any other person or entity without such consent shall be void, and shall at the option of City's City Manager, terminate this Agreement. This Agreement shall not, nor shall any interest therein, be assignable, as to the interest of Lessee by operation of law, without the prior written consent of City.

17. WASTEWATER DISCHARGE REQUIREMENTS

Lessee agrees to use said premises in conformance with existing and any future Wastewater Discharge Requirements as prescribed by the Central Valley Regional Water Quality Control Board. Violation of the WDR's resulting in monetary fines, caused by actions of the Lessee shall be the responsibility of Lessee.

18. QUALITY OF WASTEWATER

City agrees that treated wastewater delivered to Lessee shall, as to quality and composition, and taking into account the agricultural irrigation use to which the treated wastewater will be put, will meet all state discharge permits. Said treated wastewater shall be treated to meet all wastewater discharge standards as prescribed by the California Water Quality Control Board. City does not guarantee or warrant the chemical composition of said treated wastewater or cannery segregation water as to its suitability for agricultural crops.

19. USE OF TREATED WASTEWATER

Lessee agrees that said treated wastewater shall be used as prescribed by Wastewater Reclamation Criteria, California Administrative Code, Title 22, Division 4, Sections 60301 to 60355 (see attached Exhibit 5).

20. BIOSOLIDS AND CO-COMPOST APPLICATION STATEMENT

Lessee agrees to allow City access to Jennings Ranch for annual Biosolids and Co-Compost Applications. City shall coordinate such applications with Lessee to time such applications to conform to Lessees annual crop rotation program and shall work with Lessee as to the location for said application. City shall have the right at City's sole discretion to apply such materials to Jennings Ranch fields not presently used for that purpose. Lessee agrees that application of biosolids is not an allowed used in organic farming as set forth in Section 8 – Organic Certification And Use.

21. CO-COMPOST SITE AND EXPANSION

The City reserves the right to expand the Co-compost site and such expansion in combination with other possible City uses shall not exceed 100-acres over the 10-year term of this Agreement. City shall provide timely notification to Lessee of such changes and the net irrigated acreage shall be revised to properly adjust the annual lease amount as provided for in Section 2 – Annual Lease Amount and Payment Terms.

22. CITY TERTIARY WASTEWATER TREATMENT FACILITY

Lessee acknowledges that City has constructed a new tertiary wastewater treatment facility. Said treatment facility will be used for advanced treatment of wastewater to be discharged in a method that best fits City's needs. These needs include discharge that meets Regulatory standards and effluent discharge water that could be used for direct sale to local agricultural users or in water exchange contracts. The delivery of tertiary treated wastewater to Jennings Ranch is not included as part of this Agreement and any such delivery shall be at the sole option of City.

23. RANCH OPERATION PLAN

The intent of this Agreement is to provide City with a means of disposing treated wastewater and/or cannery segregation water through land disposal, and Biosolids and Co-composting materials in a manner which meets Regional Water Quality Control Board discharge requirements. Therefore, City has developed a Ranch Operation Plan, a copy of which is attached as Exhibit 6, which Lessee shall be responsible to adhere to as a condition of this Lease. Lessee agrees to operate Jennings Ranch in accordance with the provisions contained in the Ranch Operation Plan, in so far as such provisions do not conflict with the terms and conditions of this Agreement. The Ranch Operation Plan provides for the daily operation and flow control of the treated wastewater to maximize the greatest beneficial use and long-term maintenance of the irrigation system and Jennings Ranch for both City and Lessee. Said Ranch Operation Plan also defines Lessees responsibility regarding soil management, use of other water sources, and general operation of Jennings Ranch facilities. Lessee agrees to implement and adhere to the Ranch Operation Plan for the duration of this Agreement.

24. RANCH MANAGEMENT PLAN

Lessee shall submit a Ranch Management Plan that describes the daily operation and flow control of the treated wastewater and cannery segregation water system. Said plan shall be submitted to City for approval within thirty (30) days of commencement of this Agreement. The intent of the plan is to maximize the greatest beneficial use and long-term maintenance of the irrigation system and Jennings Ranch for the benefit of both City and Lessee. The Ranch Management Plan also will define Lessees responsibility and approach for managing and maintaining soil quality, the use of other water sources, and general operation of Jennings Ranch. The Plan shall include a summary of anticipated cropping activities, crop rotation and crop acreage. Once approved by City, Lessee agrees to implement the Ranch Management Plan for the term of the lease. As part of this process, City will contract at City's cost with an agronomist or soils engineer annually to evaluate sections of Jennings Ranch to ensure that overall quality is not diminished. This monitoring will be performed on a rotating basis with approximately 500 acres assessed. The results of these studies may result in modifications to Lessees Ranch Management Plan and Lessee shall implement the recommendations of City's agronomist or soils engineer. Lessee shall provide City with an updated Ranch Management Plan by March 1st of each year. Lessee agrees to provide City with an annual Nutrient Management Plan, which will be incorporated into the Ranch Management Plan beginning the 2nd year of the lease term and then annually thereafter. The Nutrient Management Plan shall include a fertilizer management plan for each crop. The initial Nutrient Management Plan will be provided by March1, 2011. Lessee also agrees to provide City with monthly reports identifying pesticide usage that includes a copy of County pesticide permits or reports, as well as any proposed changes to the annual Nutrient Management Plan.

Lessee shall submit a monthly report summarizing quantity of tailwater pumped and applied for irrigation. Lessee shall use a computer aided approach to schedule irrigation, such as CIMIS.

25. PERFORMANCE MEASUREMENTS

City, at City's sole expense, shall retain the right to hire the services of consultants to assist City staff in assessing the performance of Lessee in operating and

managing Jennings Ranch. The following general criteria will be used by City to monitor Lessees performance, and compliance with the terms and conditions of this Agreement:

A. Agronomic monitoring performed annually on a rotating basis. City shall retain and pay for the services of an agronomist or agricultural engineer to assess soil quality and crop management on approximately 500 acres per year.

B. Lessees adherence to the Ranch Operation Plan as set forth in Section 23 – Ranch Operation Plan hereinabove.

C. Lessees submittal and City's review of the Ranch Management Plan as set forth in Section 24 – Ranch Management Plan hereinabove.

D. Timely and appropriate maintenance of Jennings Ranch premises as set forth in Section 9 – Maintenance and Repairs hereinabove.

In the event Lessee fails to comply with the terms of this Agreement relative to the evaluation of and compliance with these performance measures, City may exercise its rights as outlined in Section 5 – Special Provisions hereinabove.

26. LESSEE INDEMNIFICATION

Lessee agrees to indemnify, defend, and hold City, its officers, agents and employees, harmless from and against all liabilities or injuries to persons or damage to Property arising out of Lessees use, occupancy, or operation of Jennings Ranch.

Lessee agrees to indemnify. defend, and hold harmless City, it officers, agents and employees from and against any and all claims, demands, defense costs, or liability of any kind or nature resulting from, arising out of, or connected with Lessees negligent use, operation, maintenance and delivery of treated wastewater and cannery segregation water under the terms of this Agreement.

Lessee understands, acknowledges, and agrees that any non-performance by them of the requirement to satisfactorily operate a land disposal irrigation system as set forth in Section 4 – Additional Consideration hereof may cause City to suffer some other penalty imposed by the California State Water Resources Control Board, the Environmental Protection Agency, or some other public entity having jurisdiction over City regarding such non-performance. In the event of such non-performance by Lessee, Lessee agrees to indemnify, hold harmless and defend City against all liability, costs, expenses (including without limitation, any fines, penalties, judgments, litigation costs, and attorney's fees as related to regulatory actions, citizen groups legal actions, third party lawsuits and/or a private citizen's legal actions) incurred by City as a result of such non-performance by Lessee, regardless of whether such liability, cost, or expense arises during or after the term of this Agreement. The right of indemnity is not exclusive; it is cumulative in addition to any other remedy now or later allowed by law or by the expressed provisions of this Agreement. Notwithstanding the foregoing, City agrees that Lessee shall not be liable for any damages caused by the negligent or intentional acts or omissions of City, its employees, agents or contractors, nor shall Lessee be obliged to defend City against any such acts or omission, or pay any costs of such defense.

27. CITY INDEMNIFICATION

City agrees to indemnify, defend, and hold harmless Lessee, their officers, agents and employees from and against any and all claims, demands, losses, defense costs, or liability of any kind or nature which Lessee, their officers and employees may sustain or incur, or which may be imposed upon them, or any of them, for injury to or death of persons, or damage to property as a result of, arising out

of, or connected with, City's sole negligence in the performance of any of City's duties under this Agreement.

28. LIABILITY INSURANCE

The Consultant shall provide at its own expense and maintain at all times the following insurance with insurance companies licensed in the State of California and shall provide evidence of such insurance to the City as may be required by the Risk Manager of the City. The policies or certificates thereof shall provide that, thirty (30) days prior to cancellation or material change in the policy, notices of same shall be given to the Risk Manager of the City by certified mail, return receipt requested, for all of the following stated insurance policies.

(a) Worker's Compensation - in compliance with the statutes of the State of California, plus employer's liability with a minimum limit of liability of $1,000,000.

(b) General Liability insurance with a minimum limit of liability per occurrence of $1,000,000 for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. This insurance shall indicate on the certificate of insurance the following coverages and indicate the policy aggregate limit applying to: premises and operations; broad form contractual; independent consultants and subcontractors; products and completed operations as applicable.

(c) Automobile Liability insurance with a minimum limit of liability per occurrence of $1,000,000 for bodily injury and property damage. This insurance shall cover any automobile for bodily injury and property damage.

(d) Professional Liability insurance with a minimum limit of $1,000,000 per claim and policy aggregate. If coverage is on a claims made basis it shall be maintained for at least three (3) years following completion of the work.

If at any time any of said policies shall be unsatisfactory to the City, as to form or substance, or if a company issuing such policy shall be unsatisfactory to the City, the Consultant shall promptly obtain a new policy, submit the same to the Risk Manager for approval and submit a certificate thereof as hereinabove provided. Upon failure of the Consultant to furnish, deliver or maintain such insurance and certificates as above provided, this Agreement, at the election of the City, may be forthwith declared suspended, or terminated. Failure of the Consultant to obtain and/or maintain any required insurance shall not relieve the Consultant from any liability under this Agreement, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations of the Consultant concerning indemnification. The City, its agents, officers, employees, and volunteers shall be named as an additional insured on all insurance policies required herein, except Workers' Compensation and Professional Liability. The Workers' Compensation insurer shall agree to waive all rights of subrogation against the City, its agents, officers, employees, and volunteers for losses arising from work performed by Consultant for the City. The Consultant's insurance policy(ies) shall include a provision that the coverage is primary as respects the City; shall include no special limitations to coverage provided to additional insured; and, shall be placed with insurer(s) with acceptable Best's rating of A:VII or with approval of the Risk Manager. The Consultant must deliver certificates evidencing existence of the insurance listed above to the City Clerk at the time the contract is signed.

CONSULTANT shall provide CITY with separate endorsements evidencing proof of the CITY's additional insured status as to both the general liability and automobile liability insurance policies. In addition, CONSULTANT shall provide CITY with a Workers Compensation subrogation waiver by way of a separate endorsement. All endorsements referenced above must include the applicable policy

number.

For any claims related to this project, the CONSULTANT'S insurance coverage shall be primary insurance as respects the Entity, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Entity, its officers, officials, employees, or volunteers shall be excess of the CONSULTANT'S insurance and shall not contribute with it.

29. SUBCONTRACTOR INDEMNIFICATION AND LIABILITY INSURANCE REQUIREMENTS

Subcontractors retained by Lessee to perform work at Jennings Ranch shall comply with all terms and conditions of this Agreement including indemnification and liability insurance requirements as set forth in Sections 26 and 28 hereinabove. Prior to commencing any work at Jennings Ranch, subcontractors shall comply with all relevant City contracting requirements as determined at City's sole discretion, and shall not begin work until receiving written authorization to proceed from City.

30. TERMINATION BY CITY PRIOR TO EXPIRATION

City's City Manager shall have the right to immediately terminate this Agreement, in whole or in part for cause, on the occurrence of any of the following events:

A. Failure of Lessee to make monthly lease payments when due.

B. Filing by or the final adjudication of Lessee of any petition in bankruptcy or the making of any transfer of general assignment for the benefit of creditors, which has not been previously authorized by City.

C. Failure of Lessee to perform substantially or keep or observe any of the terms, covenants, and conditions set forth herein, excepting insurance, the requirement which it is obligated to perform, keep or observe under this Agreement after the expiration of a thirty (30) day period after written warning or ultimatum given by City's City Manager to Lessee to correct any such deficiency or default.

D. Failure of Lessee to provide liability insurance as provided for in Section 28 – Liability Insurance herein after the expiration of a fifteen (15) day period after written warning given by City's City Manager to Lessee to correct any such deficiency or default.

E. The abandonment of Jennings Ranch or any portion thereof, or discontinuance of Lessees business operations, or any portion thereof. Should this occur, City shall not be responsible for the custodial protection of merchandise, fixtures, or equipment abandoned, even though it may necessary for City to remove such from Jennings Ranch for storage or disposal. Such removal under said conditions shall be at the sole option of City.

F. WDR Permit revisions limit or otherwise restrict the application of treated wastewater and/or cannery segregation water on Jennings Ranch, such that land application is no longer an approved or reasonable option.

G. If Lessee defaults with respect to any of the terms, provisions, covenants, and conditions of this Lease, including but not limited to the payment of monthly lease amount, the repair of damages to Jennings Ranch caused by Lessee, or the cleaning of Jennings Ranch upon termination of this Agreement, City may use, apply, or retain the whole or any part of the security deposit of Twenty-Five Thousand Dollars ($25,000.00) as security for the payment of any or all of the above-mentioned specific purposes. Any remaining portion of such deposit shall be returned to Lessee no later than sixty (60) days after termination of this Agreement. Lessee shall not be entitled to security for the full and faithful performance of each and every term, provision, covenant, and condition of this Agreement.

31. SAFETY TRAINING AND COMPLIANCE

Lessees employees shall complete the safety training program developed by City for the Jennings Road Wastewater Treatment Facility and shall comply with all requirements set forth therein. Lessee also shall conduct safety training in compliance will all applicable federal, state, and local laws and regulations. Lessee shall certify to City in writing that all employees working for Lessee at Jennings Ranch have received applicable training and are in compliance with all said laws and regulations. Such written certification shall be provided by Lessee to City by May 31, 2011 during the first year of the lease, and then annually by January 15 for each successive year during the lease term.

32. COMPLIANCE WITH LAWS

Lessee shall not do or suffer to be done on or about Jennings Ranch anything that would or does violate or conflict with any applicable law, ordinance, rule or regulation which is now in force or effect, which may hereafter be enacted or adopted by federal, state, county or municipal authority.

33. FAILURE TO VACATE

Lessee agrees to vacate Jennings Ranch upon termination of this Agreement, and failing to vacate as herein provided, agrees that City or its authorized agents may enter upon said Jennings Ranch and remove all personal property and, in this event, Lessee waives any and all claims for damages against City, its agents and employees. Nothing herein shall be deemed a waiver of any rights of City to demand and obtain possession of Jennings Ranch in accordance with law in the event of a violation on Lessees part of any of the terms or conditions hereof.

34. NON –WAIVER

Any waiver of any breach of covenants or conditions herein contained to be kept and performed by either party shall be effective only if in writing and shall not be deemed or considered as a continuing waiver and shall not operate to bar or prevent the other party from declaring a forfeiture or exercising its rights for any succeeding breach of either the same or other condition or covenant.

35. CO-PARTNERSHIP DISCLAIMER

It is mutually understood and agreed that nothing in this Agreement is intended or shall be construed as in any wise creating or establishing the relationship of co-partners between the parties hereto, or as constituting Lessee as agents or representatives of City for any purpose or in any manner whatsoever.

36. REMOVAL OF TREES

Trees shall not be removed from the leased premises except with the consent and under the written direction of City's Deputy Director of Public Works - Operations.

37. SIGNS

Lessee agrees that City may post Jennings Ranch with "No Hunting or No Shooting" signs and Lessee agrees to abide by such signs and shall not allow their employees, agents, or guests to discharge any firearms or weapons on the premises. Lessee also agrees and acknowledges that City has posted Jennings Ranch with signs as required by the Regional Water Quality Control Board, stating that Jennings Ranch is being irrigated with treated wastewater.

38. WILDLIFE PROTECTION

Lessee agrees to comply with City's Fish and Wildlife Protection Policy, a copy of which is included as Exhibit 7 attached hereto and by this reference incorporated herein.

39. TIME OF ESSENCE, BINDING UPON HEIRS, ETC.

Time is of the essence of each and all the terms and provisions of this Agreement and the terms and provisions of this Agreement shall extend to and be binding upon and inure to the benefit of the heirs, executors, administrators, successors and assigns of the respective parties hereto.

40. NUMBER AND GENDER

All words used herein in the singular number shall include the plural, and the present tense shall include the future, and the masculine gender shall include the feminine and neuter.

41. ENTIRE LEASE AGREEMENT

This Agreement contains the sole and only agreement of the parties. Any prior agreements, promises, negotiations or representations not expressly set forth in this Agreement are of no force or effect.

42. LANGUAGE CONSTRUCTION

The language of each and all paragraphs, terms and/or provisions of this Agreement shall, in all cases and for any and all purposes, and any and all circumstances whatsoever, be construed as a whole, according to its fair meaning not for or against any party hereto and with no regard whatsoever to the identity or status of any person or persons who drafted all or any portion of this Agreement.

43. GOVERNING LAW

This Agreement is entered into and shall be construed and interpreted in accordance with the laws of the State of California.

44. INVALID TERMS

If any of the terms, provisions, covenants, or conditions of this Agreement are held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of this Agreement shall remain in full force and effect, and shall in no way be affected, impaired or invalidated.

WT

45. AMENDMENT

This Agreement, including any exhibits hereto, shall not be amended, except in writing signed by the parties. Any amendment or addendum to this Agreement shall expressly refer to this Agreement.

46. BINDING ON SUCCESSORS IN INTEREST

This Agreement shall be binding on and shall inure to the benefits of the heirs, executors, administrators, successors and assigns of each party.

47. REPRESENTATION

Lessee shall at all times retain in the local area a qualified, competent and experienced representative to supervise their operations and be authorized to represent and act for Lessee in matters pertaining to the day-to-day conduct of Lessees operations. During any temporary periods of absence by said representative, an alternate representative of Lessee with like authorization shall be present. Lessee shall, at all times in writing, keep City's Director of Operation and Maintenance or his authorized representative informed as to the identity of Lessees authorized representative and how immediate communication can be established with that representative on a twenty-four (24) hour day, seven (7) day per week basis.

48. EXERCISE OF DISRETION

Where the term of this Agreement requires approval or the exercise of discretion by Lessee, or by City, discretion shall not be exercised in an unreasonable, arbitrary or capricious manner.

49. INDEPENDENT CONTRACTOR

Both parties hereto in the performance of this Agreement will be acting in an independent capacity and not as agents, employees, partners or joint ventures with one another. Lessee is an not employee of City for the purpose of this Agreement and is not entitled to any of the rights, benefits, or privileges of City employees, including but not limited to medical, unemployment or worker's compensation insurance. This Agreement contemplates the personal services of Lessee, and it is recognized by the parties that a substantial inducement to City for entering into this Agreement was, and is, the reputation and competence of Lessee. Neither City nor its officers, agents or employees shall have any control over the conduct of Lessee except as herein set forth, and Lessee expressly agrees not to represent that Lessee is in any manner agents, servants, or employees of City, it being understood that Lessee is as to City a wholly independent contractor and that Lessees obligations to City are solely such as are prescribed by this Agreement.

50. LEASE AGREEMENT SUPERSEDES

This Agreement cancels and supersedes all former leases whether verbal or written.

51. ARBITRATION

Any controversy or dispute arising out of or relating to this Agreement or the breach thereof shall be settled by binding arbitration. Such arbitration shall be effected by arbitrators selected as hereinafter provided and shall be conducted in the State of California, County of Stanislaus, in accordance with the Rules of the American Arbitration Association existing on the data thereof. The dispute shall be submitted to three (3) arbitrators each of whom shall have had at least five (5) years

arbitration experience, one arbitrator being selected by City, one arbitrator being selected by Lessee, and the third arbitrator being selected by the American Arbitration Association. In the event either party hereto, within one (1) month after any notification of any demand for arbitration hereunder, shall not have selected its arbitrator and given notice thereof to the other, such arbitrator shall be selected by the American Arbitration Association. The meetings of the arbitrators shall be held at such place or places in the State of California, County of Stanislaus, as may be agreed upon by the arbitrators. Judgment may be entered on any decision rendered for the arbitrators in any Federal or State court having jurisdiction. Each party hereto shall bear the costs of the fees and expenses of the arbitrator selected by or for it, and the fees and expenses of the third arbitrator shall be borne by the party demanding arbitration.

IN WITNESS WHEREOF, the City of Modesto, a municipal corporation, has authorized the execution of this Agreement in duplicate by its City Manager and attestation by its City Clerk under authority of Resolution No. 2010-468, adopted by the Council of the City of Modesto on the 3 day of November, 2010, and Lesee has caused this agreement to be duly executed in duplicate as of the Effective Date.

CITY OF MODESTO,
a municipal corporation

By _____
GREG NYHOFF, City Manager
Title

Lessee,

By _____
Wendel Trinkler Jr., Owner

By _____
Name Title

ATTEST: (Seal)

By _____
STEPHANIE LOPEZ, City Clerk

Lessee Federal ID #94-2862302

APPROVED AS TO FORM:
SUSANA ALCALA WOOD, City Attorney

By _____
(*Name of reviewing City Attorney*), (*Title*)

APPROVED AS TO FORM:

By _____
for MARY AKIN, Risk Manager

** Corporations - signature of two (2) officers required or one (1) officer plus corporate seal.*

Partnership - signature of a partner required

Sole Proprietorship - signature of proprietor required

ATTACHMENTS

Exhibit 1: Jennings Ranch Map

Exhibit 2: RWQCB Order No. 99-112

Exhibit 3: RWQCB Order No. 94-030

Exhibit 4: Field Acreage Tabulation

Exhibit 5: Wastewater Reclamation Criteria, California Administrative Code, Title 22, Division 4, Sections 60301 to 60355

Exhibit 6: Ranch Operation Plan

Exhibit 7: Fish and Wildlife Protection Policy

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SUBMITTED VIA E-MAIL (blawrence@usbr.gov and wwong@modestogov.com) AND U.S. MAIL

May 20, 2014

United States Bureau of Reclamation
Attn: Benjamin Lawrence
1243 N Street, SCC-412
Fresno, CA 93721

William Wong
City of Modesto
Deputy Director, Utility Planning & Projects Department
1010 Tenth Street, 4th Floor
Modesto, CA 95354

Subject: Scoping Comments for the Proposed North Valley Regional Recycled Water Program EIS/EIR

Dear Mr. Lawrence and Mr. Wong:

Turlock Irrigation District (TID) is thankful for the opportunity to provide the following scoping comments for the above proposed project EIS/EIR.

TID was formed in 1887 as the first publicly owned irrigation district in California. Today, TID serves water to approximately 5,800 growers who irrigate approximately 150,000 acres within TID's irrigation boundary, in addition to providing electric service to nearly 100,000 accounts. The conjunctive use of Tuolumne River surface water applied on farmland to recharge groundwater resources is a key water management strategy that has been employed by TID for decades.

Planned recharge in wet years, combined with strategic pumping in dry years has been to the long-term benefit of the 347,000 acres that overlie the Turlock Subbasin. TID continues to search for alternatives to bolster the long-term sustainability of the Turlock Subbasin. This is one example of TID's willingness to find solutions to current and future groundwater problems that affect the entire Subbasin, not just the portion of the basin underneath TID's irrigation boundary. In addition to surface water application, TID sees promise in the future application of recycled water to TID irrigated lands and the Turlock Subbasin as a groundwater replenishment tool. Additionally, TID operates in accordance with a Groundwater Management Plan that was created in conjunction with the Turlock Groundwater Basin Association, of which TID is a founding member.

Section 3.5 of Reclamation's NEPA Handbook sets forth the USBR's scoping requirements. It states that the purpose of scoping is to obtain information that will focus the NEPA analysis on the potentially significant issues and deemphasize insignificant issues. The information gathered either identifies or can be used to identify all or some of the following: Significant resource issues, resources available for the

study, study constraints, alternatives to be considered, potentially affected geographic area, and potential effects.

1. USBR is required to identify and assess the "potentially affected geographical area." Reclamation's NEPA Handbook (2012), Section 3.5. The proposed scope of the affected Project area is too narrowly limited to the area of Stanislaus County located west of the San Joaquin River.

1.1. The stated "objective of the Proposed Action is to maximize use of a sustainable, alternative water supply for the region that addresses reductions in water supplies from the Central Valley Project (CVP) and offsets pressure on groundwater use." Within Stanislaus County, only the area west of the San Joaquin River (SJR) receives CVP water supplies, whereas the affected geographic area is both west and east of the SJR. The affected geographic area of the proposed project includes San Joaquin River Hydrologic Region subbasins 5-22.02 (Modesto), 5-22.03 (Turlock), and 5-22.07 (Delta-Mendota) as described in DWR Bulletin 118.

1.2. All of the sewer effluent for the Proposed Action comes from the Turlock and Modesto subbasins, which are located east of the SJR. The source water for all of the effluent derived from the cities of Turlock, Ceres, and Modesto south of the Tuolumne River is 100% groundwater from the Turlock Subbasin. Both subbasins are experiencing greater pressure on groundwater use than the area west of the SJR. However, since there is no CVP water delivered east of the SJR, the scope of the affected geographic area must be expanded to include the area east of the SJR where the sewage effluent originates and where there is greater pressure on the groundwater subbasins.

1.3. Both the NEPA and CEQA notices of preparation fail to include the Turlock and Modesto Subbasins within the scope of the proposed EIS/EIR and, therefore, fail to include mitigation for the export of this groundwater-based sewage effluent from the Turlock Subbasin.

2. Stanislaus County Groundwater Issues

The Turlock Subbasin is described in the 2008 Turlock Groundwater Basin Groundwater Management Plan. The Subbasin is bounded by the Tuolumne River on the north, the Merced River on the south, the San Joaquin River on the west, and on the east by the western extent of the outcrop of crystalline basement rock in the foothills of the Sierra Nevada Mountains. The City of Turlock, the City of Ceres, and the portion of the City of Modesto south of the Tuolumne River ("South Modesto") are within this Subbasin and within TID's political and irrigation boundaries. The Subbasin underlies an area of approximately 347,000 acres, with irrigated crops (245,000 acres), native vegetation (69,000 acres), and urban development (20,000 acres) as the predominant land uses. Urban development and irrigated lands have expanded since 2008, most of which expanded uses are in 100% groundwater supplied areas.

While the Turlock Irrigation District provides surface water from the Tuolumne River for agricultural uses within the Subbasin, the City of Turlock, the City of Ceres, and South Modesto rely 100% on groundwater. Much of the cities' groundwater ends up as sewer effluent treated at the City of Turlock's and the City of Modesto's respective publicly owned treatment plants or works ("POTW"). The proposed use of the recycled water from the two POTWs to offset pressure on groundwater use is at the heart of the proposed project and needs to be examined within the context of all three subbasins.

Stanislaus County has formed a Water Advisory Committee to address short-term and long-term groundwater management issues within the County that have been accentuated by the three-year drought. Adverse groundwater quantity and elevation issues have arisen within the Turlock and Modesto subbasins and have resulted in a lawsuit against the County for the issuance of new agricultural well permits in Eastern Stanislaus County.

3. Preliminary list of issues that the EIS/EIR will need to examine, discuss, and analyze. TID reserves the right to supplement the following list as more project information is provided by the NEPA and CEQA lead agencies and the project proponents:

3.1. As explained about, the USBR's stated "objective of the Proposed Action is to maximize use of a sustainable, alternative water supply for the region that addresses reductions in water supplies from the Central Valley Project (CVP) and offsets pressure on groundwater use." That objective is too narrowly worded. The affected geographic area of the project needs to expressly include the Turlock and Modesto groundwater subbasins with the greater focused placed on the Turlock Subbasin.

3.2. Because a significant portion of the project's treated sewage effluent to be exported to the Delta-Mendota Subbasin originates as Turlock Subbasin groundwater, the EIS/EIR needs to analyze in depth mitigation measures for that export.

3.3. Concurrent with inclusion of the Turlock and Modesto subbasins in the "affected geographic area" to be assessed by the EIS/EIR, the EIS/EIR needs to recognize and discuss the probable reductions in surface water supplies to those two subbasins from proposed actions by Federal and State regulatory agencies and the resulting increased pressure on those subbasins' groundwater uses due to reduced surface water availability.

3.4. Given the expected reduction in surface water supplies to the three subbasins, the EIS/EIR will need to describe and analyze how the project could reduce groundwater pressures within each of the three subbasins and feasibility of providing a portion of the project's recycled water to the Turlock and Modesto Subbasins.

3.5. The Notice states that the recycled water from the project would be allocated between Del Puerto Water District and South of Delta CVPIA wildlife refuges. The EIS/EIR will need to discuss how much Incremental Level 4 water for wildlife refuges is proposed to be met by the project during Critical, Dry, Below Normal, Above Normal, and Wet water years using the State Water Resources Control Board's "San Joaquin Valley Water Year Hydrologic Classification." The EIS/EIR will need to describe what alternate water supplies are available to the wildlife refuges during each of the five water year types.

3.6. The EIS/EIR will need to describe how the project's recycled water is proposed to be allocated among DPWD, Incremental Level 4 water supplies, and at least the Turlock Subbasin during each of the five water year types. The benefits and impacts of the Proposed Action cannot be adequately assessed until that allocation formula, and alternatives thereof, is described and analyzed in

the EIS/EIR.

3.7. USBR is required to identify and assess the "Alternatives to be considered." Reclamation's NEPA Handbook (2012), Section 3.5. USBR's Notice of Intent to Prepare a Draft EIS/EIR provides no information on alternative uses for the project's recycled water.

a. As described above, the EIS/EIR will need to describe and analyze the use of a portion of the recycled water for groundwater recharge within the Turlock Subbasin through direct recharge or in-lieu groundwater recharge. This in depth analysis is required both as a mitigation measure for the export of the Turlock Subbasin groundwater-based sewer effluent and as an alternative use for the project's recycled water.

b. The cities of Turlock, Ceres, and Modesto have an obligation to investigate the use their recycled water for the irrigation of city parks, medians, landscaping, golf courses, and other areas in order to offset the potable water currently being used for those purposes. The EIS/EIR needs to address the cities' alternative uses of the project's recycled water to reduce potable water use within their own cities. The sale of the project's recycled water would appear to discourage the cities from making the capital investments needed to increase in-city uses of the recycled water, especially if coupled with an agreement with TID to purchase Tuolumne River water to supplement the cities' groundwater supplies.

3.8. Related to 3.6 b. above, the EIS/EIR will need to describe to what extent existing uses of reclaimed water within the Turlock and Modesto Subbasins will be terminated or curtailed as a result of exporting the recycled water out of those subbasins.

3.9. The EIS/EIR will need to describe and analyze proposed alternative recycled water pipeline alignments both east and west of the SJR and the locations of proposed SJR crossings. From the May 13, 2014 scoping meeting, TID now understands that the so-called "Separate Alignments" project configuration, where there would be a separate SJR crossing and pipeline to the DMC from each POTW is not the preferred project and that the so-called "Combined Alignment" is the preferred project. The Combined Alignment consists of a single SJR crossing connected to the City of Modesto POTW and the construction of a 37,800 linear feet, 42-inch inner diameter pipeline from the end of the City of Turlock's Harding Drain Bypass Project pipeline to the City of Modesto POTW via South Carpenter Road, West Main Avenue, and Jennings Road. Alternative alignments for this connecting pipeline should be investigated. A Combined Alignment whereby the single SJR crossing is located at the end of the Harding Drain Bypass Project pipeline should also be investigated.

3.10. The EIS/EIR will need to describe and analyze the history of each POTW's compliance with existing water quality standards. The EIS/EIR will also need to describe and analyze how each POTW will prevent the discharge into the DMC or for agricultural use before the DMC of any recycled, which fails to meet the required water quality standards for discharge into the DMC or for unrestricted agricultural water use.

3.11. One of the objectives of the Proposed Action is to "Deliver agricultural water to DPWD at a cost that supports regional economic sustainability." The EIS/EIR will need to define what the term "supports regional economic sustainability" means. Further, it will need to identify the projected "all-in"

cost per acre-foot of recycled water from the project for agricultural use by DPWD, the "all-in" cost components, and how those cost components will be determined.

3.12. Similarly, the EIS/EIR will need to identify the projected "all-in" cost per acre-foot of recycled water from the project for Incremental Level 4 water supply, the "all-in" cost components, and how those cost components will be determined.

3.13. Will the projected "all-in" costs per acre-foot of recycled water from the Proposed Action be the same for both agricultural use by DPWD and for wildlife refuge use? If not, why not? Is the Federal Government requiring that water for wildlife refuge use be priced at a lower per-acre-foot cost?

4. The following is a very preliminary list of resources available, which need to be considered by USBR in preparing the EIS/EIR:

Department of Water Resources, State of California (2003). *California's Groundwater Bulletin 118 Update 2003*. Sacramento, CA; Department of Water Resources.

Department of Water Resources, State of California (2014). *Public update for drought response: Groundwater basins with potential water shortages and gaps in groundwater monitoring*. Sacramento, CA; Department of Water Resources.

Durbin, Timothy J. (2008). Assessment of Future Groundwater Impacts Due to Assumed Water-Use Changes – Turlock Groundwater Basin, California. Carmichael, CA; Timothy J. Durbin, Inc., Consulting Hydrologists.

Stanislaus County Water Advisory Committee (2014). Various documents produced. Modesto, CA; Stanislaus County.

Stantec Consulting Inc. (2007). *West Park Water System Master Plan*. Modesto, CA; Stantec Consulting Inc.

Turlock Irrigation District (2008). *Turlock Groundwater Basin Groundwater Management Plan*. Turlock, CA; Turlock Irrigation District.

If you have any questions or need any information to clarify or supplement the above comments, please contact Tou Her at 209.883.8365 or e-mail tbher@tid.org.

Sincerely,

Tou Her
Assistant General Manager, Water Resources
Turlock Irrigation District

Exhibit C

TURLOCK GROUNDWATER BASIN

Groundwater Management Plan

Prepared for:

Turlock Irrigation District
333 East Canal Drive/P.O. Box 949
Turlock, CA 95381

March 18, 2008

Prepared by:

Turlock Groundwater Basin Association

EXECUTIVE SUMMARY

This Groundwater Management Plan (Plan) provides an overview of the local agencies, land uses, and status of groundwater resources in the local groundwater basin, the Turlock Subbasin. The local water agencies, through the Turlock Groundwater Basin Association (TGBA or Association), have taken a cooperative, basin-wide approach to coordinate groundwater management activities and prepare this Plan. The overall goal of the Association is to ensure that groundwater remains a reliable, safe, efficient, and cost-effective water supply for the local area. This Plan presents the basin-wide management objectives proposed to achieve this goal, and concludes with recommended measures that can be drawn from to meet the basin management objectives and the long-term goal of ensuring the viability of the groundwater supply.

THE TURLOCK GROUNDWATER BASIN ASSOCIATION

Many local agencies are eligible to participate in groundwater management within the local groundwater basin. These agencies include the Turlock and Merced irrigation districts; the cities of Ceres, Turlock, Modesto and Hughson; the Hilmar and Delhi county water districts; the Keyes, Denair and Ballico community services districts; the Eastside and Ballico-Cortez water districts; and Stanislaus and Merced counties. These agencies have been cooperating on groundwater management activities in the Turlock Groundwater Basin since the mid-1990s.

A formal group for coordinating groundwater management activities, the Turlock Groundwater Basin Association (TGBA or Association), was initiated in 1995. The TGBA developed the first basin-wide Groundwater Management Plan in 1997. Although the founding Memorandum of Understanding expired upon completion of the Groundwater Management Plan, TGBA members continued to meet and discuss basin-wide planning activities. In 2001 the TGBA was formally reestablished to provide a mechanism to implement groundwater management activities and provide guidance for the management, preservation, protection, and enhancement of the Turlock Subbasin.

The TGBA has prepared this updated Plan to reflect current knowledge and to comply with changes to the Groundwater Management Act (California Water Code Section 10750 et seq.) resulting from the enactment of Senate Bill 1938 in 2002.

LAND USE IN THE TURLOCK GROUNDWATER BASIN AREA

The Turlock Subbasin lies on the eastern side of California's San Joaquin Valley, and encompasses portions of both Stanislaus and Merced counties. The groundwater system is bounded by the Tuolumne River on the north, the Merced River on the south, and the San Joaquin River on the west. The eastern boundary of the system is the western extent of the outcrop of crystalline basement rock in the foothills of the Sierra Nevada. Land uses in the Turlock Subbasin are diverse and include agriculture, urban, and commercial or industrial uses distributed in a mosaic throughout the region.

The Turlock Subbasin underlies an area of approximately 347,000 acres, with irrigated crops (245,000 acres), native vegetation (69,000 acres), and urban development (20,000 acres) as the predominant land uses. The general trend in land use throughout the Subbasin has been an increase in urbanization from less than 4,000 acres in 1952 to approximately 20,000 acres in

2006. The majority of this urbanization has occurred within the cities and unincorporated urban areas within the Turlock Irrigation District boundary. Lands in the Eastside Water District, Ballico-Cortez Water District, and Merced Irrigation District have not seen the substantial increase in urbanization that has occurred in other portions of the Subbasin. However, in the Eastside Water District, there has been a shift from non-irrigated lands to irrigated agriculture as the principal land use. The majority of this agricultural development occurred between 1952 and 1984; land use patterns in the Eastside Water District have generally stabilized since the mid-1980s. The shift to irrigated agriculture has occurred to a lesser extent in the Ballico-Cortez Water District. Land use patterns in the foothill areas in the eastern portion of the Subbasin have also shifted from non-irrigated to irrigated agriculture, but most of this shift has occurred in recent years. Between 1952 and 1992, irrigated agriculture in the foothills non-district area increased gradually from 8,600 acres to 10,800 acres. Following 1992, the irrigated area nearly doubled, reaching 19,500 acres in 2006.

Urban land uses, irrigators in the Eastside and Ballico-Cortez water districts, and irrigators in the foothills and other non-District areas depend on groundwater for water supply. Increases in these types of land uses throughout the Turlock Subbasin increase the demands on the groundwater supply. Consequently, evaluating the status of the groundwater supply and continuing coordination of water agencies are essential for maintaining the viability of the groundwater basin.

WATER RESOURCES IN THE TURLOCK SUBBASIN

Both surface water and groundwater supplies are used to meet the water needs in the management area. The local groundwater source is the Turlock Subbasin, which is a subunit of the San Joaquin Valley Groundwater Basin. The Turlock Subbasin lies in the eastern portions of Stanislaus and Merced counties and has an areal extent of approximately 347,000 acres. As described above, the Subbasin is bounded by the Tuolumne River to the north, the Merced River to the south, the San Joaquin River to the west, and by crystalline basement rock of the Sierra Nevada foothills to the east. Groundwater supplies municipal, industrial, and agricultural demands of the region. Surface water from the Tuolumne River and to a lesser extent, the Merced River, supplies a large proportion of agricultural irrigation demands within the Turlock Subbasin. The following sections summarize the Subbasin hydrogeology, water balance, and water quality issues described in the Groundwater Management Plan.

Hydrogeologic Setting

The primary hydrogeologic units in the Turlock Subbasin consist of either consolidated or unconsolidated sedimentary deposits. The consolidated deposits include the Ione Formation, the Valley Springs Formation, and the Mehrten Formation. The Ione and Valley Springs formations lie beneath the Mehrten Formation and typically contain saline water of marine origin. These consolidated deposits are found at shallower depths in the eastern portion of the Subbasin and generally yield small quantities of water to wells. The Mehrten Formation, however, yields greater quantities of water and is an important water source for the eastern portion of the Turlock Subbasin.

The unconsolidated deposits of the Turlock Lake, Riverbank, and Modesto formations overlie the consolidated deposits. These deposits generally yield moderate to large quantities of water to wells and are the main water-yielding units of the Subbasin. Fine grained deposits within the

Modesto and Turlock Lake formations do not transmit substantial quantities of water and function as aquitards. In the western portion of the Subbasin, where surface deposits are of the Modesto Formation, a discontinuous shallow aquitard creates areas of shallow groundwater. The Corcoran Clay aquitard also occurs in the western portion of the Subbasin within the Turlock Lake hydrogeologic unit. The Corcoran Clay aquitard separates groundwater in the Turlock Subbasin into an upper, unconfined aquifer and a lower, confined aquifer.

The unconfined aquifer is generally 150 feet in thickness and is the water-table aquifer, except in western portions of the Subbasin that are locally confined by the shallow aquitard. The unconfined aquifer is used for both private domestic supply and agricultural supply in the western part of the Subbasin. Wells less than 200 feet in depth draw from this aquifer. The confined aquifer, which is contained under pressure by the Corcoran Clay, occurs in the deeper hydrogeologic units of the Subbasin. In the eastern part of the Turlock Subbasin, the confined aquifer is only semi-confined. The confined aquifer provides extensive municipal and agricultural supplies to the Subbasin. Wells greater than 200 feet deep draw from the confined aquifer, but also may receive flow from the unconfined aquifer.

Below the principal water bearing units of the Turlock Subbasin is a deeply buried confined aquifer that contains saline brine. This saline confined aquifer is under sufficient hydraulic pressure to push water up toward the land surface. This phenomenon results in the migration of saline brines in certain areas (e.g., in groundwater wells or along cracks, fissures, and faults), sometimes as far upward as the unconsolidated sediments. Upwelling also occurs near the San Joaquin River, resulting in elevated concentrations of total dissolved solids (TDS) in groundwater near the river. The saline confined aquifer can be found from depths as shallow as 100 feet in the western portion of the Subbasin to as deep as 1,500 feet in the eastern portion of the Subbasin. Although the saline confined aquifer is not used as a source of supply, migration of the saline brines results in high TDS groundwater that may not be of sufficient quality for agricultural or municipal use where mixing occurs.

Water Balance in the Turlock Basin

A water balance study of the Turlock Subbasin was prepared in 2003 and updated in 2007 to estimate the inflows and outflows from the Subbasin between 1952 and 2006. Outflows from the Subbasin result from municipal, domestic, and agricultural supply and drainage well pumping, discharge to the local rivers, discharges from subsurface agricultural drains, and consumption by riparian vegetation. The estimated average total outflow for the 1997-2006 period is 541,000 AF/yr. The majority of outflow comes from estimated agricultural, municipal and rural residential, and drainage well pumping, which collectively averaged 457,000 AF/yr for the 1997-2006 period.

Inflows to the Subbasin result primarily from deep percolation of agricultural and landscape irrigation water and infiltration of precipitation. The estimated average total inflow for the 1997-2006 period is 519,000 AF/yr. Approximately 72 percent of this quantity occurs on 245,000 irrigated acres of cropland within the Subbasin.

Most of the inflows and outflows can be estimated for the Turlock Basin. The net discharge to rivers is an unknown outflow and must be derived through a mass balance calculation of the known inflows, outflows, and storage change in the Basin. Storage change is calculated from the

groundwater contour maps derived from local monitoring data, and confirmed using the groundwater model.

The contour maps used in the water budget study indicate that estimated groundwater storage decreased by approximately 21,500 AF/yr between 1997 and 2006. Recent reductions in the California Department of Water Resources (DWR) monitoring network have introduced uncertainty in the measurement of groundwater levels. Uncertainty in the estimated groundwater elevation translates into uncertainty in storage estimates. Therefore, the magnitude and direction of changes in groundwater storage cannot be fully characterized through an analysis based solely on the groundwater contours. The Turlock Subbasin groundwater model was used to supplement this analysis and confirm that groundwater storage has decreased slightly in recent years, particularly between 2002 and 2006.

The estimated reduction in storage between 2002 and 2006 suggests that the Subbasin may no longer be in the equilibrium state that existed in the 1990s. Increases in land use types that rely on groundwater for supply have increased the net discharge from the Subbasin. Slight decreases in storage are likely to continue if urban or irrigated land uses are developed in areas dependent upon groundwater.

In any groundwater basin, groundwater storage will fluctuate both seasonally and annually, depending upon the water year classification, distribution of rainfall, and numerous other physical and biological factors. Alternating periods of decline and recovery in groundwater levels are a response to this natural variation. Long-term declines in storage without recovery could be a concern and represent net declines in storage. Continued monitoring by the local public agencies will be important for tracking changes in groundwater conditions and evaluating whether additional management actions should be considered. As part of the Association's goals and objectives, the Association should consider the need to evaluate changes in land use patterns to understand the range of potential impacts to the groundwater supply. The TGBA has initiated a study to evaluate future land use change scenarios and the potential impacts to groundwater resources. This study will help the Association understand how groundwater storage may change in the future and what types of management actions may be appropriate for maintaining adequate storage in the groundwater basin.

Deep percolation of irrigation water is the largest inflow to the groundwater basin and plays an important role in maintaining groundwater storage. Surface water from the Turlock Irrigation District, and to a lesser extent, the Merced Irrigation District is used to supply more than half of the total irrigation water applied within the Basin. Hence, under current conditions the continued use of surface water for agricultural irrigation is vital for sustaining recharge in the Subbasin. Future changes to inflows or outflows resulting from shifts in land use patterns have the potential to reduce recharge and create reductions in groundwater storage.

Water Quality in the Turlock Subbasin

Groundwater quality in the Turlock Subbasin remains high throughout most of the region. Current knowledge indicates that salinity, nitrates, iron and manganese, boron, arsenic, radionuclides, bacteria, pesticides, trichloroethylene, and other trace organics have been found in the Turlock Subbasin. The U.S. Geological Survey, in coordination with numerous state and federal agencies, is conducting an extensive investigation of groundwater quality in the local area

through the Groundwater Ambient Monitoring and Assessment Program. This study evaluates a broader range of constituents and will provide additional information on water quality issues in the Subbasin.

Some of the constituents described above and in detail in this Groundwater Management Plan occur naturally, while others have been introduced into groundwater from anthropogenic sources. Where the constituent concentrations have exceeded drinking water limitations, the municipal water purveyors have implemented actions ranging from wellhead protection to well closure to maintain viable supplies.

Protecting water quality is as important to maintaining the local groundwater supply as sustaining groundwater recharge. The Groundwater Management Plan is intended to create a framework for coordinating actions among different agencies with management authority to protect both the quality and quantity of groundwater resources.

GROUNDWATER MANAGEMENT PLAN

The local agencies within the Turlock Subbasin agree that groundwater and surface waters within the Turlock Subbasin are vitally important resources that provide the foundation for maintaining current and future water needs. Preservation of these resources is essential to maintaining the economic viability and prosperity of the Subbasin area. It is the overall goal of the local water agencies that groundwater will continue to be a reliable, safe, efficient, and cost-effective water supply. This Groundwater Management Plan includes seven Basin Management Objectives (BMOs) to meet this goal. The BMOs serve as targets to guide the groundwater management actions of the local water agencies. The BMOs described in this Groundwater Management Plan include:

1. Maintain an adequate water level in the groundwater basin.
2. Protect groundwater quality and implement measures, where feasible, to reduce the potential movement of existing contaminants.
3. Monitor groundwater extraction to reduce the potential for land subsidence.
4. Promote conjunctive use of groundwater and surface waters.
5. Support and encourage water conservation.
6. Develop and support alternate water supplies, and educate users on the benefits of water recycling.
7. Continue coordination and cooperation between the TGBA members and customers.

Water agencies in the Turlock Subbasin, individually and collectively, are pursuing water management strategies under each of the BMOs to ensure that groundwater continues to be a reliable, safe, efficient, and cost-effective water supply.

GROUNDWATER PROTECTION MEASURES

The water agencies within the Turlock Subbasin are committed to protecting the quantity and quality of groundwater resources. The TGBA has assembled a number of activities of the local water agencies that can be coordinated through the TGBA to support the BMOs of protecting groundwater quality and quantity. These groundwater protection measures are ongoing activities

that local agencies may be engaged in, or that agencies may implement in the future. Although the TGBA does not have authority for implementing these actions, the TGBA can serve as a forum for sharing and researching information, and members can provide feedback and guidance to the local agencies involved with these actions. The groundwater protection measures described in the Plan include:

1. Identification and management of wellhead protection areas.
2. Regulation of the migration of contaminated groundwater.
3. Identification of well construction policies.
4. Administration of well abandonment and destruction programs.
5. Mitigation of overdraft conditions.
6. Replenishment of groundwater extracted by water producers.
7. Construction and operation of recharge, storage, conservation, water recycling, and extraction projects.
8. Control of saline water intrusion.

IMPLEMENTATION OF THE GROUNDWATER MANAGEMENT PLAN

The Groundwater Management Plan is intended to provide a flexible, adaptive plan for achieving the overall goal that groundwater will continue to be a reliable, safe, efficient, and cost-effective water supply. The Plan presents numerous potential actions that can be undertaken by local water agencies and coordinated through the TGBA. The following measures are proposed as suggested management actions that the local agencies may draw from to achieve the Basin Management Objectives:

1. **Protection of natural recharge areas** through mapping and identification, education of the public and planning entities, and encouraging the maintenance of land use practices that promote groundwater recharge.
2. **Feasibility evaluation of artificial recharge projects,** by building upon mapping efforts to protect natural recharge and investigating additional water supplies for percolation, and promoting in-lieu recharge.
3. **Management and optimization of well field operations** to reduce well interference, control the migration of contaminant plumes, and optimize supply blending programs.
4. **Support of public health programs** to protect water quality through proper well construction and destruction.
5. **Water quality management**, beginning with conducting a hydrogeologic assessment to identify contaminant sources and develop strategies to control the migration and movement of poor quality water into or within the Basin.
6. Continue the **groundwater monitoring and subsidence monitoring program** and evaluate the effectiveness of the groundwater level and quality monitoring programs as well as the database used to store and manipulate the data.

7. Provide a forum for **policy assessment** and coordination of regional programs with policy implications or requirements.
8. Continue **promoting coordination and cooperation between water agencies** on regional issues, outreach programs, and actions to implement the BMOs.
9. **Identification and feasibility study of conjunctive use projects** to increase supply flexibility and promote recharge in years when water is available.

The implementation of several of these recommended actions is contingent upon securing funding. Both grant funding and local funding options will be evaluated. Local funding may be especially important for grant eligibility because of matching or local contribution requirements. Availability of funding for groundwater management activities, as well as future regulatory requirements, will influence the speed and level to which each of the measures is evaluated and implemented.

Progress on implementing the BMOs will be evaluated through periodic reports. The reports will also summarize the condition of the groundwater basin and discuss groundwater management activities. The reports may be prepared by the TGBA as a group or by individual agencies. The reporting process will also provide an opportunity to review the Groundwater Management Plan and determine whether the Plan requires modification to meet the goal of ensuring the viability of groundwater resources in the Turlock Basin.

8.8 Comment Letter 8 – Turlock Irrigation District, submitted through Remy, Moose, Manley LLP, Whitman F. Manley

8.8.1 Response to Comment 8-1

Comment Summary: The comment contends that the EIR does not provide an adequate description of the project and that it contains insufficient information about groundwater impacts, and suggests that a revised EIR/EIS should be recirculated.

Responses to each specific issue summarized in the comment are provided below. The following responses explain why recirculation of the Draft EIR/EIS is not necessary or appropriate.

8.8.2 Response to Comment 8-2

Comment Summary: The comment claims that the EIR/EIS fails to adequately describe the Harding Drain Bypass Pipeline as an element of the project, and suggests that the Harding Drain Bypass EIR should be incorporated by reference and impacts of the Harding Drain Bypass combined with the project should be assessed. The comment explains that TID pumps water from the Harding Drain for use in the Turlock subbasin, and suggests that a portion of the water pumped from the drain is recycled water produced by the City of Turlock.

The Draft EIR/EIS clearly describes the Harding Drain Bypass Pipeline on page 1-9:

> *"Turlock currently discharges an average annual flow of 10 mgd to the San Joaquin River via the Harding Drain Bypass Pipeline, consistent with the city's NPDES permit requirements.*
>
> *Constructed in 2013, the primary goal of the Harding Drain Bypass Pump Station and Pipeline Project was to eliminate the discharge of treated wastewater to the Harding Drain, which is an open channel owned by Turlock Irrigation District (TID), and discharge directly to the San Joaquin River. Changing the point of discharge from Harding Drain to the San Joaquin River serves at least two beneficial purposes. First, removal of the City's permitted wastewater discharges from Harding Drain relieved the City of the need to coordinate with TID regarding management of wastewater flows in the Harding Drain, allowing TID to more efficiently operate and maintain its system. Second, the project allows TID and agricultural operations that discharge to Harding Drain to separately monitor and manage water quality associated with agricultural activities, which are subject to separate regulatory requirements.*
>
> *The Harding Drain Bypass Pump Station and Pipeline Project also allows Turlock to deliver recycled water to other beneficial uses, potentially minimizing and/or eliminating wastewater discharges to the San Joaquin River. Turlock estimates that by buildout year of 2030, 25.4 mgd will be available after other currently existing recycled water contractual commitments have been fulfilled. These commitments include a 50-year contract with the TID-owned Walnut Energy Center for 2 mgd as well as the Turlock-owned Pedretti Park for 0.1 mgd with no expiration date."*

The comment's description of the Harding Drain is generally accurate, and it is correct that operation of the Harding Drain Bypass Pipeline has resulted in a discontinuation of the wastewater discharges from the City of Turlock to the Harding Drain. The Harding Drain Bypass Pipeline has been in operation since February 10, 2014. Because the pipeline was in operation prior to distribution of the NOP for the Draft EIR, the operation of the pipeline is correctly considered as part of the environmental baseline for the Proposed Action.

The comment appears to suggest that the Harding Drain Bypass Pipeline is a part of the NVRRWP. The Harding Drain Bypass Pipeline project was developed and implemented completely independen of the NVRRWP, and the purpose of the pipeline, as noted in the Draft EIR/EIS for the proposed NVRRWP, was to eliminate discharges of treated wastewater to the Harding Drain, and necessary to comply with a cease and desist order issued to the City of Turlock on May 11, 2001 by the Regional Water Quality Control Board, Region 5. Although the comment suggests that flow in the Harding Drain still includes treated wastewater discharge from the City of Turlock, this is incorrect, as the City of Turlock's discharge to the Harding Drain has stopped completely. Removing discharges from the Harding Drain was necessary to comply with requirements of the City of Turlock NPDES Permit No. CA 0078948, Order No. 5-01-122. Subsequently, the Regional Water Quality Control Board issued Order No. R5-2010-0002-01, which established requirements for discharge to the Harding Drain (Discharge Point No. 001) and the San Joaquin River (Discharge Point No. 002). That order required that *"Upon commencement of discharges to the San Joaquin River from Discharge Point No. 002, the discharge of wastewater to Harding Drain from Discharge Point No. 001 is prohibited"* (CVRWQCB 2010). While it is correct that the NVRRWP would use many existing facilities operated by the Cities of Turlock and Modesto, such as the existing wastewater treatment plants and the Harding Drain Bypass Pipeline, it is not necessary for the Draft EIR/EIS to reevaluate impacts of operation of these existing facilities that are not interrelated or interdependent of the Proposed Action. The Harding Drain Bypass Pipeline was constructed for a specific purpose that is independent of the NVRRWP and thus exhibits independent utility and is therefore not central to the NVRRWP. The Harding Drain Bypass Pipeline was constructed and is operated by the City of Turlock regardless of whether the City does or does not become a part of the NVRRWP. The comment requests a summary of relevant impact discussions from the Harding Drain Bypass Pipeline EIR (City of Turlock 2009). The evaluation of impacts presented in that document has little relevance to the NVRRWP, which is demonstrated by the fact that the Harding Drain Bypass Pipeline would not have a measurable effect on groundwater or agricultural resources. As noted on page 3.1-14 of the Harding Drain Bypass Pipeline EIR:

> *"…the Harding Drain is an artificial irrigation drain that captures poor quality irrigation flows. Since groundwater elevations are relatively shallow, groundwater "dewaters" or "rises" from the local shallow aquifer into the Harding Drain. The removal of wastewater flows from Harding Drain may create a steeper gradient that may from time to time (depending on climate and other hydrologic conditions) allow more groundwater to flow from the local shallow aquifer into the Drain until the groundwater and Drain water systems reach equilibrium (Timothy J. Durbin, Inc., 2004)…*
>
> *Further, the Drain and the San Joaquin River will not be affected by channel losses due to the presence of rising groundwater in both systems. If the Proposed Project is*

> *implemented, this rising groundwater (from the local shallow aquifer in the vicinity the Harding Drain) may replace some of the flow in the Harding Drain as a result of a steeper gradient between the groundwater and the surface water levels. Any resulting impact on water levels in the local shallow aquifer would be minimal and might ultimately provide some slight benefit by reducing the need to pump high groundwater."*

The comment claims a connection between construction of the Harding Drain Bypass Pipeline, implementation of the NVRRWP and "exportation of recycled water outside of the water's groundwater basin of origin". The Harding Drain Bypass Pipeline EIR, which, as noted above, found that the Harding Drain Bypass Pipeline would have minimal impacts on the shallow aquifer. In addition, as noted in the Draft EIR/EIS, the City of Turlock currently discharges their recycled water to the San Joaquin River, and that the combined flows currently travel downstream, ultimately out through the Delta to the ocean. The NVRRWP would use recycled water that currently flows out of the local region to supply water to local agricultural land uses, including over 28,000 acres in western Stanislaus County.

The comment states that in 2013 TID diverted 3,166 AF from the Harding Drain, and diverted 2,295 AF from the same in 2014. The comment appears to be suggesting that without wastewater discharge from the City of Turlock, there would be insufficient water in the Harding Drain to continue to supply water to TID's irrigation service area. Water in the Harding Drain is a combination of TID operational spill water, tailwater from row and orchard crops, irrigation discharges from dairy feed lots that are located adjacent to the Harding Drain, local runoff due to precipitation, and flows from groundwater dewatering. This is substantiated by the analysis of impacts that was completed as part of the Harding Drain Bypass Pipeline EIR, which found that:

> *The data indicates that over a base period of 14 years (168 months) there would be substantial flow in the Drain at all times even absent the City's discharge.*

Table 3.1-2 in the Harding Drain Bypass Pipeline Final EIR demonstrates that even without the City of Turlock's wastewater discharge, flows in the Harding Drain range from 8,000 to 40,000 AFY, which would be ample to support the amount of pumping that TID reports for 2013 and 2014, two of the most hydrologically critical years in TID's history. Thus, the Harding Drain Bypass Pipeline would not have adverse effects on local groundwater or agricultural resources. During preparation of the Harding Drain Bypass Project EIR, TID was consulted, and their comments were addressed. The conclusion of no adverse effects on local groundwater or agricultural resources is also supported by the findings of the SWRCB Division of Water Rights, which approved the City of Turlock's Wastewater Change Petition to change the City's discharge location from the Harding Drain to the San Joaquin River. The Order approving the Petition concluded that "The State Board has determined that the petition for change in the point of discharge does not cause injury to any other lawful user of water." The Order approving the Petition also cited the findings of the Harding Drain Bypass Project EIR that the project would have a less-than-significant impact on water resources (SWRCB 2006). The Order clearly approves a new point of discharge directly to the San Joaquin River.

It is relevant to note that when the City of Turlock was contemplating a recycled water project in 2002 within the Turlock subbasin, the primary concern expressed by TID in its comment letters

for that proposal was the possibility that the project would exacerbate problems associated with high groundwater levels in the subbasin. TID specifically commented that "Any increases in groundwater levels, resulting from the import of recycled water, would have an adverse impact on agricultural production, flood basements, and create other high groundwater related problems" (TID, letter from Brent Harrison regarding the Turlock Water Reclamation Project, dated October 7, 2002). The Turlock Groundwater Subbasin Groundwater Management Plan cited by TID in their comment letter confirms that the western part of the subbasin continues to have high groundwater levels, citing "high groundwater table in the western portion of the Subbasin" on page 33 of the plan (TID 2008). The concern about high groundwater levels is inconsistent with TID's current claims that the Harding Drain Bypass Pipeline would result in reduced availability of groundwater in the Turlock subbasin. Also see Response to Comment 8-11, which explains that the pre-existing, long-term groundwater problems in the eastern Turlock subbasin cannot be attributed to the NVRRWP.

In summary, there are no measurable impacts of the Harding Drain Bypass Pipeline that could combine with the impacts of the NVRRWP to result in adverse effects to groundwater or agricultural resources in the Turlock subbasin.

8.8.3 Response to Comment 8-3

Comment Summary: The comment suggests that the Draft EIR/EIS does not accurately identify the Turlock Groundwater subbasin as the source of the City of Turlock's recycled water, and does not identify the quantity of recycled water currently available.

The groundwater setting section on page 3.11-6 of the Draft EIR/EIS identifies the source of the water treated by the City of Turlock: "*The Turlock wastewater treatment plant is located in the Turlock subbasin and treats water that originates from that subbasin. The Modesto Jennings Plant is located in the Turlock subbasin and treats water that originates from the Modesto and Turlock subbasins. The discharge point for both plants is located in the Turlock subbasin."*

Please also refer to Response to Comment 8-6, which addresses a more detailed comment about the amount of recycled water that could be made available to DPWD at the outset of the project (estimated to be in year 2018) and at buildout (estimated at year 2045).

8.8.4 Response to Comment 8-4

Comment Summary: The comment asserts that the Draft EIR/EIS does not describe the City of Turlock's use of the Harding Drain in 2014 and use by TID and others of the City's recycled water from the Harding Drain in 2014.

The statement on page 1-9 of the Draft EIR/EIS is accurate; the City of Turlock does currently discharge about 10 mgd of recycled water via the Harding Drain Bypass Pipeline, which became operational in February 2014. Discharge increases as population increases, and varies from year to year depending on weather conditions. Over the time period from 2000 to 2014 discharge to the San Joaquin River ranged from about 9,500 AFY to 13,500 AFY; discharge occurred either through the Harding Drain or, starting in 2014, through the Harding Drain Bypass Pipeline. Although it is true that some discharge to the Harding Drain continued during 2014, all discharge to the Harding Drain ceased after October 2014. Please refer to Response to Comment 8-2,

which documents the fact that the cessation of discharge to the Harding Drain does not mean that water is no longer available to TID. Water is still present in the Drain.

8.8.5 Response to Comment 8-5

Comment Summary: The comment claims that the Draft EIR/EIS fails to describe the City of Modesto's application of wastewater to agricultural lands in TID's service area and does not describe when application of recycled water will be reduced or curtailed entirely.

The Draft EIR/EIS states that the City of Modesto currently disposes of treated wastewater through a combination of land disposal and river discharge. As noted on page 1-8 of the Draft EIR/EIS, "*The secondary effluent is applied to Modesto-owned ranch land (approximately 2,500 acres) or is discharged to the San Joaquin River from October 1 through May 31…*" The City of Modesto would continue to supply both secondary treated wastewater and water from local canneries for application to their ranch lands within TID's service area. No significant changes to existing irrigation practices are proposed. To clarify this, the Final EIS has been revised to reflect the continuation of irrigation of ranch lands. The following text is added at the end of the first paragraph on page 1-10:

> Under the Proposed Action, the City of Modesto would continue to irrigate ranch lands using secondary effluent, which is blended with cannery process water that is available during the July to September canning season.

The City of Modesto has historically discharged treated secondary wastewater from its Jennings Road treatment plant to either the San Joaquin River or to the Modesto Ranch. The City's existing NPDES permit places significant restrictions on discharges to the San Joaquin River, particularly related to minimum levels of dilution. Currently, a minimum 20-to-1 dilution ratio is required for any secondary-treated effluent discharges to the river. When this dilution ratio is not attainable, the City has historically placed its secondary treated wastewater into storage in the on-site ponds, and has discharged secondary treated wastewater to the City-owned Modesto Ranch, where grasses are grown to provide an agronomic use of the treated wastewater.

The City has a cannery-segregation line that conveys cannery process flows directly to Modesto Ranch lands. The City blends the cannery flows with its RWQCF flows for discharge to Ranch lands. It is critical to the City of Modesto's overall wastewater management operations that the City maintain its ability to discharge cannery process water to Modesto Ranch lands in order to blend secondary treated effluent to meet existing and projected Waste Discharge Requirementss for these discharges. The City will continue to apply both cannery process water and secondary effluent to the Modesto Ranch lands, and will do so at agronomic rates.

Presented in the **Table 8-2** is a summary of historic annual flows from the City's Jennings Plant, deliveries to Modesto Ranch, evaporation and percolation losses, and discharges to the San Joaquin River. The historic flows are presented for the years 2000 through 2014, which represent recent flow amounts during both wet and extreme drought hydrologic conditions.

Table 8-2: City of Modesto Historic Flows 2000-2014 (AFY)

Year	Total Inflow to Jennings Plant (domestic+cannery)	Historic Ranch Deliveries (domestic+cannery)	Estimated Losses[1]	Historic Discharges to the San Joaquin River
2000	31,843	14,182	5,268	12,393
2001	31,899	13,860	9,313	8,727
2002	31,713	16,988	4,623	10,102
2003	29,993	12,619	8,036	9,338
2004	30,110	12,863	8,066	9,181
2005	32,947	11,266	7,307	14,374
2006	34,225	12,034	9,852	12,340
2007	33,019	16,088	9,076	7,855
2008	31,145	15,995	8,289	6,861
2009	29,239	15,458	10,096	3,686
2010	26,185	13,464	7,224	5,498
2011	26,157	9,620	7,970	8,567
2012	26,276	12,624	9,393	4,259
2013	26,264	14,610	6,922	4,732
2014	25,775	18,563	6,073	1,139
Average	29,786	14,015	7,834	7,937

[1] Losses include evaporation, percolation, and a factor for errors in reporting.

During drought conditions (2012 through 2014), discharges to the San Joaquin River were substantially below the annual average, due to the minimum dilution requirement in the City's NPDES permit for discharges to the river. For example, the City only discharged 1,139 AF of water to the San Joaquin River in 2014.

The estimated losses, as shown in the **Table 8-2**, represent the total amounts of water that evaporated from the plant pond system, percolated through the bottoms of the ponds and plant flow channels, or were used for in-plant water uses, plus a factor for errors in reporting. The total estimated average annual loss to percolation from the ponds and channels at the treatment plant was approximately 1,400 AFY. The remainder of the losses occurred through evaporation.

When the new tertiary treatment process becomes fully operational, the smaller of the storage ponds will become a standby pond that initially will be used only for emergency storage. It is estimated that the removal of this pond from normal storage operations will reduce the net percolation from the treatment plant pond and channel system by approximately 450 AFY. Additional estimated reductions in losses of 1,194 AFY will occur due to the reduced total pond surface area and the resulting reductions in evaporation from the ponds.

To estimate the effects of the proposed initial NVRRWP operations on the Jennings Plant and cannery flows, the plant operations for the proposed project under initial operating conditions were applied to the historic flows for 2000 through 2014. The results of that analysis are presented in the following **Table 8-3**.

Table 8-3: Projected City of Modesto Wastewater Production and Disposal if NVRRWP Had Been Operating in 2000-2014 (AFY), Representing Initial Operating Conditions in 2018

Year	Total Inflow to Jennings Plant (domestic+cannery)	Estimated Deliveries to Ranch (domestic+cannery)	Estimated Losses[1]	Estimated Water Available for Recycled Water Uses
2000	31,843	10,500	4,162	17,181
2001	31,899	10,500	7,358	14,041
2002	31,713	10,500	3,653	17,560
2003	29,993	10,500	6,349	13,143
2004	30,110	10,500	6,373	13,237
2005	32,947	10,500	5,773	16,674
2006	34,225	10,500	7,784	15,941
2007	33,019	10,500	7,171	15,348
2008	31,145	10,500	6,549	14,096
2009	29,239	10,500	7,977	10,762
2010	26,185	10,500	5,708	9,977
2011	26,157	10,500	6,297	9,360
2012	26,276	10,500	7,422	8,354
2013	26,264	10,500	5,469	10,295
2014	25,775	10,500	4,798	10,477
Average	29,786	10,500	6,190	13,096

[1] Losses include evaporation, percolation, and a factor for errors in reporting.

The City of Modesto is committed to continuing irrigation of the Ranch lands as a means of maintaining cost-effective treatment of the cannery wastewater flows. In this analysis, the estimated deliveries to the Modesto Ranch were assumed to be constant, 10,500 AFY. This amount was calculated by assuming that cannery flows would continue at their average historical rate of approximately 3,770 AFY, and that 6,730 AFY of secondary treated wastewater would be blended with these cannery flows. This is the minimum amount of secondary treated wastewater that would be necessary to meet Waste Discharge Requirement for the City's discharges to Modesto Ranch while applying secondary-treated effluent at agronomic rates for irrigation of the Ranch. The reductions in estimated average annual evaporation and percolation losses of 1,644 AFY between **Table 8-2** and **Table 8-3** are due to the reductions in pond percolation of 450 AFY and the reductions in pond evaporation of 1,194 AFY discussed above.

Water deliveries to the Ranch during the historical period were at an agronomic rate of approximately 6 AF per acre. The projected application rate on the ranch with the NVRRWP is approximately 4 to 6 AF per acre, which will require more efficient irrigation practices. The 4 to 6 AF per acre rate of applied water at the Modesto Ranch will be reasonable for grassland irrigation, and it is not expected that any additional sources of water will be necessary to meet the irrigation needs for the Modesto Ranch.

A similar analysis was performed for the estimated future/build-out flow conditions with the NVRRWP in operation. The results of this analysis are presented in the following **Table 8-4.**

Table 8-4: Projected City of Modesto Wastewater Production and Disposal at NVRRWP Build-Out (AFY)

Year	Total Inflow to Jennings Plant (domestic+cannery)	Estimated Deliveries to Ranch	Estimated Losses[1]	Estimated Water Available for Recycled Water Uses
2030	49,767	10,500	4,162	35,105
2031	49,823	10,500	7,358	31,965
2032	49,636	10,500	3,653	35,484
2033	47,916	10,500	6,349	31,067
2034	48,033	10,500	6,373	31,160
2035	50,871	10,500	5,773	34,597
2036	52,149	10,500	7,784	33,865
2037	50,942	10,500	7,171	33,271
2038	49,068	10,500	6,549	32,019
2039	47,163	10,500	7,977	28,686
2040	44,109	10,500	5,708	27,901
2041	44,081	10,500	6,297	27,284
2042	44,200	10,500	7,422	26,278
2043	44,187	10,500	5,469	28,218
2044	43,699	10,500	4,798	28,400
Average	47,710	10,500	6,190	31,020

[1] Losses include evaporation, percolation, and a factor for errors in reporting.

This analysis assumes the 2000 to 2014 flows as a basis for the analysis, and that deliveries of cannery process water and secondary treated effluent to the Modesto Ranch will continue at the same rates as for the previous scenario. As a result, the estimated total average annual evaporation and percolation loss of 6,190 AFY for this scenario is the same as for the previous scenario.

Under existing conditions, some of the wastewater in the ponds and some of the water applied to irrigate Modesto Ranch lands percolates into the western portion of the Turlock groundwater subbasin, which underlies the Modesto Ranch lands. When the current tertiary project is completed, the City will be authorized to make year-round discharges to the river, and the present requirement for a minimum level of dilution in the river no longer will apply. For this reason, when the NVRRWP begins operations, it will no longer be necessary to increase irrigation of Modesto Ranch lands when river flows are low and the storage ponds are reaching their capacities. Instead this water will be conveyed through the NVRRWP to the DMC or, if necessary, discharged to the river. As a result, water will be used to irrigate the ranch lands at a consistent agronomic rate to meet grassland crop requirements. If the NVRRWP were not implemented, irrigation of the Modesto Ranch lands would still be modified because of the ability to discharge tertiary effluent to the river year round. This change in irrigation practices will result in a more efficient use of water and reductions in the amounts of runoff and water percolating into the portion of the subbasin underlying the Ranch. These reductions are illustrated by the difference between the 14,015 AFY of average annual historic deliveries to the Ranch during 2000-2014 (shown in the **Table 8-2**) and the estimated deliveries of 10,500 AFY to Ranch lands shown in **Tables 8-3** and **8-4** above.

The Turlock Groundwater Management Plan (TID 2008) indicates that estimated average total inflow to the subbasin is 519,000 AFY. This inflow is primarily due to deep percolation resulting from applied irrigation water on agricultural lands and landscape irrigation, and from precipitation. While this estimate is for the 1997-2006 period, it still demonstrates that the change in average annual inflow to the subbasin that will result from reductions in applications of wastewater to irrigate the Modesto Ranch, as explained below, will be a very small percentage of the total subbasin average annual inflow.

Table 8-5 shows the estimated total percolation into the Turlock groundwater subbasin from channels, storage ponds and Modesto Ranch lands under historic conditions and under the conditions that are estimated to occur with NVRRWP operations and 10,500 AFY of deliveries to the Modesto Ranch.

Table 8-5: Historic and Projected Percolation at Modesto Ranch (AFY)

Year	Historic Ranch Deliveries	Historic Percolation Losses	Estimated Deliveries to Ranch With NVRRWP	Projected Percolation Loss with NVRRWP
2000	14,182	4,934	10,500	2,378
2001	13,860	4,019	10,500	2,509
2002	16,988	6,527	10,500	1,580
2003	12,619	2,351	10,500	1,865
2004	12,863	2,990	10,500	1,868
2005	11,266	2,802	10,500	2,458
2006	12,034	3,672	10,500	2,208
2007	16,088	4,814	10,500	1,132
2008	15,995	4,710	10,500	1,444
2009	15,458	4,694	10,500	1,837
2010	13,464	5,571	10,500	2,897
2011	9,620	437	10,500	1,888
2012	12,624	3,664	10,500	2,049
2013	14,610	3,401	10,500	602
2014	18,563	7,861	10,500	2,473
Average	14,015	4,163	10,500	1,946

These historic percolation loss amounts include percolation from the storage ponds and channels (estimated to be 450 AFY) and deep percolation from irrigation of Modesto Ranch lands. The rate of deep percolation from irrigation is estimated to be 30 percent of the total deliveries of irrigation water to the Ranch.

As shown in **Table 8-5**, the estimated reduction in average annual amount of water that would percolate into the portion of the subbasin underlying the Modesto Ranch is 1,946 AFY, which is approximately 0.4 percent of the total average annual deep percolation into the subbasin. This reduction in deep percolation will result from the more efficient applications of irrigation water to Ranch lands that will become possible when the tertiary treatment facilities are completed, and would occur regardless of whether or not the NVRRWP is implemented. This reduction is not expected to have any significant effects on groundwater conditions in the western portion of the

Turlock groundwater subbasin, both because the change will be only a very small percentage of total subbasin average annual inflow and because the change will occur in a portion of the subbasin where groundwater levels are high.

8.8.6 Response to Comment 8-6

Comment Summary: The comment suggests that the Draft EIR/EIS does not describe existing groundwater conditions and uses in the area, and does not disclose the amount of water that would be provided to DPWD at the outset of the project and at buildout. The comment claims that existing uses of water would be displaced when water is provided to DPWD.

As described in Responses to Comments 8-3, 8-4 and 8-5, the existing groundwater conditions are described at an appropriate level of detail in the Draft EIR/EIS, sources of recycled water are identified, the Harding Drain will still contain water that can be used by TID's water users, and the City of Modesto will continue to irrigate their Ranch land with secondary treated wastewater and cannery process water.

The analysis of groundwater impacts correctly focuses on the minimal effects on groundwater recharge that would result from the slight reduction in stream flows in the San Joaquin River. A detailed description of historic groundwater use in the area is not warranted because the project would not result in increased groundwater pumping or any significant reductions in groundwater recharge (see pages 3.11-20 through 3.11-22 in the Draft EIR/EIS).

However, given the fact that TID contends that application of recycled water in the western portion of the Turlock subbasin is critical to maintaining adequate groundwater supplies, it is pertinent to point out that TID has in the past consistently made it clear that the groundwater problem in the western portion of the basin is one of high groundwater, not lowered groundwater levels caused by excessive pumping. In their letter to the CVRWQCB commenting on the proposed Waste Discharge permit for the City of Turlock, TID states that:

> *"Groundwater levels on the western side of the Turlock Irrigation District are typically high, even during the most severe drought on record, resulting in the need for drainage in the form of groundwater pumping, drainage ditches and in some cases subsurface drains. The TID owns and operates approximately 160 drainage wells within its boundaries. In addition, there are numerous miles of drainage ditches, as well as some private and improvement district subsurface drainage facilities within the District. All of which were designed to help lower groundwater levels. The depth of these facilities allows groundwater seepage into the drain, through which it is then conveyed to the river. The Harding Drain is one such facility… Due to the persistently high groundwater levels in the area, it is unlikely that the drain provides recharge, even during the lowest flow periods."* (Letter dated April 3, 2001, from Debra C. Liebersbach, Associate Civil Engineer, Turlock Irrigation District to Greg K. Vaughn, Central Valley Regional Water Quality Control Board).

Comment 8-6 further suggests that there are users of water in the Turlock subbasin that are dependent on the recycled water that is proposed to be transferred to DPWD, when this is not the case. TID users supplied directly by TID from the Harding Drain will continue to have access to

sufficient supplies from the Harding Drain given TID's current operations. There is no element of the NVRRWP that would create conditions that would result in an increase in groundwater pumping in the Turlock, Modesto, or Delta-Mendota subbasins and there are no existing uses of recycled water, contractual or otherwise, that would be displaced by virtue of the NVRRWP. In fact, the project would supply water that would enable a reduction in groundwater pumping by DPWD customers. Currently DPWD landowners must rely on groundwater when CVP supplies are not available. As explained on page 4-2 of the Draft EIR/EIS, without the NVRRWP "*landowners within DPWD would continue to pump additional groundwater from private wells, which could ultimately lead to overdraft of the groundwater basin*". The comment does not supply any documentation that the NVRRWP would cause an increase in groundwater pumping in any of the subbasins in the project area. Please refer to Response to Comment 8-22 which explains that the NVRRWP does not export water from the Turlock subbasin.

Information defining current and future recycled water availability is provided in the Draft EIR/EIS and is based on the Feasibility Study prepared for the NVRRWP, and referenced in Chapter 1 of the Draft EIR/EIS (RMC 2013). In calculating the amount of recycled water that would be available to DPWD under the NVRRWP, only tertiary treated water was included, and treated wastewater and recycled water committed to other sources was not included. Estimates of recycled water availability thus do reflect the net "available recycled water". The City of Modesto will continue to irrigate existing Ranch lands using secondary treated and cannery process water, and the City of Turlock will continue to meet its existing obligations to provide recycled water to TID for the Walnut Energy Center and within the City of Turlock for irrigation at Pedretti Park.

For clarification, **Table 1-2** on page 1-9 of the Final EIS has been revised as follows to more directly compare recycled water availability in 2018, the expected start of NVRRWP project operations, and at buildout:

Table 1-2: Recycled Water Availability at Project Start-up and at Buildout[1]

Agency	2018 Recycled Water (AFY)	2018 Recycled Water (mgd)	2045 Recycled Water (AFY)	2045 Recycled Water (mgd)
Modesto	16,500	14.7	30,600	27.5
Turlock	14,100	12.6	28,400	25.4
Total	30,600	27.3	59,000	52.9

Source: RMC, 2013

[1] Available recycled water is calculated after accounting for all currently contracted uses

Tables 8-6 and **8-7** show total wastewater produced by the City of Turlock from 2000 to 2014. **Table 8-6** shows quantities that were provided to existing recycled water users during that period. From 2002 to 2005 the City provided secondary effluent to a local farmer, and from 2010 onward recycled water has been provided to Pedretti Park and the Walnut Energy Center. The remaining water has been discharged to the river, as shown in **Table 8-6**. As can be seen from **Table 8-6** the wastewater quantities vary over the years, and are influenced by factors such as total population, amount of precipitation, and the extent of water conservation. **Table 8-7** portrays the quantities of water that would have been provided to existing users and to NVRRWP during the same time period if the NVRRWP had been in operation. As can be seen

by comparing **Tables 8-6** and **8-7**, if the NVRRWP had been operating from 2000 to 2014, the water discharged to the river would instead have been provided to DPWD through the NVRRWP. Once the NVRRWP is operational, existing users at Pedretti Park and Walnut Energy Center would continue to be served, and regular discharge to the river would cease.

Table 8-6: City of Turlock Historic Wastewater Production and Disposal 2000-2014 (AFY)

Year	Total Wastewater Produced	Recycled Water to Existing Users[a]	Discharge to River[b]
2000	11,732	0	11,732
2001	11,315	0	11,315
2002	12,238	683	11,555
2003	12,350	529	11,821
2004	12,287	569	11,718
2005	13,451	144	13,307
2006	13,363	0	13,363
2007	12,629	0	12,629
2008	12,076	0	12,076
2009	11,562	0	11,562
2010	11,543	831	10,711
2011	11,057	792	10,265
2012	10,916	1,240	9,676
2013	10,537	1,023	9,514
2014	9,543	1,032	8,510

Source: City of Turlock

Notes: [a]Recycled water quantities in 2002 through 2005 represent secondary effluent provided to an irrigation demonstration project. Quantities for 2010 through 2014 include recycled water provided to Pedretti Park and the Walnut Energy Center.

[b]Discharge to the San Joaquin River occurred either through the Harding Drain or, starting in 2014, through the Harding Drain Bypass Pipeline.

Table 8-7: Projected City of Turlock Wastewater Production and Disposal if NVRRWP Had Been Operating in 2000-2014 (AFY)

Year	Total Wastewater Produced	Recycled Water to Existing Users[a]	Recycled Water to NVRRWP[b]	Discharge to River[c]
2000	11,732	0	11,732	0
2001	11,315	0	11,315	0
2002	12,238	683	11,555	0
2003	12,350	529	11,821	0
2004	12,287	569	11,718	0
2005	13,451	144	13,307	0
2006	13,363	0	13,363	0
2007	12,629	0	12,629	0
2008	12,076	0	12,076	0
2009	11,562	0	11,562	0
2010	11,543	831	10,711	0
2011	11,057	792	10,265	0
2012	10,916	1,240	9,676	0
2013	10,537	1,023	9,514	0
2014	9,543	1,032	8,510	0

Source: City of Turlock

Notes: [a]Recycled water quantities in 2002 through 2005 represent secondary effluent provided to an irrigation demonstration project. Quantities for 2010 through 2014 include recycled water provided to Pedretti Park and the Walnut Energy Center.

[b]Quantities represent the amount of water that would have been available to NVRRWP if the NVRRWP had been in operation from 2000 to 2014.

[c]With operation of the NVRRWP there would no longer be any routine discharge to the San Joaquin River.

Table 8-8 shows projected Turlock flows at buildout, which is estimated to occur in 2045. The estimated quantities of water to be provided to the Walnut Energy Center and Pedretti Park are based on the commitments rather than historic usage. The City of Turlock has committed to provide up to 2,350 AFY (2 mgd) of recycled water to TID for the Walnut Energy Center.

Table 8-8: Projected City of Turlock Average Wastewater Production and Disposal at Buildout (AFY)

Buildout Year	Total Wastewater Produced	Recycled Water to Existing Users[a]	Recycled Water to NVRRWP	Discharge to River
2045	30,750	2,350	28,400	0

Source: RMC, 2013

Notes: [a]Recycled water quantities reserved for Pedretti Park and the Walnut Energy Center.

8.8.7 Response to Comment 8-7

Comment Summary: The comment claims that the NVRRWP would have impacts from the termination of groundwater recharge in the Turlock subbasin and contends that recharge currently occurs by "allowing the City of Turlock's recycled water to recharge the Turlock groundwater basin through application of that water to agricultural lands within the same basin."

Implementation of the NVRRWP would not result in a reduction of application of water from the City of Turlock to agricultural lands in the Turlock subbasin. See Response to Comment 8-2, 8-5, and 8-6.

8.8.8 Response to Comment 8-8

Comment Summary: The comment suggests that the NVRRWP would have impacts associated with curtailment of application of treated wastewater to Modesto Ranch lands.

See Response to Comment 8-5. Application of secondary treated wastewater and cannery process water to Modesto Ranch lands will continue. No replacement water supply is required.

8.8.9 Response to Comment 8-9

Comment Summary: The comment suggests that the Draft EIR/EIS does not support its conclusions regarding impacts to groundwater because the project does not analyze extraction of water from the Turlock subbasin, which ends up as sewage to be treated at the Turlock and Modesto Wastewater Treatment Plants.

It is correct that wastewater treated by Turlock, and a small portion of Modesto, comes from groundwater that is extracted from the Turlock subbasin (in a normal year more than 50 percent of Modesto's water supply comes from surface water from the Tuolumne River). The sources of groundwater are identified on page 3.11-6 of the Draft EIR/EIS: "*The Turlock wastewater treatment plant is located in the Turlock subbasin and treats water that originates from that subbasin. The Modesto Jennings Plant is located in the Turlock subbasin and treats water that originates from the Modesto and Turlock subbasins. The discharge point for both plants is located in the Turlock subbasin.*" However, a detailed analysis of the ongoing effects of groundwater extraction in the Turlock subbasin would be outside the scope of the Draft EIR/EIS. As documented in the preceding responses, the NVRRWP will have no impact on groundwater extraction rates for the Turlock subbasin, because it will have no effect on the availability of water for existing users. TID's existing water supply would not be affected by the NVRRWP.

8.8.10 Response to Comment 8-10

Comment Summary: The comment claims that the NVRRWP would disrupt the water balance of the Turlock subbasin by exporting water to DPWD, and asserts that recycled water that would be provided to DPWD was being used to recharge groundwater in the Turlock subbasin. The comment references the fact that the Turlock subbasin is already suffering from a cone of depression on the eastern side of the subbasin where irrigation use exceeds recharge and claims that the NVRRWP would further disrupt the water balance in the subbasin.

As noted in the preceding responses, the Cities of Turlock and Modesto would not reduce or curtail any existing uses of recycled water in the Turlock subbasin.

It is incorrect that existing use of secondary treated wastewater and cannery process water for irrigation of Modesto Ranch lands provides recharge to the portion of the subbasin where irrigation use exceeds recharge. In fact, as shown in the exhibits that are attached to the comment, the cone of depression is in the eastern part of the subbasin. The cross section of the

subbasin provided by TID shows that the cone of depression (where the groundwater surface is over 100 feet from the ground surface) is east of the City of Turlock and that groundwater levels adjacent to the San Joaquin River in the vicinity of the Modesto Ranch lands and Harding Drain are actually fairly high (within about 10 feet of the ground surface) and have not changed substantially from the groundwater levels in 1960. Secondary treated wastewater and cannery process water that is used to irrigate Modesto Ranch lands does not recharge the portion of the subbasin where additional recharge is needed. As noted in Response to Comment 8-5, the upgrade of the Jennings Plant to provide tertiary treatment would enable the City of Modesto to reduce their reliance on land disposal at the Modesto Ranch, but irrigation of the Ranch lands using cannery process water and secondary treated effluent would continue, and the change in recharge would be minor.

The only potential impact of the Proposed Action is the minor reduction in groundwater recharge from the river that is identified in **Impact HYD-3** on page 3.11-20 of the Draft EIR/EIS. As described in the Draft EIR/EIS, the NVRRWP will not have a measurable impact on the Turlock subbasin.

8.8.11 Response to Comment 8-11

Comment Summary: The comment asserts that the analysis of cumulative groundwater impacts is inadequate because it relies on the fact that impacts of the NVRRWP on groundwater are less than significant, and does not address cumulative impacts to the Turlock subbasin or TID's surface water supplies. The comment also states that the Draft EIR/EIS should have included additional projects in its list of projects considered in the evaluation of cumulative effects. The comment cites the Harding Drain Bypass Pipeline Project and other projects relevant to groundwater impacts on the Turlock subbasin, including instream flow mandates for the San Joaquin River such as those that could be imposed as part of the Bay-Delta Water Quality Control Plan.

The comment is correct in that the cumulative impact analysis must consider whether the combined effects from the Proposed Action and other projects would be cumulatively significant. As is documented in the previous responses, the only way in which the NVRRWP would affect groundwater is through reductions in discharge to the San Joaquin River, which would, in turn, result in a very limited reduction in groundwater recharge from the river.

Table 3.11-6 on page 3.11-22 of the Draft EIR/EIS shows the change in groundwater storage in each subbasin along the river both on an average annual and cumulative basis. The Turlock subbasin is projected to have a 2 AFY reduction in average annual groundwater recharge due to changes in river flows. When compared to the estimated total groundwater storage in the Turlock subbasin, which DWR estimates as 12,800,000 AF of groundwater to a depth of 300 feet (DWR 2003), a 2 AFY reduction in recharge to storage represents a 0.000016 percent change in storage. The reduction in groundwater recharge due to the project is thus considered to be less than significant. Because the only mechanism for groundwater impacts is through the reduction in river flows, the discussion of cumulative impacts to river flows on page 3.11-27 of the Draft EIR/EIS is relevant. As noted there, the effects of the project were modeled using the C2VSim Model, which considers cumulative impacts of multiple environmental factors: "*C2VSim simulates water movement through the interconnected land surface, water surface and*

groundwater flow systems in the 20,000 mi^2 of the alluvial Central Valley aquifer. C2VSim dynamically calculates groundwater conditions based on urban and crop water demands, long-term hydrologic and meteorologic records, land use, cropping patterns and other inputs."

Table 3.0-1, which starts on page 3-3 of the Draft EIR/EIS, provides the list of cumulative projects that were determined to have a potential nexus with the project that could produce cumulative impacts. The list of projects with a potential nexus includes the Jennings Road Treatment Plant Phase 2 Improvements, and three transportation projects that could affect the same roads that would be affected by pipeline construction. None of the cumulative projects identified in **Table 3.0-1** would be expected to reduce flows in the San Joaquin River, or substantially reduce groundwater recharge through other mechanisms. The road improvements would not reduce groundwater recharge and would not entail pumping of groundwater. The Jennings Road Treatment Plant Phase 2 Improvements would allow disposal of tertiary treated effluent to the San Joaquin River year-round, which would reduce the need to use the Modesto Ranch lands for disposal of effluent beyond the volumes of cannery process water blended with secondary effluent. However, irrigation of the Modesto Ranch lands with cannery process water and secondary effluent would continue, and only modest changes in percolation are expected to result from the projected changes in irrigation practices. The Initial Study/Mitigated Negative Declaration for the Phase 2 improvements identified no groundwater impacts associated with the project.

In regard to the additional cumulative projects suggested in the comment, the possibility of cumulative impacts on groundwater recharge associated with those projects has been considered. As has been discussed in Responses to Comments 8-2 and 8-6, the Harding Drain Bypass Pipeline project is not expected to reduce groundwater recharge in the Turlock subbasin. Given that the Harding Drain Bypass Pipeline project is not expected to affect groundwater it would not have cumulative impacts when combined with the NVRRWP.

The SWRCB's Preferred Lower San Joaquin River Alternative, if implemented, would increase flows in the Tuolumne, Stanislaus and Merced Rivers. The impact assessment presented in the Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the Bay Delta: San Joaquin River Flows and Southern Delta Water Quality, concluded that there could be indirect impacts on groundwater and other resources if there is an increase in groundwater pumping in response to reduced surface water diversions (SWRCB 2012). However, the NVRRWP does not involve groundwater pumping, but instead only involves the use of recycled water, a portion of which originates in the Turlock subbasin. The NVRRWP would have no effect on groundwater pumping in the Turlock subbasin, and so cannot have any cumulative effects on groundwater when combined with increased groundwater pumping by TID or any other parties.

The only effect of the proposed project is to change what happens to the recycled water after it has already left the subbasin. The Cities would not increase groundwater pumping for the purposes of the project, and there would be no need to find additional water supplies to make up for the water the Cities propose to provide to DPWD, because that water – i.e., the recycled water that currently leaves the region via the San Joaquin River – is not currently being used.

To provide clarification regarding the cumulative analysis of groundwater impacts associated with the NVRRWP, the cumulative impacts discussion in the *Hydrology and Water Quality* Section beginning on Page 3.11-27 of the Final EIS is revised as follows:

> **Cumulative Impacts to Groundwater Storage** As discussed under **Impact HYD-3,** cumulative or long-term impacts of reduced San Joaquin River flows on groundwater storage due to changes in the stream-aquifer interaction would be less than significant. None of the cumulative projects identified in the Proposed Action area would have any effect on the stream-aquifer interaction, and thus there is no cumulative impact to which the Proposed Action contributes. The NVRRWP would not result in increased groundwater pumping in the Turlock, Modesto, or Delta-Mendota subbasins, and thus does not have the potential to combine with other projects to result in a significant impact. In fact, the NVRRWP could reduce the impacts of groundwater pumping in the Delta-Mendota subbasin, by providing a reliable alternative source of irrigation water to DPWD. There are pre-existing, long-term groundwater problems in the Turlock subbasin, which are part of the baseline conditions, but these conditions in the eastern portion of the basin would occur regardless of whether the Proposed Action is implemented. There is also the possibility that groundwater pumping for both municipal and agricultural uses in the Turlock subbasin could occur in the future, and this is a potentially significant impact; such increased pumping, however, would not result from the project. The very minor changes in groundwater storage in the western portion of the basin that are associated with reduced San Joaquin River flows are not expected to combine with pumping in the eastern portion of the basin to result in an incremental effect that would be cumulatively considerable.

8.8.12 Response to Comment 8-12

Comment Summary: The comment asserts that the project objectives are crafted to be artificially narrow, so the Draft EIR/EIS fails to analyze reasonable alternative uses of recycled water other than exporting the water outside of its groundwater basin of origin. The comment suggest that the Draft EIR/EIS must analyze alternatives that would address significant impacts to agricultural water supplies and groundwater in the Turlock subbasin.

The NVRRWP is a collaborative partnership that includes the Cities of Modesto, Turlock, Ceres, the DPWD, and Stanislaus County, and the primary purpose of the program as described on page ES-4 of the Draft EIR/EIS is to *"Establish an alternative, reliable, long-term water supply of up to 59,000 acre feet per year (AFY) of recycled water for DPWD and refuges."* It is appropriate for the Partner Agencies to develop an objective that is mutually beneficial to all of the Partner Agencies, and it is not practical to expect DPWD to entertain project objectives that would not supply their growers with critically needed water supplies.

The U.S. Department of the Interior's implementing procedures for NEPA specify that alternatives should "meet the purpose and need of the proposed action, and address one or more significant issues … related to the proposed action." As noted in the responses to previous comments, the NVRRWP does not create significant impacts to agricultural water supplies or groundwater in the TID service area, and does not make a cumulatively considerable contribution to existing or potential future impacts to the Turlock subbasin. The Draft EIR/EIS

thus does not need to consider alternatives that would avoid effects that the NVRRWP does not cause.

As noted in Response to Comment 8-11, the pre-existing, long-term groundwater problems in the eastern Turlock subbasin cannot be attributed to the NVRRWP. Neither CEQA nor NEPA require the project proponents to cure problems that are not caused by the NVRRWP, and the prospect that a different project could ameliorate existing problems is not evidence that the NVRRWP would have any significant adverse environmental impacts.

8.8.13 Response to Comment 8-13

Comment Summary: The comment provides introductory remarks and claims that TID's scoping comments were not adequately addressed in the Draft EIR/EIS, stating that the document is legally deficient and must contain a broader analysis in a recirculated Draft EIR/EIS or more comprehensive Final EIR/EIS.

Specific comments from TID and their legal counsel are addressed both in the previous responses (Responses to Comments 8-1 through 8-12) and in the responses below, which explain why the Draft EIR/EIS adequately addresses TID's scoping comments and why recirculation is not required. No new impacts or substantial increase in the severity of impacts has been identified as a result of information brought forward in the comments. Recirculation of the Draft EIR/EIS is not necessary.

8.8.14 Response to Comment 8-14

Comment Summary: The comment suggests that the Draft EIR/EIS does not accurately identify the Turlock Groundwater subbasin as the source of the City of Turlock's recycled water, and does not identify the quantity of recycled water currently available.

See Responses to Comments 8-3 and 8-6.

8.8.15 Response to Comment 8-15

Comment Summary: The comment asserts that the Draft EIR/EIS does not describe the City of Turlock's use of the Harding Drain in 2014 and use by TID and others of the City's recycled water from the Harding Drain in 2014.

See Response to Comment 8-4.

8.8.16 Response to Comment 8-16

Comment Summary: The comment claims that the Draft EIR/EIS fails to describe the City of Modesto's application of wastewater to agricultural lands in TID's service area and does not describe when application of recycled water will be reduced or curtailed entirely.

See Response to Comment 8-5.

8.8.17 Response to Comment 8-17

Comment Summary: The comment provides a detailed description of the groundwater conditions in the Turlock subbasin (referencing excerpts from the Turlock Groundwater Subbasin

Groundwater Management Plan), and claims that providing recycled water to DPWD would redirect impacts to the Turlock subbasin because the NVRRWP would eliminate the ability to reuse the recycled water in the subbasin where the water originated.

The description of the Turlock subbasin and existing groundwater conditions is not in dispute. While it is true that the Draft EIR/EIS contained a less detailed description of existing groundwater conditions, a detailed description of historic groundwater use in the area is not warranted because the NVRRWP would not result in increased groundwater pumping. The analysis of groundwater impacts correctly focuses on the minimal effects on groundwater recharge that would result from the NVRRWP. Given the minimal impact on groundwater, additional detail about historic groundwater use is not necessary. See also Response to Comments 8-5 to 8-12.

8.8.18 Response to Comment 8-18

Comment Summary: The comment states that the Draft EIR/EIS does not describe the City of Turlock's recycled water use within the Turlock subbasin during the baseline period and that the statement that the City of Turlock discharges flows to the San Joaquin River via the Harding Drain Bypass Pipeline is untrue because Turlock only started bypassing the Harding Drain and using the Harding Drain Bypass Pipeline in January 2015.

As noted in Response to Comment 8-2, the Harding Drain Bypass Pipeline has been in intermittent operation since February 10, 2014, which is prior to the distribution of the NOP and NOI for the Draft EIR/EIS. Operation of the Harding Drain Bypass Pipeline is thus correctly considered as part of the environmental baseline for the project. See Response to Comment 8-2 for additional information about the source of water in the Harding Drain, use of the Harding Drain Bypass Pipeline, the conclusions of the Harding Drain Bypass Pipeline EIR, and the findings of the Division of Water Rights that moving the City of Turlock's discharge from the Harding Drain to the Harding Drain Bypass Pipeline would not cause injury to any lawful user of the water.

8.8.19 Response to Comment 8-19

Comment Summary: The comment states that the conditions in 2014 reflect the relevant baseline condition for analysis of the project's impacts and that removal of recycled water from the Harding Drain will place demands on TID. The comment also cites existing uses of the recycled water from the City of Turlock.

See Responses to Comment 8-2 and 8-6. The comment is correct that the City of Turlock currently provides recycled water to Pedretti Park and to TID's Walnut Energy Center. These recycled water uses would continue.

8.8.20 Response to Comment 8-20

Comment Summary: The comment contains a description of the City of Modesto's application of recycled water to Modesto Ranch lands, and claims that limitations on discharge to the San Joaquin River have benefited groundwater in the Turlock subbasin. The comment cites the City's agreement to lease the Modesto Ranch lands for agricultural use (and includes the lease as an

exhibit), and claims that continued application of wastewater at existing quantity levels must be required until groundwater sustainability is achieved in the Turlock subbasin.

The comment is incorrect in stating that the City of Modesto did not discharge to the San Joaquin River in 2014. Although discharge was severely constrained because the City may discharge only during October through May, and only when there is sufficient water in the river to provide a 20:1 dilution of the discharge, the City did discharge 1,139 AF of secondary treated wastewater to the river in 2014. While it is correct that the City of Modesto uses a substantial amount of treated wastewater to irrigate the Modesto Ranch lands, the application of wastewater occurs in the western side of the subbasin, where groundwater levels are high, and thus does not benefit the eastern portion of the subbasin where groundwater levels have been depleted by pumping for irrigation. In addition, as noted previously, the City of Modesto will continue to apply secondary treated wastewater and cannery generated process water to the Modesto Ranch lands, and will fulfill its obligation to provide the water supply necessary to meet the crop water demand for the crops grown by the current tenant. While the amount of treated wastewater supplied may vary from year to year, as it does now, there is no proposal to terminate or substantially reduce the amount of secondary treated wastewater supplied to the Modesto Ranch lands. It is, however, highly doubtful, given the elevation of groundwater in the western portion of the Turlock subbasin, that the application of treated wastewater in that area would provide any benefits to the "long-term groundwater sustainability" of the subbasin. See Response to Comments 8-5 and 8-6.

8.8.21 Response to Comment 8-21

Comment Summary: The comment states that the groundwater conditions in western Stanislaus County are better than within the eastern side of the Turlock subbasin, and that once water is discharged to the DMC it would flow out of Stanislaus County for use within Merced and Fresno counties.

The poor groundwater conditions in the eastern side of the Turlock subbasin are irrelevant to the analysis of project impacts because the NVRRWP would have no effect on the eastern side of the Turlock subbasin. See Response to Comments 8-5 and 8-6. The NVRRWP would benefit all DPWD water users, including citizens of Stanislaus County farming about 28,000 acres of land in the local area, plus users in southern San Joaquin and northwestern Merced counties. Recycled water introduced into the DMC would have the capability of being stored in Federal Facilities and thus can be used by DPWD customers, through a system of year-round accounting of inputs and withdrawals from the system. If recycled water is discharged to the San Joaquin River it would, in fact, continue to be leave Stanislaus County and flow out through the Delta to the ocean as it does now.

8.8.22 Response to Comment 8-22

Comment Summary: The comment provides information about the Sustainable Groundwater Management Act (SGMA) and contends that the Draft EIR/EIS fails to discuss extraction of groundwater in the Turlock subbasin, which ends up as recycled water; and fails to discuss the consequences to the basin of exporting 59,000 AF of recycled water that was being used to recharge the subbasin.

The comment is incorrect in its contention that the NVRRWP would export water that is currently being used to recharge the basin. The Draft EIR/EIS identifies the fact that the source of recycled water is the Modesto and Turlock subbasins, as page 3.11-6 states that: "*The Turlock wastewater treatment plant is located in the Turlock subbasin and treats water that originates from that subbasin. The Modesto Jennings Plant is located in the Turlock subbasin and treats water that originates from the Modesto and Turlock subbasins.*" However, the wastewater from both plants, if not conveyed to DPWD under the NVRRWP, would be discharged to the San Joaquin River. The discharge is occurring now, and recycled water is not currently being used to recharge the Turlock subbasin. Groundwater recharge projects using recycled water are strictly regulated and there is no groundwater recharge currently being operated in the Turlock subbasin. The City of Modesto does irrigate its Ranch lands in the western part of the subbasin, but as noted in previous responses, irrigation using cannery process water and secondary treated wastewater would continue after implementation of the NVRRWP. There is no evidence that the irrigation of the Modesto Ranch lands provides recharge of the portion of the Turlock subbasin that is affected by excessive pumping because the irrigation occurs at agronomic rates in the western portion of the subbasin, which has high groundwater levels.

8.8.23 Response to Comment 8-23

Comment Summary: The comment states that data in the Draft EIR/EIS is misleading, difficult to analyze or provides conflicting information, and claims that the Draft EIR/EIS is not providing "full disclosure".

See Response to Comment 8-6, which provides additional information about the availability of recycled water at project inception and at buildout.

It is correct that the Draft EIR/EIS does not report the quantity of recycled water available in 2014, because the City of Modesto is currently in the process of upgrading their treatment facilities to provide the higher level of treatment required to meet its revised NPDES permit requirements, which will also provide tertiary treated recycled water for the NVRRWP. As is explained on page 1-9 of the Draft EIR/EIS: "*Phase 1 of the treatment upgrades was completed in 2010 and provides 2.3 million gallons per day (mgd) of tertiary effluent, all of which is applied to Modesto-owned ranch land. The Phase 2 treatment facilities are scheduled to be online by February 2016 and will provide an additional 12.6 mgd of tertiary treatment capacity, bringing the total capacity to 14.9 mgd. Modesto is planning to continue to increase tertiary treatment capacity to 27.5 mgd by build-out year 2040 and this water would be available for the proposed project. No tertiary treated water is presently discharged to the San Joaquin River.*" The information provided in the Draft EIR/EIS was consistent and as accurate as possible, given that some predictions about future wastewater flows must be made to estimate availability of recycled water at buildout of the two cities.

8.8.24 Response to Comment 8-24

Comment Summary: After its previous claim that the information provided is insufficient, this comment quotes the sections of the Draft EIR/EIS that provide detailed information about the City of Modesto's existing facilities and ongoing improvements. The comment also cites information provided in response to TID's scoping comments.

The comment provides an accurate citation of information provided in the Draft EIR/EIS.

8.8.25 Response to Comment 8-25

Comment Summary: The comment questions the use of the term recycled water to refer to tertiary treated wastewater that would comply with Reclamation water quality standards, and asks if it is correct to state that secondary treated wastewater would not be classified as recycled water for purposes of this EIR/EIS.

The section of the Draft EIR/EIS cited in the comment provides a description of the quality of the recycled water that would be introduced into the DMC as part of the NVRRWP. It is correct that the NVRRWP would not provide any secondary treated wastewater to DPWD. Although secondary treated wastewater can be used for some purposes, and is currently applied to the Modesto Ranch lands, it will notbe introduced into the DMC for conveyance to DPWD and certain SOD wildlife refuges. For purposes of the NVRRWP, the recycled water discharged to the DMC and thus provided to DPWD would only be tertiary treated wastewater. The City of Modesto will continue to produce secondary treated wastewater for use on the Modesto Ranch lands, and none of this water would be supplied to DPWD.

8.8.26 Response to Comment 8-26

Comment Summary: The comment asks for a definition of the term "Available Recycled Water" as used in the Draft EIR/EIS Table 1-2 and in the Feasibility Study, and asks if all of the tertiary treated recycled water produced at the Turlock and Modesto WWTPs will be sold to DPWD.

Recycled water availability was calculated based on the estimated quantities of tertiary treated effluent that could be produced by the cities of Modesto and Turlock, after subtracting the quantities that are committed to other recycled water uses. While the Draft EIR/EIS does not provide a detailed explanation of the calculation of the quantity of recycled water that could be made available, that information is provided in the Feasibility Study, which is a reference document for the Draft EIR/EIS that was made publicly available on the NVRRWP website As noted in the Feasibility Study:

> *"The City of Turlock has several long term commitments for recycled water use from the facility. The first commitment is for 2 mgd for 50 years for use at Turlock Irrigation District's (TID) Walnut Energy Center… The other current recycled water use in Turlock is for irrigation at Pedretti Park. The average irrigation use for the park is assumed to be 0.1 mgd, which was the average use in 2012. Therefore, in calculating the recycled water that would be available for NVRRWP, it is assumed that 2.1 mgd will be reserved for in-City use, leaving a flow rate of 25.4 mgd available at buildout for NVRRWP."* (RMC. 2013. North Valley Regional Recycled Water Program Feasibility Study, December 2013)

It is thus not correct that all of the tertiary treated water produced at both the Turlock and Modesto WWTPs will be sold to DPWD. Both cities will continue existing uses of recycled water, which is consistent with the information provided in the Scoping Report.

8.8.27 Response to Comment 8-27

Comment Summary: The comment asks where the Draft EIR discloses the amount of "net" recycled water proposed to be provided to DPWD, and asks if 30,600 AFY is the net amount to be provided in 2018 and if 59,000 AFY is the net amount to be sold at Buildout.

The quantities provided in **Table 1-2** are, in fact, net quantities of recycled water that could be made available, after supplying other users of recycled water, including Pedretti Park, the Walnut Energy Center, and the Modesto Ranch lands. It is estimated that 30,600 AFY would be available in 2018, and up to 59,000 AFY would be available at buildout of the Cities. The details of the water purchase agreement between the cities of Modesto and Turlock and DPWD have yet to be agreed upon, but for the purposes of environmental analysis, the Draft EIR/EIS has evaluated the environmental impacts associated with providing up to 59,000 AFY of recycled water at buildout. This is consistent with the first objective of the project listed on page 1-12 of the Draft EIR/EIS: "*Establish an alternative, reliable, long-term water supply of up to 59,000 acre feet per year (AFY) of recycled water for DPWD and refuges*".

8.8.28 Response to Comment 8-28

Comment Summary: The comment asks if the City of Modesto intends to discontinue using tertiary treated recycled water on City-owned ranch land and sell all such water to DPWD, and if so, the City's previous statement that there will be no change in the existing uses of recycled water at the Modesto Ranch is untrue.

The Modesto Ranch is currently irrigated with secondary effluent combined with cannery process water. As noted in Response to Comment 8-27, the details of the water purchase agreement have yet to be determined, but the Draft EIR/EIS has evaluated providing up to 59,000 AFY of tertiary treated water to DPWD. As part of the NVRRWP the City of Modesto may, indeed, supply most or all of the tertiary treated water produced at the Jennings Plant to DPWD. However, the City will continue to produce sufficient quantities of secondary treated effluent and will also receive cannery process water, both of which would be used to irrigate the 2,500 acres of City-owned Ranch land. It is estimated that at project buildout there would be over 10,500 AF of secondary treated effluent and cannery process water available to irrigate the Modesto Ranch lands. Because irrigation needs of the Ranch lands are primarily supplied by secondary treated wastewater and, during the summer canning season, cannery process water, use of recycled water at the Modesto Ranch is expected to continue, which is consistent with the City's previous response.

8.8.29 Response to Comment 8-29

Comment Summary: The comment claims that the analysis of groundwater impacts is inadequate because impact HYD-3 focuses on the impact of reductions in streamflows on groundwater storage, and contends that the Draft EIR/EIS must be recirculated with additional information about groundwater impacts.

See Response to Comments 8-1 to 8-29.

8.8.30 Response to Comment 8-30

Comment Summary: The comment suggests that the cumulative impacts discussion is inadequate.

See Response to Comment 8-11 for discussion of the cumulative impacts analysis.

8.8.31 Response to Comment 8-31

Comment Summary: The comment states that the Draft EIR/EIS should evaluate alternatives that avoid exporting water outside of the Turlock groundwater subbasin of origin and claims that the project objective of regional economic sustainability has been overridden by the SGMA requirement that the Turlock subbasin achieve groundwater sustainability.

See Response to Comment 8-12 for a discussion of alternatives. As noted there, and in the responses to previous comments, the NVRRWP does not create significant impacts to agricultural water supplies or groundwater, and does not make a cumulatively considerable contribution to existing or potential future impacts to the Turlock subbasin. The Draft EIR/EIS thus does not need to consider alternatives that would avoid effects that the NVRRWP does not cause. The comment suggests that the NVRRWP is inconsistent with the SGMA. The SGMA requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. At the present time a GSA has not been formed for the Proposed Action area, and a plan has not been formulated. The NVRRWP cannot be inconsistent with a plan that has not been developed.

8.8.32 Response to Comment 8-32

Comment Summary: The remainder of the comment letter provides attachments, including the scoping comments that TID had previously submitted and excerpts from the Turlock Groundwater Basin's Groundwater Management Plan.

The exhibits do not include any comments specifically addressing the adequacy of the Draft EIR/EIS, and the issues that the exhibits are intended to illustrate are addressed in Responses to Comments 8-1 through 8-31.

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March 10, 2015

VIA U.S. MAIL AND E-MAIL

Benjamin Lawrence
Bureau of Reclamation
1243 N Street
Fresno, CA 93721
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RE: Comments on the Draft EIS/EIR for the North Valley Regional Recycled Water Program

Dear Mr. Lawrence:

Grassland Water District and Grassland Resource Conservation District (collectively, GWD) submit the following comments on the Draft EIS/EIR for the North Valley Regional Recycled Water Program (NVRRWP) prepared by the Bureau of Reclamation (Reclamation), Del Puerto Water District (DPWD), and the Cities of Turlock and Modesto (Cities). The NVRRWP involves the conveyance of up to 59,000 acre-feet per year (AFY) of recycled water from the Cities through a pipeline and into the Delta-Mendota Canal, for delivery to DPWD and Central Valley Project Improvement Act (CVPIA) refuges south of the Delta, to meet their need for water supplies. 9-1

GWD supports the Project because it will provide much-needed water supplies to refuge habitat areas, particularly during those times of year when the demand for agricultural irrigation water is low. The CVPIA has been in place for more than 20 years, yet south-of-delta (SOD) refuges continue to lack reliable sources of Incremental Level 4 water supplies, which has caused a significant and persistent shortfall in CVPIA refuge water deliveries.

Comments on the text of Draft EIS/EIR Section 1.1.3

9-2 This section discusses refuge water supply needs and describes how the Project would help reduce the refuge water supply shortfall. The first sentence should be changed to read "the privately-managed wetlands of the Grassland Resource Conservation District," instead of "one privately-managed wetland (Grassland Resource Conservation District)." The Grassland Resource Conservation District is made up of numerous privately owned wetlands encompassing tens of thousands of acres.

9-3 This section should also be expanded upon in the Final EIS/EIR, to describe the various benefits of delivering NVRRWP water supplies to CVPIA refuges. First, refuges can take water throughout the year, which will help fully utilize NVRRWP supplies when there is a lack of irrigation demand or unexpected problems with water conveyance facilities. Second, by including refuges as recipients of NVRRWP supplies, Reclamation would have the option of entering into future agreements to provide Level 2 refuge water supplies to DPWD in exchange for greater deliveries of NVRRWP supplies to refuges. This could help meet peak irrigation demands in exchange for an increased amount of recycled water for refuges in the fall and winter.

9-4 Third, the delivery of recycled water to refuges when irrigation demand is low will minimize or eliminate the Cities' need to construct additional storage ponds or discharge recycled water to the San Joaquin River during periods when DPWD's water demands are less than the volume of recycled water produced. Eliminating the need for additional storage ponds will have significant costs savings, and the problems associated with discharging directly to the San Joaquin River are already outlined in the Draft EIS/EIR.

9-5 Section 1.1.3 should also describe the benefits that NVRRWP water supplies will bring to the refuges. Among other things, refuges will have an increased ability to conduct spring and summer irrigations, which will greatly improve the production and availability of food supplies for wintering migratory waterfowl. Refuges will be better able to utilize refuge water supplies to protect the last known remaining population of the threatened Giant Garter Snake in the western San Joaquin Valley, an area where the snake is at high risk of extinction. Refuges will also be able to provide higher quality brood habitat for local breeding bird populations.

Comments on Figures 1-3, 1-4, and 1-5

9-6 Figures 1-4 and 1-5 do not illustrate the magnitude of the shortfall in refuge water deliveries under the CVPIA. A new figure should be added to the EIS/EIR, similar to Figure 1-3, so that the SOD refuges' total water supplies and shortfalls

are depicted. The new figure should compare full Level 4 refuge water supplies (376,515 AFY) with actual deliveries over the same five year period used in Figure 1-3. It should also reflect the reduced Level 2 and Incremental Level 4 (IL4) refuge water allocations in 2014, similar to Figure 1-3. The SOD refuges only received a 65% Level 2 allocation in 2014, and 16,525 acre-feet of the 105,514 acre-feet of IL4 water required under the CVPIA. 9-6 Cont'd

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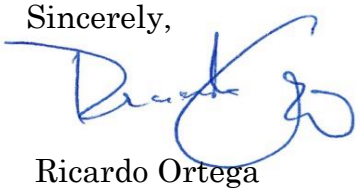
Figure 1-4 should also be revised to depict the average monthly demand pattern for the SOD refuges when receiving full Level 4 water supplies (376,515 AFY). This revision would more accurately show that the refuges' demand for water exceeds the availability of the Project's recycled water in every month. The current figure indicates that in 6 out of every 12 months the volume of recycled water available from the Project exceeds the refuges' demand for water. This is far from true. The refuges' demand can accommodate the full flow of recycled water in all months. Revising Figure 1-4 to depict the refuges' full Level 4 monthly demands would best show the true demand curve for the refuges and how well it complements DPWD's demand curve, which will be critical for managing the nonstop year-round flow of recycled water produced by the Cities. 9-7

Thank you for considering these comments. GWD looks forward to further involvement with the NVRRWP to ensure that it achieves the purposes and objectives described in the Draft EIS/EIR.

Sincerely,



Ricardo Ortega
General Manager

cc (via e-mail):

Anthea Hansen, DPWD (ahansen@delpuertowd.org)
William Wong, City of Modesto Utilities Department (wwong@modestogov.com)
Dale Garrison, U.S. Fish & Wildlife Service (dale_garrison@fws.gov)
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Jeffrey Shu, Cal. Department of Fish & Wildlife (jeffrey.shu@wildlife.ca.gov)

8.9 Comment Letter 9 – Grassland Water District, Ricardo Ortega, General Manager

8.9.1 Response to Comment 9-1

Comment Summary: The comment expresses support for the project because it would provide water supply to refuges, which have experienced a persistent shortfall in water supplies.

The Partner Agencies appreciate the support of the Grassland Water District.

8.9.2 Response to Comment 9-2

Comment Summary: The comment requests that text be revised to reflect the fact that Grassland Resource Conservation District is made up of numerous privately owned wetlands.

The first sentence in Section 1.1.3 on page 1-6 of the Draft EIR/EIS has been revised in the Final EIS as follows:

> In addition to provision of water to the DPWD service area, the NVRRWP would make recycled water available to certain SOD CVPIA designated federal National Wildlife Refuges (NWRs), State Wildlife Areas (SWAs), and ~~one~~ the privately-managed wetlands of the ~~(~~Grassland Resource Conservation District~~)~~, collectively referred to herein as "refuges".

8.9.3 Response to Comment 9-3

Comment Summary: The comment states that Section 1.1.3 should be expanded to describe the various benefits of delivering water to refuges.

The comment accurately describes potential benefits of providing water to refuges. The Draft EIR/EIS does state, on page 1-8, that "*refuges need water year-round, however, their fall and winter water demand occurs in a season when there is less of a need for irrigation water.*" While it is true that Reclamation and DPWD could develop an agreement that would allow seasonal exchanges of refuge water supplies for water from the NVRRWP, these details are still in development and have not yet been agreed upon, and are thus not discussed in the Draft EIR/EIS.

8.9.4 Response to Comment 9-4

Comment Summary: The comment states that delivery of recycled water when irrigation demand is low would minimize the need to construct storage ponds or discharge water to the river when DPWD water demands are low.

The NVRRWP has been planned so as to avoid the need for additional seasonal storage of recycled water. As noted on page 1-10 of the Draft EIR/EIS, "*Tertiary-treated water conveyed into the DMC during low-demand periods could be stored in the SOD CVP system, which includes San Luis Reservoir*." As described on page 2-1 of the Draft EIR/EIS, the Warren Act Contract will be structured for conveyance and storage of non-CVP water in federal facilities so that water can be discharged year-round and used by DPWD and the refuges when it is needed.

8.9.5 Response to Comment 9-5

Comment Summary: The comment states that the Draft EIR/EIS should provide a more detailed description of the benefits that NVRRWP water supplies would bring to refuges. The comment cites increased ability to conduct spring and summer irrigation, improving the production and availability of food supplies for wintering migratory water fowl and higher quality brood habitat for local breeding bird populations, plus improved ability to manage habitat to protect the threatened giant garter snake in western San Joaquin Valley where the snake is at high risk of extinction.

The comment is correct that the NVRRWP could provide a number of benefits to refuges. The text of the Draft EIR/EIS on page 1-8 has been modified in the Final EIS to include the description of benefits provided in the comment, as follows:

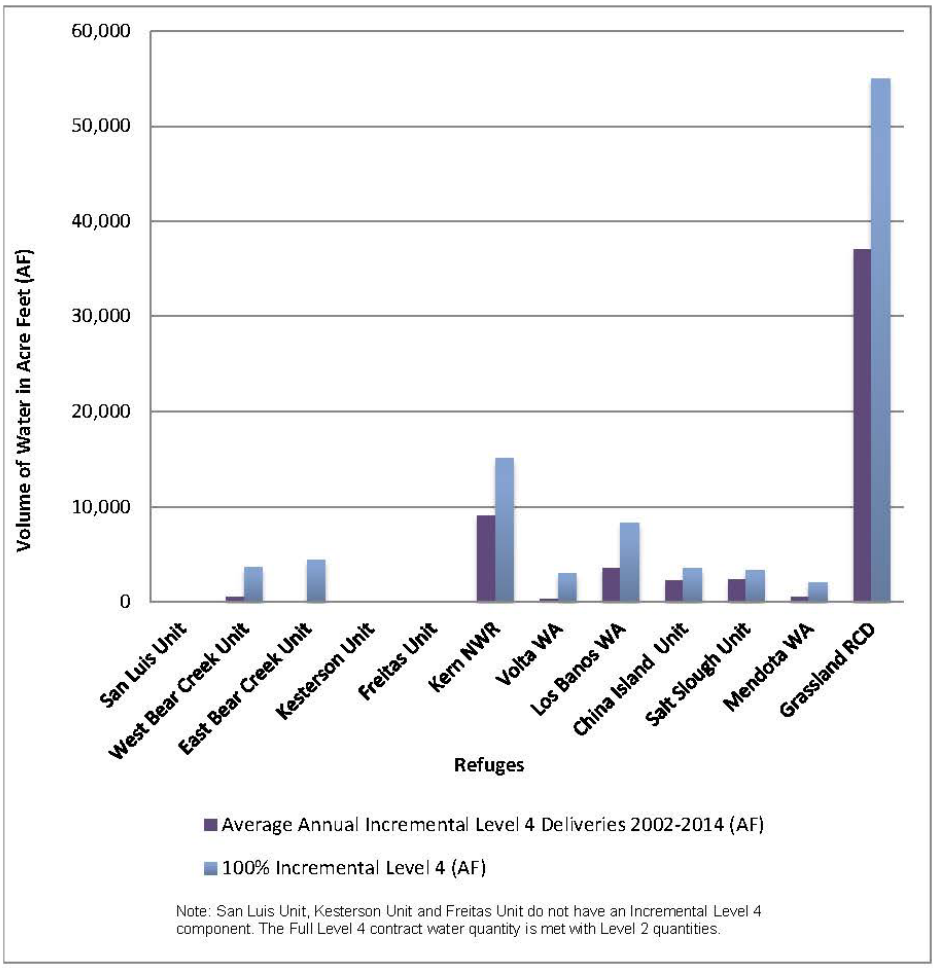
> The NVRRWP could potentially benefit the refuges shown in **Table 1-1**. Additional water supplies would provide refuges an increased ability to conduct spring and summer irrigations, which would improve the production and availability of food supplies for wintering migratory waterfowl. Refuges would be able to use water supplies to protect giant garter snake habitat, and to provide higher quality brood habitat for local breeding bird populations (Grassland Water District, Comments on the Draft EIS/EIR for the NVRRWP, see Chapter 8).

8.9.6 Response to Comment 9-6

Comment Summary: The comment requests the addition of a new figure depicting SOD refuges total water supplies and shortfalls and suggests that the figure should compare full Level 4 refuge water supplies (376,515 AFY) with actual deliveries. The comment points out that SOD refuges only received a 65 percent Level 2 allocation in 2014, and 16,525 of the 105,514 acre-feet of the IL4 water required under the CVPIA.

The comment correctly points out that SOD refuges have experienced substantial shortfalls of water supply in recent years. It appears that the comment is concerned about the distinction between full Level 4 supplies, which is the quantity of water needed to achieve optimal waterfowl habitat management, and IL4 water, which is defined as the difference between historic annual average water deliveries (L2) and the full Level 4 quantity. Although it has not yet been determined if the supplemental water that could be provided to SOD refuges would be considered to be IL4 water, the historic shortfalls in IL4 water are illustrative of the refuges need for water. Because the purpose of the NVRRWP is to provide supplemental water supplies, Reclamation and the Partner Agencies believe that it is most appropriate to show the demand for IL4 water. Reclamation staff have updated **Figure 1-5** from the Draft EIR/EIS in the Final EIS, which now shows average annual IL4 deliveries from 2002 through 2014 as compared to the full demand for IL4 water. The following figure replaces the original figure on page 1-7 of the Draft EIR/EIS:

Figure 1-5 (Revised): Refuge Full IL4 Water Demand vs Average Annual IL4 Deliveries (2002-2014)



8.9.7 Response to Comment 9-7

Comment Summary: The comment requests that Figure 1-4 be revised to reflect the average monthly demand pattern for SOD refuges when receiving full Level 4 water supplies, which would more accurately show that the refuges water demand exceeds the availability of NVRRWP water in every month. The current figure incorrectly indicates that recycled water availability exceeds refuge demand in 6 out of 12 months.

As noted in Response to Comment 9-6, because the NVRRWP is intended to provide supplemental water, not to meet the full demand for refuge water supply, it has been deemed most appropriate to depict the demand for IL4 water (even though it has not been determined if NVRRWP water would be considered IL4 water). To clarify the information presented in **Figure 1-4**, the figure caption is revised in the Final EIS as follows:

> Figure 1-4: Projected Monthly Demands from DPWD and IL4 Demand from Refuges and Monthly Volume of Recycled Water Production

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March 9, 2015

Via Email to wwong@modestogov.com and mogas@modestogov.com

William Wong
City of Modesto
1010 10th Street 4th Floor
Modesto, California 95354

Re: North Valley Regional Recycled Water Program

Dear Mr. Wong:

Our office represents Patterson Frozen Foods, Inc. ("PFF") and Lakeside Hills, LLC ("Lakeside"). Our clients are headquartered in the City of Patterson and are concerned about the impact the proposed North Valley Regional Recycled Water Program ("NVRRWP") would have on their business operations. Since 1946, PFF has been growing vegetables in the Patterson area and together with its wholly-owned subsidiary Lakeside, they have contributed to the rich agricultural heritage of the Patterson area. However, the NVRRWP appears to be an unwarranted burden on their farming activities and it exposes their underground pipeline to an undue risk of harm.

For those reasons, PFF and Lakeside oppose the primary and the two alternative proposals that do not involve a continued river discharge. 10-1

It is our clients' understanding that the NVRRWP would install a subsurface pipeline down Lemon Avenue and Zacharias Road. This pipeline would transverse the Patterson Irrigation District ("PID") and the West Stanislaus Irrigation District ("West Stan"), but neither of those districts would receive any of the water. That is, the farmers and stakeholders in PID and West Stan districts would shoulder the burden of the delays and impediments that the construction

would necessarily entail, but they would not get any of the benefit of the NVRRWP. With an estimated time of construction of 21 months, the interference is substantial and onerous, especially as it involves some of the major thoroughfares for the Patterson farming community, including our clients.

The construction also appears to bisect the underground pipeline owned by PFF on Zacharias Road. This pipeline is a valuable conduit for irrigation water and any damage or obstruction caused by the NVRRWP would be a punishing to PFF's business. Again, PFF would be exposed to the risk, but without any of the benefits accruing to the customers of the Del Puerto Water District. 10-2

The Patterson farming community is already subject to a multitude of outside influences beyond its control, thus, adding a major construction project that does not directly benefit the PID or West Stan customers is unduly burdensome.

For all of those reasons, PFF and Lakeside request that the NVRRWP not go forward in its present form.

Respectfully Submitted,

FRANK T. ZUMWALT, ESQ.
THE ZUMWALT LAW FIRM, LLP

cc: Angelo Ielmini

8.10 Comment Letter 10 – Patterson Frozen Foods, Inc., and Lakeside Hills, LLC, submitted through The Zumwalt Law Firm, Frank T. Zumwalt, Esq.

8.10.1 Response to Comment 10-1

Comment Summary: The comment expresses opposition to the two alternatives that do not involve a continued river discharge because the NVRRWP would install a pipeline along Lemon Avenue and Zacharias Road, which would cross roads and lands within the Patterson Irrigation District and West Stanislaus Irrigation District, but not provide water to those districts. The comment expresses concern that farmers from those districts would be affected adversely by 21 months of construction but would not benefit from the project.

In regard to project benefits, it is important to note that the farmers and stakeholders in PID and West Stanislaus Irrigation District (WSID) would all benefit from the fact that the NVRRWP provides a reliable water supply that can reduce dependence on groundwater pumping in the Delta-Mendota subbasin during years when CVP water supplies are limited. As explained on page 4-2 of the Draft EIR/EIS, without the NVRRWP "*landowners within DPWD would continue to pump additional groundwater from private wells, which could ultimately lead to overdraft of the groundwater basin*". Conserving groundwater in the Delta-Mendota subbasin would benefit all of those who use the basin as a source of irrigation water, including those in PID and WSID. The project thus provides regional benefits that extend beyond the growers in DPWD.

While it is true that pipeline construction would result in some short-term disruption, the Draft EIR/EIS has evaluated the impacts associated with construction of the proposed pipelines and has included mitigation for traffic and transportation impacts to ensure that thoroughfares in the Patterson farming community would continue to operate acceptably. **Mitigation Measure TR-1: Implement a Construction Management Plan to Minimize Interference with Traffic and Emergency Response Hazards**, which is presented on page 3.19-8 of the Draft EIR/EIS and repeated below, includes a variety of measures to minimize the effects of construction.

> ***"Mitigation Measure TR-1: Implement a Construction Management Plan to Minimize Interference with Traffic and Emergency Response Hazards (Alternatives 1, 2 and 3)***
> *The Partner Agencies (DPWD, the City of Modesto, and the City of Turlock) or the construction contractor, in consultation with the County, will prepare and implement a Traffic Management Plan (TMP). The Partner Agencies will be responsible for ensuring that the plan is adequately developed and implemented. The Partner Agencies will provide the TMP to the Stanislaus County Department of Public Works and Caltrans. The TMP will include recommended traffic-control and traffic-reduction measures as identified in the Transportation Management Plan Guidelines issued by the Division of Traffic Operations Office of System Management Operations (Caltrans 2009). The Partner Agencies will require all traffic-control or traffic-reduction measures described in the TMP to be implemented. In addition, to the extent feasible, construction-related traffic and any temporary road closures shall be scheduled during non-peak traffic periods.*

The measures included in the TMP shall be consistent with any applicable guidelines outlined in the Standard Specifications for Public Works Construction, the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices, and the Work Area Traffic Control Handbook. The plan will include the following items:

- *Definition of location and timing of any temporary lane or roadway closures;*
- *Identification and provision for circumstances requiring the use of temporary traffic control measures, such as flag persons, warning signs, lights, barricades, and cones to provide safe work areas in the vicinity of the project site or along the haul routes, including for narrow roadway segments, and to warn, control, protect, and expedite vehicular, bicycle, and pedestrian traffic and access by emergency responders;*
- *Implementation of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak-hour traffic, placement of detour signs (if required), lane closure procedures (if required), flaggers (if required), placement of cones for drivers, and designated construction access routes and access points;*
- *Notification to adjacent property owners, transit agencies and public safety personnel regarding when major deliveries, detours, and lane closures will occur;*
- *Measures to address the potential for construction-related traffic to impede emergency response vehicles and a specific training and information program for construction workers to ensure awareness of emergency procedures for project-related accidents;*
- *Identification of haul routes for movement of construction vehicles that will minimize impacts on vehicular and pedestrian traffic and circulation and safety, and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the Partner Agencies in coordination with the construction contractor;*
- *Consideration of other projects in the vicinity that could also affect the same roadways as the project;*
- *Development of a process for responding to and tracking complaints pertaining to construction activity, including identification of an onsite complaint manager; and*
- *Documentation of road pavement conditions for all routes that would be used by construction vehicles both before and after project construction. Roads damaged by construction vehicles will be repaired to the level at which they existed before project construction."*

It is also important to note that the 21-month period required for construction includes the time required for construction of all facilities including construction of pipelines on the east side of the San Joaquin River, construction of the river crossing and DMC discharge structure, and improvements to pump stations. As explained on page 2-19 of the Draft EIR/EIS, "*It is expected that open trench construction within paved roadways would proceed at the rate of 200 to 500 feet per day within rural areas*." It is thus projected that the portion of the pipeline on Lemon Avenue could be completed in two to four months and the segment on Zacharias Road would be constructed in a similar time frame.

8.10.2 Response to Comment 10-2

Comment Summary: The comment expresses concern that construction of the NVRRWP would bisect an underground pipeline owned by Patterson Frozen Foods on Zacharias Road, and that any damage to that pipeline could damage their business.

Construction of the NVRRWP facilities would be accomplished in a manner so as to avoid interference with existing utilities. **Mitigation Measure PUB-4** on page 3.16-8 of the Draft EIR/EIS, which is repeated below, includes measures to ensure that water lines and other utilities are not adversely affected during construction.

> ***"Mitigation Measure PUB-4: Coordinate Relocation and Interruptions of Service with Utility Providers during Construction (Alternatives 1, 2 and 3)***
> *The construction contractor shall be required to verify the nature and location of underground utilities before the start of any construction that would require excavation. The contractor shall be required to notify and coordinate with public and private utility providers at least 48 hours before the commencement of work adjacent to any utility. The contractor shall be required to notify the service provider in advance of service interruptions to allow the service provider sufficient time to notify customers. The contractor shall be required to coordinate timing of interruptions with the service providers to minimize the frequency and duration of interruptions."*

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Letter 11

Capitol Mall, Suite 1535
amento, California 95814
www.ca.audubon.org

Audubon CALIFORNIA

March 10, 2015

Benjamin Lawrence
Bureau of Reclamation
1243 N Street
Fresno, CA 93721

Re: Comments on North Valley Regional Recycled Water Program Draft EIS/EIR

Dear Mr. Lawrence:

On behalf of Audubon California and our more than 150,000 members and supporters statewide, I am writing to express support for the North Valley Regional Recycled Water Program (NVRRWP). This program will convey up to 59,000 acre feet of recycled water per year which can help achieve the objectives and mandates of the Central Valley Project Improvement Act (CVPIA), specifically for refuges south of the Delta.

California has lost roughly 95 percent of its historic wetlands, making optimal management of the remaining wetlands on refuges, state wildlife areas, and places like Grasslands Ecological Area critical for the millions of birds that migrate through the Central Valley each year. Unfortunately, wetland managers are often limited by water availability and timing, significantly reducing their ability to create and maintain habitat for birds and other sensitive species such as the Giant Garter Snake. This issue is particularly pronounced south of the Delta, where this year refuges received as little as 30 percent their mandated water supply. The NVRRWP will help address the constraint of water availability by providing additional water supplies, particularly during times of the year when agricultural irrigation demand is minimal. This program will also help achieve the CVPIA by providing water for refuges. 11-1

The prioritization of refuges as a recipient of this recycled water has many benefits including 1) helping fully utilize water supply generated from this program when not in demand from agriculture; 2) potentially allowing for creative and flexible management of water by the Bureau of Reclamation, opening the door to water exchanges with agriculture; and 3) inclusion of refuges as a recipient will reduce or eliminate costs associated with creating additional storage ponds for periods of time when recycled water produced exceeds demand.

Overall, the inclusion of refuges as a recipient of this water not only provides benefits to the program but also helps support the few remaining wetlands in the Central Valley which make up the backbone of the Pacific Flyway. We appreciate the opportunity to comment on this draft document and look forward to reviewing the final EIR/EIS.

Sincerely,

Meghan Hertel

Meghan Hertel
Working Lands Director

8.11 Comment Letter 11 – Audubon California, Meghan Hertel, Working Lands Director

8.11.1 Response to Comment 11-1

Comment Summary: The comment expresses support for the project because it would provide water supply to refuges, and enumerates the benefits of supplying water to refuges.

Reclamation and the Partner Agencies appreciate the support of Audubon California.

DUCKS UNLIMITED

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March 10, 2015

Benjamin Lawrence
Bureau of Reclamation
1243 N Street
Fresno, CA 93721

Re: Comments on North Valley Regional Recycled Water Program Draft EIS/EIR

Dear Mr. Lawrence.

Ducks Unlimited, Inc. is focused on ensuring wetlands sufficient to fill the skies with waterfowl, today, tomorrow and forever. This wetland conservation goal also provides habitat for other wildlife and people through groundwater recharge, flood abatement, and water quality benefits to name a few. It is for this reason that Ducks Unlimited and our members strongly support the North Valley Regional Recycled Water Project and its benefits to the Refuge Water Supply Program (RWSP).

As you know, water supplies for private and public wetlands afforded through the Central Valley Project Improvement Act have not been fully realized. We feel this multi-benefit effort can provide a dependable supply of water to help meet the Incremental Level-4 water needs of the RWSP. It also provides additional water supplies to agricultural lands on the west side of the Central Valley where water is scarce, and this benefits the local economy and creates jobs. 12-1

Further, development of water supplies south of the Sacramento/San Joaquin Delta is highly desirable; this helps bring California's water supplies more in balance with need.

We thank you for your involvement in this important project and hope to see more water supplies made available to the RWSP.

Sincerely,

Mark E. Biddlecomb

Director, Western Region

Ducks Unlimited, Inc.

8.12 Comment Letter 12 – Ducks Unlimited, Mark E. Biddlecomb, Director, Western Region

8.12.1 Response to Comment 12-1

Comment Summary: The comment expresses support for the project because it would provide water supply to refuges, and provide additional water supplies to agricultural lands where water is scarce.

Reclamation and the Partner Agencies appreciate the support of Ducks Unlimited.

March 10, 2015

Mr. Ben Lawrence
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e-mail: blawrence@usbr.gov

Mr. William Wong
City of Modesto, Utilities Department
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Modesto, CA 95354

e-mail: wwong@modestogov.com

Subject: Comments of the State Water Contractors Regarding the Draft Environmental Impact Report/Environmental Impact Statement for the North Valley Regional Recycled Water Program.

Dear Mr. Lawrence and Mr. Wong:

The State Water Contractors[1] (SWC) appreciates the opportunity to provide comments on the U.S. Bureau of Reclamation's and City of Modesto's Draft Environmental Impact Report/Environmental Impact Statement (DEIR/S) for the North Valley Regional Recycled Water Program (NVRRWP). As proposed, the NVRRWP would deliver up to 59,000 acre-feet per year of recycled water produced by the cities of Modesto and Turlock wastewater treatment plants via the Central Valley Project (CVP) Delta Mendota Canal (DMC) to the Del Puerto Water District and to Central Valley Project Improvement Act (CVPIA) designated wildlife refuges located south of the Delta, to meet their need for water supply. The SWC has a significant interest in the health of the Sacramento-San Joaquin Delta ecosystem and in protecting water quality in the State Water Project (SWP) system. We have reviewed the DEIR/S and have several comments noted below concerning the evaluation of project impacts on SWP water quality and San Joaquin River flows.

The purpose of the proposed project is to deliver recycled water produced by the cities of Modesto and Turlock via the DMC to the Del Puerto Water District and CVPIA-designated wildlife refuges. As noted in the DEIR/S, the recycled water would be stored in CVP facilities during low water demand periods. These facilities include O'Neill Forebay and the San Luis Reservoir. However, the DEIR/S does not clearly acknowledge that O'Neill Forebay and San Luis Reservoir are facilities jointly used by the State Water Project (SWP) and CVP, and that SWP and CVP water is blended in these facilities. Further, the maps and figures showing

13-1

[1] The State Water Contractors (SWC) is a non-profit association of 27 public agencies from Northern, Central and Southern California that receive water under contract from the California State Water Project. The 27 member SWC agencies are: Alameda County Flood Control and Water Conservation District Zone 7, Alameda County Water District, Antelope Valley-East Kern Water Agency, Casitas Municipal Water District, Castaic Lake Water Agency, Central Coast Water Authority, City of Yuba City, Coachella Valley Water District, County of Kings, Crestline-Lake Arrowhead Water Agency, Desert Water Agency, Dudley Ridge Water District, Empire-West Side Irrigation District, Kern County Water Agency, Littlerock Creek Irrigation District, Metropolitan Water District of Southern California, Mojave Water Agency, Napa County Flood Control and Water Conservation District, Oak Flat Water District, Palmdale Water District, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, San Gorgonio Pass Water Agency, San Luis Obispo County Flood Control and Water Conservation District, Santa Clara Valley Water District, Solano County Water Agency, and Tulare Lake Basin Water Storage District.

13-1 Cont'd

the proposed project location and facilities do not show the SWP's California Aqueduct, and do not clearly illustrate the connections between the California Aqueduct, DMC, O'Neill Forebay and San Luis Reservoir. As a result, it is not clear that the proposed NVRRWP recycled water would be blended with SWP supplies in the jointly used facilities. The DEIR/S text and figures should be revised to clearly show the facilities that will be used to convey and store recycled water and to indicate where the recycled water would be blended with SWP supplies. In addition, the evaluation of potential water quality impacts in Section 3.11 should include an evaluation of water quality impacts on SWP water supplies.

13-2

The proposed project is the first time, to our knowledge, that an entity has proposed discharging recycled wastewater to the DMC, which would result in the blending of the recycled water with SWP drinking water supplies in the jointly used facilities. By proposing to store recycled water in the San Luis Reservoir, the project proposes to augment surface water with recycled water. Given the potentially precedent setting nature of the proposed project, it is important that the DEIR/S fully evaluate potential water quality impacts of introducing recycled water to a drinking water source.

The following specific comments address areas of the DEIR/S where more information and analyses are needed to evaluate potential water quality impacts.

13-3

- Page ES-2 - All figures should show the California Aqueduct, O'Neill Forebay, and San Luis Reservoir so it is clear to the reader that the DMC water mingles with SWP water in O'Neill Forebay and San Luis Reservoir.

13-4

- Pages 1-8, 9 - The Cities of Modesto and Turlock propose to provide tertiary treatment for recycled water and will remove ammonia; only the City of Modesto facilities would provide denitrification. The DEIR/S should evaluate the proposed treatment processes for addressing key recycled water quality concerns related to drinking water including pathogen, nutrient, and chemical removal. Of interest, the DEIR/S should discuss potential impacts of nutrient loading to the San Luis Reservoir. Increased nutrient loading can lead to the production of algae growth, potentially causing taste and odor issues, toxins, and other operational issues.

13-5

- Page 1-10 - The importance of O'Neill Forebay, San Luis Reservoir, and the California Aqueduct as a source of drinking water to over 25 million people is greatly understated in the DEIR/S. Although water is primarily released from San Luis Reservoir between April and August, some water is released in every month of the year to O'Neill Forebay and used as a drinking water supply in Central and Southern California. Water is also released year-round from San Luis Reservoir through the Pacheco Pumping Plant and is used as a drinking water supply in the Santa Clara Valley.

13-6

- Page 1-14 - The State Water Resources Control Board, Division of Drinking Water Programs should be added to Table 1-3 as one of the State agencies that should be consulted for the proposed project.

13-7

- Section 3.11 Hydrology and Water Quality - By proposing to store project water in the San Luis Reservoir, the project proposes to augment surface water with recycled water. The *Less than Significant* findings for the water quality elements did not evaluate potential water quality impacts related to introducing recycled water to a drinking water source. Also, the State Water Resources Control Board Division of Drinking Water (DDW) is in the process of developing criteria for these types of surface water augmentation projects.

13-8

- Page 3.11-2 - The schematic in Figure 3.11-1 should show the intertie between the DMC and California Aqueduct near Tracy, O'Neill Forebay, and San Luis Reservoir.

13-9

- Page 3.11-4 - The project proposes to deliver up to 59,000 acre-feet/year of recycled water via the DMC. The DEIR/S does not explicitly compare this flow to current DMC flows and address related impacts. Based on Figure 3.11-3, the percentage of the recycled water in the DMC can range between 2% (DMC flow of 4100 cfs) and 33% (DMC flow of 250 cfs), during critical flow

years. The DEIR/S should provide an appropriate water quality analysis addressing the variability of the recycled water influence on DMC flows.

- Page 3.11-4 - The DEIR/S indicates that the U.S. Bureau of Reclamation has historically accepted groundwater into the DMC to supplement CVP water. However, the DEIR/S should clarify that there is no precedence for accepting recycled wastewater to augment surface water. 13-10

- Page 3.11-5 - The DEIR/S must evaluate potential water quality impacts to San Luis Reservoir since it indicates (Table 3.11-2) that recycled water quality is estimated to be of lesser quality than DMC water, which can be stored in San Luis Reservoir. The effluent quality data for Turlock and Modesto should be presented and the methodology for estimating the blended water quality should be described. Is this blended water quality at full build-out of both wastewater treatment plants? What is the worst case scenario for blended water quality? For example, for nitrate, it would be when the only water in the proposed pipeline is from Turlock since the Turlock facility does not remove nitrate. Analysis should also be provided for San Luis Reservoir under lower lake elevations (i.e., during drought conditions) to determine water quality impacts with blends of recycled water. 13-11

- Pages 3.11-8 to 3.11-12 - The Regulatory Framework section in the DEIR/S must include all regulations, plans and policies guiding the use of recycled water for indirect potable reuse (i.e., surface water augmentation). These include but are not limited to Title 22 Regulations for Drinking Water, the California Toxics Rule, and the Federal Antidegradation Policy. 13-12

- Page 3.11-11 - Regional Water Quality Control Boards have jurisdiction over the distribution of recycled wastewater and the enforcement of Title 22 regulations. DDW ensures that recycled water permit conditions are protective of public health. As related to this project, DDW is required to adopt water recycling criteria for surface water augmentation by December 31, 2016. The project proponents should consult with DDW for project approval prior to adoption of such criteria, per California Health & Safety Code §116551. 13-13

- Page 3.11-17 - The evaluation of water quality impacts should be expanded to include potential impacts on SWP drinking water supplies in O'Neill Forebay and San Luis Reservoir. Also, the discussion of water quality impacts should be expanded to discuss the impact of nutrients (nitrogen and phosphorus) on algal and macrophyte growth and the potential for algal toxins to be present if nutrients result in cyanobacteria blooms. Has the Central Valley Regional Water Quality Control Board been consulted on potential changes to effluent water quality that may be required when the point of discharge is changed to the DMC? 13-14

- Page 3.11-18 - Table 3.11-4 should also contain estimated recycled water quality and water quality standards for perchlorate and hexavalent chromium. The California primary MCLs for perchlorate and hexavalent chromium are 0.006 mg/L and 0.010 mg/L, respectively. The table should also contain information on the recycled water quality for total organic carbon and total phosphorus. The discussion of the results in this table needs to be expanded. The effluent quality data for Turlock and Modesto should be presented and the methodology for estimating the blended water quality should be described. Is this blended water quality at full build-out of both wastewater treatment plants? What is the worst case scenario for blended water quality? The methodology for mixing the recycled wastewater with DMC water should also be described. Are the results based on a model or a simple mass balance calculation? Overall, the full suite of Title 22 constituents should be evaluated. A table should be provided to identify the constituents with exceedances of the detection limit for purposes of reporting (DLR). 13-15

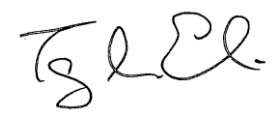
- Page 3.11-23, Table 3.11-7 - The DEIR/S compares Constituents of Emerging Concern (CEC) monitoring trigger levels (per the Recycled Water Policy) with recycled water effluent from the Cities of Modesto and Turlock. Turlock's caffeine levels exceed the monitoring trigger level; however, the DEIR/S states that the project is not a groundwater recharge project and, therefore, not subject to compliance with the Recycled Water Policy. Treated wastewater and recycled water, depending on how it is treated, is a major source of CECs in source water. The project should evaluate overall water quality concerns involving CECs (e.g., nitrosamine precursors) that are not currently regulated but may have potential impacts on public health. 13-16

13-17

- Page 3.11-24,25 - The DEIR/S evaluation of potential reduction of flows in the San Joaquin River only considers average annual flows. Flows in the San Joaquin River are highly managed and can be very low in dry and critically dry years. The DEIR/S should evaluate the potential reduction of flows in the San Joaquin River in dry and critically dry years, in addition to evaluating annual average flow changes.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future information concerning the proposed project. We would be happy to meet with you to discuss any of our comments. Please contact me at terlewine@swc.org or Lynda Smith at lsmith@mwdh2o.com.

Sincerely,



Terry L. Erlewine
General Manager

8.13 Comment Letter 13 – State Water Contractors, Terry L. Erlewine, General Manager

8.13.1 Response to Comment 13-1

Comment Summary: The comment states that figures in the Draft EIR/EIS should be revised to clearly show the facilities that would be used to convey and store recycled water and to indicate where recycled water would be blended with State Water Project (SWP) supplies, so as to illustrate that NVRRWP recycled water would be blended with SWP supplies. The comment also states that evaluation of water quality impacts should include an evaluation of water quality impacts on SWP supplies.

The comment provides a summary of more detailed comments that are addressed below. Please refer to Responses to Comment 13-2 through 13-7 for response to each specific comment.

8.13.2 Response to Comment 13-2

Comment Summary: The comment suggests that the NVRRWP is the first time that a project would directly discharge recycled water to the DMC, which would result in blending of recycled water with SWP drinking water in jointly used facilities, including the San Luis Reservoir. The comment contends that the project should thus be considered a surface water augmentation project.

While it is true that the NVRRWP would be the first project to directly discharge "recycled water" (i.e. tertiary treated wastewater effluent) to the DMC, it is important to understand this in the context of other wastewater inputs to the SWP. The mechanism for permitting the discharge is also relevant, because the NVRRWP is not considered to be a surface water augmentation project.

The NVRRWP proposes to convey recycled water generated by the Cities of Modesto and Turlock to DPWD by introducing the "recycled water" into the DMC. DPWD would take delivery of the water from the DMC via existing turnouts from the DMC to DPWD lands. Certain SOD CVPIA refuges may also receive "recycled water" delivered via the DMC.

Because it is not a surface water augmentation project the project is not directly under the jurisdiction of the CDPH. As stated on page 1-10 of the Draft EIR/EIS, "*Although recycled water discharged to the DMC would not technically be required to meet criteria that are established by the California Department of Public Health (CDPH), it would have to meet the standards of the NPDES Permit for discharge issued by the RWQCB.*" Although the NVRRWP has been conceived as a recycled water project, from a regulatory standpoint it is more accurately characterized as a wastewater discharge project. To that end, the CVRWQCB is processing application(s) for NPDES permit(s) for discharge to the DMC (whether the CVRWQCB issues a single permit for the two cities' combined discharge or a permit to each city has not been determined at the time of this document). As such, a Recycled Water Permit is not required for discharge of "recycled water" to the DMC for conveyance to DPWD. Water diverted from the

DMC is considered surface water, and would not be re-characterized as recycled water based on an approved discharge to the canal.

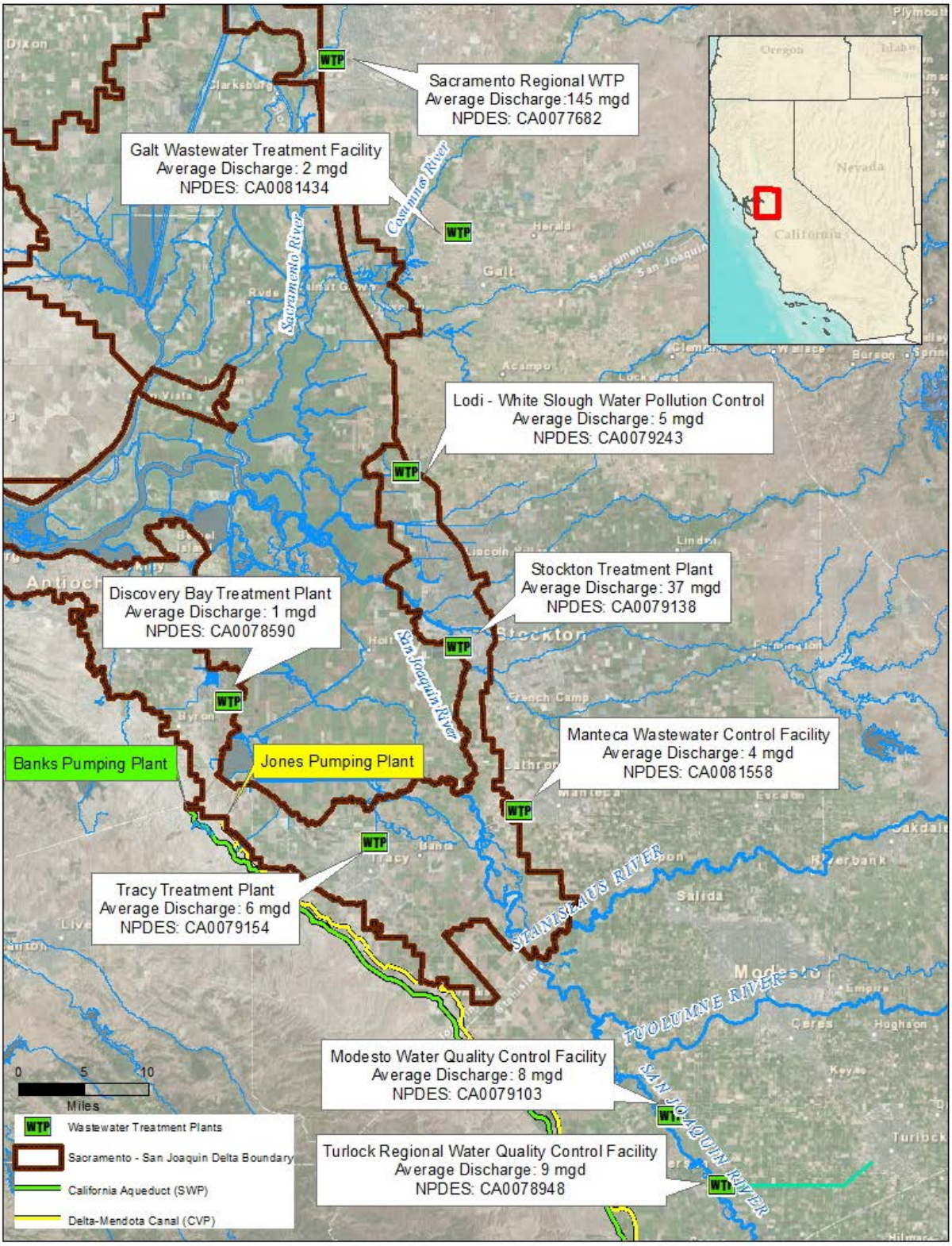
The NPDES permit(s) will establish discharge standards based on the beneficial uses of the receiving water as defined in the Basin Plan for the Sacramento River and San Joaquin River Basins (CVRWQCB, rev October 2011).

Once the "recycled water" is discharged to the DMC under the provisions of the proposed NPDES permit, the "recycled water" becomes comingled with the receiving water, similar to any other surface water discharge in the State, including the existing discharges by the two cities to the San Joaquin River. Under current operations, discharges from the Modesto and Turlock treatment plants comingle with San Joaquin River Water. A portion of the comingled San Joaquin River is diverted downstream and pumped into the DMC, including diversion and pumping operations at PID, WSID, Banta-Carbona Irrigation District, and at the Jones Pumping Plant, the Delta intake for the DMC.

The DMC is categorized as a Water of the State in the Basin Plan, and one of the beneficial uses is municipal water supply, due to the interconnection of the DMC with the SWP through O'Neill Forebay and San Luis Reservoir. In recognition of this downstream beneficial use, Reclamation has established standards for introduction of non-CVP water into the DMC (Reclamation 2014). Reclamation's standards for introduction of water into the DMC include the full suite of EPA drinking water constituents above the interconnection of the DMC and the SWP, with a reduced set of water quality standards south of the interconnection that are more reflective of agricultural water quality standards. Similarly, the NPDES permit being considered by the Regional Water Quality Control Board, Region 5, will also consider the identified beneficial uses of the DMC, including its interconnection to the SWP.

Irrespective of these operations on the San Joaquin River, as noted on page 3.11-24 of the Draft EIR/EIS, the California State Water Project Watershed Sanitary Survey 2011 Update (State Water Project 2012) estimated that the discharge from the Sacramento, Stockton, and Manteca wastewater treatment plants (three of the largest wastewater dischargers to Delta tributaries) can comprise up to approximately 3 percent of the flow in the DMC. At build-out of the cities flow conditions (year 2045), the maximum concentration of tertiary effluent discharged into the DMC through the NVRRWP would be approximately 2.7 percent and 3.4 percent of DMC historic average flows for the months of April and May, respectively. The remaining months of the year the tertiary effluent contribution to the DMC is projected to be 1.5 percent or less. Thus, the NVRRWP contribution to the tertiary effluent present in the DMC is similar or less than current practices based on the 2011 California State Water Project Watershed Sanitary Survey. The figure below shows representative existing wastewater inputs into the Delta System.

Figure 8-2: Representative Wastewater Discharges to Sacramento-San Joaquin Delta System



Specific comments regarding water quality impacts of the NVRRWP are addressed below.

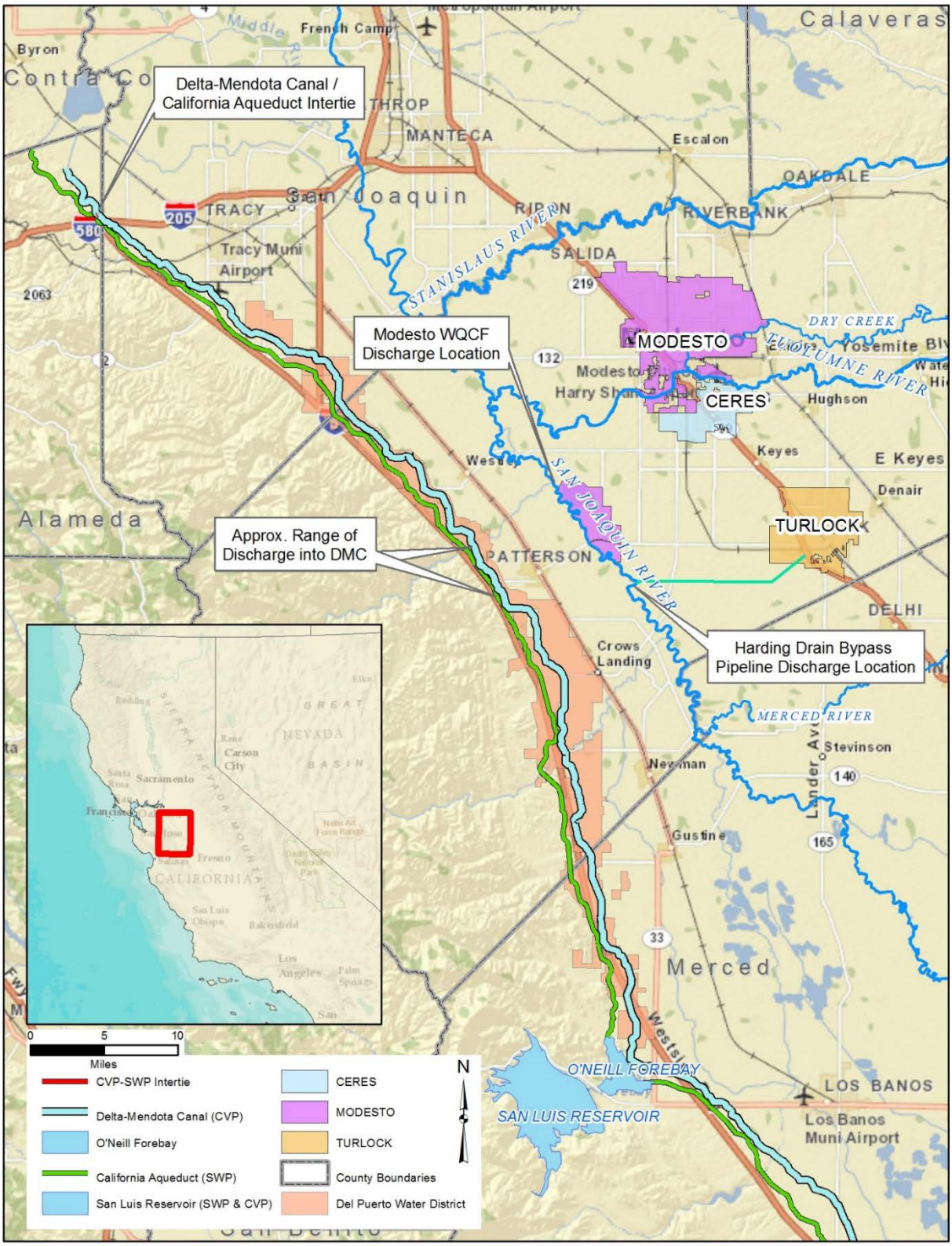
8.13.3 Response to Comment 13-3

Comment Summary: The comment references page ES-2 and states that all figures should show the California Aqueduct, O'Neill Forebay, and San Luis Reservoir so that it is clear to the reader the DMC water mingles with SWP water in O'Neill Forebay and San Luis Reservoir.

The scale of most figures does not allow depiction of the California Aqueduct, O'Neill Forebay, and San Luis Reservoir, so it is not practical to add those features to all figures in the Final EIS. However, those facilities can be depicted on the project vicinity maps in order to provide clarification regarding the relationship of the proposed project facilities and other major water supply infrastructure. In addition, the intertie between the DMC and California Aqueduct near Tracy has been added to the figure in the Final EIS. As shown in the revised figure, all of the potential discharge locations for introducing recycled water into the DMC would be downstream of the intertie, so recycled water would not move through the intertie.

Figure ES-1 on page ES-2 of the Draft EIR/EIS and **Figure 1-1** on page 1-2 are both revised as follows in the Final EIS:

Figure ES-1 (REVISED): Project Vicinity



8.13.4 Response to Comment 13-4

Comment Summary: The comment states that the Draft EIR/EIS should evaluate proposed treatment processes for addressing water quality concerns related to drinking water including pathogen, nutrient and chemical removal and should discuss potential impact of nutrient loading to San Luis Reservoir potentially causing algae problems.

The Draft EIR/EIS showed expected recycled water quality as compared to water quality of the DMC (see **Table 3.11-2** on page 3.11-5) and evaluated potential water quality impacts of discharging recycled water to the DMC (see discussion beginning on page 3.11-17). The Draft EIR/EIS found that while the level of nutrients is slightly higher in recycled water than in the DMC, the proposed discharge would meet Reclamation standards for acceptance of non-CVP water in the DMC, and levels of chemicals and nutrients were similarly determined to be acceptable for discharge. Those conclusions have been supported by subsequent studies (see **Appendix I** in the Final EIS).

Since completion of the Draft EIR/EIS, an antidegradation analysis for the proposed introduction of NVRRWP flows into the DMC was prepared for the CVRWQCB to provide the agency the information it needs to determine whether the proposed discharge to the DMC is consistent with state and federal antidegradation policies. The *Antidegradation Analysis for Proposed Recycled Water Discharge to the Delta-Mendota Canal* (Larry Walker and Associates 2015) has been incorporated in the Final EIS as **Appendix I**. The antidegradation analysis addresses, among other constituents and issues, pathogens, nutrients, and chemicals of concern to the beneficial uses of the DMC.

In regard to potential effects of nutrients on algae problems, the CVRWQCB is currently developing a Delta Nutrient Management Strategy process (http://www.waterboards.ca.gov/rwqcb5/water_issues/delta_water_quality/public_involvement_stag_meetings/index.shtml). This ongoing process is looking at the question of how nutrients affect algae problems to determine if any management action could have an effect on macrophytes, cyanobacteria/microcysts, and other outcomes. The CVRWQCB has noted that if elevated nutrient concentrations affect algal growth this could result in "*taste and odor problems in State Water Project terminal drinking water reservoirs"*, such as San Luis Reservoir. There are a number of other significant factors affecting algal growth such as temperature and residence time, and it has not yet been determined whether an incremental change (either reduction or increase) in nutrient concentrations would have any influence on these effects. Thus, at this time it is not possible to predict the effect that small changes in nutrient levels might have on algal growth. Once the Delta Nutrient Management Strategy has been developed by the Regional Water Quality Control Board, the NPDES permitting process and Reclamation's water quality requirements can and likely will be used to adequately address any potential impacts.

8.13.5 Response to Comment 13-5

Comment Summary: The comment states that the Draft EIR/EIS understates the importance of the O'Neill Forebay, San Luis Reservoir and California Aqueduct as a source of drinking water for Southern California and the Santa Clara Valley.

The Draft EIR/EIS describes both the DMC and San Luis Reservoir and associated facilities beginning on page 1-9. The description in the Draft EIR/EIS was certainly not intended to minimize the importance of any of the water supply facilities, and does identify the fact that the DMC conveys water that is used for municipal purposes (i.e. drinking water). Additional clarification regarding the California Aqueduct has been added to the description of the San Luis Reservoir. The description of the DMC starting on page 1-9 of the Draft EIR/EIS is provided below:

1.1.5 Delta-Mendota Canal (DMC)

"Completed in 1951, the DMC carries CVP water southeasterly from the Tracy (C.W. "Bill" Jones) Pumping Plant along the west side of the San Joaquin Valley, delivering water for irrigation and municipal uses, as well as for wildlife refuges en route. Water from the DMC replaces San Joaquin River flows in the Mendota Pool. The DMC also transports CVP water to the O'Neill Forebay for delivery to the San Luis Unit. The canal extends 70 miles from the Sacramento-San Joaquin Delta to the O'Neill Forebay and then 46 miles to the Mendota Pool on the San Joaquin River, about 30 miles west of Fresno. The initial diversion capacity is 4,600 cubic feet per second (cfs), which is gradually decreased to 3,211 cfs at the terminus."

A discussion of the California Aqueduct has been added to the description of the San Luis Reservoir. The description of the San Luis Reservoir on page 1-10 of the Draft EIR/EIS is revised as follows in the Final EIS:

1.1.6 San Luis Reservoir

The DMC is connected to the San Luis Reservoir via O'Neill Forebay midway along the length of the canal. This 2 million-AF artificial lake on San Luis Creek in the eastern slopes of the Diablo Range of Merced County is jointly owned and operated by Reclamation and the California Department of Water Resources (DWR) and is one of California's largest reservoirs (Reclamation 2013c). During the summer or dry season, water in San Luis Reservoir is used by CVP contractors, as well as State Water Project contractors. The California Aqueduct also flows into the O'Neill Forebay at San Luis Reservoir; from the O'Neill Forebay, the aqueduct continues south to serve municipal users in southern California including Kern, Los Angeles, San Bernardino, San Diego and Santa Barbara Counties. Under the Proposed Action, tertiary-treated water introduced and conveyed in the DMC during low-demand periods could be stored in the federal portion of San Luis Reservoir. Storage may be done either through operational exchanges with Reclamation or through direct delivery. Any storage of recycled water would occur after the water has been blended with flows in the DMC as it moves down the DMC from the introdcuction point north of O'Neill Forebay (see **Figure 1-1**).

8.13.6 Response to Comment 13-6

Comment Summary: The comment suggests that the State Water Resources Control Board, Division of Drinking Water Programs should be added to Table 1-3 as an agency that should be consulted.

Because the NVRRWP proposes a discharge of wastewater to a water of the State, it is under the jurisdiction of the CVRWQCB, and not the SWRCB, Division of Drinking Water Programs (DDW). The CVRWQCB can consult with DDW if they deem it appropriate, but this consultation is at the discretion of the CVRWQCB. It is likely that the CVRWQCB will consult with DDW during the process of issuing an NPDES permit for the discharge to the DMC. However, the project would not need a permit from DDW, and thus has not been included in **Table 1-3**.

8.13.7 Response to Comment 13-7

Comment Summary: The comment claims that the evaluation of water quality did not consider impacts related to introducing recycled water into a drinking water source, and references the fact that the State Water Resources Control Board Division of Drinking Water is developing criteria for surface water augmentation projects.

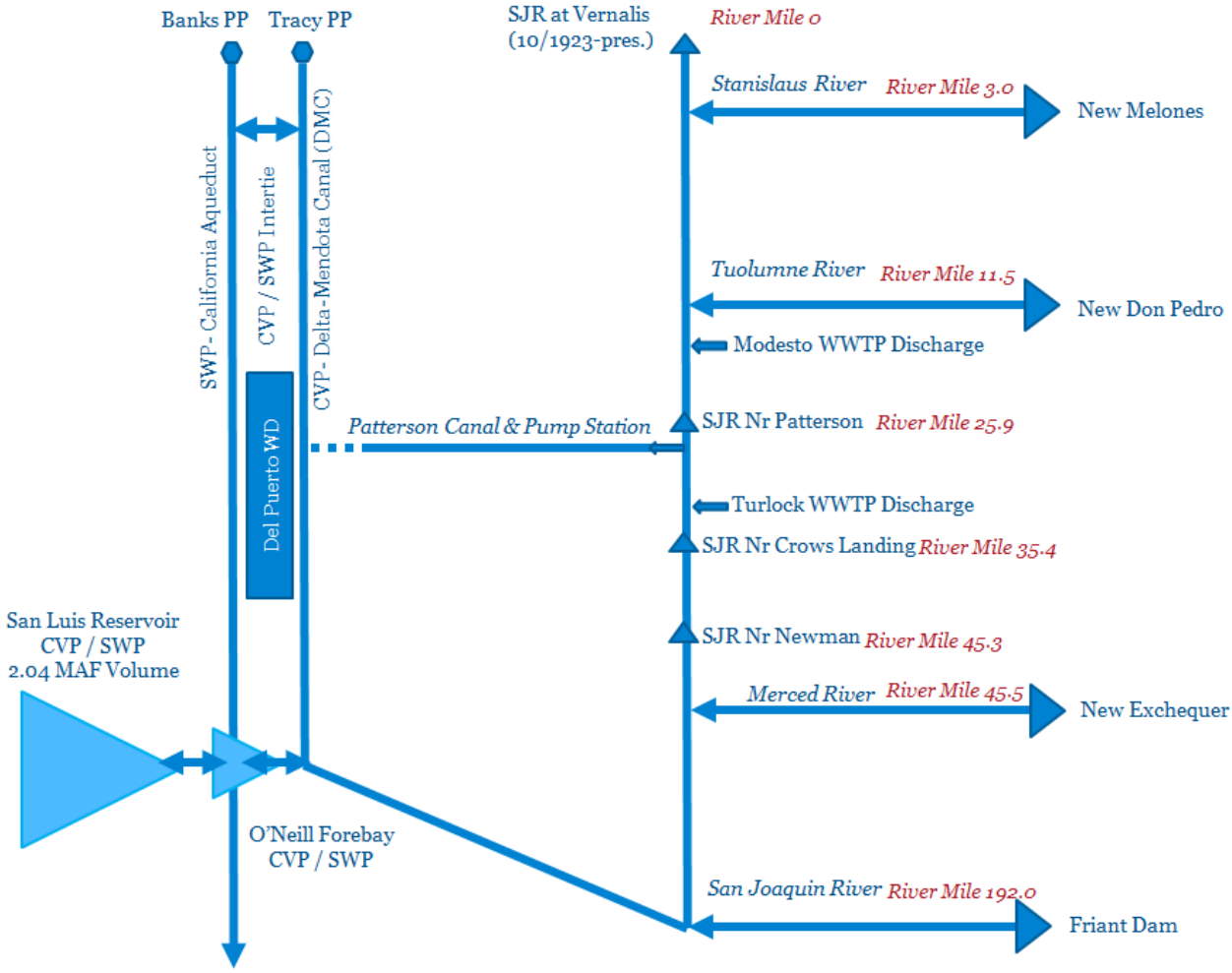
See Response to Comment 13-2, which explains that the NVRRWP is not a surface water augmentation project. In addition, the antidegradation analysis submitted to the CVRWQCB, as referenced above, does address impacts associated with discharging into the DMC, which is connected to a drinking water source at the O'Neill Forebay. This has been included as **Appendix I** in the Final EIS.

8.13.8 Response to Comment 13-8

Comment Summary: The comment requests that the schematic in Figure 3.11-1 be revised to show the intertie between the DMC and California Aqueduct near Tracy O'Neill Forebay, and San Luis Reservoir.

The intertie has been added to both **Figure 1-1** and **Figure 3.11-1** in the Final EIS, but it is important to note that the intertie is upstream of the potential recycled water discharge location on the DMC, so no NVRRWP water would be moved through the intertie to the California Aqueduct. **Figure 3.11-1** on page 3.11-2 of the Draft EIR/EIS is revised in the Final EIS as follows:

Figure 3.11-1 (REVISED): Schematic of San Joaquin River Inflows, Outflows and Monitoring Points



8.13.9 Response to Comment 13-9

Comment Summary: The comment states that the Draft EIR/EIS should provide a water quality analysis that addresses the variability of recycled water influence on DMC flows, which it suggests vary between 2 percent and 33 percent.

As noted on page 3.11-19 of the Draft EIR/EIS, water quality in the DMC after the addition of recycled water was estimated based on "*assumed recycled water flow of 82 cfs and DMC flow of 900 cfs, which roughly corresponds to the 10th percentile flow rate for the Tracy Pumping Plant. This is a conservatively large amount of recycled water (9 percent) as a percentage of the total DMC flow.*" The Antidegradation Analysis, which is presented in **Appendix I** of the Final EIS, uses two flow conditions to evaluate water quality impacts of discharge to the DMC. Extremely low flow conditions were represented by the "7Q10" flow of 397 cfs, which is the lowest 7-day average flow that occurs on average once every 10 years. Water quality effects were also calculated using the harmonic mean flow of 2,153 cfs. Both flows were calculated from DMC

flow data measured at the Jones Pumping Plant during the years 1994 – 2013. Evaluation using these flows is deemed to reasonably represent the variability of the recycled water influence on DMC flows.

8.13.10 Response to Comment 13-10

Comment Summary: The comment states that the Draft EIR/EIS should clarify that there is no precedence for accepting recycled water to augment surface water.

See Response to Comment 13-2.

8.13.11 Response to Comment 13-11

Comment Summary: The comment requests that the effluent quality data for Turlock and Modesto be presented along with the methodology for estimating blended water quality. The comment asks if blended water quality has been determined at full build-out of both wastewater treatment plants and asks if the analysis considered the worst case scenario for blended water quality, which for nitrate would occur when the discharge consists solely of recycled water from Turlock. The comment also requests an evaluation of effects on San Luis Reservoir under lower lake elevations.

As described previously, since the completion of the Draft EIR/EIS, an antidegradation analysis for the proposed NVRRWP discharge to the DMC was prepared for the CVRWQCB to provide the information it needs to determine whether the proposed discharge to the DMC is consistent with state and federal antidegradation policies. The antidegradation analysis has been incorporated in the Final EIS as **Appendix I**, and the results are summarized below.

The antidegradation analysis evaluated "near-field" and "far-field" water quality impacts. Within this study, near-field and far-field were defined as follows:

- Near-field - the point in the DMC downstream of the proposed discharge at which the discharge is fully mixed. Per the modeling conducted for this study, this point occurs between 0.5 and 3 miles downstream depending on flow conditions.
- Far-field - two locations near the San Luis Joint-Use Complex, which is approximately 32.7 miles downstream of the discharge. The first of these locations is Check 13 (which is the point where the DMC connects with the O'Neill Forebay and is also the outlet of the O'Neill Forebay to the California Aqueduct). The second of these locations is the Pacheco Pumping station, which pumps water from the San Luis Reservoir to San Benito and Santa Clara County for municipal and irrigation use.

The near-field and far-field water quality impacts scenario considered in this analysis utilized the estimated NVRRWP discharge rate of 52.9 mgd (27.5 mgd from Modesto and 25.4 mgd from Turlock) at project buildout (projected to occur in 2045) to represent future conditions. The anti-degradation analysis did not evaluate water quality impacts of a scenario in which discharge to the DMC is composed only of tertiary effluent from Turlock as this circumstance is unlikely to occur. Also, if Modesto were not discharging, total nitrate discharge to the DMC would be less than for the combined flow scenario evaluated in the antidegradation analysis. Even if the nitrate levels in the Turlock discharge were slightly higher than Modesto's tertiary effluent, if Modesto

were not discharging, the substantial reduction in the total volume of the discharge would reduce the loading of nitrate.

The far-field assessment used the historical operational data for the San Luis Joint-Use Complex from 1980 through 2012 to estimate the proportion of DMC water at the two outflows (Check 13 and the Pacheco Pumping Station); at NVRRWP buildout, water exiting the San Luis Reservoir is estimated to contain an average of 1.54 percent NVRRWP water. The far field assessment is conservative in that it assumes a "worst case" scenario in which DPWD makes zero diversions from the DMC. During the irrigation season (also generally the time in which water levels in the San Luis Reservoir are lowest), it is very unlikely that DPWD will not divert water from the DMC. Given that DPWD received only 10 percent (14,000 AFY) of its contracted allocation in 2009, 20 percent (28,000 AFY) of its contracted allocation in 2013, and 0 percent of its allocation in 2014 and 2015, it is very likely DPWD will divert the full 52.9 mgd NVRRWP allocation.

The antidegradation analysis confirms the evaluation of impacts presented in the Draft EIR/EIS, and concludes that:

> *"Overall, the very minor changes in water quality identified with implementation of the proposed project are expected to result in the following outcomes:*
> - *Project would not be expected to cause, or increase the frequency of, exceedances of applicable criteria/objectives in the DMC or downstream receiving waters, would not cause nuisance conditions;*
> - *Project would not adversely affect beneficial uses in the DMC or downstream waters; and*
> - *Project would not result in water quality less than that prescribed in state or federal policies."*

Please see the antidegradation analysis (**Appendix I**) for the water quality impacts of individual parameters.

8.13.12 Response to Comment 13-12

Comment Summary: The comment states that the Regulatory Framework section should include all regulations, plans and policies guiding the use of recycled water for indirect potable reuse, including Title 22 Regulations for Drinking Water, the California Toxics Rule, and the Federal Antidegradation Policy.

See Response to Comment 13-2, which explains that the NVRRWP would be permitted by the CVRWQCB as a discharge to the DMC. The Title 22 regulations cited in the comment are included in Reclamation's water quality standards.

As discussed in the Response to Comment 13-11, an antidegradation analysis has been prepared since the publication of the Draft EIR/EIS and is included in the Final EIS as **Appendix I**. The antidegradation analysis includes an extensive discussion of the federal and State antidegradation policies. The antidegradation analysis also references the California Toxics Rule and includes a

discussion of applicable water quality criteria including water quality objectives in the California Toxics Rule.

8.13.13 Response to Comment 13-13

Comment Summary: The comment states that DDW is required to adopt water recycling criteria for surface water augmentation by December 31, 2016, and that project proponents should consult with DDW for project approval before adoption of those criteria.

See Response to Comment 13-2. A Recycled Water Permit is not required nor is it appropriate for discharge of "recycled water" to the DMC for conveyance to DPWD.

8.13.14 Response to Comment 13-14

Comment Summary: The comment states that impacts on SWP drinking water supplies in O'Neill Forebay and San Luis Reservoir should be evaluated, and should include a discussion of the impact of nutrients on algal and macrophyte growth. The comment also asks if the Central Valley Regional Water Quality Control Board has been consulted in regard to potential discharge to the DMC.

The CVRWQCB has been consulted throughout the development of the NVRRWP. NVRRWP discharge to the DMC cannot occur without an NPDES permit from the CVRWQCB. As discussed in Response to Comment 13-11 and Response to Comment 13-12, an antidegradation analysis has been prepared for the NVRRWP in order to provide the CVRWQCB with information it needs to determine whether the proposed discharge to the DMC is consistent with state and federal anti-degradation policies. As detailed in Response to Comment 13-11, the antidegradation analysis evaluated water quality impacts of the discharge in the O'Neill Forebay and the San Luis Reservoir.

For the conservative conditions used in the antidegradation analysis, that analysis found that the NVRRWP maximum discharge of 52.9 mgd to the DMC would increase nitrate + nitrite (as N) concentrations from 0.60 mg/L to 0.78 mg/L at Check 13 and from 0.80 mg/L to 1.00 mg/L at the Pacheco Pumping Plant. These concentrations are well below the most stringent application water quality objective (10 mg/L nitrite + nitrate as N). It is also noted that the San Luis Reservoir is not 303(d) listed for nutrients. The CVRWQCB is in the process of developing a Delta Nutrient Management Strategy, which considers potential effects of algal growth on terminal drinking water reservoirs such as San Luis Reservoir. However, at this point it is not possible to determine whether small increases in nutrients in the San Luis Reservoir and O'Neill Forebay would affect algal or macrophyte growth. See Response to Comment 13-4 for discussion of nutrients.

8.13.15 Response to Comment 13-15

Comment Summary: The comment states that additional parameters should be included in Table 3.11-4 and requests evaluation of recycled water quality for perchlorate, hexavalent chromium, total organic carbon, and total phosphorus, and reiterates the request for a description of the methodology for estimating blended water quality and for determining mixing with DMC water. The comment requests evaluation of the full suite of Title 22 constituents, with a table identifying constituents with exceedance of the detection limit.

Table 3.11-4, which is presented on page 3.11-19 of the Draft EIR/EIS is intended to evaluate recycled water quality in comparison to Reclamation's water quality standards for acceptance of non-CVP water into the DMC. As such, parameters for which there are no Reclamation standards were not included in that table. Additional information is provided to address specific parameters about which the comment expresses concern, but it would not be appropriate to add those parameters to **Table 3.11-4**, because there are no Reclamation DMC water quality standards for any of the parameters mentioned in the comment.

As noted in Response to Comment 13-11, an antidegradation analysis was conducted for the NVRRWP discharge, and is included in **Appendix I** of the Final EIS. Water quality constituents were selected for quantitative near-field analyses based on two or more of the following conditions:

1. Modesto's Jennings Road Secondary Treatment Facility received a limitation for a particular constituent for discharge of tertiary treated effluent in Order No. R5-2012-0031.
2. Turlock RWQCF received a limitation for a particular constituent for discharge of tertiary treated effluent in Tentative Draft Order No. R5-2015-0027.
3. Constituent was identified as a pollutant/stressor on the 2010 CWA Section 303(d) list for a water body downstream of the proposed NVRRWP discharge.
4. Constituent for which an adopted TMDL exists in a water body downstream of the proposed NVRRWP discharge.
5. Constituent is a known water quality concern of the CVRWQCB.
6. Constituent has a water quality objective or criteria applicable to the DMC and/or downstream water body.

Seventeen parameters were ultimately selected for near-field analyses. Perchlorate, hexavalent chromium, total organic carbon, and total phosphorus were not selected for antidegradation analysis because they did not meet the criteria listed above. Each parameter mentioned in the comment is discussed below.

Perchlorate

The NPDES permits for Turlock and Modesto do not require effluent monitoring for perchlorate, thus there is no data available regarding concentrations of perchlorate in the effluent from either plant. Perchlorate has not been detected in drinking water supplies in Stanislaus County (State Water Resources Control Board 2015) and there are no known industrial sources of perchlorate within the service areas of either the Modesto or Turlock plants. As such, it is highly unlikely that perchlorate is present in the effluent from either plant.

Hexavalent chromium

Table 3.11-4 includes data for total chromium, which includes chromium-6 (hexavalent chromium) and chromium-3. Levels of hexavalent chromium thus must **always** be below the concentration of total chromium. Recycled water quality is estimated to have a total chromium concentration of 0.001 mg/L, which is below both the Reclamation criterion for the DMC (0.05

mg/L), and below the California primary MCL of 0.010 mg/L for hexavalent chromium that is cited in the comment.

Total Organic Carbon

Data for total organic carbon are not available. As with most municipal wastewater treatment plants, Modesto and Turlock have effluent limitations for BOD within their NPDES permits. Like Total Organic Carbon, BOD is a measure of the organic content of water. Modesto and Turlock consistently meet their effluent limitations for BOD. Tertiary effluent average monthly BOD effluent limitations are presently 10 mg/L for both Turlock and Modesto. BOD effluent limitations will undoubtedly be maintained in future NPDES permits for the Modesto and Turlock plants.

Phosphorus

The NPDES permit for Modesto does not require monitoring for phosphorus, so regular effluent sampling for phosphorus is not performed. The City of Turlock conducts limited annual monitoring of effluent as part of their required sampling for standard minerals. Based on annual sampling conducted from 2007 to 2009 phosphorus levels in the effluent have averaged 4 mg/L (with a range of 3.5 to 5.2 mg/L).

8.13.16 Response to Comment 13-16

Comment Summary: The comment requests an evaluation of overall water quality concerns involving CECS that are not currently regulated but may have potential impacts on public health.

As noted in the Draft EIR/EIS on page 3.11-24, "*The source water in the DMC is drawn from the Delta and multiple wastewater treatment plants discharge treated effluent to the Delta or to waterways that flow into the Delta…. Because the proposed project would not significantly change the extent of CECs in the DMC, this impact is considered less than significant*." As part of their issuance of an NPDES permit the CVRWQCB can include CEC monitoring requirements if deemed necessary. It is beyond the scope of this document to create a framework for the evaluation of impacts of unregulated CECs on public health.

8.13.17 Response to Comment 13-17

Comment Summary: The comment states that the evaluation of flow reductions in the San Joaquin River only considers average annual flows and the Draft EIR/EIS should also evaluate reductions of river flows in dry and critically dry years.

See Response to Comment 5-4 for a discussion of the impact of flow reductions in dry and critically dry years.

Chevron

Mike N. Oliphant
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Portfolio

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March 9, 2015

Stakeholder Communication – City of Modesto

Mr. William Wong
City of Modesto
Utilities Department
1010 Tenth Street, 4th Floor
Modesto, California 95354

Subject: **Comments on the North Valley Regional Recycled Water Program Draft Environmental Impact Report/Statement**
Chevron Environmental Management Company
Historical Pipeline Portfolio–Bakersfield to Richmond

Dear Mr. Wong:

On behalf of Chevron Environmental Management Company (CEMC), Leidos Engineering LLC (Leidos; CEMC contract consultant) recently reviewed the Draft Environmental Impact Report/Statement for the North Valley Regional Recycled Water Program (proposed project). The information contained in this letter may help you in planning this project and to understand something about Chevron's former pipeline operations in Stanislaus County, as residual weathered crude oil, abandoned pipeline, and asbestos-containing materials (ACM) could potentially be encountered during subsurface construction activities in these former pipeline rights of way (ROWs).

Portions of the former Old Valley Pipeline (OVP) and Tidewater Associated Oil Company (TAOC) pipelines existed in the vicinity of the proposed project area. These formerly active pipelines were constructed in the early 1900s and carried crude oil from the southern San Joaquin Valley to the San Francisco Bay Area. Pipeline operations for the OVP ceased in the 1940s, and in the 1970s for the TAOC pipelines. When pipeline operations ceased, the pipelines were taken out of commission. The degree and method of decommissioning varied: in some instances the pipelines were removed, while in others they remained in place. Because these pipelines have been decommissioned, with the majority of pipelines having been removed, they are not readily identified as underground utilities through the Underground Service Alert North System or utility surveys. Figures 1 through 3 illustrate the location of the former OVP and TAOC ROWs with respect to Project Alternatives 1 through 3 of the proposed project area. The location of the pipelines shown on Figures 1 through 3 is based on historical as-built drawings and the approximated positional accuracy of the alignments is generally +/- 50 feet. The OVP and TAOC pipelines were installed at depths of up to 10 feet below ground surface. The steel pipelines were typically encased in a protective coating composed of coal tar and ACM. 14-1

Working under the direction of State regulatory agencies, CEMC conducted risk assessments at numerous locations with known historical crude-oil release points along the former OVP and TAOC pipelines. Analytical results from these risk assessments indicated that the crude-contaminated soil was non-hazardous. Accordingly, it is likely that if soil affected by the historical release of crude oil from these former pipelines is encountered during construction

activities it may be reused as backfill on site. Properly abandoned crude-oil pipeline may be left in the ground. Parties conducting construction activities in the vicinity of these former pipeline ROWs may wish to use the information provided in this letter to help prepare for the possibility of encountering abandoned pipelines and pipeline-related ACM during the course of their work.

For more information regarding these historic pipelines, please visit http://www.hppinfo.com/. If you would like additional information, or would like to request more detailed maps, please contact Leidos consultants Mike Hurd (michael.t.hurd@leidos.com) at (510) 466-7161 or Daniel Anzelon (daniel.b.anzelon@leidos.com) at (858) 826-3316.

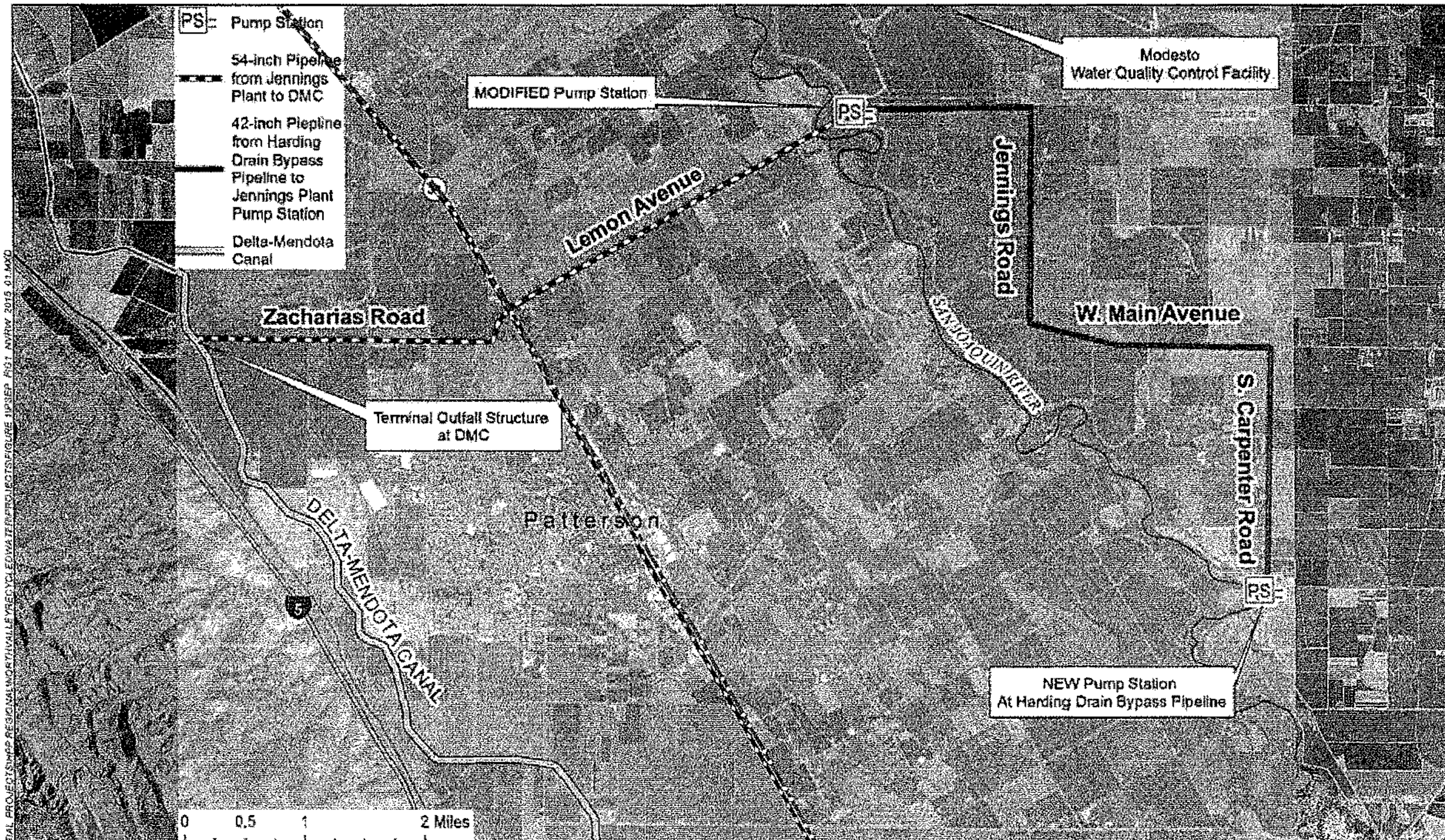
Sincerely,

Mike Oliphant

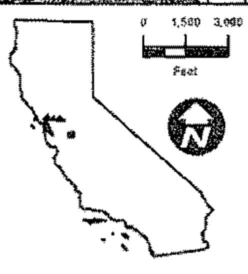
MO/klg

Enclosure:
Figure 1. Historical Pipeline Rights of Way – Combined Alignment Alternative (Alternative 1)
Figure 1. Historical Pipeline Rights of Way – Separate Alignment Alternative (Alternative 2)
Figure 1. Historical Pipeline Rights of Way – PID Conveyance Alternative (Alternative 3)

cc: Mr. Ben Lawrence – U.S. Bureau of Reclamation
1243 "N" Street, Fresno, California 93721
Mr. Mike Hurd – Leidos
1000 Broadway, Suite 675, Oakland, California 94607



Map is compiled from data sources that vary in accuracy; features may not be displayed in exact relationship to one another. Do not rely on map for legal information or underground work. Source: U.S. Department of the Interior, Bureau of Reclamation, "Figure 2-2: Combined Alignment Alternative (Alternative 1)," Draft Environmental Impact Report/Statement - North Valley Regional Recycled Water Program, January 2015.



CALIFORNIA LOCATION MAP

Historical Old Valley Pipeline (OVP)

Historical Tidewater Associated Oil Company (TAOC) Pipeline

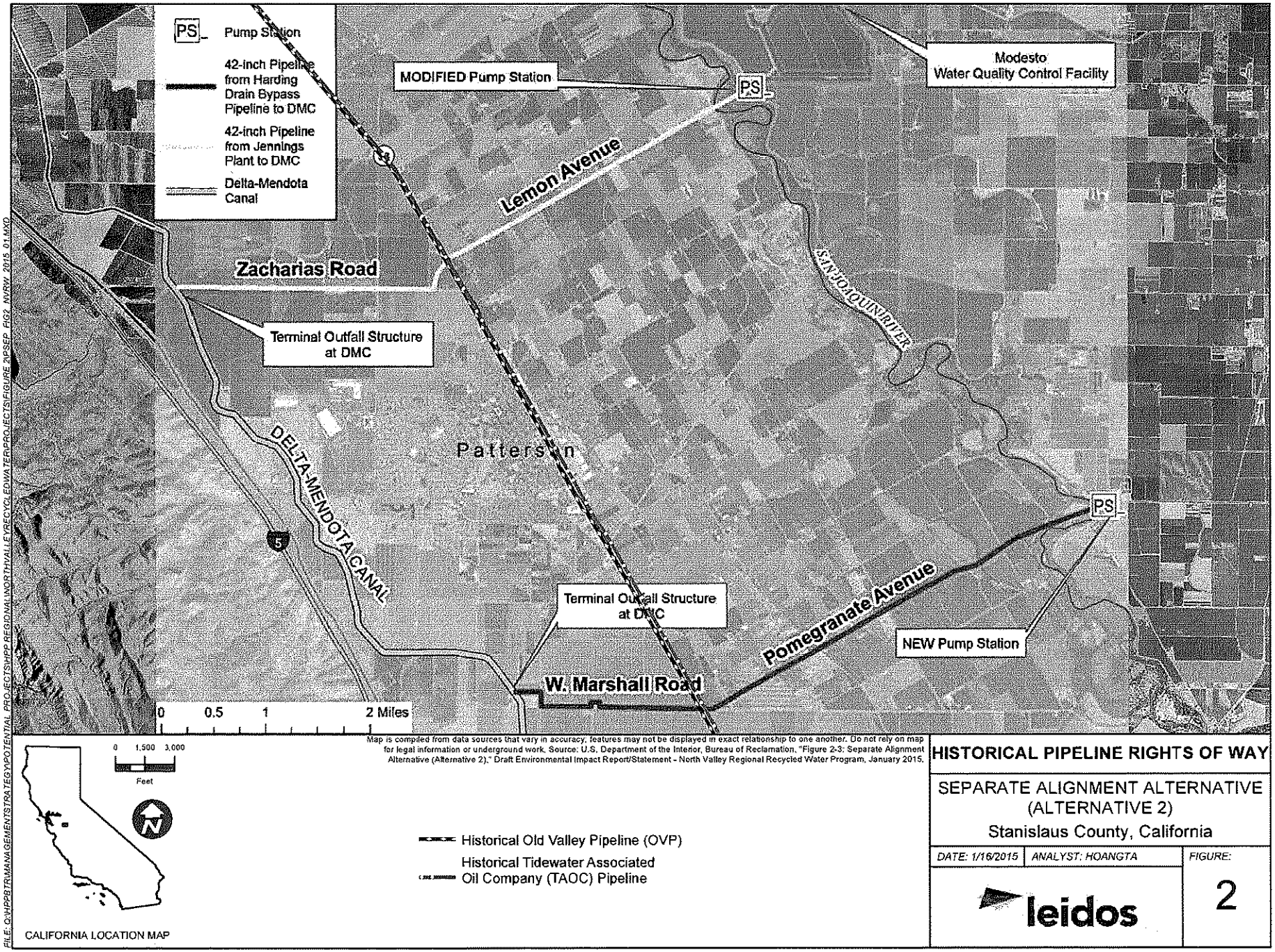
HISTORICAL PIPELINE RIGHTS OF WAY

COMBINED ALIGNMENT ALTERNATIVE (ALTERNATIVE 1)

Stanislaus County, California

DATE: 1/16/2015 | ANALYST: HOANGTA | FIGURE: 1

leidos



Map is compiled from data sources that vary in accuracy; features may not be displayed in exact relationship to one another. Do not rely on map for legal information or underground work. Source: U.S. Department of the Interior, Bureau of Reclamation, "Figure 2-3: Separate Alignment Alternative (Alternative 2)," Draft Environmental Impact Report/Statement - North Valley Regional Recycled Water Program, January 2015.

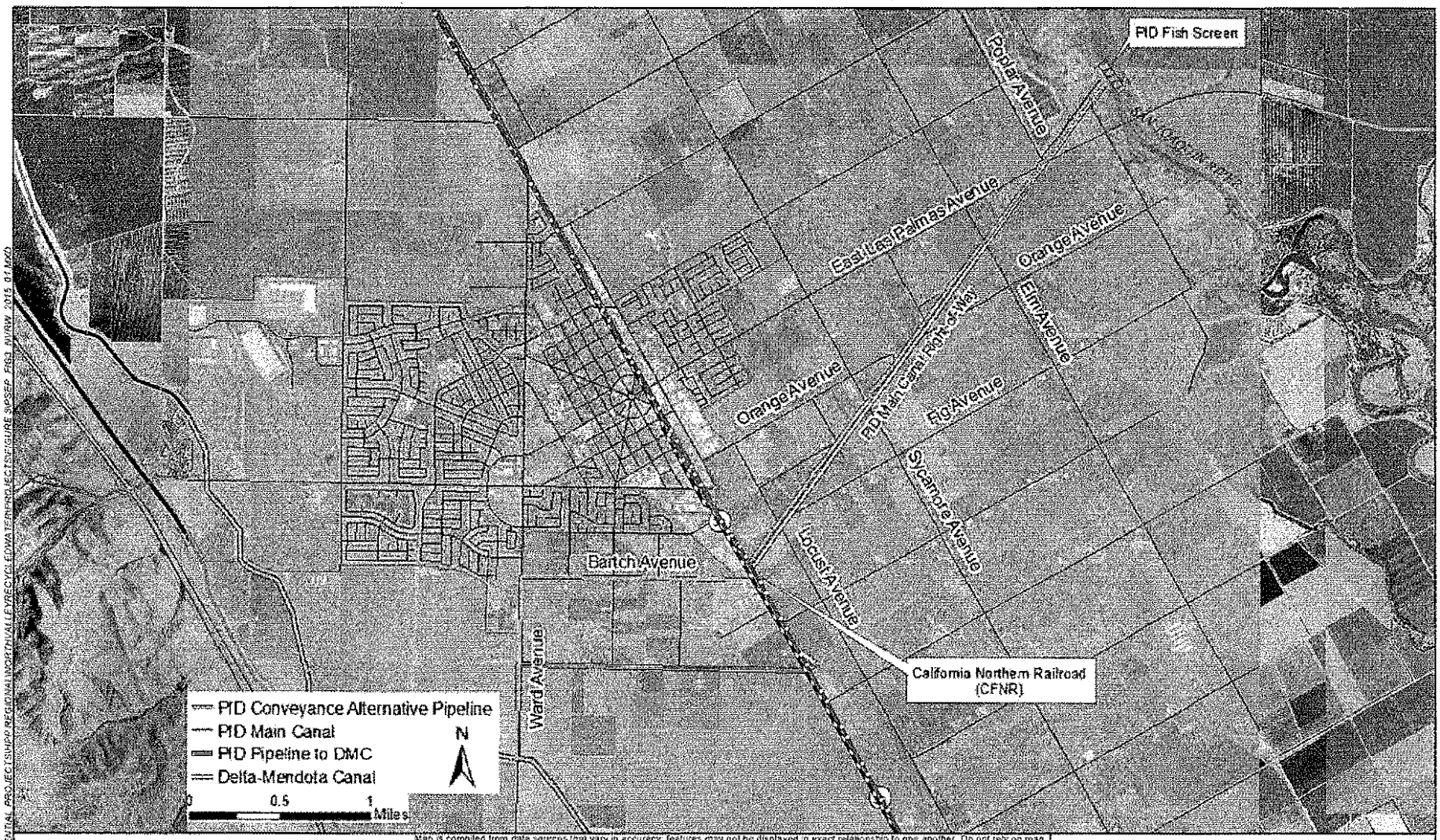
HISTORICAL PIPELINE RIGHTS OF WAY

SEPARATE ALIGNMENT ALTERNATIVE (ALTERNATIVE 2)

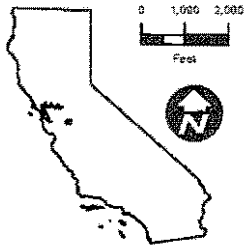
Stanislaus County, California

DATE: 1/16/2015	ANALYST: HOANGTA	FIGURE:
leidos		2

FILE: Q:\HPPBTR\MANAGEMENT\STRATEGY\POTENTIAL PROJECTS\HPP_REGIONALNORTHVALLEYRECYCLED\WATERPROJECTS\FIGURE 2\PSEP_FIG2_NVRW_2015_01.MXD



Map is compiled from data sources that vary in accuracy; features may not be displayed in exact relationship to one another. Do not rely on map for legal information or underground work. Source: U.S. Department of the Interior, Bureau of Reclamation, "Figure 2-4: PID Conveyance Alternative (Alternative 3)," Draft Environmental Impact Report/Statement - North Valley Regional Recycled Water Program, January 2015.



CALIFORNIA LOCATION MAP

Historical Old Valley Pipeline (OVP)

Historical Tidewater Associated Oil Company (TAOC) Pipeline

HISTORICAL PIPELINE RIGHTS OF WAY

PID CONVEYANCE ALTERNATIVE (ALTERNATIVE 3)

Stanislaus County, California

DATE: 1/16/2015	ANALYST: HOANGTA	FIGURE:
leidos		3

FILE: G:\HPP\PROJECTS\HPP_REGIONAL\NORTHVALLEYRECYCLED\MASTER\PROJECTS\FIGURE 3\PSEP_FIG3_RVRW_2015_01.MXD

8.14 Comment Letter 14 – Chevron

8.14.1 Response to Comment 14-1

Comment Summary: The comment provides information about the presence of abandoned Chevron pipelines that could be encountered during construction activities that cross former pipeline rights-of-way.

Reclamation and the Partner Agencies appreciate the information provided in the comment and would make sure that contractors involved in project construction are made aware of the possibility of encountering abandoned pipelines.

From: Lawrence, Benjamin
To: Robin Cort; Will Wong; Anthea Hansen; Scott Taylor; Douglas Kleinsmith
Subject: Fwd: Recycled sewer water
Date: Friday, February 06, 2015 10:13:54 AM

All,

I just received this comment on the North Valley Regional Recycled Water Program DEIS.

___
Ben Lawrence
Natural Resource Specialist
Bureau of Reclamation
South-Central California Area Office
Fresno, CA 93721
(559) 487-5039
blawrence@usbr.gov

---------- Forwarded message ----------
From: **Linda M** <martelli.linda13@yahoo.com>
Date: Fri, Feb 6, 2015 at 10:10 AM
Subject: Recycled sewer water
To: "blawrence@usbr.gov" <blawrence@usbr.gov>

As a citizen of Stanislaus county I believe that the recycled water should be available to our local farmers at a reasonable rate and not sold to outside agency. The farmers are the reason we all live in this area, they created the value from a desert and swap land. Robert Martelli
Sent from my iPad

15-1

8.15 Comment Letter 15 – Robert Martelli

8.15.1 Response to Comment 15-1

Comment Summary: Recycled water should be available to local farmers at a reasonable rate and not sold to an outside agency.

As noted on page 1-1 of the Draft EIR/EIS, "*DWPD provides irrigation water to approximately 45,000 acres of productive farmland in western San Joaquin, Stanislaus, and Merced Counties.*" A majority of the irrigated land is in Stanislaus County where DPWD landowners farm about 28,000 acres. Providing recycled water to DPWD would help to alleviate major shortfalls in water supply for local agriculture, which has suffered severe shortages due to reductions in delivery of water from the CVP. In 2014 and 2015, DPWD farmers received no water from the CVP due to drought conditions and regulatory requirements.

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