Surface Water Augmentation Using Recycled Water
Regulatory Package SBDDW-16-02

- DRAFT Responses to Public Comments -

The State Board received 21 comment letters during the 45-day comment period (July 21 – September 12, 2017), four speakers provided comments during the public hearing (September 7, 2017), and the State Board received three comment letters during the 15-day comment period (November 30 – December 18, 2017).

The tables below provide the following:

1. A summary of substantive comments received by the State Water Board during the allotted timeframes for the 45-day comment period and the 15-day comment period for the subject regulatory action, along with responses. (Table 3, Table 4, and Table 6)
2. A list of individuals providing comments during the 45-day comment period and 15-day comment period. (Table 1, Table 2, and Table 5)

A number of comments were general in nature - some directed at the proposed regulatory action, others not – as well as comments directed specifically at the proposed regulations. Bracketed numbers following comments correspond to the number in the commentator table associated with a particular commentator. A greater detailed set of comments and responses will be provided in the Final Statement of Reasons, in accordance with the Administrative Procedure Act. A list of acronyms and terms used, along with their meaning, is provided below.

Acronyms and Terms

The following is a list of acronyms or abbreviated phrases, used in the subsequent discussions, and their meanings:

- AOP = Advanced Oxidation Process
- CECs = Chemicals of Emerging Concern (also known as Constituents of Emerging Concern)
- CEQA = California Environmental Quality Act
- Department = California Department of Public Health
- DPR = Direct Potable Reuse
- EPA = Environmental Protection Agency
- Expert Panel = The panel of experts convened and utilized in accordance with sections 13562 and 13565 of the Water Code.
- FSOR = Final Statement of Reasons
- GC = General Comment
- GRRP = Groundwater Replenishment Reuse Project
- H&S Code = Health and Safety Code
- IPR = Indirect Potable Reuse
- ISOR = Initial Statement of Reasons
- MCL = Maximum Contaminant Level
- NL = Notification Level
- NPDES = National Pollutant Discharge Elimination System
- NWRI = National Water Research Institute
- PWS = Public Water System
- Regional Board = Regional Water Quality Control Board
- RO = Reverse Osmosis
- SDWA = Safe Drinking Water Act
- State Board = State Water Resources Control Board
- SWA = Surface Water Augmentation

- SWSAP = Surface Water Source Augmentation Project
- SWSAP PWS = Surface Water Source Augmentation Project Public Water System
- SWSAP WRA = Surface Water Source Augmentation Project Water Recycling Agency
- SWTP = Surface Water Treatment Plant (PWS's)
- U.S. = United States
- WC = Water Code
- WRA = Water Recycling Agency

Table 1: Commentators Providing Written Comments During 45-day Comment Period

No.	*Name*	*Affiliation*
1	Adelman, Brenda	Russian River Watershed Protection Committee
2	Borchard, Adam	Association of California Water Agencies
3	Camacho, Norma	Santa Clara Valley Water District
4	Cantrell, Scott	Department of Fish and Wildlife
5	Cox, Michael	Citizen
6	Duerig, G.F.	Zone 7 Water Agency
7	Garabedian, Michael	Friends of the North Fork
8	Hauser, Hillary	Heal the Ocean
9	Helminski, John	City of San Diego
10	Larson, Roberta & West, Jennifer	California Association of Sanitation Agencies & WateReuse California
11	Lau, Albert & Olney, Brian	Padre Dam Municipal Water District & Helix Water District
12	McGowan, Edo	Citizen
13	McIntyre, Daniel	Dublin San Ramon Services District
14	Paulson, Cindy	California Urban Water Agencies
15	Stewart, Mic	Metropolitan Water District of Southern California
16	Sutley, Nancy	Los Angeles Department of Water and Power
17	Wetterau, Greg	CDM Smith
18	Williams, David R.	Bay Area Clean Water Agencies
19	Yamada, Robert	San Diego County Water Authority
20	Zaldivar, Enrique	Los Angeles Sanitation (City of Los Angeles)
21	Zampiello, Anthony	Main San Gabriel Basin Watermaster

Table 2: Commentators Providing Oral Comment at the Public Hearing

No.	*Name*	*Affiliation*
7	Garabedian, Michael	Friends of the North Fork
10	West, Jennifer	WateReuse
15	Coffey, Brad[a]	Metropolitan Water District of Southern California
19	Roy, Toby[b]	San Diego County Water Authority

a. Brad Coffey served as a representative of Metropolitan Water District of Southern California (MWD) and was also included in Mic Stewart's correspondence that provided MWD's written comments to the State Board. Therefore, Brad Coffey was assigned the same identifying number as Mic Stewart.

b. Toby Roy served as a representative of San Diego County Water Authority (SDCWA) and was also included Robert Yamada's correspondence that provided SDCWA's written comments to the State Board. Therefore, Toby Roy was assigned the same identifying number as Robert Yamada.

Table 3: Comment and Response for 45-day Comment Period and Public Hearing – General Comments

No	General Comment	Response
1	Streamline and/or combine State Board and Regional Board approval processes for SWA projects to allow for quicker approvals and permitting of projects. [3, 16, 19]	The suggestion is beyond the scope of the regulations, with the purpose of the proposed regulations being the establishment of SWA criteria that would adequately protect public health.
2	Definitions for a SWSAP WRA and SWSAP PWS may not be sufficient; in particular, when the SWSAP WRA and SWSAP PWS are "thought of as one and the same entity." Consider combining the roles of the WRA and PWS to be the same entity or allow a Memorandum of Understanding (MOU) between the different entities where the roles could be clearly defined between the agencies. [16]	Although in some cases the entity (or entities) receiving a permit to discharge recycled water into a reservoir and the entity supplying drinking water to the public may be under the same organization or municipality, the roles of those entities vary. Additionally, for many projects it would not be feasible to combine the roles of the WRA and PWS as a single entity. The proposed MOU option is consistent with the proposed requirement in section 60320.301 for the two entities (the SWSAP WRA and the SWSAP PWS) to develop and implement a "joint plan," as opposed to a document referred to as an "MOU." The State Board believes coordination between the entities engaging in a SWSAP is crucial and is the basis for the requirement. The State Board believes the joint plan provides the necessary flexibility to best address the multitude of scenarios.
3	Clarify the role of the wastewater management agency (WMA) in achieving pathogen reduction (section 60320.308) and the training requirements (section 60320.322). [17]	If an entity meets the definition of SWSAP WRA, whether referred to outside the regulations as a WRA or WMA, the requirements of the proposed regulations would apply. Based on the reference to a "WMA" in the comment, operating treatment facilities that would supply in whole or part (see section 60301.853) a SWSAP, the WMA would be considered a SWSAP WRA under the proposed regulation, making the need for the suggested revision unnecessary.

No	General Comment	Response
4	The proposed regulations do not establish a clear set of criteria or process for determining whether a project would be a SWSAP and would be governed under the regulations. It was suggested that the State Board "identify a clear set of criteria, or indicate a case-by-case evaluation process with general criteria" that would address de facto and *de minimis* discharges to surface waters used as sources of drinking water. [15]	The mandate of the State Board is to develop criteria that would adequately protect public health for the "planned" placement of recycled water into a surface water reservoir used as a source of domestic drinking water supply. While de facto reuse occurs in many parts of California, addressed via NPDES permits, by its very nature de facto reuse is not indirect potable reuse in that it isn't the use of recycled water with the intention of replenishing, augmenting, or becoming a source of drinking water. In addition, de facto discharges are not direct discharges to a reservoir used as a source of drinking water; they occur upstream of a reservoir. The purpose of the proposed regulatory action is to regulate direct discharges to a reservoir, as part of a planned potable reuse project. The suggestion to address de facto reuse in the proposed regulation is beyond the scope of the regulations.
5	The proposed regulations do not establish criteria for addressing potential ecological/ecosystem impacts, including those that may affect operation of a PWS's SWTP, and protection of natural resources from SWA project discharges to the reservoir. [4, 7, 11, 15]	Regarding the overall need to address potential impacts on a reservoir's ecosystem, the SWA regulations would establish minimum uniform water recycling criteria for the purpose of adequately protecting public health with respect to the planned placement of recycled water into a surface water reservoir that is used as a source of domestic drinking water supply. NPDES permits ensure that such discharges do not adversely affect public health and that healthy ecosystems are maintained. The proposed regulations only establish minimum criteria for the protection of public health and do not preclude more stringent requirements being necessarily administered under an NPDES permit, to ensure healthy ecosystems are maintained. The proposed regulations would not preclude Regional Boards, via their authority and responsibility, from imposing more stringent requirements when issuing a waste discharge and/or water recycling permit to water recycling agencies that may choose to engage in SWA, including having to meet NPDES requirements established by the U.S. Environmental Protection Agency. The State Board recognizes the concern related to a PWS's SWTP, to a limited extent, by the reservoir monitoring requirements found in section 60320.326 (see subsection (b), in particular), which requires monitoring for constituents such as temperature, total nitrogen, temperature, dissolved oxygen, chlorophyll a, along with total and dissolved phosphorus. More prescriptive actions would be dependent on case-by-case scenarios, which would therefore be better addressed via other means, including but not limited to, the SWSAP-WRA/SWSAP-PWS joint plan and/or the SWSAP-WRA's NPDES permit (where

No	General Comment	Response
		ecological protections would be expected to be addressed). In addition, the regulations do not preclude the issue from being addressed in the SWSAP-WRA's engineering report.
6	Given the high water quality of the effluent discharged to the reservoir as a result of the advanced treatment process, it is recommended that the State Board develop an alternative to the NPDES permitting mechanism under the proposed regulations. [11]	The federal Clean Water Act – the provisions of which the state of California must administer and be no less stringent - prohibits the discharge of pollutants through a point source into a water of the United States, unless an NPDES permit has been issued. NPDES permits ensure that such discharges don't adversely affect public health and that healthy ecosystems are maintained. The proposed regulations only establish minimum criteria for the protection of public health and do not preclude more stringent requirements from being necessarily administered under an NPDES permit, to ensure healthy ecosystems are maintained. Regardless of the level of treatment provided, the origin of the water being discharged is wastewater, which is then being discharged to a water of the United States.
7	Concerns expressed regarding the presence of virulence enhanced and resistant bacteria chiefly with respect to sewage sludge/biosolids, irrigation of crops using recycled water, sewage wastes discharged to the environment, and/or land applications of sewage sludge. [7, 12] The following questions were raised: "Are pathogens in the water tested for antibiotic resistance? How can quality of drinking water be assured if not?" [1]	Although biosolids and irrigation using recycled water is related to IPR from the limited standpoint that each involves sewage as an origin, IPR involves multiple levels of treatment, such as the advanced treatment criteria described in the proposed regulatory action. One must consider that there are several means of treatment beyond simple chlorination that are utilized for IPR, and that a statutorily-mandated Expert Panel made a finding that the proposed regulations would adequately protect public health. The proposed regulations require levels of treatment well beyond simple chlorination and/or those used for non-potable reuse, to ensure the health of the public is protected from pathogens and other contaminants. The proposed regulations do not require pathogens to be tested for antibiotic resistance. Rather, the proposed regulations are designed to reduce pathogens whether they are antibiotic resistant or not. The proposed regulations will achieve pathogen removal that will result in reducing the risk of infectious disease transmission to a level that is equivalent to or below the acceptable risk level for drinking water not associated with the use of recycled water. In brief, the use of conservative surrogates and operational parameters with continuous monitoring provide an ongoing assurance that the treatment processes are achieving the

No	General Comment	Response
		pathogenic organism removal and/or reduction for which they were designed and demonstrated to achieve.
8	Expressed concerns regarding the nature of the process used for development of the proposed regulations, including the individuals involved. [1, 7]	The State Board implemented a statutory mandate in Water Code section 13562 to adopt the proposed regulations. As described in the ISOR, the State Board followed and completed the statutory mandates applicable to the proposed regulations, including those found in the Water Code, Health and Safety Code, and the Administrative Procedure Act.
9	Concerns expressed that the proposed regulations will result in the 'deregulation of drinking water,' and noted the need to follow the 'Federal Clean Water Act Industrial Pretreatment Program' requirements. [7]	The proposed regulations do not deregulate drinking water. The proposed regulations do not repeal any existing drinking water requirement; rather, the regulations would establish *additional* requirements for a PWS choosing to engage in SWA. The proposed regulations do not absolve any entity from having to comply with the laws, regulations, and requirements associated with pretreatment programs. In fact, proposed section 60320.306 specifically references the need to administer an industrial pretreatment and pollutant source control program, and further builds on those requirements.
10	Noted concerns about the use of specific indicators/surrogates and general concerns about them, including assertions that 'the use of indicators is widely recognized to be inadequate,' citing the perspective that bacterial indicators (e.g., fecal and/or total coliforms) 'do not always reflect the risk from many important pathogens.' [7]	The proposed regulations do not utilize the monitoring of bacterial indicators as a means of ensuring pathogens, such as enteric viruses or other pathogens, are properly addressed. Rather, the regulation requires a SWSAP WRA to demonstrate that its treatment process will result in the significant $\log_{10}$ reduction requirements cited in the regulation for pathogens. Surrogates and indicators are used to verify that the treatment processes are functioning as designed, ensuring the proper reduction of pathogens. Because those treatment processes vary, along with the means of ensuring they're properly functioning, confining indicators or surrogate to those cited in a regulation would not be functional.

No	General Comment	Response
11	It was suggested that, "Adding the effluent to surface water impoundments creates dilution, and this might be an unintended incentive for lax characterization, monitoring, and control. Risk transfer might be unacceptable when operators can take shelter in 'the State made me do it.'" [5]	The proposed regulatory action does not require anyone nor any entity to engage in surface water augmentation. Furthermore, the proposed regulations include minimum requirements for 'characterization, monitoring, and control' for those that choose to engage in surface water augmentation. Treatment and water quality requirements are the primary methods used in the proposed regulation to assure acceptable recycled water quality. Mixing recycled water with reservoir water is considered a supplemental reliability benefit.
12	Questioned whether "tertiary treated water added back into the drinking water system be at all moments as safe as the normal drinking water without blended POTW [publically owned treatment works] effluent?" [5]	The wastewater will be subject to primary and secondary treatment, filtration, disinfection, and advanced treatment, as described in the regulations, prior to being discharged to the surface water reservoir. After that, the reservoir water will then be further treated by the PWS's SWTP before being distributed to consumers for consumption. Drinking water from a surface water augmentation project complying with the proposed regulation will be no less safe than drinking water using conventional sources.
13	Questioned whether "there be potential excursions and certain trace contaminants for which dilution will be relied upon for attenuation, either by design or by accident?" [5]	Attenuation by the reservoir is not part of the treatment process. In other words, the attenuation by the reservoir is not relied upon to meet contaminant limits or standards. Instead, the reservoir provides an additional means of reliability, as well as time to respond to and address a potential water quality excursion in a timely manner.
14	Two considerations provided. The first suggested that, "it will be necessary to engage in outreach, including mainstream media advertising, to build public understanding and trust in the efficacy of the chosen administrative and engineering controls." The second suggested that the "same educational and behavioral outreach needs to help ensure that all sewer users, including residential users, are refraining from the discharge of pollutants that add significant risk to the wastewater reuse loop." [5]	Regarding the first suggestion, the proposed regulations mandate a minimum of three public hearings prior to operation of a SWA project. That said, it is not the State Board's place to advertise for (or against) an entity that may want to engage in SWA. The purpose of the proposed regulatory action is to establish uniform criteria for SWA that are protective of public health. The process and methods a project proponent utilizes to engage/educate its customers (beyond those required in the regulation) or, for example, city council members, to make the decision whether or not to engage in a SWA project is responsibility of the project proponent. Regarding the second suggestion, the State Board agrees. Enhanced source water control requirements (sewage entering the POTW) are included in the proposed action.

No	General Comment	Response
15	Questioned whether additional monitoring requirements (i.e., for trace organics) are included, beyond those required for existing maximum contaminant levels. [5]	The State Board anticipated additional constituent monitoring beyond those required via drinking water standards. Proposed Section 60320.320, in particular, addresses the topic.
16	Expressed concerns about potential impacts on disadvantaged communities. [5]	The minimum treatment requirements included in the proposed regulation apply to all communities that may *choose* to engage in SWA and were developed to be protective of public health, regardless of the composition of the public. The State Water Board considers impacts to disadvantaged communities as part of its decision-making; however, it is unclear how the proposed regulations will impact disadvantaged communities in a different or disproportionate manner when compared to other communities.
17	Concerns expressed about endocrine disrupting chemicals (noting low dose impacts, combined exposures, and/or multiple routes of exposures), and asserted that the State Board ignored their impact and claimed that "Meeting drinking water MCL's says nothing about avoiding these problems, and unfortunately, Health Departments have avoided this issue." [1]	With respect to the commentator's concerns regarding endocrine disrupting chemicals and their potential impact on human health, the State Board shares the commentator's concern. Indeed, the State Board considered the health impacts associated with the presence of potential endocrine disrupting chemicals (as well as other CECs). However, because it is not possible to identify every chemical contaminant in wastewater and its potential as an endocrine disrupter, the proposed regulations utilize additional means for addressing the concern. For example, the proposed regulations are intended to identify an array of chemical contaminants in the wastewater source, including those that may be potential endocrine disrupters, through both source control measures and analytical monitoring. In addition, the minimum advanced treatment processes that are required are designed to remove a broad spectrum of chemicals, including those identified through source control and monitoring, as well as those chemicals that have previously been identified as possible endocrine disrupters. As a result, the effluent of the advanced treatment processes that will be augmenting an existing raw drinking water reservoir, will lead to a drinking water that will be no less protective of public health than other sources of surface water used for drinking water. In addition, while keeping in mind the advanced treatment processes required by the proposed regulations address more contaminants than regulated MCLs, the State Board disagrees with the commentator's contention that "Meeting drinking water MCL's says nothing about avoiding these problems, and unfortunately, Health Departments have avoided this issue" For example, perchlorate, an anti-

No	General Comment	Response
		thyroid contaminant is a regulated contaminant with an established MCL for drinking water because of its potential effects on an endocrine gland (the thyroid). It should also be noted that for non-carcinogens in drinking water, risk calculations include a term called the "relative source contribution," which takes into account exposures from food, air, etc., in addition to exposures from drinking water. Carcinogens are subject to stringent regulations too, recognizing that there may be cumulative risks from exposures to multiple contaminants.
18	While noting the regulation requiring compliance with MCLs, it was claimed that "biological studies supporting the MCLs did not evaluate the health effects on certain sensitive populations and did not address the concept of low dose impacts." [1]	The process by which MCLs are developed are not germane to the proposed regulation. However, the commentator may wish to note that the section of law under which MCLs are developed may be found in the California SDWA (section 116365 et al.). The process requires that risk assessments for contaminants consider the adverse health effects the contaminant has on members of subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subgroups that are identifiable as being at greater risk of adverse health effects than the general population when exposed to the contaminant in drinking water.

No	General Comment	Response
19	While referencing page 16 of the ISOR, it was asserted that "it mentions that a report will be required if more than 10% of samples for quarter don't meet surrogate or operational standard. That means that 10% can exceed current legal standards, not to mention exceed the true level at which harm can occur with ED (Endocrine Disrupting) chemicals." [1]	The 10 percent exceedance value refers to meeting operational design standards for the advanced treatment process. As noted in the ISOR (page 15), "one could not necessarily conclude that a failure to meet a surrogate and/or operational standards would necessarily result in effluent being produced that may not ultimately be adequately protective of public health. However, an inability to consistently meet the surrogate and/or operational standards could be an indication of poor RO and AOP treatment operation; increasing the likelihood that the effluent produced could be substandard." A 10 percent exceedance does not mean that 10 percent of quarterly samples will exceed current legal standards (i.e., MCLs), nor does it mean that there will be excessive exposure to unregulated contaminants, including endocrine disrupting chemicals. Monitoring and compliance with MCLs in the effluent discharged to the reservoir is established via proposed sections 60320.302(h) and 60320.312. Furthermore, the advanced treatment effluent monitoring results would not be reflective of the drinking water served to the public since the effluent will be attenuated by existing water in the reservoir and be further treated at the PWS's SWTP prior to distribution. The monitoring required in the proposed regulation doesn't preclude a PWS from having to comply with existing drinking water monitoring and compliance requirements.
20	Regarding unregulated contaminants, the following opinion was expressed: "It seems like possible treatment barriers should be well established before implementation begins." In addition, while citing text in the ISOR regarding actions to be taken in the event of treatment failures, the commentator noted that "Some failures may be more serious than others and all should be reported immediately, if possible." [1]	The text cited by the commentator refers to treatment processes designed to achieve pathogenic reductions. Although a broad interpretation of 'unregulated contaminants' may include pathogenic organisms, CECs are more commonly considered to be synonymous with unregulated chemical contaminants. Regarding pathogens, please see the previous responses. Regarding CECs, please see previous responses and note that utilizing well-established treatment barriers (the advanced treatment process) for the removal of CECs is a requirement of the proposed regulations. With respect to failures, the State Board agrees that some failures are more serious than others and, accordingly, the proposed regulations require follow-up actions commensurate with the seriousness of the failure. The commentator should also keep in mind that the highly treated recycled water is discharged into a reservoir under specific conditions (required by the proposed regulation) that allow an adequate opportunity to respond to the short-term failure before reaching the PWS's SWTP, which provides yet another treatment barrier.

No	General Comment	Response
21	While expressing concerns about treatment failures, it was questioned what happens in an emergency.	During an emergency resulting from a treatment failure that would impact a SWA project, the SWSAP WRA and SWSAP PWS would implement the procedures in the joint plan, operations plans, and/or emergency plans. The details of such procedures would be dependent on the circumstances, the SWSAP WRA and SWSAP PWS, and the nature of the emergency. For example, the proposed regulations require a SWSAP PWS to have a plan in place that would include moving to an alternative supply and no longer use the reservoir in question, or move to other treatment mechanisms.

Table 4: Comment and Response for 45-day Comment Period and Public Hearing – Specific Comments

No	Specific Comment[1]	Response
	Article 1, Chapter 3, Division 4, Title 22	
1	**Section 60301.851:** Concern expressed that the proposed definition doesn't address the situation where recycled water is placed into a constructed water conveyance system upstream of a reservoir and, therefore, requested the State Board to expand the definition. [15]	The State Board's charge was to establish criteria for "surface water augmentation" that would adequately protect public health. The scope of proposed section 60301.851 is consistent with the definition of "surface water augmentation" that was established in section 13561(d) of the Water Code at the time the mandate to adopt regulations for SWA was established (2010's Senate Bill 918). Although the State Board recognizes that utilizing constructed systems conveying water to the reservoir (such as the California Aqueduct and Colorado River Aqueduct) may broaden available options, it is currently beyond the scope of the proposed regulatory action. However, it should be noted that 2017's Assembly Bill 574 (Chapter on 528) – operative January 1, 2018 - established a definition for "reservoir water augmentation", which includes consideration of recycled water placed into a constructed system conveying water to such a reservoir. As a result, the State Board anticipates it will be addressing the commentator's recommendation in a future regulatory action, as recommended by Assembly Bill 574.
2	**Section 60301.853:** While comparing the proposed SWA regulations with the existing regulations for GRRP and expressing a desire for consistency between the two, noted that the former uses "SWSAP WRA" while the latter uses "Project Sponsor". [20]	While existing section 60301.670 and the existing GRRP regulations are not part of the proposed regulatory action, the State Board offers the following thoughts: although the desire to use the same terms for agencies involved in all forms of IPR projects may be understandable in some circumstances, the State Board believes two different terms, for two different forms of IPR, would be beneficial as well. In addition, SWA involves two entities – the SWSAP WRA and the SWSAP PWS – which could be considered 'project sponsors.' As a result, the single term 'project sponsor' was not sufficient. The State Board will consider the comment in future revisions to the Groundwater Replenishment regulations.

[1] If a particular section is not listed, the State Board did not receive a comment on that section.

No	Specific Comment[2]	Response
	Article 5.3, Chapter 3, Division 4, Title 22	
3	**Section 60320.301:** **Subsection (a):** While comparing the proposed SWA regulations with the existing regulations for GRRP and expressing a desire for consistency between the two, noted that the former refers to "State Board" in subsection (a), while the latter uses "Department" and defines it as "the California Department of Public Health or its successor with authority to regulate public water systems." [20] In addition, questioned why the proposed SWA regulations refer to the submittal of a "joint plan", while the GRRP regulations refer to a "report." Further, the commentator purports "report" to be defined in the GRRP regulations, while "joint plan" is not. [20]	Existing section 60301.180, previously adopted with the GRRP regulations, is not part of the proposed regulatory action. Nevertheless, it should be noted that at the time the GRRP regulations were adopted, California's Drinking Water Program was within California's Department of Public Health, with its transfer to the State Board imminent, but still pending. With that knowledge, section 60301.180 was crafted to accommodate the potential transfer. On July 1, 2014, subsequent to the adoption of the GRRP regulations under the Department, the transfer became effective. Therefore, the SWA regulations refer to "State Board" accordingly. The State Board anticipates addressing this issue via future revisions to the GRRP regulations, but is beyond the scope of this proposed regulatory action. As previously noted, the existing GRRP regulations are not part of the proposed regulatory action. Although a similar term could be used, it should not be unexpected that a different term may be used for a different requirement. The State Board finds that "joint plan" is more descriptive of its purpose than "report." That said, the requirements of the joint plan are provided in proposed section 60320.301(a) and are not dependent on the terminology used, any more than the requirements for the report in GRRP regulations being dependent on it being referred to as a "report." It should also be noted that the GRRP regulations did not include a definition for "report."

[2] If a particular section is not listed, the State Board did not receive a comment on that section.

No	Specific Comment[2]	Response
4	Recommended that the roles and responsibilities of a SWSAP WRA, SWSAP PWS, and reservoir owner and operator should be clearly defined in a joint plan to ensure operating and compliance responsibilities are appropriately designated. While identifying section 60320.322 as the section requiring a joint plan, the commentator suggested that it be further expanded to ensure responsibilities of the parties for all phases of the project are established. [15]	The State Board agrees that close coordination between all parties involved in a SWSAP is crucial, which is the primary reason for the requirement for developing a joint plan. The general criteria for a joint plan are identified in proposed section 60320.301, which includes a requirement for a SWSAP WRA to notify a SWSAP PWS of operational changes that may adversely affect the quality of the recycled water to be delivered to the surface water reservoir. Recognizing that detailed and specific roles and responsibilities of the parties may vary greatly, the State Board proposed general and broad criteria so that the details and specific roles and responsibilities may be addressed with consideration of case-by-case circumstances. That said, to the extent possible, the regulations establish specific responsibilities throughout the proposed regulations for both the SWSAP WRA and the SWSAP PWS. Notwithstanding the parties' obligations and responsibilities under the state and federal Clean Water Act and Safe Drinking Water Act (and their implementing regulations) and permits, the State Board would expect a joint plan to expand on the responsibilities of the various parties for all phases of the project, as suggested by the commentator. The regulations do not preclude a joint plan from addressing the areas of concern expressed by the commentator, including a SWSAP PWS's desire to be involved in the review of data prior to submission, assignment of roles and responsibilities of parties, etc.
5	While referring to several sections requiring corrective actions and notification of State Board and/or Regional Boards, and specifically using section 60320.(a)(1) as an example, it was noted that, "Nowhere in the document is language that spells out specifics for physical remediation/removal of contaminated water from the drinking water supply." As a result, it was recommended adding language that would require the SWSAP WRA to submit procedures "for providing an alternate source of water supply while a compromised reservoir is remediated." [8]	The requirement to identify corrective actions in proposed section 60320.301(a) is not limited to notification of the State Board and Regional Boards, and the corrective actions taken in the event a reservoir were to become compromised would fall within the broad scope of the joint plan. Depending on the agreement reached via the joint plan, the responsibility of implementing those corrective actions may fall on either party, or even partial responsibility of both parties. Therefore, the State Board finds it unnecessary, and too limiting and prescriptive, to mandate that the responsible party must be the SWSAP WRA. That said, the purpose of the regulatory action is the establishment of criteria that would adequately protect public health, not direct the remediation of a compromised reservoir. As a public water system responsible for providing a reliable source of drinking water that meets all drinking water standards, per

No	Specific Comment[2]	Response
		proposed section 64668.10(b), the SWSAP PWS must contemplate the possibility of losing the reservoir as a source of drinking water supply.
6	**Subsection (d):** Suggested that the monitoring frequency is not concisely defined or stated, and requested clarification on what constitutes "complete compliance monitoring". The comment was made in conjunction with an unrelated reference to GRRP regulations section. [20] Stated that the reference to "assumptions made" is unclear and recommended deleting the language and, instead, referring to "scientific reasoning" as the basis. [19]	The previously adopted GRRP regulations are not part of the proposed regulatory action and the section of the GRRP regulations cited by the commentator (presumably referring to section 60320.101, not 60320.301) is not relevant or analogous to proposed section 60320.301 of the SWA regulations. The section of the SWA regulations cited is section 60320.301(c), which refers to "monitoring required by this Article." The monitoring required by the Article (Article 5.3) varies, depending on the specific applicable requirements in Article 5.3. The State Board agrees that the phrase "and assumptions made by" was ambiguous and implied an arbitrary intent. As a result, the State Board proposed revisions under a 15-day comment period, to delete the phrase. The 15-day comment period began November 30, 2017, and ended on December 18, 2017.
7	Recommended replacing "may" with "will", resulting in the text being revised as: "If a SWSAP WRA fails to complete compliance monitoring required by this Article, compliance will be determined by the State Board or Regional Board…". [8]	Section 60320.301(d) identifies and informs the SWSAP-WRA of the State Board's discretion to act - in particular, to determine compliance in the event the SWSAP-WRA fails to monitor.
8	**Subsection (e):** Posited that some effluent limits may be completely unrelated to SWA and, therefore, suggested deleting the text referring to effluent water quality limits. [19]	The proposed regulations refer to "effluent limits or water quality requirements that pertain to surface water augmentation pursuant to this Article." Effluent water quality limits that would be "completely unrelated to surface water augmentation" would not pertain to those established pursuant to Article 5.3 of the SWA regulations. The State Board believes the text, as proposed, addresses the concern.
9	**Subsection (f):** Suggested the regulation text be revised to stipulate either the State Board or Regional Boards as the lead for SWSAP. [19]	In addition to issuing a Water Reclamation Permit, the role of the Regional Boards is to address issues necessary for maintaining a healthy ecosystem through the issuance of an NPDES permit for the discharge into a surface water reservoir. As a result, both the State Board and Regional Boards will generally both be involved in the review and approval of the submittals required in the proposed regulations.

No	Specific Comment[2]	Response
10	**Section 60320.302:** **General:** Suggested allowing an alternative to RO-based treatment, asserting that "significant work is complete, and more is underway, documenting the water quality benefits of O_3/BAF when used with supplementary technology such as UF, GAC, and UV." [13]	Proposed section 60320.330 establishes an approval process for allowing alternatives, including the use of alternative technologies. Currently, it has not been demonstrated to the State Board that there is sufficient evidence that the treatment train suggested can as effectively as RO and AOP control the types of unregulated chemicals that may be present in municipal wastewater.
11	**Subsection (c):** Referring to paragraph (1), suggested allowing a test surrogate for 1,4-dioxane, because it is a hazardous chemical that is difficult to safely seed into a treatment system. [7, 13]	Use and storage of hazardous materials on an ongoing basis is common, yet safely used, at water and wastewater treatment facilities. The State Board would expect appropriate safety precautions to also be implemented when using 1,4-dioxane, even though its use would be temporary. That said, proposed section 60320.330 establishes an approval process for allowing alternatives, including an alternative to utilizing 1,4-dioxane during challenge or spiking tests.
12	**Subsection (g):** Referring to paragraph (2), suggested the regulation be modified to stipulate either the State Board or Regional Boards as the lead for SWSAP. [19]	In addition to issuing a Water Reclamation Permit, the role of the Regional Boards is to address issues necessary for maintaining a healthy ecosystem through the issuance of an NPDES permit for the discharge into a surface water reservoir. As a result, both the State Board and Regional Boards will generally both be involved in the review and approval of the submittals required in the proposed regulations.
13	**Subsection (h):** Suggested that the initial monitoring and reduced monitoring is unnecessary because the advanced-treated water will be delivered to a reservoir with subsequent downstream treatment. [19] Questioned how compliance with an MCL would be determined and suggested language reflecting that compliance be calculated as described in proposed section 60320.312. Expressed concern that the subsection implied compliance would be determined on a monthly basis or by a single	Regarding the first comment, while it's true that the water in the reservoir being augmented by recycled water will receive subsequent downstream treatment, the downstream treatment (the SWSAP PWS's SWTP) may not treat each contaminant as effectively as the advanced treatment process. In addition, what's being created is a raw source of drinking water that contains a significant percentage of water from a contaminated source. Therefore, a need exists to ensure that the raw source (the reservoir) is not degraded to a degree that it will affect a SWSAP PWS's ability to comply with its requirements related to the federal or state SDWA. Regarding the actions necessary when an MCL (or an NL) is exceeded, along with NL monitoring concerns between proposed sections 60320.302(h) and 0320.320 requirements, the State Board agrees that the language should be revised to

No	Specific Comment[2]	Response
	sample, rather than akin to how compliance with most MCLs is determined. [10, 11, 19] Asked for clarification regarding apparent contrasting NL monitoring requirements between proposed sections 60320.302(h) and 0320.320. [17]	assure consistent application. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017.
14	**Section 60320.308:** **Subsection (a):** Questioned whether the separate treatment processes required "for each" pathogen was intended to prohibit a treatment process from obtaining log reduction credit for more than one pathogen, or allow a treatment process to obtain log reduction credit for more than one pathogen. One commentator noted the difference between the GRRP regulations and the SWA regulations. [15, 20] Suggested revising the regulation, through recommended revisions to sections 603320.308(a)(2) and 64668.30(c)(2), to allow pathogen log reduction credit at the PWS's SWTP that goes beyond traditional SWTPs. In short, sought to have log reduction credits added at the SWTP be used in lieu of the log reduction credits required prior to being discharged into the reservoir. [16]	Although the indistinctness of the proposed language would allow for either interpretation, of which either would be acceptable, the State Board agrees that regulations would be improved if permissive language was added, making it clear that the less restrictive interpretation (where treatment processes may be credited with log reductions for multiple pathogenic organisms) would be acceptable. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017. With respect to the comparison between the SWA regulations and the GRRP regulations, the existing GRRP regulations are not part of the proposed regulatory and are beyond the scope of the proposed regulatory action. Regarding commentator 16's suggested revisions, proposed section 60320.308(a)(2) establishes requirements for minimum log reductions for pathogenic microorganisms that apply to the recycled water being discharged into a surface water reservoir that will then be further treated by the SWSAP PWS's surface water treatment plant. The intention is to create a raw source of surface water that would be no less protective of public health than it would be in the absence of the SWSAP's discharge into the reservoir. Reliance on increased organism reduction at the SWTP indicates that the reservoir microbial quality has been allowed to degrade as a result of the SWSAP. A principle of California IPR regulation is that it shall not degrade a source of drinking water. Furthermore, doing so would diminish the role of the reservoir as a meaningful environmental buffer that will attenuate water quality problems resulting from pre-discharge treatment failures.

No	Specific Comment[2]	Response
15	While stating that the ISOR indicates that the "baseline" for log reduction requirements is raw sewage, asserted the regulations do not clarify whether the log reduction requirements for the SWSAP treatment process starts at the raw sewage or the start of the advanced treatment process. The commentator suggested revising the regulations to state the baseline for the log reduction requirements should start at the raw sewage. [15]	The regulation places no restriction on what treatment processes may be credited toward the log reduction requirement, as long as the log reduction for the treatment process has been validated. Had the intent been to restrict log reduction credit only to those treatment processes beginning with the advanced treatment, the regulation would have included such a restriction. All properly validated, operated, and monitored treatment barriers, including primary and secondary treatment (and advanced treatment processes), could receive credit toward the log reduction required, as long as the recycled water delivered to the reservoir has met the required log reductions, consistent with the proposed language.
16	Recommended that paragraphs (1) and (2) should clearly indicate "that the log reduction values specified are for the WRA treatment train, and do not include the additional log reduction achieved through dilution or conventional drinking water treatment at a PWS's surface water treatment plant." [15]	Sections 60320.308(a)(1) and (2) clearly refer to the treatment train needing to reliably achieve the required pathogen reductions, with those reductions being met in the recycled water delivered to the reservoir. Because dilution and treatment via the PWS's SWTP occurs after delivery of the water, any possible log reductions from those processes could not be credited to achieve the pathogen reductions required in sections 60320.308(a)(1) and (2).
17	**Subsection (b):** Noted that the regulation does not include a definition for "on-going monitoring", asserting that it could be interpreted as continuous monitoring or an undermined monitoring frequency for the life of the project. [15]	"On-going" monitoring means continuing monitoring (i.e., monitoring moving forward), consistent with its the understood meaning by the regulated community, as intended in the proposed text. Therefore, there is no reason to provide a definition for "on-going."
18	**Subsection (c):** Suggested that the basis for meeting the criteria specifically reference the "ongoing surrogate monitoring identified in the Operations Plan approved pursuant to Section 60320.322." [19]	The proposed regulatory language in subsection (c) refers to meeting the requirements "based on the on-going monitoring required pursuant to subsection (b)." In turn, subsection (b) refers to on-going monitoring identified in the Operation Plan "using the pathogenic microorganism of concern or a microbial, chemical, or physical surrogate parameter(s) that verifies the performance of each treatment process's ability to achieve its credited log reduction." Therefore, not only does the State Board believe the proposed text already addresses the commentator's desire to have a nexus with the Operations Plan, the proposed text also provides more flexibility in that it's not limited to only the surrogate monitoring identified in an Operations Plan.

No	Specific Comment[2]	Response
19	While referring to subsection (c), asserted that the subsection implies that the Regional Boards will include pathogen level requirements in an NPDES permit. The commentator further asserted that "pathogen removal credits of 8-7-8 are requirements for DDW and drinking water safety, not for Clean Water Act or for environmental protection. The Water Recycling Agency (WRA) could technically supply less than 8-7-8 to reservoir and the Public Water System (PWS) could still meet the required LRV of 12-10-10 through the drinking water treatment plant." In general, the commentator sought clarification as to which agency would be the regulating authority. [11]	The State Board's mandate was to adopt uniform criteria for SWA that would adequately protect public health. With SWA projects involving discharges into a reservoir used as a source of drinking water by a public water system, the regulations must ensure the reservoir isn't degraded as a source of drinking water, and that the 'creation' of the raw source of drinking water is no less protective than other raw sources of drinking water. To accomplish that, criteria had to be developed for pathogenic organism control for the discharge to the reservoir, rather than additional pathogenic organism control after the reservoir. Furthermore, allowing reliance on additional treatment by the PWS (beyond that already being provided via existing drinking water standards) would diminish the importance of the reservoir as an environmental buffer – a necessary role for IPR. It should also be noted that the minimum 8-7-8 log reduction does take into consideration the additional treatment by the PWS, to ensure no less than a total log reduction of 12-10-10, as described in detail in the ISOR and deemed to be adequately protective of public health by the Expert Panel.
20	**Subsection (d):** Suggested the regulation be modified to stipulate either the State Board or Regional Boards as the lead for SWSAP. [19]	Please see previous responses on this topic.

No	Specific Comment[2]	Response
21	**Section 60320.312:** **Subsection (a):** Regarding paragraph (5), suggested deleting the reference to lead and copper, asserting that lead and copper are typically source water contaminants and are normally monitored at the customer's tap as a measure of corrosion control. [19] Provided comments regarding lead and copper, questioning how lead and copper criteria would apply considering that the water discharged to the reservoir would be blended with other sources of water before final distribution, suggesting that the "blended water should comply with the final lead and copper criteria since the AWP water source is not consumed directly through the distribution system." [11] Suggested that the monitoring requirements "be streamlined and revised to allow the use of monitoring data already collected by the recycled water producer." [16]	Regarding commentator 19's lead and copper recommendations, although lead and copper are monitored at a SWSAP PWS customer's tap as an indication of whether the drinking water supplied is causing the leaching of lead and copper from a customer's plumbing, the action levels represent health risk-associated concentrations. As indicated by the commentator, lead and copper are not normally found in typical source of drinking water. However, wastewater is not a typical source of drinking water and the State Board believes it's prudent to ensure the water placed into a drinking water supply meets the lead and copper action levels. Regarding commentator 11's lead and copper recommendations, lead and copper action levels are health-based levels. Allowing discharges to the reservoir exceeding the action levels would lead to a degradation of the reservoir as a drinking water source. In addition, while the recycled water discharged to the lake will be blended with water already present in the reservoir, the water in the reservoir may not always subsequently include water from other sources. Therefore, if the recycled water discharged to the reservoir has not been first determined to be meet the lead and copper action levels, it's possible that, eventually, the entire reservoir could consist of water not meeting the lead and copper action levels – or at least be of an unknown quality. Regarding commentator 16's suggestion, proposed section 60320.312 does not require monitoring redundant to that which may be required by Regional Boards pursuant to Water Code Section 13267(b)(1). If appropriate, the Regional Boards may establish a process to be integrated into the permits they will issue for SWSAPs whereby redundant monitoring will be eliminated or reduced. The establishment of requirements that would regulate the Regional Boards and that process is beyond the scope of the proposed regulatory action.
22	**Subsection (e):** Suggested deleting the entire subsection, asserting that "routine asbestos monitoring is not required" and questioning the value of monitoring for asbestos. [19]	By way of section 60320.312(a)(1), quarterly monitoring for asbestos is required since asbestos is a contaminant found in Table 64431-A, making it unclear why the commentator suggests asbestos monitoring is not required. As with lead and copper, asbestos may not normally be found in typical raw sources of drinking water. However, wastewater is not a typical raw source of drinking water and the State Board believes it's prudent to ensure the water placed into a drinking water supply meets all drinking water MCLs, including the asbestos MCL.

No	Specific Comment[2]	Response
23	**Section 60320.322:** **Subsection (b):** Requested that the regulations specifically allow for operators that are certified as either water treatment operators or wastewater operators, suggesting that doing so would provide for a greater pool of qualified operators and create highly effective operations teams. Also requested that the regulations recognize that operators that have obtained an advanced water treatment certification from a certification program, acceptable to the State Board, be presumed to have obtained adequate training under Section 60320.322. [10, 19] Suggested that the training requirements clarify whether the training refers to existing training programs and certifications or a new certification program. Also sought clarification as to where in the wastewater treatment process the training requirements would apply. [16] Provided substantially similar comments, and encouraged the State Board to continue to collaborate with AWWA and others to develop an advanced water treatment operator certification program that would satisfy proposed and future requirements. [3]	Regarding the recommendation to allow operators to be either water treatment operators or wastewater operators, the proposed regulations do not prohibit water treatment operators from operating wastewater treatment plants, and existing section 3607.1 of Title 23 addresses the certification requirements for operating wastewater treatment plants. Although section 3607.1 is not part of the proposed regulatory action, the commentator should note that section 3670.1(b) allows certified water treatment plant operators to operate wastewater treatment plants. Regarding the recommendation that the proposed regulations "recognize that operators that have obtained an advanced water treatment certification from a certification program acceptable to the State Board will be presumed to have obtained adequate training under Section 60320.322," there currently is no advanced water treatment certification process to be recognized, making it inappropriate to reference in the regulations. That said, the State Board is aware of the intention to develop an advanced water treatment certification process and, if necessary, the State Board will address the issue in a future regulatory action. Regarding commentator 16's comment, section 60320.322(b) refers to the need for the SWSAP WRA personnel to have received, at a minimum, the training noted in paragraphs (1) through (3). Therefore, the requirement would apply to the operators of the wastewater treatment plants that would be supplementing the surface water reservoirs, including the advanced treatment processes. Currently, certified wastewater treatment plant operators are not required to have such training, although they may have; and some certified drinking water operators who may be operators at a wastewater treatment plant may have such training, although they may not have received the training cited in the proposed regulations. A SWSAP WRA would be responsible for demonstrating that the operators have the supplemental training.
24	While supporting the efforts and progress made by several agencies toward for future potable reuse operator training and certification, asserted that the ISOR indicates that only wastewater treatment plant operators can be certified to operate a SWSAP-WRA advanced treatment facility. Encouraged the	The Initial Statement of Reasons (ISOR) does not state nor indicate that, "only wastewater treatment plant operators can be certified to operate a WRA advanced treatment facility." Further, existing section 3670.1 of Title 23 addresses the certification requirements for operating wastewater treatment plants and already allows water treatment operators to operate wastewater treatment facilities. As noted in the ISOR, the type of knowledge gained by the training required pursuant

No	Specific Comment[2]	Response
	State Board to establish an advanced operator treatment certification program that would allow operators with either water or wastewater background to operate an advanced treatment facility. [14, 15, 19]	to subsection (b) is "generally" not applicable to the operation of an advanced wastewater treatment facility utilizing treatment processes required by the proposed regulation, and wastewater treatment plant operators "may" have relatively limited knowledge with respect to the public health issues associated with consumption of drinking water supplied by sources augmented with recycled water. This could be true even if the operator of a wastewater treatment plant was a certified water treatment operator. Although a framework for potable reuse operator training and certification may have been developed, there currently is no advanced water treatment certification process to be recognized and required in the proposed regulation, making it inappropriate to reference in the regulations. That said, the State Board is aware of the intention to develop an advanced water treatment certification process and, if necessary, the State Board will address the issue in a subsequent regulatory action.
25	**Section 60320.326:** **Subsection (b):** Suggested the addition of E. coli to the monitoring regime and that increased weekly monitoring of all contaminants may be initially necessary. [15]	The State Board and the Expert Panel, through its finding, determined that monthly monitoring for no less than 24 months would be sufficient to establish a baseline. In addition, existing data may be available to supplement the required monitoring and the regulation states the monitoring is to be conducted for "no less" than 24 months (i.e., further monitoring is not precluded to be performed by the regulations to establish the baseline). Regarding the request to include E. coli, the State Board agrees with commentator's suggestion. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017.
26	**Subsection (d):** Because a SWSAP-PWS may be directly impacted by reduced monitoring of its source water reservoir (e.g., potentially supporting the SWSAP-PWS's needs to conduct its watershed sanitary survey, etc.), suggested a revision to the regulations that would require a SWSAP-WRA to consult with	The State Board agrees that it would be beneficial to require the SWSAP-WRA, prior to applying reduced monitoring, to consult with each affected SWSAP-PWS. As a result, the State Board proposed revisions under a 15-day comment period to include consultation with each SWSAP PWS. The 15-day comment period began November 30, 2017, and ended on December 18, 2017.

No	Specific Comment[2]	Response
	affected SWSAP-PWSs prior to applying reduced monitoring. [15]	
27	**Subsection (e):** Suggested the inclusion of a basis or justification for the additional monitoring. [19]	The State Board agrees that the regulation would be enhanced by including a basis for the additional monitoring, which may otherwise imply an arbitrary intent. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017.
28	**Section 60320.328:** **Subsection (a):** Suggested allowing a Grade 4 or Grade 5 State Board certified operator water or wastewater operator to prepare the annual report. Suggested allowing two engineers, with combined experience, to be allowed to prepare the report. Recommended the similar flexibility be allowed for other aspects of the regulation where such an engineer is required (e.g., challenge tests). [16, 19]	The State Board believes the information required to be included in the annual report is sufficiently technical in nature and sufficiently related to the engineering aspects of a SWA project that it is warranted to be prepared by a California-licensed engineer with suitable experience, rather than a certified operator. However, the State Board agrees that multiple licensed engineers, with combined experience, would be acceptable for the preparation of the report only. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017.
29	**Section 60320.330:** Expressed support for the proposed section, noting the flexibility to allow for future innovations. [10]	Thank you.

No	Specific Comment[3]	Response
	Article 9, Chapter 17, Division 4, Title 22	
30	**Section 64668.10:** **Subsection (d):** Suggested that the subsection be deleted, asserting that it is redundant because the SWSAP WRA already has specific reporting requirements, unnecessary, may lead to broad reporting on minor issues. Further claimed the ISOR fails to provide any justification for the requirement. [19]	The State Board has the authority for and responsibility of overseeing California's PWS to ensure protection of public health. Given the close working relationship a SWSAP WRA and SWSAP PWS must have, the SWSAP PWS may have knowledge of a SWSAP WRA failure to meet a regulatory or permit requirement that may not be readily available and known to the State Board. Therefore, as noted in the ISOR, the purpose of the requirement is to further enhance the State Board's oversight of a SWSAP.
31	**Section 64668.30:** **Subsection (a):** While asserting that subsection (a) excludes offline or out of service reservoirs and that the commentator owns several reservoirs that would otherwise be excellent candidates, it was suggested revising the language to include reservoirs that are not necessarily operated in the five years prior to the start of a SWSAP. [16]	Section 64668.30(a) of the proposed regulation does not require a reservoir to have been in use for five consecutive years. First, the regulations allow for reservoirs with as little as two years to be utilized, with State Board approval. Second, the regulation does not require that the prior use of the reservoir be consecutive.

[3] If a particular section is not listed, the State Board did not receive a comment on that section.

No	Specific Comment[3]	Response
32	**Subsection (b):** Suggested that paragraph (2)(A) implies that a treatment facility would have to operate for a period of time before being allowed to apply for an alternative minimum theoretical retention time. Therefore, recommended modifying the text to allow for the alternative compliance as part of the permit application; specifically, allowance for a phased approach for reducing retention times. [10, 19] Recommended that paragraph (2)(A) allow for theoretical retention time of less than 60 days, with State Board approval. [3, 7, 13, 18] Regarding paragraph (2)(D), commentator opined that the requirement for additional log reduction requirement for theoretical retention times less than 120 days would be better suited to be located within paragraph (2) itself, leading into subparagraphs (A) through (F). [17]	Given the complexity, coordination, and potential impacts related to a SWSAP, the State Board believes it is vital that a project demonstrate and verify the ability to meet the proposed requirements in a manner that is protective of public health, prior to reducing its theoretical retention time. It should be noted that section 64668.30(b)(2)(A) of the proposed regulations provides for application at any time for a reduced on-going alternative minimum theoretical retention time of less than 180 days once the SWSAP can demonstrate that the operation has met specific conditions and requirements. The regulatory text does not preclude such a process from being included as part of a permit application. Furthermore, because some project proponents may not wish to use a phased approach, the suggested revision requiring a phased approach would not be appropriate. Regarding the suggestion to allow for a theoretical retention time of less than 60 day, as noted in the ISOR, the Expert Panel considered a project having less than two months theoretical retention time to be a form of DPR, and the State Board agreed with the Expert Panel. The purpose of the proposed regulations is to establish criteria, which adequately protect public health, for IRP though SWA. As a result, the establishment of criteria that would adequately protect public for theoretical retention times less than two months (i.e., 60 days) is beyond the scope of this regulatory action. However, please note that it's currently anticipated that the State Board will be establishing criteria for DPR in the future, consistent with the passage of 2017's Assembly Bill 574 (Chapter 528), which revised the Water Code's statutory requirements pertaining to potable reuse. Regarding the suggestion to relocate text, while the State Board doesn't find the suggestion to be inappropriate, the State Board believes the text is just as well suited in its proposed location, since the topic of subparagraph (D) is associated with log reduction requirements.

No	Specific Comment[3]	Response
33	**Subsection (c):** Suggested the phrase "whenever requested", without a basis, could be arbitrarily required by the State Board. [10, 11, 19] Regarding paragraph (2), recommended allowing "for more than 10% advanced treatment process effluent that does not meet the 60 day theoretical retention time requirement," under certain circumstances and with State Board approval. [18] While referencing section 64669.30(c), recommended, "removing paragraph (c)(2)(A). It is not clear if this paragraph is requiring a fourth barrier beyond the three identified in 60320.308(a)(2) or if it is intended only to define what is meant by a separate barrier. If it is the latter, the language would be better to include in Section 308, or removed entirely. Paragraph (c)(2)(B) makes clear that the extra barrier must comply with requirements of 308(a)(2), which includes the third barrier reference." [17]	The State Board agrees that the regulation would be enhanced by including a basis for the requirement, which may otherwise imply an arbitrary intent. As a result, the State Board proposed revisions under a 15-day comment period, which began November 30, 2017, and ended on December 18, 2017. Regarding commentator 18's recommendation, a theoretical retention time less than 60 days, or the addition of recycled municipal wastewater such that the criterion in subsection (c)(2) is not met, would not be considered a form of IPR through SWA. Substituting a demonstration of treatment effectiveness for the minimum environmental barrier is a concept that would be addressed by DPR regulations. Those conditions are expected to be addressed by the State Board in future regulations for various forms of DPR. Therefore, the establishment of criteria that would adequately protect public for the conditions suggested by the commentator are beyond the scope of this regulatory action. Regarding commentator 17's recommendation, first, the State Board assumes the commentator is referring to 64668.30, not 64669.30. 60320.308(a)(2) specifically refers to 64668.30(c)(2), and 64668.30(c)(2) specifically refers to 60320.308(a)(2), providing a nexus between the two subparagraphs. Therefore, State Board believes it is clear that the additional overall log reduction required in 60320.308(a)(2) [in contrast to 60320.308(a)(1) and its reference to 64668.30(c)(1)] for the treatment train is a result of the additional log reduction required in 64668.30(c)(2) – consistent with the explanation found in the ISOR. Had the requirement intended to result in an overall treatment train log reduction through a fourth treatment process, 60320.308(a)(2) would have referred to the need to for at least four processes.
34	Regarding paragraph (2)(A) and its reference to an "independent" treatment process, commentator 15 asked for clarification as to the extent to which the process must be independent. [7, 11, 14, 15]	After further consideration, the State Board concluded that the phrase in question implies a degree of qualification beyond that which already applies to the additional treatment via the requirements in section 60320.308. As a result, the State Board proposed revisions under a 15-day comment period, to delete the phrase, which began November 30, 2017, and ended on December 18, 2017.

No	Specific Comment[3]	Response
35	Suggested allowing "for more than 10 percent of new water, by volume, to be recently purified, based upon demonstration that sufficient treatment has been provided to account for chemical and microbiological pollutants." [13]	As noted in the ISOR, proposed section 64668.30(c) establishes criteria addressing the need for a rigorously quantified mixing of the recycled water delivered to the reservoir for any 24-hour period. Mixing sufficient to limit a 24-hour batch of potentially inadequately treated reclaimed water to 10 percent of water withdrawn from the reservoir, means that contaminant concentrations would be reduced by a factor of ten, which is considered to be a minimum effective reservoir benefit. In combination with the minimum theoretical retention time requirements in subsection (b), the criteria provide a means of distinguishing an IPR project from a DPR project. The State Board's mandate was to adopt criteria that would adequately protect public health for SWA, a form of IPR. However, please note that it's currently anticipated that the State Board will be establishing criteria for DPR in the future, consistent with the passage of 2017's Assembly Bill 574 (Chapter 528), which revised the Water Code's statutory requirements pertaining to potable reuse. DPR criteria will address the allowance of lesser dilutions.
36	**Subsection (g):** Asserted it is unclear what form the plan would take and suggested it would be more appropriate to require these elements to be addressed and included in the update to the water treatment operations plan. [19]	The State Board agrees that modifications to the treatment plant resulting from engaging in SWA should be included in the PWS's surface water treatment plant operations plan. However, the need to do so is already addressed by way of existing section 64661, which requires operation of a treatment plant in accordance with an operations plan that has been approved by the State Board, and to revise the operations plan accordingly when modifications to a treatment plant occur. It should be noted that the proposed requirement in subsection (g) is a plan for assessing and addressing potential impacts that may result from the introduction of advanced treated water into the treatment plant and the PWS's distribution system, and that the plan is required prior to augmentation. The changes to operation of the treatment plant that ultimately occur as a result of the implementation of the plan required in proposed subsection (g) will subsequently be included in the treatment plant's operations plan, as mentioned above.

Table 5: Commentators Providing Written Comments During the 15-day Comment Period

No.	*Name*	*Affiliation*
1	Root, Patsy & Frymire, Jody	IDEXX
2	Stewart, Mic	Metropolitan Water District of Southern California
3	Sutley, Nancy	Los Angeles Department of Water and Power

Table 6: Surface Water Augmentation Comment and Response for 15-day Comment Period

No	General Comment	Response
1	Suggested that sections 60320.380 (presumably intending to refer to 60320.308), 60320.326, and 64668.30, be revised to include reference to Legionella pneumophila. [1]	No response is necessary because the comments were not directed specifically at the revisions made and provided during the 15-day comment period. However, the commentator should note that the concerns regarding Legionella pneumophila would be addressed as a result of the treatment necessary to meet the proposed requirements for enteric virus, Giardia cyst, and Cryptosporidium oocyst reductions.
2	Expressed appreciation for the State Board having revised the regulations based on the comments the commentator provided during the 45-day comment period. The commentator also reiterated the comments provided by the commentator during the 45-day comment period. [2]	No response is necessary because the comments were not directed specifically at the revisions made and provided during the 15-day comment period. For responses to comments submitted during the 45-day comment period, please see the responses provided in the preceding section titled, “Summary and Response to Oral and Written Public Comments – 45-day Comment Period.”
3	Expressed support for the revisions and appreciation for the opportunity to comment on the revised regulations and for the State Board having revised the regulations based on the comments the commentator provided during the 45-day comment period. [3]	The support and appreciation is noted.