

California Regional Water Quality Control Board San Diego Region

**Response to Written Public Comments on the Draft
Basin Plan Amendment Incorporating the State Onsite
Wastewater Treatment Systems Policy, Changing the Water
Quality Objective for Nitrate for Groundwater, and Making Other Updates**

The San Diego Water Board received 10 comment letters/emails on the Draft Basin Plan Amendment and the Draft Initial Environmental Checklist from the following entities/individuals: Rancho California Water District, San Diego County Water Authority, South Orange County Wastewater Authority, Olivehain Municipal Water District, Clean Water Now, Mr. Cary Lowe, San Diego County Farm Bureau, and the City of Escondido. The “topics” identified in those written comments include the following:

- Implementation of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) and Requiring More Stringent Conditions in Sensitive Areas.
- Implementation Provisions for Landscape Irrigation with Recycled Water in Areas Where Groundwater and Surface Water are Interconnected.
- Requirement that Public Entities Assume Responsibility for Community Sewerage Systems.
- Implementation Provisions for Discharges from Agricultural and Nursery Operations in Areas Where Groundwater and Surface Water are Interconnected.
- Initial Draft Environmental Checklist.

The San Diego Water Board’s responses to comments have been organized into the “topics” referenced above and grouped by commenter under each topic.

**TOPIC: IMPLEMENTATION OF THE OWTS POLICY AND REQUIRING MORE
STRINGENT CONDITIONS IN SENSITIVE AREAS**

Rancho California Water District’s Comments (letter dated January 20, 2015)

1. **Comment -RE:Chapter 4:** RCWD has been working with the County of Riverside on its Local Area Management Plan (LAMP) but it remains the District's position that changes to the County's LAMP alone are not sufficient to fully protect water quality in the Temecula Basin. There must be protections in the San Diego Region's Basin Plan. The District therefore requests that a special section on the Temecula Basin include the proposed revisions to Chapter 4 of the Region 9 Basin Plan. That section should provide the following:

- a. **Comment:** For properties within the District's service area but outside of Groundwater Basin 9-5 (Temecula Valley Basin), as defined in Department of Water Resources Bulletin 118, Tier 1 onsite wastewater treatment systems with a 3,500 gpd discharge limit should be allowed. However, in the case where onsite wastewater treatment systems would be within 600 feet of an impaired water body, then only Tier 3 onsite wastewater treatment systems with a maximum discharge of 1,200 gpd should be allowed. All other onsite wastewater treatment systems (aside from Tier 0) should be prohibited.
- b. **Comment:** For properties within the Groundwater Basin 9-5 boundary, including the Pauba Valley groundwater sub-basin, only Tier 3 onsite wastewater treatment systems, with a maximum discharge of 1,200 gpd should be allowed.
- c. **Comment:** For properties within 600 feet of the Upper and Lower Valle De Los Caballos Recharge Basins, no onsite wastewater treatment systems should be allowed under any circumstances.

Response: The District's recommendation for allowing Tier 1 OWTS with design flows up to 3,500 gpd in areas within the District's service area but outside of the Temecula Valley Basin is consistent with the OWST Policy.¹ The San Diego Water Board, however, cannot specify Tier 3 requirements for OWTS within 600 feet of an impaired water body because no qualifying regional surface water bodies are listed in Attachment 2 of the OWTS Policy. The OWTS Policy identifies water bodies listed in Attachment 2 as water bodies for which it is believed that existing OWTS are contributors of nitrogen or pathogen to impairment of the water bodies. Additional requirements and/or siting restrictions pertaining to OWTS located near impaired water bodies should be included in the County of Riverside's LAMP.

On many issues related to potential imposition of more prescriptive requirements for siting, design or treatment for OWTS; the State Water Board² prefers to defer authority to local agencies to develop more restrictive siting, operation and/or design requirements than those specified in the OWTS Policy. More stringent local requirements including additional restrictions on sensitive areas such as properties within 600 feet of the Upper and Lower Valle De Los

¹ As defined in Department of Water Resources Bulletin 118.

² See Substitute Environmental Document (SED) for OWTS Policy:

http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_sed_061912.pdf

Caballos Recharge Basins are better addressed in the County of Riverside's LAMP.

2. **Comment -RE: Chapter 4:** If the aforementioned requested changes are not incorporated in the Region 9 Basin Plan, RCWD is concerned that the Temecula Basin will not be adequately protected and that increased growth will harm its ability to use the Temecula Basin as a water supply aquifer. Failure to adequately address this issue will render the Proposed Amendments legally deficient on several grounds. These include the following:
 - a. **Comment:** The supplemental environmental document fails to adequately consider potential water supply and water quality impacts to the Temecula Basin.

Response: To the extent this comment addresses the incorporation of the OWTS Policy into the Basin Plan, the San Diego Water Board is not required to perform additional environmental evaluation under the California Environmental Quality Act (CEQA, Public Resources Code, §§ 21000 et seq.). When it adopted the OWTS Policy in 2012, the State Water Board had prepared a supplemental environmental document pursuant to the State Water Board's certified regulatory program (Cal. Code Regs., tit. 23, section 3775 et seq.) Because this Basin Plan Amendment incorporates the OWTS Policy without substantive change to the circumstances under which the Policy was adopted and without substantive modification or new information triggering additional environmental review, the San Diego Water Board has not performed additional environmental analysis (see SED, pages 39-40). However, in any event, the San Diego Water Board staff disagrees with the comment. The San Diego Water Board's proposed Basin Plan Amendment incorporates the OWTS Policy as adopted by the State Water Board. Compliance with the OWTS Policy requires new/replacement OWTS to maintain minimum lot sizes to ensure that there will be sufficient rainfall recharge and dilution to prevent the discharge from an OWTS from causing the concentration of nitrate in groundwater to exceed 45 mg/L. In addition, the OWTS Policy specifies Tier 1 OWTS must comply with siting, operation, and design requirements (see water quality section of OWTS Policy SED).³ The OWTS Policy also allows local agencies to establish more restrictive requirements in their LAMPs in sensitive areas to protect water quality and public health. The San Diego Water Board

³ Substitute Environmental Document (SED) for OWTS Policy:
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_sed_061912.pdf

encourages that the District provide their concerns and recommendations to the County of Riverside for development of their LAMP.

- b. **Comment:** The supplemental environmental document fails to adequately consider the growth inducing impacts in the Temecula Basin.

Response: To the extent this comment addresses the incorporation of the OWTS Policy into the Basin Plan, the San Diego Water Board is not required to perform additional environmental evaluation under the California Environmental Quality Act (CEQA, Public Resources Code, §§ 21000 et seq.). When it adopted the OWTS Policy in 2012, the State Water Board had prepared a supplemental environmental document pursuant to the State Water Board's certified regulatory program (Cal. Code Regs., tit. 23, section 3775 et seq.). Because this Basin Plan Amendment incorporates the OWTS Policy without substantive change to the circumstances under which the Policy was adopted and without substantive modification or new information triggering additional environmental review, the San Diego Water Board has not performed additional environmental analysis (see SED, pages 39-40). However, in any event, the San Diego Water Board staff disagrees with this comment.

The proposed action to incorporate the OWTS Policy in the Basin Plan is not expected to increase development pressures in areas where soil conditions may be particularly well suited for installation of OWTS (e.g., high-quality agricultural lands). Similarly, local jurisdictions may annex land (e.g., rural agricultural and open space lands) to increase developable areas, changing population growth within local communities. Such actions in themselves would be considered discretionary actions subject to environmental review under CEQA. The Basin Plan or OWTS Policy requirements for installation of OWTS would not drive decisions by local governing bodies to pursue annexation of lands at the fringe of developed areas. Rather, local governing bodies would be required to weigh far-reaching variables related to growth and development. Key variables include regional economic trends, market demand for residential and nonresidential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions.

Land use planning functions are carried out by local jurisdictions through State of California planning laws. Of those laws that provide the basis for local jurisdictions to govern development within communities, the general plan (Government Code section 65300 et seq.) and state zoning law (Government Code section 65800 et seq.) are of primary use to cities and counties working to

direct the type, location, and intensity of growth in an area or region. The proposed basin plan amendment would not affect the authority or purpose of State planning law, nor would it affect the land use planning processes of local governing bodies that are undertaken in accordance with state planning law. The proposed basin plan amendment would not enable development to occur in places other than where it is allowed by applicable local agencies.

- c. **Comment:** The Proposed Amendments ignore the requirements of Water Code sections 13000 and 13241, which require the Regional Board to adopt standards and requirements based on existing and probable future uses of the waters of the State.

Response: To the extent this comment addresses the incorporation of the OWTS Policy into the Basin Plan, the revisions to incorporate the OWTS Policy are not adoption or revision of standards requiring evaluation under Water Code section 13241 or section 13000. With regard to the revisions to the Basin Plan to modify the groundwater quality objective for nitrate as NO₃, the San Diego Water Board staff disagrees. The SED includes and evaluates all the required factors specified in Water Code section 13241 (see factors evaluated in Section E.3 of the SED⁴ and listed below) associated with modification of the groundwater quality objective for nitrate. The SED contains a discussion of all of the factors specified in Water Code section 13241 as listed below:

- Past, present, and probable future beneficial uses of water.
 - Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
 - Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
 - Economic considerations.
 - The need for developing housing within the region.
 - The need to develop and use recycled water.
- d. **Comment:** The Proposed Amendments ignore the requirements of State Water Resources Control Board Resolution 68-16 and State Board Administrative Procedures Update 90-004, which prohibit degradation of waters of the State and require the Regional Board to make specific findings before authorizing activities which may cause degradation.

⁴ Draft SED available online at:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/nitrate_owts_bpa/docs/Revised_SED.pdf

Response: To the extent this comment addresses the incorporation of the State Water Board's OWTS Policy into the Basin Plan, the San Diego Water Board is not required to conduct a new antidegradation analysis. With regard to the revisions to the Basin Plan to modify the groundwater quality objective for nitrate as NO_3 , the San Diego Water Board staff disagrees. Resolution No. 68-16 requires that changes in water quality not "unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies".⁵ The requirements of the OWTS Policy were developed based upon a need to protect beneficial uses of groundwater and prevent groundwater quality from degrading above 45 mg/L nitrate as NO_3 . The Administrative Procedures Update 90-004, referenced in the comment, is guidance for protection of surface water resources associated with NPDES permitting and is not directly applicable to groundwater resources. New/replacement OWTS that comply with design and siting criteria specified in the OWTS Policy, and any additional requirements specified in the County of Riverside's LAMP, are not expected to unreasonably affect beneficial uses and ground water quality.

Tier 1 requirements ensure that OWTS meet minimum standards for protection of environmental and public health from OWTS effluent. However, Tier 1 requirements do not require supplemental treatment for the removal of nitrogen compounds from wastes discharged from OWTS. The potential impact is mitigated by the requirements of Section 7.8 of the OWTS Policy which limits OWTS in new subdivisions to the average lot size/density values in Table 1 for single-family dwelling units, or equivalent, for those units that rely on OWTS. The OWTS lot size/density values in Table 1 of the Policy range from 2.5 acres to 0.5 acres per single family dwelling unit based on annual average precipitation rates. For higher volume OWTS serving commercial and multi-family residential developments, the lot size/density requirements may not adequately protect groundwater from nitrogen-related impacts and the County LAMP may require advanced treatment to remove nitrogen as needed to protect groundwater quality.

- e. **Comment:** The Proposed Amendments ignore the requirements of State Board Resolution 88-63, which requires the Regional Board to provide heightened protection to aquifers that serve as sources for drinking water.

Response: The San Diego Water Board staff disagrees. Resolution 88-63 designates all groundwater and surface waters as being potential sources of drinking water with certain exceptions as specified in the Resolution. The

⁵ See section 1 of Resolution No. 68-16.

Resolution does not require the Regional Boards to provide heightened protection to aquifers that serve as sources for drinking water. However, compliance with the siting, operation, and design criteria in the OWTS Policy and applicable LAMPs are intended to protect sources of drinking water.

- f. **Comment:** The Proposed Amendments do not address how implementation of Basin Plan surface water quality objectives for nitrogen, are to be achieved if Basin Plan groundwater objectives for nitrate are relaxed.

Response: The San Diego Water Board staff disagrees. The proposed Basin Plan Amendment adds implementation measures to Chapter 4 of the Basin Plan to ensure protection of water quality and beneficial uses in areas where groundwater and surface water are connected. For example, a Report of Waste Discharge submitted for a new/proposed discharge from a wastewater treatment system that doesn't qualify for the OWTS waiver must include a nitrate study. The purpose of the nitrate study is to provide the San Diego Water Board with the information needed to establish discharge specifications for total nitrogen concentrations in effluent that will not cause the water quality objective for total nitrogen to be exceeded in any surface water body interconnected with receiving groundwater. Implementation measures are also included as part of the Basin Plan Amendment to address discharges from agricultural and nursery operations and from landscape irrigation operations using recycled water to ensure these discharges do not adversely affect groundwater or surface water quality.

More stringent locally developed siting restrictions and/or advanced treatment requirements may be established under Tier 2 through development of the County of Riverside's LAMP, which may serve as an additional tool to protect public health, groundwater, and surface water quality.

- g. **Comment:** The Proposed Amendments ignore the direction and authority of the State Board's onsite wastewater treatment systems policy by failing to incorporate more stringent requirements necessary to protect drinking water uses of the Temecula Basin.

Response: The San Diego Water Board staff disagrees. On many issues related to potential imposition of more prescriptive requirements for siting, design or treatment for OWTS; the State Water Board⁶ prefers to defer authority

⁶ See Substitute Environmental Document (SED) for OWTS Policy:
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_sed_061912.pdf

to local agencies to develop more restrictive siting, operation and/or design requirements than those specified in the OWTS Policy. More stringent local requirements may be developed and included in the County of Riverside's LAMP.

San Diego County Water Authority Comment (Received Via Email on February 12, 2015)

3. Comment -RE Impact of OWTS Policy on Water Quality in Surface Water Supplies

To protect groundwater and surface water quality, the policy requires Regional Board review of on-site waste treatment systems with over 10,000 gpd capacity. The County will review and approve all other septic systems under their Local Agency Management Program. The basin plan amendment does not consider the existing groundwater quality or the interface between groundwater and surface water where a groundwater basin currently contains high concentrations of nitrates in excess of 45 mg/L. Of particular concern is groundwater from the San Pasqual Basin which has underflows of high nitrate water into Hodges Reservoir. Hodges Reservoir is already impacted by high nutrient levels which are causing eutrophication of the reservoir. Although Hodges Reservoir and the San Pasqual Basin were not identified as impaired water bodies in the State Board Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems, this is a serious water quality concern. To address this impact, the Regional's Board's Basin Plan amendment should require the County's Local Agency Management Program to include special provisions for an Advanced Protection Management Program for septic systems installed within the San Pasqual Basin.

Response: The OWTS Policy and the County of San Diego LAMP contain siting and design criteria to mitigate against the groundwater quality effects of excess nitrate loading from OWTS discharges. The OWTS Policy establishes minimum lot size/density values based on annual average precipitation rates to ensure that there will be sufficient dilution and recharge from rainfall so that discharges from OWTS will not adversely affect groundwater quality. In addition, the San Diego DEH LAMP requires the use of supplemental or advanced treatment systems that must achieve a 50 percent total reduction in nitrogen when the estimated design flow of the OWTS is between 3,500 to 10,000 gpd. Use of conventional OWTS for projects with design flows between 3,500 to 10,000 gpd will only be allowed by the San Diego DEH LAMP, if the Discharger submits an evaluation to the San Diego DEH completed by

a qualified professional that demonstrates that the discharge from the OWTS will not adversely affect groundwater quality.

In addition, the proposed Basin Plan Amendment adds implementation measures to Chapter 4, which apply to various types of discharges that may contribute nitrate to groundwater where there is an interconnection with surface water (e.g., gaining streams). The proposed implementation measures are intended to prevent identified discharges from adversely affecting groundwater and/or interconnected surface water quality throughout the Region, which includes groundwater basins with high nitrate concentrations.

TOPIC: IMPLEMENTATION PROVISIONS FOR LANDSCAPE IRRIGATION WITH RECYCLED WATER

San Diego County Water Authority Comments (letter dated February 12, 2015)

1. **Comment RE:** Chapter 4: While proposed modifications to this landscape irrigation section are described within the Basin Plan modification public notice as "minor corrections to other sections regarding Waste Discharge Requirements," we believe that the proposed modifications within the "Landscape Irrigation with Recycled Water" section are problematic because they:
 - a. Do not reflect the actual potential recycled water irrigation impacts to groundwater and incorrectly overstate the contribution of recycled water irrigation to groundwater nitrate concentrations.
 - b. Do not reflect the groundwater quality issues or loads within the San Diego Region, are inconsistent with the goals of the Recycled Water Policy, and are inconsistent with findings presented within Salt and Nutrient Management Plans prepared within the San Diego Region.
 - c. Would inappropriately result in increased regulation of nitrate loads from recycled water irrigation (which has a minor, if any, influence on groundwater nitrate concentrations) while at the same time resulting in decreased water quality regulation of OWTS (which represent a greater threat to groundwater nitrate quality than recycled water use).
 - d. Do not take into account typical professional practices or management actions which result in nutrient loads from recycled water use (which is regulated by the Regional Water Board) being no different from nutrient loads from potable water irrigation (which is not regulated by the Regional Water Board).

- e. Do not foster implementation of (and in fact represent potential impediments to) recycled water goals and objectives established within the 2013 California Water Plan, the 2009 Recycled Water Policy and the 2013 San Diego Water Board Practical Vision.

Response: The Amendment adds implementation provisions to Chapter 4 of the Basin Plan to protect surface water quality in areas where groundwater and surface water are interconnected. These implementation provisions pertaining to recycled water discharges in Chapter 4 have been modified as follows to address concerns expressed by the San Diego County Water Authority.

Landscape Irrigation with Recycled Water

Irrigating landscapes with recycled water is critical to developing a local, sustainable water supply for the Region. Recycled water that percolates past the landscape root zone, however, can be a source of nitrate to ground water and interconnected surface water. The State Recycled Water Policy establishes criteria that landscape irrigation projects must meet to be eligible for streamlined permitting.

~~The following criteria will protect surface water quality as well as ground water quality and should be included in Master Reclamation Permits, Water Recycling Requirements, and WDRs (permits) for landscape irrigation projects that use recycled water. Adherence to these criteria by end users will limit nutrient loading to groundwater and protect interconnected surface water. The criteria are:~~

- ~~• Recycled water agencies must ensure recycled water is applied in amounts and at rates as needed for the landscape (i.e., at agronomic rates and not when the soil is saturated). New and revised recycled water permits must require that the recycled water agency prepare and submit an operations and management plan to the Regional Board, that may apply to multiple sites, that specifies the agronomic rate(s) and describes a set of reasonably practicable measures to ensure compliance with this requirement, which may include the development of water budgets for use areas, site supervisor training, periodic inspections, tiered rate structures, the use of smart controllers, or other appropriate measures.~~

~~Recycled water agencies must ensure their discharges comply with any applicable salt and nutrient management plan.~~

- ~~• Recycled water agencies must ensure appropriate use of fertilizers that takes into account the nutrient levels in the recycled water. Recycled water agencies must monitor and communicate to the users the nutrient levels in their recycled water. Recycled water site supervisors shall be responsible for determining~~

~~onsite fertilizer needs and shall complete training and education in compliance with recycled water agency rules and regulations to: (1) Minimize the potential for runoff or over-irrigation and, (2) Take into account the nutrient value of the recycled water.~~

- Application in amounts and at rates as needed for the landscape (i.e., at agronomic rates and not when the soil is saturated). Each irrigation project shall be subject to an operations and management plan, that may apply to multiple sites, provided to the Regional Board that specifies the agronomic rate(s) and describes a set of reasonably practicable measures to ensure compliance with this requirement, which may include the development of water budgets for use areas, site supervisor training, periodic inspections, tiered rate structures, the use of smart controllers, or other appropriate measures.
- Compliance with any applicable salt and nutrient management plan.
- Appropriate use of fertilizers that takes into account the nutrient levels in the recycled water. Recycled water producers shall monitor and communicate to the users the nutrient levels in their recycled water.

2. **Comment -RE:** Chapter 4 (Nitrogen Loading Issues): It is inconsistent for the Basin Plan to reflect a need for increased regulation of nitrate loads in recycled water irrigation, while at the same time proposing a reduction in Regional Board oversight and water quality regulation of OWTS discharges (which represent a greater threat to groundwater quality than recycled water irrigation in unsewered portions of the Region). Recycled water is applied to the land surface, and irrigated nutrient demands of landscape irrigation can be equal or greater than the available nitrogen concentrations in the irrigation supply. As a result, recycled water users (particularly those removing cuttings) typically periodically apply fertilizers to satisfy additional vegetation nutrient demands of the irrigated vegetation. Recycled water users are required to undergo training and are required to implement professional management practices under adopted recycled water agency Rules and Regulations established pursuant to county and Regional Water Board requirements. In accordance with these required practices (and as a result of water conservation guidance and directives issued by the state, county and local governments), recycled water irrigation operations operate at a high irrigation efficiency, resulting in a minimal amount of water and significantly reduced nutrient loads percolating downward to groundwater.

Response: The proposed implementation provisions (Chapter 4) for irrigation with recycled water have been modified in response to the Water Authority's comments, and have also been made consistent with the Recycled Water Policy (see changes

to Chapter 4 of Basin Plan-Landscape Irrigation with Recycled Water). As modified, these provisions place no higher a burden on recycled water end users than the burden imposed by the Recycled Water Policy.

South Orange County Wastewater Authority's Comments (Letter Dated February 12, 2015)

3. **Comment :** The proposed Basin Plan Amendments to Chapter 4, which add implementation provisions for the nitrate groundwater quality objective to protect surface water quality where groundwater and surface water are interconnected (the "Proposed Amendments"), directly impact SOCWA's recycled water program and SOCWA's Member Agencies which utilize recycled water to serve their customers. SOCWA believes the provisions are (1) inconsistent with the State's Recycled Water Policy and SOCWA's Salt and Nutrient Management Plan ("SNMP"); (2) redundant of the requirements set forth in the Recycled Water Policy and SNMPS' required Monitoring and Assessment Plan; and (3) an unnecessary over regulation of water Use Sites with minimal, if any, resulting benefit to water quality.

Response: The proposed revisions to Chapter 4 of the Basin Plan include implementation provisions intended to protect surface water quality in areas where groundwater and surface water are interconnected. The implementation provisions, pertaining to recycled water discharges outlined in Chapter 4 of the Basin Plan are based on the State Water Board's criteria for streamlined permitting specified in the Recycled Water Policy. These provisions have been modified to address SOCWA's concerns and similar concerns expressed by the San Diego County Water Authority (see response to San Diego County Water Authority comment 1 above). As modified, these provisions place no higher a burden on recycled water end users than the burden imposed by the Recycled Water Policy. The San Diego Water Board plans to address additional provisions for implementation of the Recycled Water Policy in a future Basin Plan Amendment.

4. **Comment:** SOCWA and its member Agencies are also extremely concerned about the arbitrary imposition of total nitrogen limits in WDRs because Camp Pendleton recently received a limit of 10 mg/L of total nitrogen in its Master Reclamation Permit (Tentative Order No. R9-2014-006). This limit of 10 mg/L may be difficult, highly costly, and/or impossible to meet for POTWs since most of the existing treatment plants are not designed to remove nitrogen. The nitrogen in recycled water is assimilated by plant life within the first few feet of the soil. This occurs well before the recycled water reaches the groundwater, as evidenced by the very low average nitrate levels documented in our recently completed SNMP.

Response: Camp Pendleton represents a special case because the base disposes of unused recycled water in percolation ponds. The total nitrogen limit in the WDRs is for the protection of groundwater quality below and downgradient these ponds. Camp Pendleton will continue to dispose of recycled water in these ponds until a recycled water distribution system is installed on the northern portion of the base. It is expected that most of the nitrogen in the wastewater effluent will be in the form of nitrate.⁷ The discharge specification for nitrogen is based upon the applicable groundwater quality objective for nitrate for the San Mateo Canyon and San Onofre Hydrologic Areas, set at 45 mg/L as nitrate (NO₃), which is approximately equivalent to 10 mg/L as nitrate-N.

5. **Comment :** As discussed above, pursuant to the Recycled Water Policy, "the State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects." While the Proposed Basin Plan Amendments require recycled water agencies to "ensure that their discharges comply with any applicable salt and nutrient management plan," they add many other requirements based on the criteria for streamlined permitting of irrigation projects under the Recycled Water Policy including:
- Submit an operations and management plan that specifies agronomic rate(s) and describes reasonably practicable measures to ensure recycled water is applied in amounts and at rates as needed for the landscape which may include:
 - o Development of water budgets for use areas;
 - o Site supervisor training;
 - o Periodic inspections;
 - o Tiered rate structures;
 - o The use of smart controllers; and
 - o Other appropriate measures
 - Ensure appropriate use of fertilizers that takes into account the nutrient levels in recycled water.

⁷ The effluent that flows from the septic tank into a drain field contains most of the nitrogen (N) as ammonium or in organic forms. As a rule, soils have very little capacity to adsorb N, so transformations that remove N from the soil are important. In the unsaturated part of the drain field, forms of N present in septic tank effluent undergo several possible transformations. Organic nitrogen in septic system effluent is typically converted to ammonium-N through the process of ammonification, which may take place in either aerobic or anaerobic soil conditions. Once organic-N has been converted to ammonium-N, the fate of the ammonium-N will most likely be converted to nitrate-N through nitrification although the availability of oxygen in the unsaturated zone soil. Also see Metcalf and Eddy, 2003, Wastewater Engineering Treatment and Reuse, McGraw-Hill: New York, 1819p.; and EPA Onsite Wastewater Treatment Systems Manual, 2003, EPA/625/R-00/008.

- Monitor and communicate to the users the nutrient levels in their recycled water. As recognized by the current language, these criteria are meant to apply to irrigation projects seeking streamlined permitting pursuant to the Recycled Water Policy; they are not meant to apply to Master Reclamation/Water Recycling/WDR Permits.

Furthermore, these proposed requirements are inconsistent with the State Board's finding that salt and nutrient issues are best addressed through the development of SNMPs and the Proposed Amendments would impose requirements that would be applicable to individual recycled water projects. For example, pursuant to the Proposed Amendments, recycled water agencies may be required to set, track, and report the agronomic application rates of nitrogen on each individual Use Site, provide formal site supervisor training, and require the use of smart controllers. These requirements would essentially require recycled water agencies to micromanage Use Sites, which is impracticable, and they may interfere on a larger scale with overall operations and resource management of these agencies (e.g., water budgets and tiered rate structures).

However, SOCWA and its Member Agencies lack both regulatory authority and adequate resources to track the application of fertilizers at recycled water Use Sites and recycled water agencies may not be able to get cooperation from recycled water users to disclose fertilizer usage rates.¹ Even if SOCWA and its Member Agencies were able to collect this information, with over 7,200 Use Sites (nearly 3,000 in Region 9), the Proposed Amendments would be extremely onerous, time consuming, and expensive for SOCWA and all its member agencies currently or planning to use recycled water. The costs of collection would far outweigh the usefulness of the information since the accuracy of the data could not be verified.

These requirements are also of questionable value given all the nutrient monitoring and reporting that are already required by SOCWA's SNMP as described above. The purpose of SNMPs are to "address and implement provisions, as appropriate, for all sources of salt and/or nutrients to groundwater basins, including recycled water irrigation projects and groundwater recharge reuse projects" and to monitor water quality particularly where "groundwater has connectivity with adjacent surface waters." This purpose mirrors the objective of the Proposed Amendments which is to "add implementation provisions for the nitrate groundwater quality objective to protect surface water quality where groundwater and surface water are interconnected." As such, SNMPs should be and, in fact, are already accomplishing the objectives of the Proposed Amendments.

In addition, SOCWA's Member Agencies already have rules and regulations in place to prevent over-application of recycled water, perform periodic inspections of Use Sites, and educate their Use Site supervisors on the nutrient content and application of recycled water. We have found this education to be effective in optimizing recycled water use. As such, the Proposed Amendments are redundant and unnecessary.

Through implementation of our SNMP, SOCWA has shown that the total nitrogen in our groundwater is well below drinking water standards. See Attachment 2. Yet if the Proposed Amendments are adopted, SOCWA would potentially still need to track application rates of nitrate on an individual Use Site basis, provide Use Site supervisor training, etc. Given the State Water Board's goal of promoting greater recycled water use, it certainly could not have intended for Regional Boards to add these layers of redundant regulation to recycled water programs. Rather than facilitate the increased production of recycled water, the Proposed Amendments would, in effect, serve as an impediment to achieving the State's recycled water goals. Thus, SOCWA and its Member Agencies suggest that the requirements under "Landscape Irrigation with Recycled Water" should not be applicable to recycled water agencies with approved SNMPs with Monitoring and Assessment Plans which already address nitrogen in recycled water or Tier D or Sub Tier D Basins where SNMPs were not deemed appropriate pursuant to Region 9 Salt and Nutrient Management Plan Guidelines.

Response: The proposed revisions to Chapter 4 of the Basin Plan include implementation provisions intended to protect surface water quality in areas where groundwater and surface water are interconnected. The implementation provisions, pertaining to recycled water discharges outlined in Chapter 4 of the Basin Plan are based on the State Water Board's criteria for streamlined permitting specified in the Recycled Water Policy. These provisions have been modified to address SOCWA's concerns and similar concerns expressed by the San Diego County Water Authority (see response to San Diego County Water Authority comment 1 above). As modified, these provisions place no higher a burden on recycled water end users than the burden imposed by the Recycled Water Policy. The San Diego Water Board plans to address additional provisions for implementation of the Recycled Water Policy in a future Basin Plan Amendment.

6. **Comment:** Furthermore, while SOCWA understands the Regional Board's concern regarding the groundwater pathway for nitrogen, we believe that the wording of the Basin Plan Amendments is too broad and invites the arbitrary unnecessary imposition of total nitrogen discharge limits in WDRs. The current proposed

language is as follows:

"Where **potential** discharges of total nitrogen to surface waters are determined to exist via the ground water pathway, the Regional Board may and **most likely will** adopt WDRs that require a reduced concentration in the proposed discharge effluents, reduction in total nitrogen loads, and or compliance with more stringent water quality objectives in receiving surface waters for the protection of beneficial uses of water resources."

Proposed Basin Plan Amendments at 4-9 (emphasis added).

This language effectively directs ("most likely will") the Regional Board to impose reduced total nitrogen discharge limits when it determines that there may be "**potential** discharges of total nitrogen to surface water." However, applying nitrogen effluent limits to recycled water would not necessarily improve water quality, yet it could result in the unintended consequence of inhibiting the planning and implementation of additional recycled water use in the future.

Response: In areas where groundwater and surface waters are interconnected groundwater can be a significant source of the total nitrogen load to surface waters. The San Diego Water Board may adopt WDRs that require a reduced concentration in the proposed discharge effluents, reduction in total nitrogen loads, and or compliance with more stringent water quality objectives in receiving surface waters in these areas to protect surface water quality. If there is sufficient information in the RWD to demonstrate that the discharge will not cause the water quality objective for nitrate to be exceeded in the groundwater, and that the discharge will not adversely affect surface water quality, more stringent nitrate discharge specifications will not be included in the WDR prescribed. A requirement for an operation and management plan implemented by end users can eliminate the need for discharge specifications for nitrogen in WDRs because vegetation in end use sites that take up nitrogen in recycled water applied to land.

7. **Comment :** Establishing total nitrogen effluent limits of 10 mg/L in Recycled Water Waste Discharge Requirement Orders is wholly unnecessary given that the nitrogen in recycled water is assimilated by plant life in the first few feet of soil, well before it reaches groundwater. As discussed above, the total nitrogen in local groundwater is well below drinking water standards. Furthermore, even if recycled water agencies could meet this effluent limit (at a tremendous cost), Use Site operators would make up for the lower nitrogen content in recycled water by simply applying more fertilizer to meet the vegetative nutrient demand. As such,

imposing such stringent nitrogen effluent limit would not result in any discernible water quality improvement.

In summary, we believe that the outreach and training that is already being implemented by our agencies coupled with our existing Monitoring and Assessment Plan pursuant to our SNMP have been extremely effective in reducing nitrogen in groundwater and surface water. As currently written, the Proposed Amendments will add unnecessary and expensive hurdles that will almost certainly constrain overall production and use of recycled water in contradiction of the State Water Resources Control Board's Recycled Water Policy goals. As such, we respectfully ask that you reconsider the Proposed Amendments and adopt the changes proposed by San Diego County Water Authority and its member agencies.

Response: At this time, the proposed action is not intended to amend the Basin Plan to incorporate the requirements of the State Water Board Recycled Water Policy. As discussed above, establishing 10 mg/L total Nitrogen as a discharge specification for nitrogen in Camp Pendleton's Master Reclamation Permit was needed because there is no uptake of nitrogen by plants in the percolation ponds used for recycled water disposal. The implementation provisions, pertaining to recycled water discharges outlined in Chapter 4 of the Basin Plan, are consistent with the State Water Board's criteria for streamlined permitting specified in the Recycled Water Policy. These provisions have been modified to address SOCWA's concerns and similar concerns expressed by the San Diego County Water Authority (see response to San Diego County Water Authority comment 1 above). The San Diego Water Board plans to address additional provisions for implementation of the Recycled Water Policy in a future Basin Plan Amendment.

Olivenhain Municipal Water District's Comment (Letter Dated February 12, 2015)

8. **Comment:** Olivenhain Municipal Water District has reviewed and discussed the proposed Basin Plan modifications with our fellow Region 9 recycled water agencies. In concurrence, we support the Water Board's intent to modify the Basin Plan to address the 2012 State Water Resources Control Board Onsite Wastewater Treatment System (OWTS) Policy and the 2009 Recycled Water Policy.

However, please note, we agree with all comments regarding language changes to the currently proposed "Landscape Irrigation with Recycled Water" section of Chapter 4 (Implementation) as stated in the attachment, "Recycled Water Agency Comments on OWTS Basin Plan Revisions- Feb 12 2015 FINAL".

Response: See responses to the San Diego County Water Authority comments above.

Clean Water Now's Comment (Letter dated February 18, 2015)

9. **Comment:** Clean Water Now sent a letter of in support of the conclusions and recommendations of the comment letters sent by SOCWA and the San Diego County Water Authority.

Response: See responses to SOCWA's and the San Diego County Water Authority's comments above.

Comment on Trace Nutrients

San Diego County Water Authority Comments (letter dated February 12, 2015)

Comment RE Chapter 4 (Trace Nutrients): In addition to addressing how nitrate within OWTS and recycled water irrigation operations are to be regulated, it is worthwhile for the Basin Plan to address the regulation of trace nutrients. Iron and manganese are two key trace nutrients found both in recycled water supplies and OWTS discharges. Unlike nitrate, which is a primary (health-based) drinking water standard, iron and manganese are secondary (aesthetic) consumer acceptance standards established to minimize staining in plumbing fixtures. Iron and manganese groundwater quality objectives are typically established at the secondary consumer acceptance drinking water standards of 0.3 mg/L and 0.05 mg/L respectively.

Iron and manganese concentrations in OWTS wastewater and recycled water supplies periodically exceed these limits. Unlike OWTS discharges which occur below the ground surface and may directly impact groundwater quality, recycled water irrigation operations result in vegetative uptake of iron, manganese and other trace nutrients, reducing the impact on groundwater quality. As documented in numerous studies conducted within the San Diego Region, this trace nutrient uptake limits the amount of iron and manganese that is available for recharging groundwater.⁸ As a result, recycled water effluent limits for iron and manganese can be established at levels that are slightly higher than the corresponding groundwater quality objectives to account for the

⁸ See City of Carlsbad *Report of Waste Discharge for Revised Iron and Manganese Limits* (June 2011), City of Escondido *Report of Waste Discharge for Revised Waste Discharge Requirements, Hale Avenue Resource Recovery Facility* (January 2003), City of San Clemente *Manganese Assessment, City of San Clemente Water Reclamation Facility* (April 2002). Similar results are reported in January 2015 by the City of San Diego in *Draft Amendment to Report of Waste Discharge Permit 93-03* (North City Water Reclamation Plant).

assimilative capacity effects of trace nutrient uptake. The Basin Plan section on "Landscape Irrigation with Recycled Water" should address this effect and how trace nutrients in recycled water irrigation supplies are to be regulated.

Response: The Basin Plan Amendment focuses on nitrogen. Modifying the Basin Plan to include the criteria to be used for establishing iron and manganese discharge specifications for recycled water discharges is outside the scope of this Basin Plan Amendment. Please note, however, that nutrient uptake of iron and manganese by landscape vegetation is acknowledged in the *Guidelines, Salinity/Nutrient Management Planning in the San Diego Region (9)* that were endorsed by the San Diego Water Board in 2010.

Dischargers seeking to modify their current discharge specifications for iron or manganese may include supporting information/analyses in specific RWDs submitted for review by the San Diego Water Board. For the San Diego Water Board to adopt WDRs establishing effluent limits for iron and manganese at levels that are higher than the corresponding groundwater quality objectives, the RWD submitted must contain acceptable information to demonstrate that there is sufficient uptake of iron and manganese by vegetation, and adequate assimilative capacity in the groundwater to prevent concentrations of iron and manganese in the groundwater from exceeding the corresponding water quality objectives.

TOPIC: PUBLIC ENTITIES ASSUMING RESPONSIBILITY FOR COMMUNITY SEWERAGE SYSTEMS

Cary Lowe's Comment (Letter Dated February 9, 2015)

- 1. Comment RE Chapter 4 (Community Sewerage Systems):** We request that you additionally consider eliminating a provision which presents a significant obstacle to the development of privately owned and operated on-site wastewater treatment and recycling systems. The Civita project is planning to construct a facility of this kind. The current prohibitory provision is found at page 4-26 of the Basin Plan, in the portion of Chapter 4 addressing Guidelines for New Community and Individual Sewerage Facilities. Specifically, we are concerned about the passage which reads:

"Community Sewerage Systems- The Regional Board will regulate all discharges of wastes from community sewerage systems. The Regional Board will require a RWD to be filed for all proposed waste discharges which involve the use of new community sewerage systems. Before the Board will consider the RWD to be complete, the following requirements must be met:

“A public entity must assume legal authority and responsibility for the ownership, operation and maintenance of the proposed wastewater treatment and disposal system. The RWD must be submitted by the public entity”.

Response: The requirement that public entities assume responsibility for ownership, operation, and maintenance of community sewerage systems has been removed from the Basin Plan. Nonetheless, the San Diego Water Board strongly prefers that a public entity assume legal authority and responsibility for the ownership, operation, and maintenance of community sewerage systems. This is because public entities provide permanence, expertise, and financial solvency. However, in the event that a private entity proposes to assume responsibility for ownership, operation, and maintenance of a community sewerage system, the RWD must demonstrate to the satisfaction of the San Diego Water Board that the following minimum criteria are met:

- The system will be designed, constructed, and installed to be capable of preventing pollution or contamination of the waters of the State or creating nuisance for the duration of the development;
- The system will be operated, maintained and monitored by certified operators having appropriate training and licenses; and
- The responsibility for the system must be clearly and legally assumed by an entity with the financial and legal capability to assure that the system provides protection to the quality of the waters of the State for the duration of the development.

Consistent with the Practical Vision, the San Diego Water Board is committed to working with interested stakeholders in developing approaches to increase the Region’s use of recycled water. The following section of Chapter 4 of the Basin Plan has also been modified to help further clarify the San Diego Water Board’s preference for public ownership, operation, and maintenance of community sewerage systems:

Community Sewerage Systems

The Regional Board will regulate all discharges of wastes from community sewerage systems. The Regional Board will require a RWD to be filed for all proposed waste discharges which involve the use of new community sewerage systems. ~~Before the Board will consider the RWD to be complete, the following requirements must be met:~~

~~• A public entity must assume legal authority and responsibility for the ownership, operation, and maintenance of the proposed wastewater treatment and disposal system. The RWD must be submitted by the public entity.~~

- The RWD must include the following:
 - ✓ A final Environmental Impact Report or Negative Declaration covering the total project, unless categorically exempt, prepared and approved by the local lead agency pursuant to the California Environmental Quality Act (CEQA) of 1970 (as amended) and Chapter 3, Division 6, Title 14, of the CCR (as amended). In the approval process the Environmental Impact Report or Negative Declaration must be circulated through the State Clearinghouse; and
 - ✓ Operation, maintenance, revenue and contingency plans for the wastewater treatment and disposal facilities or a commitment by the public entity project proponent -to prepare such plans and submit them to the Regional Board at least 60-days prior to the initiation of discharge.

The Regional Board strongly prefers that a public entity assume legal authority and responsibility for the ownership, operation, and maintenance of the proposed wastewater treatment and disposal system. This is because public entities provide permanency, expertise, and financial solvency. In the absence of a satisfactory RWD, the discharge will be prohibited.

San Diego County Water Authority Comment (Received Via Email on February 12, 2015)

2. **Comment RE Additional Amendment to Encourage Recycled Water Use:** This basin plan amendment addresses both on site waste treatment systems and recycled water. Currently there is a requirement that only a public entity may assume legal authority and responsibility for the ownership, operation and maintenance for a proposed community wastewater treatment and disposal system (Page 4-31). To increase the use of recycled water in the region and overcome impediments to distributed recycling systems, we would encourage you to include an amendment that removes the requirement to have a public entity management system in cases where small scale on-site waste treatment is treating water for beneficial recycled water use.

Response: The subject section has been modified to clarify that the San Diego Water Board strongly prefers that a public entity assume responsibility for ownership, operation, and maintenance operation of community sewage systems (see response to Cary Lowe's comment above). The San Diego Water Board can allow private entities to assume responsibility for ownership, operation, and

maintenance of community sewerage systems provided certain criteria is met (see applicable criteria in response to Cary Lowe's comment above).

**TOPIC: IMPLEMENTATION PROVISIONS FOR DISCHARGES FROM
AGRICULTURAL AND NURSERY OPERATIONS**

San Diego County Farm Bureau Comments (Letter dated February 12, 2015)

1. **Comment:** Chapter 4, Implementation, discusses discharges to ground water from agricultural and nursery operations at page 4-9. This section references the Agricultural Expert Panel (Panel) convened by the State Water Board. This section goes on to discuss the work done by the Panel. It is our understanding that while the Panel did submit a report of recommendations; those recommendations were not adopted by the State Water Board and are currently under consideration. The State Water Board has stated that it will, in the near future, convene a public participatory process to review the recommendations before possible adoption. It would be our suggestion to delete any reference to the Panel's recommendations until the State Water Board completes its work, otherwise the San Diego Regional Water Quality Control Board may be out of step with the State Water Board.

Response: The San Diego Water Board agrees that the recommendations of the Agricultural Panel are currently being considered by the State Board. The references to the Agricultural Expert Panel's recommendations will not be deleted from the Basin Plan Amendment because they are not mandatory requirements but guidelines included to show the importance of implementing management measures at agricultural operations to protect water quality.

2. **Comment:** That section also includes the statement, "WDRs for agricultural and nursery operations in the San Diego Region should require dischargers to implement appropriate management measures to ensure that their operations do not adversely affect ground water or surface water quality." We agree on the appropriateness of that statement and expect it will serve as a guideline in the development of the General Waste Discharge Requirements for Agricultural and Nursery Operations (GWDR) that the San Diego Regional Water Quality Control Board is expected to adopt. However, following that statement is a collection of management measures preceded by "Management measures may include but are not limited to the following:" We do question the need to include specific management measures in the Basin Plan Amendment, especially when they "may" be included in the GWDR. Our suggestion would be to delete specific reference to management measures and save them for inclusion in the GWDR when their

reference will be specific and there will be no confusion in the Basin Plan as to what will or won't be included.

Response: In areas where groundwater and surface waters are interconnected groundwater can be a significant source of the total nitrogen load to surface waters. The proposed implementation measures may be applied to discharges to groundwater from agricultural and nursery operations in areas where groundwater and surface waters are interconnected, and are intended to serve as guidelines for San Diego Water Board staff writing individual or general waste discharge requirements for agricultural operations.

TOPIC: INITIAL DRAFT ENVIRONMENTAL CHECKLIST

City of Escondido's Comments (Letter Dated August 12, 2014)

1. **Comment:** The Draft Environmental Checklist discusses Reasonable Methods of Compliance including manure storage, advanced Onsite Wastewater Treatment Systems (OWTS), and regular inspections of Best Management Practices at various facilities. The City requests clarification as to which agency will ultimately be responsible for inspections and enforcement; how this activity will be funded; and on what basis enforcement action can be taken.

Response: The Draft Environmental Checklist refers to inspections that are to be conducted by dischargers to identify potential sources of pollutants and locations where discharged wastes may potentially impact waters of the state. Routine inspection and maintenance is an efficient way to prevent potential nuisance situations (e.g., odors, mosquitoes, weeds, etc.), to minimize or eliminate the potential for erosion and pollutants to impact waters of the state, and to reduce the need for repair maintenance. The San Diego Water Board will conduct periodic compliance inspections for facilities regulated under WDRs and waivers. The applicable local county agency may conduct inspections of sites using OWTS and agricultural operations permitted or licensed by the County. Enforcement actions will presumably be done in the context of applicable permits and as follow-up to agency inspections.

2. **Comment:** Please clarify how the Salt & Nutrient Management Plans (SNMPs) will account for this increased allowed concentration of nitrates in the groundwater system, and how this may impact surface water quality objectives for nitrate and Total N.

Response: Individual Salt and Nutrient Management Plans (SNMPs) have been submitted to the San Diego Water Board for the Lower Santa Margarita, Escondido, Temecula, San Juan, San Pasqual, Gower, and Santee Groundwater Basins. The SNMPs for each of those basins identify and quantify sources of nitrate loading to groundwater and estimate nitrogen loading to groundwater from OWTS in basins where OWTS are a significant contributor of nitrates. The SNMPs identify implementation measures to manage salt and nutrient loading to groundwater basins on a sustainable basis and were developed before the proposed Basin Plan Amendment so they do not take into account how any increased loading that may occur from implementation of the Basin Plan Amendment will affect water quality.

Information in the SNMPs submitted show that average nitrate concentrations in the corresponding groundwater basins are below 45 mg/L nitrate as NO₃. The proposed Basin Plan Amendment adds implementation measures to Chapter 4 of the Basin Plan to ensure protection of water quality and beneficial uses in areas where groundwater and surface water are connected. For example, a Report of Waste Discharge submitted for a new/proposed discharge from a wastewater treatment system that doesn't qualify for the OWTS waiver must include a nitrate study. The purpose of the nitrate study is to provide the San Diego Water Board with the information needed to establish discharge specifications for total nitrogen concentrations in effluent that will not cause the water quality objective for total nitrogen to be exceeded in any surface water body interconnected with receiving groundwater.

Finally, implementation measures have also been included as part of the proposed Basin Plan Amendment⁹ to address discharges from wastewater treatment systems, agricultural and nursery operations, animal feeding operations, and landscape irrigation operations using recycled water to ensure these discharges do not adversely affect groundwater or surface water quality.

3. **Comment:** Please coordinate this decision with the efforts of the Municipal Separate Stormwater Sewer System (MS4) and Water Quality Improvement Plan (WQIP) team at the RWQCB. This group will have to account for this increase in WQO when evaluating surface water monitoring data and municipal stormwater programs' performance in improving surface water quality.

⁹ See Chapter 4 of the proposed Basin Plan Amendment at:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/nitrate_owts_bpa/tbpa.shtml

Response: Comment noted. The San Diego Water Board storm water staff have the opportunity to provide their input on the proposed Basin Plan Amendment and comments on the implementation of the Municipal Stormwater Sewer System (MS4) permit and the Water Quality Improvement Plan (WQIP).

4. **Comment:** The Draft Environmental Checklist assumes no adverse impacts to the environment and thus proposes no alternatives or mitigation. The City disagrees with this interpretation and believes that the RWQCB should assess whether the assumption that groundwater basin concentrations will not attain 45 mg/L nitrate as NO₃ is reasonable. In addition an assessment of impacts to surface water quality is required.

Response: The siting, design, and operation requirements of the OWTS Policy were developed to protect beneficial uses of groundwater and prevent OWTS discharges from causing nitrate concentrations in groundwater to exceed 45 mg/L nitrate as NO₃. Thus, the San Diego Water Board did not simply assume that the concentration of nitrate in groundwater basins would not exceed 45 mg/L nitrate as NO₃.

The proposed Basin Plan Amendment adds implementation measures to Chapter 4 of the Basin Plan to ensure protection of water quality and beneficial uses in areas where groundwater and surface water are connected. These implementation measures, included as part of the proposed Basin Plan Amendment,¹⁰ are designed to address discharges from wastewater treatment systems, agricultural and nursery operations, animal feeding operations, and landscape irrigation operations using recycled water to ensure these discharges do not adversely affect groundwater or surface water quality. For example, in areas where surface water and groundwater are interconnected, a new/proposed discharge from a wastewater treatment system not qualifying for the waiver in the OWTS Policy may be required to include a nitrate study in the RWD. The purpose of the nitrate study is to provide the San Diego Water Board with the information needed to establish discharge specifications for total nitrogen concentrations in effluent that will not cause the water quality objective for total nitrogen to be exceeded in any surface water body interconnected with receiving groundwater.

In areas where groundwater and surface waters are interconnected, groundwater can be a significant source of the total nitrogen load to surface waters. The San Diego Water Board may adopt WDRs that require a reduced concentration in the proposed discharge effluents, reduction in total nitrogen loads, and or compliance

¹⁰ See Chapter 4 of the proposed Basin Plan Amendment at:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/nitrate_owts_bpa/tbpa.shtml

with more stringent water quality objectives in receiving surface waters in these areas to protect surface water quality.

San Diego County Water Authority Comment (Letter dated August 14, 2014)

Comment: In the Regional Board's response to the question would the project: a) *Violate any water quality standards of waste discharge requirements?*, the Regional Board concludes that the impact is "less than significant." However, in the discussion section there is no analysis regarding the impacts from a higher nitrate level in groundwater basins to downstream surface water reservoirs used for drinking water purposes. Avoiding impacts from nutrients in local water supply reservoirs is important to managing water quality for drinking water supplies and preventing algae growth in local reservoirs. The Substitute Environmental Document (SED) should include an analysis of the change in the groundwater quality objective for nitrate to 45 milligrams per liter as nitrate (mg/L as NO₃) and its impacts to surface water reservoirs used for drinking water supply downstream of affected groundwater basins. While we recognize that you may not be able to do a full salt and nutrient analysis for all the basins impacted, the SED should include a focused assessment of groundwater basins in the vicinity of surface water reservoirs and their tributary streams and should provide recommended implementation actions in the basin plan update to protect local surface water supplies.

Response: Please see response to comment no.4 from the City of Escondido's comment letter dated August 12, 2014 (above). The proposed Basin Plan Amendment¹¹ adds implementation measures to Chapter 4 of the Basin Plan to ensure protection of water quality and beneficial uses in areas where groundwater and surface water are connected. Those implementation measures are designed to address discharges from wastewater treatment systems, agricultural and nursery operations, animal feeding operations, and landscape irrigation operations using recycled water to ensure these discharges do not adversely affect groundwater or surface water quality. Finally, in areas where more sensitive water quality issues exist (e.g., proximity to surface water reservoirs described in the comment) the San Diego Water Board may develop WDRs that require a reduced concentration in the proposed discharge effluents, reduction in total nitrogen loads, and or compliance with more stringent water quality objectives in receiving surface waters in these areas to protect local surface water quality.

¹¹ See Chapter 4 of the proposed Basin Plan Amendment at:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/nitrate_owts_bpa/tbpa.shtml