversely modify the function of designated critical habitat. In this context we are concerned about Project-related effects to the physical and biological features which support the sucker and the long term presence of the sucker in the Santa Ana River.

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We suggest that the proposed project be modified to provide or deliver a minimum of base flow from the RIX discharge point in the river to support the sucker population and the function of designated sucker critical habitat. The appropriate minimum or base flow should be identified based on sucker biology and the interaction of ground water levels and surface flows in the river. Please, specify an appropriate minimum base flow and discuss its ability to support the sucker population and function of sucker critical habitat in the revised and recirculated DEIR.

5. Need for re-evaluation of potential adverse effects to sucker and its designated critical habitat with best available current science and present river conditions

Page 4.4-68 (258) – “Operating within the habitat parameters defined in the Low Flow Study will avoid adverse effects to the Santa Ana sucker and its associated habitat.”

From the information the DEIR has provided, and as discussed above, it is expected that the impact from this Project are likely to affect sucker habitat and fish numbers, therefore, it is the opinion of the Service and the Executive Summary of the DEIR (Page 1.0-27) that this statement is not accurate. Project impacts to sucker should be reassessed in a revised and recirculated DEIR including incorporation of most recent scientific studies (USGS 2015) and field observations (Service 2015).

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6. Adaptive management is not a mitigation strategy

Page 4.4-68 (258) – “SBMWD will avoid adverse effects from reductions in depth, width or available habitat greater than 10% by developing and implementing an Adaptive Management Plan (AMP). Implementation of a robust AMP will ensure that impacts of flow-related habitat reduction that exceed 10%, which are potentially greater than the range of natural variation, are less than significant.”

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As discussed above, we do not believe that a 10 percent reduction in sucker critical habitat is within the range of ‘natural variation’ and therefore does not pose a negative impact on sucker populations. After discussing how the proposed Project will avoid impacts to sucker, the text above allows that “if” the Project happens to impact sucker habitat “then” an Adaptive Management Plan will be enacted to minimize impacts to

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affected aquatic and riparian habitats in the Santa Ana River. The future identification of an unknown strategy, even an adaptive and robust future strategy is not a suitable response to the recognition of significant impacts. Especially, as discussed above, when existing flows in the river indicate that the modeled loss of flows is already underway. (The DEIR assumes more water in the river than has been present in recent record.) We request the revised DEIR either spell out the adaptive strategy and indicate how it will protect the sucker population and the physical and biological features in the river which support that population or identify other protective or offsetting strategies for impacts to the sucker and its designated critical habitat.

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7. Inconsistent approach in discussion and mitigation measures regarding potential impacts to species and Endangered Species Act compliance

Page 4.4-69 (266) – “The requirement that SBMWD engage in consultation under the ESA [Endangered Species Act] is confirmed in Mitigation Measure BIO-8.”

Endangered Species Act consultation is triggered when a federal agency takes an action which may affect a listed species. The DEIR expects the Project to be the subject of a consultation associated with the loss of critical habitat for both sucker and flycatcher. This expectation is an acknowledgement of impacts to these species or their respective designated critical habitats. We request that the recirculated DEIR address and reevaluate the potential for the proposed Project to affect sucker, flycatcher and vireo. Potential impacts to these species were poorly analyzed.

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8. Need for accurate baseline conditions as basis of Project analysis to trust species and their habitats *a priori*

Page 4.4-69 (259) – “An acceptable range of variability for physical and biological conditions will be developed in consultation with the Service, to protect the Santa Ana River, its associated habitats and sensitive plant and wildlife species.”

Before this can be accomplished the Service needs a reliable assessment of the baseline condition in order to make decisions on the long-term needs of the listed species in the Santa Ana River. The assessment presented in the DEIR does not make use of current data in order to effectively model changes to habitat and translate those changes into potential species impacts. We request that the revised DEIR model Project- related impacts to listed species and their habitats with the most current information available (USGS 2015).

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9. DEIR underestimates time to see reductions in sucker habitat due to use of pre-drought RIX Facility effluent and pre-drought Santa Ana River baseflow conditions.

Page 4.4-70 (262). “The Low Flow Study determined that the phased RIX discharge reduction could result in the loss of up to 10% of Santa Ana sucker habitat in Study

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Reach 1 at the end of Phase 3, which would not occur until 15 years after Project implementation.”

The models presented in the DEIR assume more water in the river than currently exists under low flow or baseflow conditions. Existing conditions in the Santa Ana River below the RIX discharge are such that the modeled reduction in Weighted Usable Area for each reach has already occurred and represents a modeled habitat loss of approximately 4-15% (based on estimates of current flow equating a mid-point between Phase 1 and 2 proposed reductions) from the 63 cfs baseline prior to 2013-2014.

Please reevaluate the expected loss or change in sucker habitat with a baseflow in SAR is 52 cfs (44 cfs from RIX and 8 cfs from Rialto drain). As stated previously, the existing RIX discharge is already approaching Project phase 2 without consideration of other known water recycling projects such as the Sterling Natural Resources Project, which would additionally further reduce RIX outflow.

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10. Federally protected species in the Project Area are not in dynamic equilibrium

Page 4.4-71 (263). “Despite periodic and extended drought, the water levels in the river, fish habitat and riparian habitats have exhibited variable conditions indicating a dynamic equilibrium over time, which is common in these types of systems.”

Please expound and provide references that support this assertion that SAR animal and plant populations are in a dynamic equilibrium. The recent extreme multi-year drought exacerbated by unprecedented groundwater extraction, drying river reaches with the associated mortality of hundreds of native fishes, and dramatic changes in hydrology related to urbanization and flood control (two dams on the river) are impacts to the aquatic biological communities that are unprecedented. These changes have created pressure beyond the restorative capacity potential through evolved resistance/resilience mechanisms referenced as a biological community in dynamic equilibrium. The Santa Ana River is a dynamic system; however, that does not mean that recent anthropogenic alterations to groundwater and surface hydrology are within the range of natural hydrologic variability that aquatic biota have evolved resistance/resilience strategies to cope with. The fact that several species in the Project area are federally protected further indicates that populations have a long-term population trend of decline, which is counter to a dynamic equilibrium. Note also that the Santa Ana River is known to have supported a steelhead run in the recent (60 years) past.

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11. Please reevaluate proposed Project phase reductions on sucker critical habitat and potential reduction in habitat and water quality

Page 4.4-71 (263). “Given the dynamic nature of the Santa Ana River riverine environment, a reduction in depth, width or available habitat of 10% or less is within the expected levels of natural variation and would not be expected to result in measurable adverse impacts to the Santa Ana sucker. The gradual changes that would occur under the

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Project are expected to be within the natural range of variability, and would not be expected to reduce the available sucker habitat to an extent that it could not sustain the existing population of sucker.”

Santa Ana sucker are federally threatened and a long-term loss of wetted habitat of 10 percent significantly negatively impacts the species chances for survival and recovery long-term. Flows in the river are variable, but what is being proposed is a permanent reduction in the function of Santa Ana sucker critical habitat. Please characterize and quantify the existing area and extent of wetted sucker critical habitat and quantify the effects of loss of critical habitat for each proposed phased reduction within each study reach in the revised and recirculated DEIR. Extrapolate that effect to the population. Be sure to include in your analysis impacts related to the loss of suitable substrate from increased sedimentation, changes to water quality (dissolved oxygen, water temperature, nutrient levels, specific conductance) and embedding and burying cobble/gravel substrate, and an analysis of effects of diminished velocity and increased water temperatures on all age classes of sucker.

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Hydrology / Groundwater

12. Need for an analysis of potential Project impacts to groundwater supply, and flow patterns upon river discharge and water quality

Page 3.0-3 (65) – “However, flows in the lower end of this reach may now intermittently contain rising groundwater, and discharge from RIX and the Rialto wastewater treatment plant.”

This statement alludes to rising groundwater in Reach 4 of the river (Bunker Hills Dike downstream to Mission Boulevard Bridge) being augmented by flows from RIX and Rialto Channel. RIX discharge affects local groundwater resources and interactions between RIX-derived groundwater and groundwater recharge back to the river. How will current upwelling areas be affected by the proposed Project? This question was raised by the Service during early agency coordination and it has not been discussed nor analyzed sufficiently. Please include a discussion of expected Project-related changes to the local groundwater supply and long-term effects to river flow in the revised and recirculated DEIR. Changes to surface water quality should also be analyzed and discussed.

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13. Please consider recharge basin design to minimize maintenance

Page 3.0-33 (95) – “The long-term infiltration rate was estimated to be 1.5 feet per day. While initial infiltration rates may be significantly higher at startup and for the first few months, the infiltration rate would decrease over time due to the deposition of fine-grained materials at the bottom of the basins. It is assumed that each facility would be offline for two months per year for maintenance activities.”

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Due to the inherent problems with water recharge in basins, we request that SBMWD considered and analyze recharge within natural channels in the revised and recirculated DEIR. Alternative designs that may reduce the need for maintenance and also provide habitat could also be considered.

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Hydrology Model Comments

14. Probabilistic low flow analysis during periods of extreme drought and during sucker spawning season needed

Page 4.4-3 (195) –“An assessment of the existing hydrology of the Santa Ana River was conducted by Wildermuth Environmental Inc. (WEI) in 2013. WEI developed a gradually-varied, steady-flow, Hydrologic Engineering Centers River Analysis System (HEC-RAS) hydraulic model for a study area between the Rialto Channel and the MWD Crossing. The objective of the study was to analyze current dry-weather discharge and depth relationship along this reach of the Santa Ana River (WEI 2013). Development of the model required the acquisition of high-resolution river channel geometry and discharge data collected during normal operations at the RIX facility, as well as during a scheduled shut-down of RIX discharge into the Santa Ana River. High-resolution bathymetry data were collected using Light Detection and Ranging (LiDAR) remote sensing in October 2012. Discharge data was measured using three USGS stream gages found in the Santa Ana River between RIX and the MWD Crossing, as well as from discharge time history data from the RIX facility and City of Rialto wastewater treatment plant. The HEC-RAS model was calibrated for normal discharges from the RIX facility as well as at shutdown, based on flow data gathered during normal operations and the scheduled shutdown of the RIX facility.”

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In order to evaluate the potential impacts to aquatic and riparian species, the Service requests that a probabilistic low flow analysis using the past 5 years of river discharge data using USGS stream gage data (or recent USGS HOBO stream data below RIX) to calculate the 7Q5 or (7-day, 5 year) annual low-flow statistics to create a probability distribution fit to the annual series of 7-day minimums be included in the revised recirculated DEIR. In addition, to the 7Q5 for the years (2011-2016), a low flow probability analysis is highly recommended to include the sucker spawning and nursery season (months March – September). The extreme drought which has continued into 2016 has substantially changed conditions in the river since the 2013 WEI study was conducted. It's important that baseline flows, water quality, and an analysis of river depth and velocities be based on a probabilistic low flow analysis. This approach will include periods of reduced river discharge during RIX emergency shutdowns and planned maintenance shutdowns in addition to other water recycling and water reuse projects, which is necessary to provide accurate results.

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15. Concerns over steady decline in RIX Facility discharge combined with future proposed upstream water recycling projects

Page 4.4-30 (220) - The DEIR states that the Project will be "protective" of all PCE's [Primary Constituent Elements] in phases 1 and 2 with no more than a 25% reduction in available habitat for any reach or any life stage.

Based upon RIX reporting data there has been a reduction in effluent discharged from RIX since 2012 (SCWRCB 2016), the year which was used to model the analysis in the DEIR. There has been a strong negative trend in declining discharge from RIX since 1999. The Sterling Natural Resource Center project is proposing to remove 6 mgd from the RIX outflow. As stated in Table 4.4-1, the flow measured at Riverside Avenue was 36.7 cfs in 2012. This flow does not reflect current, reduced RIX discharge conditions and as such there is expected to be very low flow at Riverside Avenue Bridge with the removal of 6 mgd (11.1 cfs) of flow from RIX by the Sterling project. Since the 6 mgd of flow associated with the Sterling project is not controlled by SBMWD, the assumption that this water will continue to supply the river or be available for treatment and reuse by the Project should not be made. It is also inappropriate to assume effluent flows will continue at current levels from the Rialto Wastewater Treatment Plant, as both projects have proposed removing water currently discharged to the river. Please provide an analysis of the Project with current flows and the proposed reduction in flows by other water users in the revised and recirculated DEIR. The proposed Project has the potential to have a significant adverse impact to sucker if any water is removed from the river.

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16. Proposed Project Phased Reduction baseline flows currently coincide with Project Phase 2

Page 4.4 – 55 (247). Table 4.4-4 Flow volume model assumptions for each RIX Phase.

Measured SAR flows are approximately 52.8 cfs, with Rialto Drain providing 8.8 cfs and 44 cfs coming from RIX effluent. For the last year SAR flows have been less than the proposed Project Phase 1 reduction to 54.4 cfs. Therefore, all effects analysis, scenario planning and mitigation measures are based on models and assumptions that underestimate and misrepresent the amount of water available for reclamation without causing serious environmental harm to aquatic and riparian ecosystems and trust species.

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17. Concerns over changes in sediment transport and deposition and effects to sucker habitat

Page 4.4-56 (248) – Table 4.4-5 provides results of the change in river depth analysis.

The depth model assumes a fixed bed. This is problematic, because the bottom and sides of the Santa Ana River are continuously changing as it is an alluvial river. Decreasing the rate of the base flow will decrease the rate of sediment transport and the sediment grain size that can be transported. The DEIR fails to include the increased sediment buildup (sand) that is expected when flows are reduced. The change in deposition (increase in

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sand depth) needs to be accounted for in Table 4.4-5. We are concerned that the reduced transport of sand will result in a shallower river.

In the revised DEIR please include an overall assessment of the change in the amount of available adult sucker habitat (abundance of rocky substrate) associated with each Project phased reduction and assessed per season. An analysis of the interaction between sediment deposition in the river and available habitat for adult sucker would provide information in regard to habitat usage by adult fish in times when deep water habitat may be scarce or non-existent.

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18. Use of pre-drought data from 2012 to model potential Project impacts on instream sucker habitat usable area

Page 4.4-59 (249) - Tables 4.4-8 and 4.4-9 and Figures 4.4-1 and 4.4-2 display the results of the change to adult and juvenile sucker weighted usable area (WUA) for each proposed Project flow reduction Phase.

Assumptions used in the WUA modeling included modeled changes to the field-measured 2012 depth and flow velocity condition of the river, as well as habitat use data for adult and juvenile sucker field-measured in the early 2000's in Study Reach 3. As stated earlier, changes to substrate composition and sediment transport were not incorporated into either the depth or velocity models, therefore there is ample opportunity for spurious data to have been generated by these models and incorporated into the WUA models. Also, habitat use data recorded in Study Reach 3 should not be used to extrapolate potential habitat use by adult sucker in reaches outside of Study Reach 3. Microhabitats used by sucker in 2015 in Study Reach 1 (USGS 2015) suggest that adult fish prefer the deepest and fastest flows present in the river. This type of microhabitat is scarce in the river and most of it exists in Study Reach 1. In Study Reach 3 this habitat type is scarce or not present. Current data (USGS 2015) should be used to reassess the WUA model and potential impacts to sucker habitat in the revised DEIR. The revision of the model should consider variables that best describe habitat preference by sucker at each life stage in each of the Study Reaches per microhabitat type.

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19. Unanalyzed Threats to Santa Ana sucker and Their Designated Critical Habitat due to Continuing RIX Facility Shutdowns

The continuing negative impacts to sucker from RIX shutdowns must be included in the analysis and baseline condition of the species. A detailed approach to minimizing impacts associated with RIX shutdowns needs to be provided in conjunction with the proposed Project. Minimization measures to ensure that impacts to sucker from RIX shutdowns are reduced to the maximum practicable amount need to be well developed in order to reliably anticipate the magnitude and importance of Project-related impacts.

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Page 4.4-79 (271) - "Measure 1 - Accelerating the RIX UV System Rehabilitation Project, from a 5-year Capital Improvement Program (CIP) project, to a single-year CIP

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project, as soon as possible . . . anticipated completion date of May 27, 2017” and “Measure 2 – Expansion and Retrofit of RIX Test Wells into Production Wells (RIX Well Retrofit Project) . . . supplemental supply wells could be on-line by summer 2018”

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Please include a discussion of existing RIX operations and clarify the need for the upgrade and well retrofit with or without the proposed Project in the recirculated DEIR. Please also explain the 2-year timeline to make the supplemental groundwater wells functional. The Service recommends that efforts to expedite the well retrofit receive top priority and is committed to working with SBMWD to facilitate the process as appropriate.

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RIX shutdowns dewater the river and native fish, including sucker are stranded and killed (Service 2015). In the past year (May 2015 to May 2016), at minimum, 1,836 adult sucker were affected during RIX maintenance shutdowns (Service 2015). Of these, 85 sucker died and the remainder were salvaged and relocated to wetted portions of the river. We expected a portion of salvaged fish to die after release as result of exposure to stranding and anoxic conditions, handling and stress. Future RIX maintenance shutdowns are also expected to result in the loss of fish. We appreciate the SBMWD working with us and others during maintenance shutdowns to monitor the river and salvage native fish. However, unplanned shutdowns occur frequently and biological resources are not monitored, resulting in the loss of many more fish. Of the 26 shutdowns that occurred in 2014, 11 were due to emergency shutdowns. In 2015 the number of shutdowns increased to 31 and all 28 of the emergency shutdowns were due to the UV system malfunctioning (SCWRCB 2016).

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Minimization of RIX Facility’s current and ongoing non-Project related impacts to sucker from RIX shutdowns is needed urgently as the ongoing effects to the sucker population will be considered an existing condition during any future consultation on the proposed Project. As such, it is the Service’s position that it is not appropriate to imply that the supplemental water wells to provide water to the river during RIX shutdowns is a mitigation measure for the proposed Project. It is anticipated that the upgrade to the electric system which controls the UV system will minimize the total number of UV-related emergency shutdowns and the rehabilitation of the wells will supplement flows to the river during periods when shutdowns do occur to prevent drying of the occupied portions of the river. If a discussion of the wells is included in the revised DEIR, please provide information regarding the volume of water that they will be able to provide and when the wells will be used.

Cumulative Impacts

20. Unresolved protest on 2010 change petition

Page 3.0-3 (65) – “SBMWD filed a “Petition for Change for Owners of Waste Water Treatment Plants” with the SWRCB on April 22, 2010 (Petition revised June 7, 2010), pursuant to Water Code Section 1211 (and in accordance with Water Code Sections 461,

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13500 *et seq.* and 13575 *et seq.*) to decrease current tertiary discharge from the RIX facility to the SAR from approximately 35.7 mgd (40,000 acre-feet per year) to approximately 11.9 mgd (13,300 acre-feet per year)."

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The protest would need to be resolved in order for the Service to formally consult on this Project.

21. Adequacy of proposed mitigation measures to offset potential impacts to sucker lacking

Page 4.4-69 (259) – BIO-7 of the Adaptive Management Plan includes a list of potential actions SBMWD could use to correct measured impacts to the aquatic and/or riparian ecosystem of the Santa Ana River.

If changes to fish numbers are incurred due to project reductions of habitat quality or quantity there needs to be a mitigation measure that is meant to offset this impact by increasing fish numbers. The purpose of the second measure listed in BIO-7 is to increase the abundance of high quality microhabitats in the river through "boulder seeding, variation in flow rates, including the use of high pulses of discharge to accelerate scouring, as well as the creation of deep pools or refuge areas". Due to the severity of Project-related impacts to habitat and the uncertain nature of habitat restoration, this measure may not have the desired effect SBMWD may need to offset the scale of Project-related impacts to species. In the revised and recirculated DEIR it is recommended that SBMWD consider establishing and perpetually managing a new population of sucker to justify potential Project impacts to sucker numbers and to ensure this impact is offset in a meaningful manner.

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22. Concerns over adequacy of AMP to protect sucker habitat and provide adequate water to support riparian habitat

Page 4.4-70 (260) – "The AMP will remain in effect for as long as the RIX discharge, as a result of the Project, remains at or below 38.4 cfs, or until no longer necessary as documented by lack of adverse impacts to Santa Ana sucker, as determined by applicable regulatory agencies."

Some of the AMP's discuss increased flows and/or augmented flows of water. How and where will this water be supplied to the river to enable these AMP's and how will riparian canopies that are disconnected from the inset channel be supplied with water without physically augmenting the stream channel?

29

In regard to 38.4 cfs, why is this flow discussed as a threshold? We could find no reasoning as to why this value was chosen. The current baseline low-flow condition of the river is just slightly greater than this value depending on discharge flow from Rialto Channel (43.3 to 47.8 cfs).

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Information Requests

23. GEI Consultants (GEI). 2014. Evaluation of the Phased RIX Flow Reduction on Santa Ana Suckers Based on Predicted changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing. July 2014. Please provide a copy of the study GEI 2014.

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24. Please provide a copy of the WEI 2013 study.

Recommendations

The Service is concerned that none of the proposed phases for decreased discharge from the RIX Facility discussed in the DEIR will leave sufficient habitat to maintain the current distribution and population of the sucker. We are concerned that a further reduction in this discharge could eliminate and/or degrade significant portions of sucker critical habitat. Currently, the highest quality sucker habitat in the Santa Ana River is located in the upper reaches of the River near the confluence of the River and Rialto Channel and the City of San Bernardino RIX's Facility in the City of Colton (Service 2014). Survey data for the sucker indicate that water quality and/or discharge quantity, which ranged from 37 to 49 cfs, prior to the establishment of the RIX Facility were insufficient to support sucker populations between the RIX Facility and the downstream MWD pipeline (FWS-SB-3061.1). Maintenance of flow in this area is particularly important because the RIX Facility provides a majority of the flow during the non-rainfall season. Therefore, we recommend that you address the quality and quantity of discharge required to maintain existing habitat for the sucker in a revised DEIR or similar document.

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Any further reduction in Santa Ana River discharge will reduce wetted critical habitat for the sucker and further restrict spawning and nursery habitat. We note that the spawning period for the sucker appears to be variable and spawning has been detected as late as July in recent years in the Santa Ana River. Therefore, any measures designed to protect the spawning period of the sucker should be focused between March 1 and July 30. In addition, the nursery period is especially important to fish as it is often the period when they are most susceptible to injury, starvation, and death. Therefore, it is important to not only address the spawning period to enable reproductive success, it is also important to address the nursery period that occurs from March 15 through October 30 to enable recruitment success.

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We are also concerned that further reduction in flow from the RIX Facility may have an adverse effect on the riparian habitat that currently exists within the Santa Ana River upon which several federally listed species are dependent. We recommend that you provide further clarification as to how discharge would be sufficient to support riparian habitat downstream of the RIX Facility downstream to Prado Basin. This clarification should provide the assumptions and method of calculation for the analysis for the water consumption needs of riparian vegetation, including: 1) the amount of water that percolates into the underlying aquifer, 2) the depth and volume of the underlying aquifer, 3) the amount of water that is being used by existing vegetation, and 4) the amount of water that is removed due to evaporation. In addition, we recommend that you provide a rationale for the water consumption values used for this analysis.

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We suggest that you incorporate an adaptive management strategy for vireo and flycatcher designated critical habitat and long-term monitoring Project for the area of the Santa Ana River between the RIX Facility and the MWD pipeline that would include periodic assessments of the amount of riparian habitat, depth of the underlying aquifer, depth of root systems for young and mature vegetation within the River, and vegetation surveys. We also encourage you to work with other water use agencies within the Santa Ana River watershed to implement a similar Project downstream of the MWD pipeline for vireo designated critical habitat.

33

The Service is concerned that the cumulative effects analysis was not adequate. Under "Related Projects" the DEIR references that the proposed project is one among many long-term coordinated plans by water agencies and other public entities to increase water reclamation and water recycling along the Santa Ana River and within the greater watershed area including the Upper Santa Ana River HCP. The Service recommends the revised DEIR discuss potential cumulative impacts to biological resources that may result from the reduction of water by all reasonably foreseeable actions in the Santa Ana River, including current water reuse and water recycling projects being developed under the Upper Santa Ana River HCP, including the Sterling Natural Resources Project. The Service believes a significant reduction in water in the Santa Ana River will likely have a devastating effect upon existing populations of sensitive fish species. The Service is concerned that the cumulative effect of additional water withdrawals will substantially decrease habitat that supports the sucker, vireo, and flycatcher. We recommend that any proposed projects that will be using a portion of the RIX Facility water currently being discharged be considered in the cumulative effects analysis be included in a revised DEIR.

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We encourage your agency to continue to work with other water use agencies within the Santa Ana River watershed to assist in maintaining and restoring habitat for federally and State listed and sensitive species. We look forward to continuing our work with your agency and are available to assist you in addressing project effects to federally listed and sensitive species and their habitats. If you have any questions or comments regarding this letter, please contact Rosemary Burk at (760) 322- 2070, extension 414, - or Kai Palenscar at (760) 322- 2070 extension 408.

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Sincerely,



Digitally signed by
KARIN CLEARY-ROSE
Date: 2016.06.08
14:48:06 -07'00'

for Kennon Corey
Assistant Field Supervisor
U. S. Fish and Wildlife Service

cc:

Stacey Aldstadt, General Manager
Regional Water Quality Control Board, Santa Ana Region
State Clearinghouse, Sacramento

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- [Service] U.S. Fish and Wildlife Service. 2014. Draft Recovery Plan for the Santa Ana sucker (*Catostomus santaanae*). Region 8 U.S. Fish and Wildlife Service, Sacramento, California. Pg. 76.
- [Service] U.S. Fish and Wildlife Service. 2015. Final Report: RIX Maintenance Shutdown, Santa Ana River Monitoring, and Native Fish Rescue September 3, 2015. Pg. 38 plus appendices.
- [USGS] U.S. Geological Survey. 2015. USGS Santa Ana River native fish survey. September 8-21, 2015. Draft Dataset.

RESPONSE TO COMMENT LETTER L: U.S. FISH AND WILDLIFE SERVICE, KARIN CLEARY-ROSE FOR KENNON COREY, ASSISTANT FIELD SUPERVISOR***Response to Comment L1.***

This comment serves as the introduction to the comment letter, providing basic information about the U.S. Fish and Wildlife Service (USFWS) and the proposed Project. Responses to specific comments are provided below. No further response is warranted.

Response to Comment L2.

This comment serves as the introduction to the comment letter, providing information regarding the USFWS jurisdiction and context for the comments that follow. No further response is warranted.

Response to Comments L3a and L3b.

The commenter provides a brief summary of the Project description. No further response is required.

Response to Comment L4.

The commenter states that because decisions about Project-related infrastructure have not been fully finalized, the commenter is unable to fully evaluate the potential for the Project to affect the Delhi sands flower-loving fly, San Bernardino kangaroo rat, and gnatcatcher. The commenter also requests that an analysis of impacts to federally protected species be completed prior to ground disturbing activities. Impacts to these three species are discussed in Draft EIR [Section 4.4](#). As described in [Table 4.4-2, Suitable Habitats and Potentially Occurring Sensitive Plant and Wildlife Species](#), Delhi Sands flower-loving fly and Coastal California gnatcatcher are presumed absent onsite as there is no suitable habitat for either species; refer to Draft EIR page 4.4-18. However, the Project has a moderate potential to support San Bernardino Kangaroo rat in the upstream Project areas, as well as downstream along the banks of the Santa Ana River. In order to protect impacts to San Bernardino kangaroo rat, the Project proposes Mitigation Measure BIO-3 to require pre-construction small-mammal trapping for the Waterman Basins and East Twin Creek Spreading Grounds in order to determine the presence or absence of the species. SBMWD recognizes that the presence or absence of these species is dependent on final siting selection. As such, further analysis of site-specific impacts to these three protected species will occur through the Section 7 Consultation process once final Project design has been completed, which would be completed prior to any ground disturbing activities and ensure that mitigation sufficient to avoid substantial adverse impacts to protected species is implemented.

Response to Comment L5.

This comment serves as the introduction to the commenter's statements on hydrology modeling. No further response is warranted; refer to the discussion below.

Response to Comment L6.

The commenter objects to the Draft EIR's characterization of impacts as "direct" and "indirect." The terminology reflects a choice and does not affect the adequacy of the EIR's analysis of Project impacts; the Draft EIR fully and accurately describes the nature of potential effects, including those cited by the

commenter, which does not depend on whether they are termed “direct” or indirect.” Facility shutdowns such as those described in the comment are part of the existing condition, and not expected to occur as a result of the Project. Improvements are underway (e.g., moving UV improvement from a five-year plan to a one-year plan) to reduce the frequency and duration of shutdowns, and mitigation for shutdowns is to provide supplemental well water to the Santa Ana River also is being implemented. These improvements will result in a benefit to Santa Ana sucker compared to existing conditions. The Project proposes a gradual reduction in discharge that would not result in immediate or acute effects akin to those that occur with a total facility shutdown. The commenter’s unsupported statement regarding expected “indirect” effects is contradicted by the evidence and analysis in the Draft EIR, including the technical studies that evaluated the Project’s effect on usable habitat and species response to such changes.

These comments are noted, and further differentiation between direct and indirect impacts will be included in future efforts where appropriate.

Response to Comment L7.

The commenter notes that the 3 cm depth mentioned in the EIR is a minimum, and shouldn’t be used as the threshold for appropriate habitat. Refer to Response to Comment H11 above.

Response to Comment L8.

The commenter states that the modeling should be redone using the USGS data. While this comment is noted, the USGS data was not available at the time of the low flow study. As such, the USGS modeling information was not able to be incorporated into the document. Further, while the data is beginning to be released, it is still in preliminary stages and is not ready for use in modeling. Regardless, changes in distribution of fish during the study period do not invalidate the Draft EIR analysis, which is based on species requirements (such as coarse substrate availability) and associated effects on habitat, in light of the modeled characteristics of the Santa Ana River within each study reach. Refer also to Response to Comment K15c above. The commenter also notes assumptions related to pool velocities and depths; however, commenter does not relate the comment regarding pools with velocities in excess of 1 m/s to any specific analysis in the Draft EIR, so no further response is possible. Preference for high velocities is probably driven by food availability, as it is for drift-feeding species such as the Santa Ana sucker, which select habitats that provide the most food for the least amount of energy expenditure.

Response to Comment L9.

The commenter raises concern related to the use of a 10% reduction in stream width as a threshold for habitat reduction. The selection of a 10% “threshold” is not arbitrary as it was based on the range of historic variability in habitat and the assumption that resident fish species have and could be continued to adapt to stream width changes within this range. Flows in the Santa Ana River before initiation of RIX Facility operations varied significantly; refer to “Historical Hydrologic Analysis of Dry-Weather Discharge Conditions in the Santa Ana River” (WEI 2013). More importantly, pre-RIX Facility conditions had poor water quality and poor habitat, as riparian vegetation was actively removed and the channel was linearized for flood management. Thus, determination of appropriate flows is confounded by prior channel management activities and lack of historical data on Santa Ana sucker populations. Nevertheless, it is highly unlikely that a 10% change in habitat or a corresponding population response could be detected, given the current variability in the Santa Ana River. For example, the coefficient of variation in

the Santa Ana sucker population estimates calculated by San Marino Environmental Associates from 2001 through 2011 was 44.5%. Thus, the 10% threshold is conservative. Refer also to Response to Comment 19b above, and Draft EIR page 4.4-61.

Based on modeling with the best available data, GEI concluded that Project-related changes in habitat volume in the upstream-most reach would be smallest, not the largest. This is due to the fact that this reach is relatively confined compared to reaches 2 and 3, so changes in flow would result in a smaller change in depth and a negligible change in width. The changes in velocity would be greatest in Reach 1. GEI was not able to measure changes in habitat (measured as WUA) as a function of velocity decrease due to data limitations, but according to the sediment transport study by Michael Baker, fine sediment would still be transported out of this reach, supporting a conclusion that impacts of the Project would not be significant. Mitigation Measure BIO-7 provides for a process of ongoing study, monitoring and response so that any adverse effects observed will be mitigated, avoiding substantial adverse effects to the species or its habitat. Assessment of a minimum base flow for the Santa Ana River that would support the species is beyond the scope of this EIR and not necessary to adequately evaluate the Project's potential impacts to Santa Ana sucker. Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan; refer to revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment L10.

The commenter generally states that they are concerned about the conclusions of the Draft EIR in regards to the Santa Ana sucker. While this comment is noted, no specific concerns are included in the comment. Specific responses to comments related to the analysis of impacts to the Low Flow Study and the Santa Ana sucker are included above. It is noted that CEQA defines a significant impact as a "substantial adverse effect" on special status species. It is not necessary for the EIR to determine the Project will have zero effect on special status species in order to conclude the impact is less than significant. Together, the Draft EIR as well as its technical appendices provide substantial evidence and analysis to support its determination that Project effects will not be significant. In addition, to further address USFWS's concerns regarding potential impacts to Santa Ana sucker and other species, Mitigation Measure BIO-8 has been revised to require that the Project proceed under the Upper Santa Ana River HCP or otherwise obtain incidental take authorization from USFWS and CDFW, and the approval of those agencies of the proposed Adaptive Management Plan, prior to any reduction in discharge attributable to the Clean Water Factory water recycling project. Mitigation Measure BIO-8 now reads:

A. Incidental take authorization, either through the execution of the Upper Santa Ana River Habitat Conservation Plan or through other mechanisms, for the California Endangered Species Act and federal Endangered Species Act listed species shall be obtained by SBMWD before the Clean Water Factory reduction in discharge of 17.9 MGD of wastewater RIX shall occur.

B. If incidental take authorization is obtained through a mechanism other than the Upper Santa Ana River Habitat Conservation Plan, SBMWD shall complete early consultation with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (Wildlife Agencies) to facilitate the development of the Adaptive Management Plan required by Mitigation Measure BIO-7 that will address potential impacts to riparian habitat in the Santa Ana River and include specific thresholds and/or success criteria to protect fish and wildlife resources. The Wildlife Agencies shall approve the Adaptive

Management Plan prior to any reduction in discharge to the Santa Ana River resulting from implementation of the Clean Water Factory project.

Refer to Section 3.0, *Errata to the Draft EIR*, for a track changes comparison of the revisions to Mitigation Measure BIO-8.

Response to Comment L11.

The commenter disagrees that a 10 percent reduction in Santa Ana sucker critical habitat is within the range of natural variation. GEI Consultants have studied Santa Ana sucker in the Santa Ana River for over 30 years and are well aware of the dramatic fluctuations in the riverine environment over time and have observed responses in the Santa Ana sucker populations to these changes. They also have extensive experience with similar species in inland river systems, including rivers that have natural populations of similar sucker species. Based on their extensive experience, as described in page 37 of the Evaluation of the Phased RIX Flow Reduction Plan on Santa Ana Suckers, Based on Predicted Changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing report (GEI 2014), 10 percent was selected as a criteria because “a change of less than 10 percent would be undetectable from background natural variability” and thus would not likely result in any impacts to Santa Ana sucker; refer to Low Flow Study Appendix D. Nonetheless, SBMWD assures the commenter that the baseline for the Adaptive Management Plan would be established prior to Project implementation and prior to any flow reductions associated with the Project. The baseline of the Adaptive Management Plan would address any recent reduction in flows that have occurred since Draft EIR production. The Adaptive Management Plan would address periodic temporary flow reductions and emergency shutdowns associated with RIX Facility maintenance, the effects of groundwater conditions on flows in the Santa Ana River, and, if available, would incorporate the USGS analysis on Santa Ana sucker habitat into existing models developed by WEI and GEI for the Project.

As stated, Mitigation Measure BIO-7 requires that SBMWD develop and implement an Adaptive Management Plan that is comprehensive and an effective management tool for the Santa Ana sucker and other species found within the instream and riparian habitats found within the Santa Ana River. In addition, Mitigation Measure BIO-7 has been updated to better describe specific performance measures and implementation strategies for the Adaptive Management Plan; refer to revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*. The Adaptive Management Plan would not be developed in isolation, but will be integrated with ongoing work in the Santa Ana River including the Upper Santa Ana River MSHCP, other proposed wastewater recycling projects, and ongoing USGS investigations. This comprehensive approach will, in turn, provide for a better understanding of River hydrology, available sediment transport mechanisms, instream habitat requirements for Santa Ana sucker and other instream species as well as associated riparian habitats and riparian species, including Least Bell’s vireo and Southwestern willow flycatcher. And as noted, the Adaptive Management Plan will not only address the Project area, but will also address the upstream areas essential for sediment transport and downstream areas from MWD Crossing to Prado Dam as well as below the Prado Dam to Imperial Highway.

As described on Low Flow Study page 30, the adaptive management process is a recognized method for “learning by doing” using best available data when there is such uncertainty in the response of an ecosystem to a proposed action. The Project’s Adaptive Management Plan would be designed to function as a regional management tool available to all water agencies and other projects along the Santa Ana River. SBMWD does not intend to create its own model in isolation from other ongoing management efforts but instead intends to act as a contributor, if not a leader, to affecting a necessary regional

management program. SBMWD has generated a considerable amount of data and two models which could function as important features in the regional management of the Santa Ana River and the species it supports. Additionally, the USGS and other water agencies have been making significant progress in developing their own databases and models. SBMWD intends to structure the Adaptive Management Plan using this collective information such that the document results in a regional approach that is shared by the wildlife agencies and other Santa Ana River stakeholders. Currently, SBMWD is in the process of collecting gathered data such as the recent result of USGS's collection of hydrologic data and habitat modeling for Santa Ana sucker, as well as ongoing efforts by other users, including but not limited to the Upper Santa Ana River MSHCP. These data will be used to prepare a robust Adaptive Management Plan which supplements the models presented in the Draft EIR that were based on the best available information at the time of NOP. The proposed Adaptive Management Plan will be shared with USFWS as part of a Section 7 Consultation. As a result, the Adaptive Management Plan will have to be acceptable to USFWS prior to their issuance of an Incidental Take Permit that, in turn, must be in hand before ground disturbing activities or the RIX Phased Discharge Reduction can occur. See revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment L12.

The Draft EIR discusses potential impacts to Santa Ana sucker, flycatcher and Least Bell's vireo. The commenter provides no explanation to justify its statement that impacts to these species were "poorly analyzed." A Project can have a less than significant impact under CEQA and still be subject to consultation under the federal ESA. Refer to Response to Comment L10 above.

Response to Comment L13.

The commenter requests better baseline data to analyze the proposed Project and its impacts. The study and analysis in the Draft EIR are based on the conditions at the time the Draft EIR commenced, consistent with the Notice of Preparation of the Draft EIR. SBMWD acknowledges that the Santa Ana River is a dynamic system, and varies over the course of the year, and from year to year. Analysis was conducted based on the best tools and information available at the time of analysis, to produce a reasonable analysis of the changes likely to result from the Project. SBMWD further acknowledges that additional data and tools may be available over time, and that as soon as data is gathered, it immediately becomes dated. That does not render the data invaluable or invalid. Refer to Response to Comment K10 above.

Response to Comment L14.

Refer to Response to Comment L13 above.

Response to Comment L15.

The commenter disagrees with the statement in the Draft EIR regarding the Santa Ana River and species within the river being in a state of dynamic equilibrium. SBMWD does not discount the commenters noted remarks regarding anthropogenic impacts on the Santa Ana River and the species it supports. However, over the history of the Santa Ana River the watershed has experienced a high range of inter-annual variability, which the Santa Ana sucker and other species have largely adapted to. As such, species have redistributed throughout the watershed over time responding to changes in the river hydrology; refer also to Response to Comment L9 above. Regardless, the Draft EIR's analysis of impacts and determination regarding the significance of Project impacts does not depend on a finding that the River and its species

are in a state of dynamic equilibrium as the analysis and impact determination are fully supported by the numerous technical studies and accompanying analysis of effects.

Response to Comment L16.

A reduction in the amount of wetted habitat is not the same thing as a reduction in function of habitat. The Draft EIR evaluates the Project's effect on the various habitat characteristics requested by the commenter and explains the relationship between these changes and expected effects on Santa Ana sucker. The Draft EIR does not incorporate a Project-specific analysis on the Project's effects to Santa Ana River water temperature or clarity. However, the Draft EIR explains the basis for its determination that Project implementation should not affect the clarity or turbidity of the Santa Ana River, and that water temperatures in the RIX Facility flow should not be affected by the proposed Project; refer to Draft EIR pages 4.4-30 and 4.4-71.

Response to Comment L17.

In response to the question of how current upwelling areas would be affected by Project operations, please review the report produced for the Riverside North Aquifer Storage and Recovery Project (RNASR) entitled *Riverside-Arlington Groundwater Flow Model (RAGFM) Model Development and Scenarios*.¹⁶ The RAGFM report describes the subsurface and surface flows for long-period hydrology with near current land and water use condition and estimates the impact of RIX Facility operations on groundwater yield and surface flows at the Riverside Narrows. The RAGFM report includes a detailed assessment of hydrology of the Riverside Basin and estimate of safe yield with and without the RIX Facility and concludes that "Any change in future RIX operations is not expected to impact the groundwater available to water supply wells in the basin significantly."¹⁷ If changes in RIX Facility operations do not significantly impact yield then they will not impact the upwelling areas.

Additional information characterizing the expected Santa Ana River discharge, TDS, and TIN concentration for various planning years and assumed recycling projects (including the Clean Water Factory Project) is provided in the 2015 report entitled *Addendum to the 2008 Santa Ana River Wasteload Allocation*.¹⁸

Response to Comment L18.

The commenter states that they would like alternative methods of recharge (in wash recharge) analyzed to avoid maintenance associated with recharge basins. We note that basin hydrology involves low energy hydrology and while maintenance is required, SBMWD does not find that to be a substantial impediment to recharge. In contrast, the Santa Ana River is readily transformed during storm conditions to a high energy wash system that could readily destroy in-wash recharge facilities. In addition, we note that the alternatives analysis included in the Draft EIR provides a sufficient and reasonable range of alternatives.

¹⁶ See the Riverside North Aquifer Storage and Recovery Project Draft EIR Appendices located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, and specifically Appendix H.

¹⁷ See the Draft EIR Appendices located here <http://riversideca.gov/utilities/water-north-aquiferproject.asp>, and specifically Appendix H, RAGFM Report, Section 6.2.

¹⁸ This report and prior Wasteload Allocation reports can be found here <http://www.sawpa.org/collaboration/projects/basin-monitoring-task-force/>

Response to Comment L19.

The commenter requests further analysis based on more recent and detailed data regarding flows within the Santa Ana River. A low flow analysis using the last five years of River discharge data downstream of the RIX Facility (presumably USGS gage 11066460) would not be meaningful in the evaluation of the proposed Project. The stream discharge data during this period¹⁹ is non-stationary due to the recent economic downturn and drought-related water conservation both reducing RIX discharge, recent reduction in RIX Facility over production reducing RIX Facility discharge, and increased Riverside groundwater production impacting the upwelling discharge into the River. The data and analysis provided in the Draft EIR incorporates a range of hydrologic conditions and is sufficient to support an informed decision regarding potential impacts of the proposed Project. Refer also to Response to Comments K10 and L11a above.

Response to Comment L20.

The commenter asserts that RIX Facility flows have decreased over time, and argues that it should not be assumed that flows potentially to be diverted to the SNRC Project would be available for the proposed Project. SBMWD acknowledges that in the event that the Sterling Project is implemented and reduces discharge to the Santa Ana River, the Project would modify its reductions to account for this loss in discharge, so that there would be no net cumulative effect; refer to Draft EIR page 4.4-80. Refer also to Response to Comments K10 and L11a.

Response to Comment L21.

The commenter states that the analysis in the EIR does not accurately represent the current state of the Santa Ana River. Refer to Response to Comment L13 above.

Response to Comment L22.

The commenter requests an assessment of the Project's effect on sediment deposition in the Santa Ana River and its relationship to available habitat for adult sucker. The comment asserts that the "model assumes a fixed bed." The commenter is directed to the Draft EIR technical study, *Clean Water Factory Rapid Infiltration/Extraction (RIX) Low-Flow Sediment Scour and Transport Modeling in the Santa Ana River*, which incorporates a movable bed model known as the "Vortex Lattice Scour-Burial Model." This scour model has been peer reviewed and published in a professional engineering journal and was approved by USGS scientists for use on the Santa Ana River sediment transport and cobble scour problems at the RIX Facility. USGS also provided invaluable databases on cobble and sand grain sizes, Santa Ana River flow rates and measured sediment transport rates, which were used to calibrate the model.

As such, SBMWD notes the lack of validity for the claim that, "The DEIR fails to include the increased sediment buildup (sand) that is expected when flows are reduced." Deposition of a sand blanket over the cobble substrate was an initial condition that was speculated by USFWS staff, and the scour modeling effort was tasked with identifying how that initial condition could be mitigated with RIX Facility discharges. Consultation with USGS scientists at the USGS California Water Science Center, Sacramento, led to a consensus agreement that modeling of the deposition processes that produce sand blankets over the cobble substrate was not possible because not enough is known about the sediment sources upstream from the RIX Facility. Thus, the baseline condition specified for the scour model was that a buildup of

¹⁹ Arguably non-stationary for any period due to the conversion of land uses and water use starting in the 1950's.

sand had already occurred, and the model was then run for 10 different stream flow rates in the Santa Ana River to see if supplemental RIX Facility discharges could achieve the scour goals that would re-establish biological field study baseline conditions. Based on model results it was determined that the RIX Facility has sufficient capacity to scour a sand blanket in Reaches 1 and 2 (between the RIX Facility and Mission Inn Ave.) during a time of biological necessity. The commenter correctly notes that, “Decreasing the rate of the base flow will decrease the rate of sediment transport and the sediment grain size that can be transported.” However, this statement does not necessarily support their following statement that, “increased sediment buildup” downstream of the RIX Facility is inevitable, as demonstrated by the modeling.

It should be noted that runoff from storm events can cause both erosion and deposition depending on the stage of the flood hydrograph. In the downstream reaches of rivers with dams and detention basins, stream bed erosion is typical during the peak flow period of the hydrograph. During these peak-flow periods, the stream flow is sediment deficient due to the impoundment of sediment by the upstream dams, and the excess flow energy causes general scour of the downstream reaches (referred to as “hungry waters effect”). In the later stages of the hydrograph, residual sediment transport, (typically bedload derived from antecedent bed and bank erosion occurring further upstream), can deposit over downstream substrate previously exposed by scour during the peak flow period. That is the premise on which the modeling’s baseline condition assumption was based. The use of RIX Facility discharges would only occur during the post-storm period when the hydrograph has declined to base flow levels; and certainly would not be invoked during the peak flow periods when the river bed might be eroding from the “hungry waters effect.”

Response to Comment L23.

The commenter notes concerns related to assumptions integrated into the hydrology modeling for the proposed Project. The WUA estimates were constructed using all of the data available at the time. The shortcomings and assumptions of the study were clearly stated, and the best possible estimates of Project effects were generated with these basic models, which represent the best available tools to estimate the effects of flow reductions on habitat within a complex and highly variable riverine environment such as the Santa Ana River.

Response to Comment L24.

Effects to Santa Ana sucker associated with RIX Facility shutdowns are part of the existing condition. SBMWD is working with USFWS to expedite implementation of a project (described in Mitigation Measure BIO-14) that would greatly reduce the frequency and duration of any shutdowns, provide for more reliable facility operation and mitigate the impacts of any shutdown by rehabilitating the UV disinfection system and providing a supplemental water supply to the Santa Ana River during periods when shutdown from the facility is unavoidable (e.g., due to required maintenance or NPDES permit limitations). This project is a top priority for the City, and the SBMWD’s best estimate is that most of these improvements will be completed in 2017.

Response to Comment L25.

Refer to Response to Comment L24 above.

Response to Comment L26.

The project proposed in measures 1 and 2 of the Draft EIR, pages 4.4-80 through 4.4-85, was not proposed to mitigate for project-specific impacts of the Project but rather to reduce cumulative impacts to Santa Ana sucker and further offset the Project's contribution to this cumulative impact. As discussed above, the SBMWD is working aggressively to implement these improvements as soon as possible, regardless of whether the Clean Water Factory Project is approved, and SBMWD appreciates the support of the USFWS for the City's efforts to expedite these improvements.

Response to Comment L27.

The commenter states that the Protest on the 2010 Change Petition submitted to the SWRCB would need to be resolved before formal consultation could occur for the Project. Comment noted. The Draft EIR addresses each of the issues identified in USFWS's protest. The Draft EIR addresses each of the issues identified in USFWS's protest.

Response to Comment L28.

The commenter expresses the opinion that any adverse effect to fish numbers can only be mitigated through a measure that would offset the impact by increasing fish numbers. The commenter suggests that SBMWD establish and manage new Santa Ana sucker populations. SBMWD concurs that river rehabilitation is an inexact process, but evidence shows that when performed scientifically with a well-trained, interdisciplinary team of specialists, this process can be quite beneficial. The list of potential responses to changes in the population listed in the Draft EIR were examples, and an assessment of the most beneficial actions would be necessary before Project implementation (i.e., as part of the Adaptive Management Plan). The comment does not establish that the proposed mitigation options would not be feasible. And in fact, USFWS lauded similar mitigation components of the Sterling Natural Resource Center project. Moreover, translocation efforts are often less successful than restoration efforts. A translocation would only be a viable option if a potential site was shown to contain the minimum habitat requirements for establishment and maintenance of a robust population. The comment does not identify such a location or provide evidence to show that such mitigation would be feasible or more effective than what is proposed in the Draft EIR.

Response to Comment L29.

The commenter requests clarification as to how and where the Adaptive Management Plan would increase or augment Santa Ana River flows and how flow augmentation would address impacts to riparian habitat that is disconnected from the river. Supplemental water could be provided in a number of ways, including increasing the amount of discharge from the RIX or SBWRP (i.e., reducing the amount of water held back for recycling), or providing supplemental water from RIX Facility wells, including the wells identified as part of Mitigation Measure BIO-14. The intent of Mitigation Measure BIO-7 is to identify an adaptive management approach. This approach was based on the best available information at the time the NOP was published. As of this writing, a complete and comprehensive Adaptive Management Plan has not yet been written; however, Mitigation Measure BIO-7 (see Section 3.0, *Errata to the Draft EIR*) has been revised to better describe specific performance measures and implementation strategies for the Adaptive Management Plan. As noted in Response to Comment L11, the Adaptive Management Plan would not be developed in isolation but would use all available information and modeling developed by USGS and others. A significant amount of relevant but preliminary data has recently been presented by

USGS but is not yet available for use regarding existing hydrologic conditions in the Santa Ana River, habitat requirements for the Santa Ana sucker, and sediment transport. If available, all of these data could be used in the future to further manage and evaluate Santa Ana River flows and potential impacts to riparian habitats. However, when major storm events result in riverbed shifts and change the course of the Santa Ana River, linear bands of isolated riparian habitat without water are created as a normal course of river dynamics. It would be impractical and unrealistic to provide water to these isolated patches of riparian vegetation. That said, this concern would be addressed in the Adaptive Management Plan as a potential condition to be monitored and considered during the development of corrective measures.

The comment also asks for an explanation of Mitigation Measure BIO-7's use of 38.4 cfs as a threshold for implementation of the Adaptive Management Plan. Mitigation Measure BIO-7 (see Section 3.0, *Errata to the Draft EIR*) has been revised and no longer applies this metric.

The commenter requests a copy of the *Evaluation of the Phased RIX Flow Reduction on Santa Ana suckers Based on Predicted Changes in Physical Habitat in the Santa Ana River, from the Rialto Drain to the MWD Crossing* (GEI, 2014). This report is included as "Appendix D" in Draft EIR [Appendix 10.5](#).

The commenter requests a copy of the "WEI 2013 study." The *Historic Hydrologic Analysis of Dry-Weather Discharge Conditions in the Santa Ana River* (WEI, 2013) is included as "Appendix A" in Draft EIR [Appendix 10.5](#).

Response to Comment L31.

The commenter identifies concern about potential impacts to, and provides suggestions for mitigation to protect, Santa Ana sucker spawning and nursery habitat. The Adaptive Management Plan required by revised Mitigation Measure BIO-7 (see Section 3.0, *Errata to the Draft EIR*), requires that the SBMWD monitor and protect Santa Ana sucker at each life stage and will include monitoring, mitigation to specifically address spawning and nursery conditions. SBMWD will coordinate with USFWS in development of the specific performance measures, as well as through the consultation required by Mitigation Measure BIO-8 to ensure that impacts are not significant. See also Response to Comment L10.

Response to Comment L32.

The commenter states that additional hydrology modeling should have been completed to further quantify downstream impacts to riparian habitat. Previous studies and hydrologic analysis conducted for the Project and Draft EIR modeling indicate that potential changes in riparian habitats while expected are routinely occurring as part of the very dynamic nature of the Santa Ana River system.

The Draft EIR acknowledges the potential for adverse impacts to riparian habitats but explains that given the historic variability in flows and habitat conditions, the gradual reduction in flows, and upwelling groundwater downstream of the MWD Crossing, riparian vegetation downstream of RIX would be expected to largely adapt to the Project-related discharge reduction gradual reduction, and proposes Mitigation Measure BIO-7, which requires ongoing monitoring and mitigation to ensure that impacts to riparian habitat are not significant. Combined with Mitigation Measures BIO-8 and BIO-12, which specifically addresses impacts to riparian habitat, as well as the revisions proposed as part of revised Mitigation Measure BIO-7 (see Section 3.0, *Errata to the Draft EIR*), this analysis and mitigation is sufficient to ensure that Project-related impacts on riparian habitat will not be significant without the need for a quantitative analysis of the water consumption needs of riparian vegetation within the affected area. The commenter also notes concerns pertaining to flows downstream to Prado Basin. Flows downstream of MWD Crossing are not affected by discharges from the RIX Facility discharge due to upwelling groundwater and gaining reaches of the river. While the commenter's statements are noted, extensive modeling has been completed in order to understand the hydrology of the Santa Ana River and potential impacts related to RIX discharge reductions.

Response to Comment L33.

The commenter suggests that SBMWD should add the Least Bell's vireo and Southwestern willow flycatcher to the Adaptive Management Plan. As noted in Mitigation Measure BIO-7, the goal of the Adaptive Management Plan is to "monitor and protect the Santa Ana River, its in-stream habitats and the adjacent additional riparian habitat and, by extension, protect the species that inhabit these two habitat types." SBMWD concurs that the Adaptive Management Plan should be developed to include monitoring of riparian habitat between RIX and the MWD pipeline for Least Bell's vireo and Southwestern willow flycatcher and those provisions will be included that in the Project's Adaptive Management Plan. Refer also to revised Mitigation Measure BIO-7 in Section 3.0, *Errata to the Draft EIR*.

Response to Comment L34.

The commenter notes concerns related to the cumulative impacts analysis within the EIR. SBMWD recognizes that other water agencies are considering Projects that, if approved, could also reduce flows to the Santa Ana River along the study reaches. As such, the Draft EIR analyzes what is considered a cumulative worst-case condition for potential future wastewater treatment plant discharge reductions in the study reaches based on the limit of acceptable potential impacts to biological resources. For this reason, SBMWD affirms that the Draft EIR's cumulative worst-case conditions account for the SNRC and City of Rialto wastewater treatment facilities

Response to Comment L35.

This comment serves as the conclusion to the comment letter. SBMWD appreciates the comments submitted on the Project, and has included specific responses above.