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Arnold Schwarzenegger
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DRAFT MITIGATED NEGATIVE DECLARATION

Pursuant to Section 21080(c)
Public Resources Code

To: Office of Planning & Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

From: State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100

Project Title: Statewide General Permit for Landscape Irrigation Uses of Recycled Water (General Permit)

Applicant: State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100

Project Description: New law, California Water Code section 13552.51, requires the State Water Board to adopt the General Permit by July 31, 2009. The intent of the new law is to develop a uniform interpretation of state standards to ensure the safe, reliable use of recycled water for landscape irrigation uses, consistent with state and federal water quality law. The new law is also intended to expedite permitting for use of recycled water for landscape irrigation. The State Water Board, acting as "lead agency," is completing an environmental review process, required by the California Environmental Quality Act, prior to adopting the General Permit.

Determination: The State Water Resources Control Board has determined that the above proposed project will have a less-than-significant effect on the environment for the reasons specified in the attached Initial Study.

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Adopted at a meeting of the State Water Resources Control Board held on XXXXX, 2009

Jeanine Townsend
Clerk to the Board

DRAFT
INITIAL STUDY

GENERAL WASTE DISCHARGE REQUIREMENTS FOR LANDSCAPE IRRIGATION USES OF MUNICIPAL RECYCLED WATER

California State Water Resources Control Board
Division of Water Quality
Sacramento, California
<DATE>, 2009

DRAFT INITIAL STUDY / MITIGATED NEGATIVE DECLARATION ANALYSIS

GENERAL WASTE DISCHARGE REQUIREMENTS FOR LANDSCAPE IRRIGATION USES OF MUNICIPAL RECYCLED WATER

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GENERAL WASTE DISCHARGE REQUIREMENTS FOR
LANDSCAPE IRRIGATION USES OF MUNICIPAL RECYCLED WATER

1. Project Description:

New law, California Water Code section 13552.5[1], requires the State Water Resources Control Board (State Water Board) to adopt a general permit for landscape irrigation uses of recycled water (hereafter "General Permit") by July 31, 2009. The intent of the new law is to develop a uniform interpretation of state standards to ensure the safe, reliable use of recycled water for landscape irrigation uses, consistent with state and federal water quality law. The new law is also intended to expedite permitting for use of recycled water for landscape irrigation.

"Recycled water" is water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource[2]; "recycled water" and "reclaimed water" have the same meaning[3,4]. The General Permit limits the definition of "recycled water" to water which results from the treatment of municipal wastewater.

The Department of Water Resource's *California Water Plan Update 2005* identifies the primary benefit of recycled water as augmenting water supply. Rather than discharging and losing water, recycled water can be reused as a "new" water supply in areas where wastewater is discharged to the ocean or to a salt sink. The *California Water Plan Update 2005* also identifies the following potential benefits for communities that invest in recycled water use with appropriate practices:

- *Provide more reliable local sources of water, nutrients, and organic matter for agricultural soil conditioning and reduction in fertilizer use*
- *Reduce the discharge of pollutants to water bodies, beyond levels prescribed by regulations, and allow more natural treatment by land application*
- *Provide a more secure water supply during drought periods*
- *Provide economic benefits resulting from a more reliable water supply*
- *Improve groundwater and surface water quality and contribute to wetland and marsh enhancement;*
- *Provide energy savings; the use of recycled water as a local source offsets the need for energy-intensive imported water.*

[1] Assembly Bill 1481 (De La Torre, Chapter 535, Statutes of 2007)
[2] California Water Code section 13050 (n)
[3] California Water Code section 26
[4] Throughout this report, refer to Attachment A of the proposed General Order for definitions.

The State Water Board, acting as "lead agency," is completing an environmental review process, required by the California Environmental Quality Act[5] (CEQA), prior to adopting the General Permit, which is intended to satisfy the requirements of Water Code section 13552.5. The environmental review requires an initial review of the project and its potential environmental effects.

The CEQA requires that most plans and discretionary action of public agencies (e.g., the adoption of the proposed General Permit) be evaluated to determine and publicly disclose potential environmental impacts. This Initial Study (I.S.) has been prepared to evaluate the potential environmental effects of implementing the proposed statewide General Permit for landscape irrigation uses of recycled water. This I.S. has been prepared in accordance with the CEQA and the State CEQA Guidelines[6]. An I.S. is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with State CEQA Guidelines Section 15064(a), an environmental impact report (EIR) must be prepared if there is substantial evidence (including the results of an I.S.) that a project may have a significant effect on the environment. A negative declaration (ND) or mitigated negative declaration (MND) may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions made to the project, or agreed to by the applicant, mitigate the potentially significant impacts to a less-than-significant level[7]. Based on the results of this I.S., the State Water Board has determined that a mitigated negative declaration is appropriate for this project.

1.1 Lead Agency

Under CEQA, the lead agency is the public agency with primary responsibility over the proposed project. The State Water Board is the lead agency under CEQA for this project because of its regulatory authority over water quality and recycled water use in California and, as specified in the legislation, its lead role in developing the proposed General Permit for landscape irrigation uses of recycled water.

1.2 Public Review and Comment

This I.S. available for a 30-day public review period beginning <DATE>, and ending on <DATE>. Written comments may be submitted by <DATE> to:

Jeanine Townsend, Clerk to the Board
State Water Resources Control board
1001 I Street, 24th Floor
Sacramento, CA 95814

[5] Public Resources Code section 21000 et seq.
[6] 14 California Code of Regulations [CCR] Section 15000 et seq.
[7] State CEQA Guidelines Section 15064(f)

Comment letters may be submitted by email to commentletters@waterboards.ca.gov (if less than 15 megabytes in total size) or by fax at (916) 341-5620. For email submittals, please indicate in the subject line: **Comment Letter-Landscape Irrigation General Permit**."

1.3 Purpose and Project Objectives

The purpose of this I.S. is to evaluate the potential environmental effects of the proposed project. The objective of this project is to develop a General Permit for landscape irrigation uses of recycled water that provides uniform interpretation of state standards to ensure the safe, reliable use of recycled water for landscape irrigation uses, consistent with state and federal water quality law. The General Permit is intended to satisfy the requirements of Water Code section 13552.5 and is intended for discharges of recycled water for landscape irrigation uses. One purpose of the General Permit is to help streamline the regulatory process for such discharges. The project objectives are summarized in Table 1.

Table 1
Statewide General Permit for Landscape Irrigation Uses of Recycled Water Objectives

• Comply with the Water Code section 13552.5
• Provides uniform interpretation of state standards to ensure the safe, reliable use of recycled water for landscape irrigation uses
• Avoid imposing regulatory requirements that are more stringent than necessary to comply with the law; avoid actions that will have unreasonable costs relative to their environmental benefits
• Help streamline the regulatory process for authorizations to use recycled water for landscape irrigation purposes

2. CEQA Requirements

The CEQA requires that most plans and discretionary action of public agencies (e.g., the adoption of the General Permit) be evaluated to determine and publicly disclose potential environmental impacts.

Following preliminary review, the Lead Agency is required to conduct an I.S. to determine if the project may have a significant effect on the environment. If the lead agency determines there is no substantial evidence that the project may have a significant effect on the environment, the lead agency shall prepare a negative declaration[8].

2.1 Scope of Environmental Analysis

The CEQA has specific provisions that establish the scope of the environmental analysis required for the adoption of the proposed General Permit. The CEQA limits the scope to an environmental analysis of the reasonably foreseeable methods of compliance with the water reuse requirements of Title 22, Division 4, California Code of Regulations (hereafter Title 22 Requirements). Section 15063 of the State CEQA Guidelines requires that all phases of project planning, implementation, and operation must be considered in the I.S. of the project.

This I.S. describes a reasonable range of alternatives to the proposed project that could feasibly enable the project's basic objectives to be met. The alternatives to the proposed project have been identified by the State Water Board using input received from a June 18, 2008 scoping meeting and other discussions with stakeholders, including conversations with the Regional Water Boards and the California Department of Public Health.

Since recycled water use generally has two regulatory elements (water quality standards and public health protection standards), this I.S. is organized to analyze the respective regulatory elements separately; the results of the separate analyses are then combined in a summary discussion (section 9). The alternatives to the proposed project described in the sections that follow include an alternative regulatory approach and a "No-Project" alternative. Specifically this I.S. includes the following elements:

- A brief description of the proposed activity with respect to public health and, separately with respect to water quality standards. In this case, the proposed activity is the adoption of a General Permit for landscape irrigation uses of recycled water.

[8] *Friends of B Street v. City of Hayward* (1980) 106 Cal.App. 3d 988

- Reasonable alternatives to the proposed activity (discussed in section 8 and section 9).

- Mitigation measures to minimize any significant adverse environmental impacts of the proposed activity (discussed throughout section 5).

Additionally, the CEQA[9] and CEQA Guidelines[10] require the following components, some of which are repetitive of the list above:

1. An analysis of the reasonably foreseeable environmental impacts of the methods of compliance. These methods may be employed to comply with the General Permit. Reasonably foreseeable methods of compliance are described in section 4. Sections 5 and 6 identify the environmental impacts associated with the methods of compliance.

2. An analysis of the reasonably foreseeable feasible mitigation measures relating to those impacts. This discussion is also in section 5.

3. An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified impacts. This discussion is in section 6.

Additionally, the CEQA Guidelines require the I.S. take into account a reasonable range of the following:[11]

1. Environmental factors (section 5).

2. Technical factors (section 5).

3. Population (section 5).

4. Geographic areas (section 5).

5. Specific sites (section 5).

A “reasonable range” does not require an examination of every site, but a reasonably representative sample of them. The statute specifically states that the agency shall not conduct a “project level analysis.”[12] Rather, a project level analysis must be performed by the producers and distributors of recycled water that choose to seek

[9] Public Resources Code section 21159 (a)
[10] 14 CCR section 15187(c)
[11] 14 CCR section 15187(d),Public Resources Code section 21159 (c)
[12] Public Resources Code section 21159(d)

coverage pursuant to the General Permit.[13] Notably, the State Water Board is prohibited from specifying the manner of compliance with its regulations,[14] and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by the producers and distributors of recycled water. In preparing this environmental analysis, the State Water Board has considered the pertinent requirements of state law[15] and intends this analysis to serve as a tier 1 environmental review.

The State Water Board believes that the proposed project, the other regulatory alternatives described below, and the No-Project Alternative adequately covers the full range of alternatives needed "to foster meaningful public participation and informed decision making" and should be sufficient to "permit a reasoned choice."[16]

2.2 CEQA Scoping

On June 18, 2008, the State Water Board conducted a CEQA scoping meeting in Sacramento[17] to seek public input regarding the scope and content of a statewide general permit for landscape irrigation uses of recycled water and an associated environmental document. The meeting was announced May 8, 2008 and written comments were due by 12:00 p.m. on June 26, 2008.

The purpose of the workshop was to engender comments from different interested parties and to provide direction for State Water Board staff for the development of a general permit for landscape irrigation uses of recycled water. State Water Board staff used the workshop and the subsequent written comments received to help identify the range of actions, alternatives, mitigation measures, and potential significant environmental effects to be analyzed in the development of both the General Permit and supporting environmental document. In response to the workshop, the State Water Board staff received 24 comment letters containing approximately 300 comments. This I.S. considers the comments received (identified in Appendix E) at the CEQA scoping meeting.

Additionally, during the week of August 11, 2008, State Water Board staff met with regional water quality control board staff to develop the General Permit and this I.S. All regional water quality control boards were invited and representatives of the North Coast, Los Angeles, Central Valley, and San Diego regional water boards participated in the meeting.

[13] Public Resources Code section 21159.2
[14] Water Code section 13360
[15] Public Resources Code section 21159 and 14 CCR section 15187
[16] State CEQA Guidelines Section 15126.6[f]
[17] Wednesday, June 18, 2008 - 1:30 p.m; Coastal Hearing Room; Joe Serna Jr./Cal-EPA Building; 1001 I Street Sacramento, CA 95814

State Water Board staff also facilitated numerous consultation meetings[18] and maintained frequent communication with the California Department of Public Health (CDPH) regarding the development of the general permit and this I.S. The State Water Board staff also meet with other interested parties and stakeholders[19] regarding the development of the General Permit and this I.S.

3. Recycled Water Rules and Regulations

It is State policy to promote the use of recycled water to the maximum extent in order to supplement existing surface and ground water supplies to help meet water needs[20]. One of the primary conditions on the use of recycled water is protection of public health[21].

State statutes and regulations pertaining to the production and use of recycled water in California are found in the Water Code, California Health and Safety Code, and the California Code of Regulations (CCR). Basin plans may also contain the recycled water use policy of individual Regional Water Boards. Several related additional agency and judicial decisions pertaining to recycled water also exist. Recycled water regulations generally have two elements: water quality standards and public health protection standards.

3.1 Regional Water Board Water Recycling Requirements

All persons who recycle or propose to recycle water, and who use or propose to use recycled water, must file a report with the appropriate Regional Water Board. If a Regional Water Board determines that it is necessary to protect public health, safety, or welfare, it may prescribe individual water recycling requirements (WRRs) orders where recycled water is used or proposed to be used.

Each Regional Water Board, after consulting with the CDPH, may, in lieu of issuing WRRs or WDRs, issue a master reclamation permit to a supplier or distributor, or both, of recycled water. A master reclamation permit includes each of the following elements:

Waste Discharge Requirements;

- A requirement that the permitee comply with uniform statewide reclamation criteria;
- A requirement that the permitee establish and enforce rules or regulations for recycled water users, governing the design and construction of recycled use facilities and the use of recycled water;

[18] May 30, 2008; August 27, 2008; September 23, 2008; February 24, 2009
[19] WateReuse Association, October 2, 2008
[20] Water Code sections 13510-13512
[21] Water Code sections 13521, 13522, 13550(a)(3)

- A requirement that the permitee submit quarterly summary reports;
- A requirement to conduct periodic inspections of the facilities and the recycled water users to monitor for compliance; and
- Other requirements determined to be appropriate by the Regional Water Board.

A benefit of master reclamation permits is that individual recycled water users are not required to seek individual coverage permits from a regional water board, thus avoiding additional regulatory burdens and costs.

Regional Water Board requirements for recycled water use often prescribe discharge prohibitions, effluent limitations, and provisions for recycled water waste constituents and use activities. In some cases, especially for municipal wastewater discharges via an ocean outfall, the NPDES permit for a Producer's facility does not include requirements necessary to ensure the protection of beneficial uses of groundwater resources (e.g., agricultural supply, municipal supply). In order to facilitate the use of recycled water, Regional Water Boards adopt master reclamation permits that implement the Title 22 Requirements and consider potential impacts to the beneficial uses of groundwater. Thereby, some master reclamation permits prescribe discharge limitations necessary to ensure the protection of beneficial uses of groundwater resources not otherwise included in a Producer's NPDES permit. The following subsections identify the issues associated with various water quality standards and specific constituents in recycled water.

3.1.1 Salinity

Salts are attributed to salinity constituents in imported water, soil leached by irrigation, animal wastes, fertilizers and other soil amendments, municipal use, industrial wastewaters, and oil field wastewaters. These salt sources, all contributors to salinity increases, should be managed to the extent practicable to reduce the rate of groundwater degradation. Where feasible, salts in waste streams should be processed for reuse.

Degradation of groundwater in some groundwater basins by salts is unavoidable without source control and the use of advanced treatment technologies or a plan for removing salts from the basin. In absence of a mechanism to remove accumulated salinity, the other viable approach is to manage the rate of degradation by minimizing the salt loads to the groundwater basin. Salinity loads contributed by the reuse of municipal wastewater can be reduced by either precluding anthropogenic derived salts from introduction into the wastewater collection systems (i.e., pretreatment of wastes) or treatment of salts at the wastewater plant (removal of salts), or both.

The major constituents of concern in assessing the quality of water for the agriculture beneficial use are salinity (expressed as electrical conductivity or total dissolved solids), boron, chloride, sodium, and nitrate. In general, animal uses are less sensitive than crops for these constituents. Salinity reduces crop growth by reducing the ability of plant roots to absorb water. The salt tolerance of crops also depends on the frequency and type of irrigation (e.g., drip, furrow, or sprinkler irrigation). Sprinkler irrigation has the greatest impact due to foliar absorption of salt. Absorption and foliar injury are further influenced by high temperature, low humidity, and drying winds, type of sprinkler, and timing of irrigation. Boron is an essential element but can become toxic to some plants when concentrations in water even slightly exceed the amount required for optimal growth. Like salt tolerance, boron tolerance varies with the climate, the soil, and the crop. A predominance of sodium relative to other ions in irrigation water may disperse soil aggregates, which in turn, affects virtually all crops by decreasing the permeability of the soil by water and air.

An agricultural or horticultural salinity problem exists if salt accumulates in the root zone to a concentration that causes a loss in yield or adverse aesthetic effects. In irrigated areas, these salts often originate from a saline, high water table or from salts in the applied water. Yield reductions and aesthetic damage occurs when the salts accumulate in the root zone to such an extent that the crop is no longer able to extract sufficient water from the salty soil solution, resulting in a water stress for a significant period of time.

Salinity accumulations in groundwater can ultimately eliminate the beneficial use of the resource. The agricultural beneficial use tends to be the most vulnerable beneficial use to salinity accumulation. This loss of the agricultural beneficial use will not be immediate, but control of the salinity increase is a major part of several Water Quality Control Plans. In general, salt loads reaching a groundwater body must be reduced. Storage of salt in the soil through increased irrigation efficiency is a good practice, but is only a temporary solution. Current fertilization and soil amendment practices should be reviewed.

3.1.2 “Emerging Contaminants”

A need exists to increase understanding of so-called "emerging contaminants" that may be present in recycled water used for landscape irrigation. The CDPH is the primary state agency responsible for the protection of public health and the regulation of drinking water standards. In its comment letter dated June 26, 2008, the CDPH recommended that this General Permit not be applicable to landscape irrigation projects for use areas in which there is evidence that "emerging contaminants" are a concern (e.g., close to drinking water sources).

The many evolving issues associated with “emerging contaminants” are presently the subject of a number of studies, including a major study being undertaken by the National Water Research Institute, the Metropolitan Water District of Southern California, and the Orange County Water District (hereafter Study), estimated to be completed in 2009. The Santa Ana Regional Water Board entered into a cooperative agreement to protect water quality and encourage the conjunctive use of imported water in the Santa Ana Basin[22] (hereafter Cooperative Agreement). The Santa Ana Regional Water Board, via the Cooperative Agreement, is coordinating the evaluation and investigation of so-called “emerging contaminants” within the Santa Ana Basin.

Some water supply agencies, at their own expense, are developing and implementing voluntary studies based on the best available science intended to better characterize the presence, extent, distribution and persistence of certain unregulated constituents in water supplies. The results of the Study, other voluntary efforts, and the work of other agencies such as the CDPH, the United States Environmental Protection Agency, and the United States Geological Survey will likely yield useful information relevant to the use of recycled water for landscape irrigation. The results of the efforts from the Cooperative Agreement and other efforts to evaluate so-called “emerging contaminants” are expected to be substantially relevant to recycled water use issues.

It is understood that the constituents that are the subject of the Study, other voluntary studies, and that are the scrutiny of the CDPH, the United States Environmental Protection Agency, and the United States Geological Survey, will in all likelihood, change over time as their relative importance or unimportance to human health becomes better known.

3.1.3 Other Waste Constituents

As a result of domestic, commercial, and industrial uses, waste constituents enter the collection system of wastewater treatment facilities. The majority of mass of waste constituents are treated and removed at the wastewater treatment facilities. However, chlorine, ammonia, aluminum, and priority pollutants[23] are other constituents common to domestic wastewater that can degrade water quality and impair beneficial uses of surface waters if not adequately treated and controlled. These constituents are regulated in Waste Discharge Requirements for wastewater discharges.

Additionally some producers and distributors of recycled water chlorinate recycled water delivered and stored for reuse to prevent regrowth of pathogens and growth of

[22] Resolution No. 2008-0019
[23] Appendix A to Title 40 Code of Federal Regulations Part 423.

organisms that could cause odor nuisance and operational difficulties in the reclamation system. Chlorine is toxic to fish and other aquatic life at extremely low concentrations. In some cases, various chemicals (e.g., copper sulfate, acrolein, etc.) may be added to storage ponds for weed, algae, and vector control.

3.1.4 Unauthorized Discharges of Recycled Water

Ideally, recycled water applied for landscape irrigation is intended to remain on the irrigated areas to avoid public health and nuisance problems that could result from runoff. The management of landscape irrigation sites to preclude unauthorized discharges of minor amounts of recycled water (sometimes referred to as "incidental runoff"[24]) has been a persistent logistical and regulatory challenge. For example, it is difficult to prevent runoff of rainwater from areas irrigated with recycled water or from aesthetic ponds on golf courses filled with or previously filled with recycled water, especially during major storm events. In some cases, various chemicals (e.g., copper sulfate, acrolein, etc.) may be added to impoundments for weed, algae, and vector control. Runoff from irrigated areas may contain higher concentrations of salts and other chemicals including pesticides and fertilizers.

Staff reviewed existing practices related to the regulation of incidental runoff. In general, the regional water boards implement the following strategies to address incidental runoff:

- Where reclamation requirements prohibit the discharge of waste to waters of the State and discharges are not expected to occur, occasional runoff should not trigger the need for either an individual NPDES permit or enforcement action.
- If discharges from a reclamation project area occur routinely, such discharges can be regulated under a municipal storm water NPDES permit in most cases.
- In limited cases, where necessary to address a water quality concern, discharges of recycled water to surface waters may be regulated under an individual NPDES permit. An NPDES permit, however, should not be issued unless necessary to achieve water quality objectives.

In October 2005, the Central Valley Regional Water Board adopted a revised Master Reclamation Permit for the City of Roseville. The revised permit was prepared in accordance with the terms of a settlement agreement between the Central Valley Regional Water Board, the City of Roseville, and Deltakeeper, et al. Deltakeeper had filed suit against the both the Central Valley Regional Water Board and the City of Roseville, alleging that allowing recycled water storage ponds to overflow and thereby discharge wastes to surface waters without an NPDES permit is a violation of the Clean Water Act. The settlement agreement stipulated that recycled water storage pond overflows to surface water shall be prohibited in the revised permit.

[24] Unintended small amounts (volume) of runoff from recycle water use areas, such as over-spray from sprinklers that minimally overflows the intended use area. Water leaving a reuse area as part of the facility design, excessive application, intentionally overflowed or applied, or due to negligence is not considered incidental

Similarly, the General Permit contains a broad prohibition that the direct or indirect discharge from use areas of recycled water to surface waters, either perennial or ephemeral, including wetlands, vernal pools, etc., unless otherwise authored by a permit issued pursuant to the federal Clean Water Act is prohibited.

In further review of existing practices related to the regulation of incidental runoff staff also determined that the North Coast Regional Water Board is considering adopting an amendment to the North Coast Region Basin Plan to address low threat discharges to surface waters. "Incidental runoff," as defined in the proposed basin plan amendment, is a proposed category of low threat discharge (hereafter "North Coast Incidental Runoff").

The Water Quality Control Plan for the North Coast Region (Basin Plan) contains seasonal prohibitions against all point source discharges to certain surface waters during the period May 15 to September 30 of each year as well as year-round prohibitions for discharges to other specified waterbodies. North Coast Regional Water Board staff believe that the proposed Low Threat Discharge Basin Plan Amendment is necessary to provide exceptions to the Basin Plan point source discharge prohibitions for discharges that can be demonstrated as not having an adverse impact on water quality and for which there are no other reasonable discharge alternatives. Staff generally concurs that North Coast Incidental Runoff could be considered a low threat discharge since the water meets all applicable water quality standards. However, "incidental runoff" as defined by the General Permit could not be considered a "low threat" or "de minimis" discharge since there is no assurance that the water meets all applicable water quality standards on a statewide basis.

In most cases, the implementation of Best management Practices (BMPs) should minimize or eliminate the conditions that cause runoff, ponding, and windblown spray. However, implementation of BMPs will likely not provide protection to users of recycled water or the regional water boards from citizens' suits under the Clean Water Act for alleging unauthorized discharges of recycled water to Waters of the United States.

3.2 Water Recycling Criteria (i.e., Title 22 Requirements)

Pursuant to Water Code section 13521, the California Department of Public Health has established uniform statewide recycling criteria for each varying type of use of recycled water where the use involves the protection of public health[25]. The Title 22 Requirements are designed to protect public health from pathogens. Other water quality standards inherent in the use of recycled water are not regulated by the Title 22 Requirements. Examples of factors that affect water quality not regulated by

[25] CCR Title 22, section 60301, et. seq.

the Title 22 Requirements include nutrients, salinity constituents, boron, chloride, metals, pesticides, and others.

In general, the Title 22 requirements establish a regulatory system that creates the following classifications of recycled water quality with respect to public health:

- *Undisinfected secondary recycled water*[26]: The lowest public health protection recognized by the Title 22 Requirements, undisinfected recycled water is typically used for the agricultural irrigation of fodder and fiber type crops.
- *Disinfected secondary-23 recycled water*[27]: Recycled water that has been disinfected such that the median concentration of total coliform bacteria does not exceed a most probable number (MPN) of 23 per 100 milliliters of sample. Disinfected secondary-23 recycled water is typically used for some types of surface irrigation, including some landscape irrigation practices, where public access is controlled or restricted. Disinfected secondary-23 recycled water is also sometimes used for commercial or industrial applications such as boiler feed water, cooling water, and concrete mixing.
- *Disinfected secondary-2.2 recycled water*[28]: Recycled water that has been disinfected such that the median concentration of total coliform bacteria does not exceed a MPN of 2.2 per 100 milliliters of sample. Disinfected secondary-2.2 recycled water is typically used for some types of surface irrigation, including some landscape irrigation practices, and landscape water features[29] where public access is controlled or restricted.
- *Disinfected tertiary recycled water*[30]: Recycled water that is filtered and subsequently disinfected to essentially remove or inactivate all pathogenic material. In practice, the "tertiary treatment" standards are intended to ensure the removal or inactivation of 99.999% of polio virus or MS2 bacterial virus present in undisinfected secondary effluent[31].

Table 2 illustrates the minimum criteria required for various uses of recycled water.

TABLE 2

Recycle Water Use Type	Undisinfected Secondary	Secondary-23	Secondary-2.2	Disinfected Tertiary
"Surface Irrigation"				

[26] CCR Title 22, section 60301.900
[27] CCR Title 22, section 60301.225
[28] CCR Title 22, section 60301.220
[29] e.g., water features or decorative ponds (excluding decorative fountains that may result in spray or mists)
[30] CCR Title 22, section 60301.230
[31] Final Statement of Reasons [in support of promulgation on Title 22 Requirements], pages 3-4

TABLE 2				
Recycle Water Use Type	**Undisinfected Secondary**	**Secondary-23**	**Secondary-2.2**	**Disinfected Tertiary**
Food Crops				X
Parks & Playgrounds				X
School Yards				X
Residential Landscaping				X
Unrestricted Access Golf Courses				X
Other irrigation use not prohibited				X
Cemeteries		X		
Freeway Landscaping		X		
Restricted Access Golf Courses		X		
Ornamental Nursery Stock / Sod Farms		X		
Pasture Animals Producing Milk		X		
Nonedible Vegetation		X		
Orchards (non contact w/ edible parts)	X			
Vineyards (non contact w/ edible parts)	X			
Non-food bearing Trees	X			
Fodder and Fiber crops	X			
Seed Crops (not directly consumed)	X			
Food Crops subject to pathogen-destroying process prior to consumption	X			
"Landscape Impoundment"				
Nonrestricted Recreational Impoundment				X
Restricted Recreational Impoundment			X	
Landscape Impoundment w/ out Decorative Fountain		X		

Table 2 – Abbreviated and simplified description of the minimum criteria of recycled water required for various uses.

Outside of California, the term “tertiary treatment” refers to increased nutrient removal (e.g., phosphorous, nitrogen) intend to control the effects of eutrophication in lakes. In California, “tertiary treatment” typically refers to treatment practices that employ filter or membrane treatment technology in conjunction with disinfection measures.

3.3 Division of Responsibility between the Regional Water Boards and the California Department of Public Health

The Regional Water Boards must consult with and consider recommendations of the CDPH when issuing water recycling requirements[32]. The CDPH is statutorily required to establish uniform statewide recycling criteria for the various uses of recycled water to assure protection of public health where recycled water use is involved. The CDPH has promulgated regulatory criteria that include specified approved uses of recycled water, numerical limitations and requirements, treatment method requirements and performance standards[33]. CDPH regulations allow use of alternate methods of treatment in some cases, so long as the alternate methods are determined by CDPH to provide equivalent treatment and reliability.

A 1996 Memorandum of Agreement (MOA) between CDPH (formerly known as the Department of Health Services), State Water Board, and the Regional Water Boards on the use of recycled water allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and mechanisms necessary to ensure ongoing and continuous future coordination of activities relative to the use of recycled water in California.

3.4 Water Code section 13552.5 (Assembly Bill No.1481, De La Torre, 2007)

This law requires the State Water Board, by July 31, 2009, to adopt a general permit for landscape irrigation uses of recycled water for which the CDPH has established uniform statewide standards. The State Water Board is required to establish criteria to determine eligibility for coverage under the general permit. Language that provides for the modification of the terms and conditions must be included in the general permit (i.e. a reopener) if a regulatory or statutory change occurs that affects the application of the general permit or if there is substantial evidence that the use of the recycled water may pose a threat to water quality or beneficial uses. The law also requires the State Water Board to hold at least one workshop and consider comments from interested parties and the Regional Water Boards during the development of the general permit.

The law also includes the following elements:

- Allow a person to obtain coverage under the general permit for landscape irrigation use of recycled water by filing a notice of intent and submitting a

[32] Water Code section 13523
[33] Title 22 Requirements

fee to the State Water Board.

- Specify that an applicant shall be covered under the General Permit, except as provided by modifications of the general permit, if:
  - The applicant has submitted a completed application.
  - The State Water Board had determined that they meet the eligibility criteria for coverage under the general permit.
  - The State Water Board has made the application available for public review and comment for at least 30 days.
  - The State Water Board has consulted with the appropriate Regional Water Board.
  - The Executive Director of the State Water Board approves the application.
- Specify that a person who is eligible for coverage under the general permit is not required to become or remain subject to WDRs adopted by Regional Water Boards, and allow a person who is subject to general or individual WDRs or individual or "master water reclamation requirements" adopted by a Regional Water Board to apply for coverage under the General Permit, in lieu of remaining subject to the Regional Water Board WDRs.
- Require the State Water Board to establish a reasonable schedule of fees to pay for the costs incurred to implement, develop and administer the bill's requirements.
- Require the State Water Board to designate a "recycled water ombudsperson" to coordinate and facilitate the implementation of the general permit adopted pursuant to the bill.

By its title, Water Code section 13552.5 infers that recycled water use shall be limited to use for "landscape irrigation," a term not defined in either the law or the Title 22 Requirements. The Title 22 Requirements define "Landscape Impoundment" as an impoundment in which recycled water is stored or used for aesthetic enjoyment or landscape irrigation, or which otherwise serves a similar function and is not intended to include public contact. The Title 22 Requirements also uses the term "surface irrigation" but do not specifically define "surface irrigation."

Recycled water for "landscape irrigation" could apply to many of the types of uses identified in Table 2. Since the law is ambiguous as to which types of "landscape irrigation" should be subject to its provisions the General Permit, the State Water Board solicited comments regarding the appropriate definition of "landscape irrigation."

Following evaluation of the minimum criteria required for various uses of recycled water and the comments received, the General Permit defines "landscape irrigation" (and limits eligibility for coverage under the General Permit) as follows:

> *Specified uses of recycled water considered "landscape irrigation" projects include any of the following:*
>
> - *Parks, greenbelts, and playgrounds;*
> - *School yards;*
> - *Athletic fields;*
> - *Golf courses;*
> - *Cemeteries;*
> - *Residential landscaping, common areas;*
> - *Commercial landscaping, common areas;*
> - *Industrial landscaping, common areas, and*
> - *Freeway, highway, and street landscaping.*

Residential landscape irrigation projects, including in common areas, would be eligible for coverage under the General Permit. However, individually owned residences would not be eligible for coverage under the General Permit. The Regional Water Boards will continue to address individually owned residences on a case-by-case basis. Trained personnel with specific defined responsibilities (e.g., the recycled water use supervisor), not typically within the capabilities of owners of most single family residences, are necessary to ensure safe and efficient oversight of the recycled water use system.

3.5 Antidegradation

The Implementation Plans of the various Water Quality Control Plans establish procedures for the implementation of the antidegredation directives of the State Water Board. In general, the prevention of degradation of high quality groundwater and surface waters is a high priority of the California Water Boards.

In 1968, the State Water Board adopted Resolution No. 68-16 (Resolution No. 68-16) which specifies requirements to maintain high quality waters of the State. Degradation in water quality can only be authorized if it is demonstrated that the change is consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in water quality policies (i.e., the change results in exceedances of water quality objectives). Any activity that results in the degradation of the quality of waters of the state must be required to employ best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest quality of water will be maintained consistent with maximum benefit to the

people of the State. Resolution No. 68-16 pursuant to the respective antidegredation implementation plans of the various Water Quality Control Plans are collectively known as the “Antidegradation Policy.”

Degradation of groundwater by constituents in recycled water after effective source control, treatment, and control may be determined to be consistent with maximum benefit to the people of California. This determination is based on considerations of reasonableness under the circumstances of the recycled water use. Factors to be considered include:

- Past, present, and probable beneficial uses of the receiving water (as specified in the applicable Water Quality Control Plan;
- Economic and social costs, tangible and intangible, of the recycled water usage compared to the benefits;
- Environmental aspects of the recycled water usage; and
- Implementation of feasible alternative treatment or control methods.

The proposed General Permit establishes terms and conditions of discharge to ensure that the discharge does not unreasonably affect present and anticipated beneficial uses of groundwater and surface water for the following reasons:

- Recycled water will be applied at agronomic rates reflecting the seasonal hydraulic and nutrient requirements of the Use Area;
- The Producer is responsible for ensuring that recycled water meets the quality standards of the General Permit and associated waste discharge requirement order(s) for the WWTP(s); and
- The discharge to surface waters, unless otherwise authorized by an NPDES permit, is prohibited.

Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the State. The technology, energy, water recycling, and waste management advantages of municipal wastewater treatment far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impact on water quality will be substantially less. Economic prosperity of State communities and associated industry is of maximum benefit to the people of the State, and therefore sufficient reason to allow some groundwater degradation provided terms of the applicable Water Quality Control Plan are met.

To comply with the proposed General Permit, Producers and Distributors must implement, and ensure users implement, the following treatment and control measures necessary to avoid pollution or nuisance and maintain the highest water quality consistent with the maximum benefit to the people of the state:

- Treatment and use standards necessary to produce disinfected tertiary recycled water and implement the applicable Title 22 Requirements;
- Recycled water application at agronomic rates;
- Identify and implement best management practices;
- Develop, maintain, and implement an Operation & Maintenance Plan; and
- Trained personnel (e.g., recycled water supervisor)

4. Analysis of Reasonably Foreseeable Methods of Compliance

The analysis of reasonably foreseeable methods of compliance is based on the numerous alternative methods of compliance available for the appropriate and safe use of recycled water for landscape irrigation. Compliance will be achieved through implementation of control strategies designed to reduce the threat to water quality and public health. The recycled water producer will be responsible for ensuring that recycled water meets the quality standards of the General Permit and associated waste discharge requirement order(s) for the wastewater treatment plant. The General Permit will require the Producers and Distributors to ensure that Users implement required BMPs and identify other control strategies in an Operation & Maintenance Manual submitted with each application. The details of various control strategies are often based on site-specific conditions (e.g., land uses, supply water characteristics, soils and geology, requirements of plant species being irrigated, etc.). Typical examples of control strategies required by the General Permit are described in general below.

4.1 Operations Plan. A detailed operations plan for the recycled water use area, including methods and procedures for the following:

- Implementation of regulations regarding recycled water use;
- Maintenance of equipment and emergency backup systems to maintain compliance with the conditions of this Order and CDPH requirements; and
- A copy of the duty statement for the recycled water use supervisor responsible for the recycled water system.

An operation and maintenance (O&M) plan for a wastewater treatment facility is a common tool employed by wastewater professionals to ensure the proper operation and maintenance of wastewater treatment infrastructure and appurtenances and management of treated wastewater. An O&M plan for the production, distribution, and use of recycled water, in part, includes the following elements:

- Detailed operations plan

- Irrigation Management Plan
- Producer's established rules and/or regulations:
- Contractual Agreements

4.2 Irrigation Management Plan. The Irrigation Management Plan shall include a conceptual plan and measures to ensure the use of recycled water occurs at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to Recycled Water Use Areas. Producers and Distributors will be responsible for ensuring that users implement an individualized irrigation management plan.

An individualized Irrigation Management Plan, based upon the general Irrigation Management Plan, shall be developed for each Recycled Water Use Area and shall account for the following:

- Soil characteristics;
- Recycled water characteristics (nutrients, including nitrogen and phosphorous content; specific ion toxicity, including chloride, boron, sodium, bicarbonate; and other parameters);
- Requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements);
- Climatic conditions; precipitation, evapotranspiration rate, wind;
- Other supplemental nutrient additions (e.g., chemical fertilizers) used in the operation of the Use Area; and
- Management of impoundments used to store or collect recycled water.

4.3 Local Regulations. A copy of the Producer's or Distributor's established rules and/or regulations for Distributors and Users governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the criteria established in the Title 22 Requirements and the General Permit.

4.4 Contractual Agreements. A copy of the written (and signed) agreement among the respective parties responsible for the produced, distributed, and use of recycled water.

4.5 Periodic Inspections. The Distributor shall ensure that periodic inspections are conducted of the Use Areas they supply and establish procedures to monitor and assure compliance with conditions of this General Permit. The Distributor shall also ensure that regular inspections occur to assure cross connections with potable water systems are not made and air-gap devices are installed and operable.

4.6 Best Management Practices (BMPs). The implementation of appropriate BMPs can help to ensure the operation of a safe and efficient irrigation system. BMPs can help minimize, and in some cases, eliminate conditions that can result in potential threats to public health (e.g., windblown spray) and water quality (e.g., runoff, ponding). The General Permit includes a list of required and additional potential BMPs that, depending upon site-specific conditions, the Producer and Distributor are required ensure that the User implements in order to achieve a safe and efficient irrigation system.

Required BMPs include the following:

- Implementation of operations and management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 50,000 gallons.
- Proper design and operation of sprinkler heads.
- Refraining from application during precipitation events.
- Management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater, and there is prior approval for the discharge by the Executive Officer of the appropriate Regional Water Board.

Not all BMPs are feasible for every circumstance; and no list of BMPs is absolute. However, the General Permit requires Producer and Distributor to ensure that the User to consider the list of BMPs[34] and identify BMPs they will implement, in addition to the required BMPs, in order to achieve and maintain compliance with the General Permit.

WASTE DISCHARGE PROVISION
Prior to commencing irrigation with recycled water, the Distributor shall submit an Operations and Maintenance Plan (O&M Plan) to the State Water Board. An O&M Plan shall contain the following elements: a. *An Operations Plan. A detailed operations plan for the Use Areas including methods and procedures for implementation of regulations regarding recycled water use and maintenance of equipment and emergency backup systems to maintain compliance with the conditions of this General Permit and CDPH requirements (i.e., identification of BMPs implemented to achieve and maintain compliance)*

[34] *Attachment C* of the General Order

The list of potential BMPs identified in the General Permit are derived from a review of existing recycled water use BMPs, storm water BMPs, public comments received, and a review of the available literature[35]. In addition to identifying management practices necessary to ensure the safe and consistent application of recycled water for landscape irrigation, the BMPs also address the need for maximization of water conservation and the need for preventive maintenance and care of landscape irrigation systems.

The list of potential BMPs identifies management practices regarding the following elements of recycled water use for landscape irrigation:

- *general control operations*
- *worker/public protection*
- *general irrigation practices*
- *efficient irrigation*

When Best Management Practices (BMPs) are implemented, conditions causing runoff, ponding, and windblown spray (drift) are minimized to a negligible amount, and in some cases, eliminated

Some conceivable actions that could be taken as a result of adoption of the General Permit require speculation, and therefore, cannot be evaluated.

5. Environmental Checklist and Discussion of Possible Environmental Impacts of Reasonably Foreseeable Compliance Methods and Mitigation Measures

The analysis of potential environmental impacts is based on the numerous alternative methods of compliance available for the appropriate and safe use of recycled water for landscape irrigation.

5.1 **AESTHETICS.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐

[35] e.g., the Department of Water Resource's proposed regulations for a model water efficient landscape ordinance.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

a. The proposed General Permit may encourage the development of more recycled landscape irrigation water use projects. A new landscape irrigation recycled water use project may improve or adversely affect a scenic vista. Any project with the potential to affect aesthetics would be subject to CEQA on an individual case-by-case basis, and potential impacts to scenic vistas would be evaluated at that time.
b. Recycled water may be used for landscape irrigation, including irrigation of landscape within a state scenic highway. Irrigation of a salt-sensitive tree with certain recycled water could damage the tree. This potential should be evaluated before initiating the irrigation. The potential impact to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway is less than significant.
c. A recycled water project subject to the proposed General Permit could affect the existing visual character or quality of a site and its surroundings. Any potential effect would be subject to CEQA on an individual case-by-case basis, and potential impacts to scenic vistas would be evaluated at that time.
d. The increased use of recycled water is not expected to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

5.2 **AGRICULTURAL RESOURCES.** In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☑

a. The proposed General Permit is not expected to result in the conversion of farmland to non-agricultural uses.

b. The proposed General Permit is not expected to conflict with existing zoning for agricultural use or a Williamson Act contract.
c. The proposed General Permit is not expected to result in the conversion of farmland to non-agricultural uses.

5.3 **AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐

a. No Impact. Recycled water projects implemented in accordance with the proposed General Permit are not expected to conflict with or obstruct implementation of the applicable air quality plan.
b. No. Impact. Recycled water projects implemented in accordance with the proposed General Permit are not expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation.
c. Recycled water projects implemented in accordance with the proposed General Permit are generally not expected to expose sensitive receptors to substantial pollutant concentrations. However, in some limited situations sensitive receptors could be exposed to recycled water, in the form of spray, mist, or runoff of recycled water. The General Permit includes measures to prevent potential exposure to sensitive receptors. Consistent with Title 22 Requirements, the General Permit includes requirements to protect outdoor eating areas, food handling facilities, drinking fountains, and employees. The potential for exposure of sensitive receptors to substantial pollutant concentrations is less than significant.
d. The operation of wastewater treatment facilities and the infrastructure necessary to convey recycled water (e.g., pumps, back-up systems, etc.) may generate small amounts of criteria air pollutants, primarily hydrogen sulfides and possibly oxides of nitrogen (an ozone precursor), and potentially

methane, a greenhouse gas (GHG). Although methane is acknowledged as a GHG and a significant contributor to climate change, it is not a criteria pollutant regulated by air basins in California. While recycled water production, distribution and use contributes a small amount of GHG emissions (e.g., methane), the proposed General Permit would not affect the volume of existing methane production, most of which occurs at the wastewater treatment faculties, not the point of use. Therefore, the proposed project's contribution to cumulative air quality impacts is expected to be less than significant.

e. Chlorine is frequently used as a disinfectant in the wastewater industry; residual chlorine odors could be considered objectionable by some people in the immediate vicinity of the point of use. The number of people potentially affected by chlorine-derived odors is expected to be insubstantial; therefore, the quality impact is expected to be less than significant.

5.4 **BIOLOGICAL RESOURCES.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the DFG or USFWS?	☐	☐	☑	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☑	☐
c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, *etc.*) through direct removal, filling, hydrological interruption or other means?	☐	☐	☑	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation General Permit or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

a.-c. The use of recycled water, in accordance with the proposed General Permit, on sensitive species, sensitive natural communities, and wetlands is expected to have a less than significant impact on the environment.

Use of recycled water could increase incidental irrigation runoff, soil salinity, and saturate soils. This may impact adjacent natural habitat and potentially sensitive species and plants. This impact from the use of recycled water, however, would not significantly exceed current baseline levels using community water sources, since salinity levels would be controlled, and drainage channels are generally effective at capturing most run-off. Any discharge to surface waters would be regulated so as to comply with water quality objectives.

There may be indirect environmental effects from the use of recycled water on sensitive natural communities and wetlands hydrologically connected to groundwater that may be affected by recycled water constituents, including chlorine and salts. This may also impact sensitive animal species using these communities. The proposed General Permit, however, includes the following prohibition of discharges to wetlands that would ensure that impacts to groundwater would be less than significant for recycled water irrigation projects individually and cumulatively:

WASTE DISCHARGE PROHIBITION
The direct or indirect discharge from use areas of recycled water to surface waters, either perennial or ephemeral, including wetlands, vernal pools, etc. is prohibited, unless otherwise authorized by an NPDES permit.

d. A recycled water irrigation site could be proposed to be located within a migratory corridor. Any such proposal, however, would be subject to local CEQA review.

e. Recycled water projects implemented in accordance with the proposed General Permit is not expected to conflict with local policies or ordinances.

f. The proposed General Permit is not expected to conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other local, regional, or state habitat conservation plan.

5.5 **CULTURAL RESOURCES.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact cultural resources. However, this does not preclude the possibility that cultural resources could be impacted by construction activities in response to this proposed General Permit. Any future construction would be subject to CEQA on an individual case-by-case basis, and potential impacts to cultural resources would be evaluated at that time.

5.6 **GEOLOGY and SOILS.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☐	☑
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☑
d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☑	☐

a-d. The implementation of the proposed General Permit is not expected to directly impact geologic or soils conditions. However, this does not preclude the possibility of geologic or soils conditions that could be impacted by construction activities in response to the proposed General Permit. Any future

activity would be subject to CEQA on an individual case-by-case basis, and potential impacts to geology and soils would be evaluated at that time.

e. Application of waste constituents to the landscape and recreational areas in excess of agronomic rates could alter some soil properties that influence the suitability of a site to be used for septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater. Additionally, many of the same soil properties are also closely related to a site's productivity with regard to food and fiber crops and livestock forage. The proposed General Permit requires application of recycled water at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to Recycled Water Use Areas. Individualized Irrigation Management Plans, based upon general Irrigation Management Plans, must account for soil characteristics; recycled water characteristics (nutrients, including nitrogen and phosphorous content; specific ion toxicity, including chloride, boron, sodium, bicarbonate; and other parameters); requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements); climatic conditions; precipitation, evapotranspiration rate, wind; other supplemental nutrient additions (e.g., chemical fertilizers) used in the operation of the Use Area; and management of impoundments used to store or collect recycled water. These requirements in the General Permit will ensure that impacts to the soils of a site to be used for septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater would be less than significant for recycled water irrigation projects.

5.7 **HAZARDS and HAZARDOUS MATERIALS.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☑
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	☐	☐	☐	☑
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

a. A consequence of adoption of the proposed General Permit may be the construction of more recycled water treatment facilities. These additional facilities may use chlorine gas or sodium hypochlorite for disinfection. Both of these materials are hazardous. Use of these materials, however, is subject to hazardous material regulations and inspection by local regulatory agencies. Any construction of a recycled water treatment facility will be subject to local CEQA review. This impact is not expected to be significant.

b.-h. The implementation of the proposed General Permit is not expected to directly impact hazards and hazardous materials (other than as discussed in 5.7.a). However, this does not preclude the possibility that hazards and hazardous materials could be impacted by activity initiated in response to the proposed General Permit; such activity would be subject to CEQA on an

individual case-by-case basis, and potential impacts to hazards and hazardous materials would be evaluated at that time.

5.8 **HYDROLOGY and WATER QUALITY.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (*e.g.*, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or volume of surface runoff in a manner that would:	☐	☐	☑	☐
i) result in flooding on- or off-site	☐	☐	☑	☐
ii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater discharge	☐	☐	☑	☐
iii) provide substantial additional sources of polluted runoff	☐	☐	☑	☐
iv) result in substantial erosion or siltation on-or off-site?	☐	☐	☑	☐
d) Otherwise substantially degrade water quality?	☐	☐	☑	☐
e) Place housing or other structures which would impede or re-direct flood flows within a 100-yr. flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
f) Would the change in the water volume and/or the pattern of seasonal flows in the affected watercourse result in:				
i) a significant cumulative reduction in the water supply downstream of the diversion?	☐	☐	☑	☐
ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?	☐	☐	☑	☐
iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?	☐	☐	☑	☐
iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?	☐	☐	☑	☐
v) a substantial increase or threat from invasive, non-native plants and wildlife	☐	☐	☐	☑
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑

h) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
i) Be subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

a. The proposed General Permit is not expected to result in violations of water quality standards or waste discharge requirements since the proposed General Permit contains numerous prohibitions, requirements, and provisions intended to protect water quality standards. Coverage under the proposed General Permit is also limited to disinfected tertiary recycled water for landscape irrigation. Staff has not been able to identify any instances where disinfected tertiary recycled water, when used as specified in the proposed General Permit, has been shown to result in the violation of any water quality standards or waste discharge requirements.

The Producer is specifically required to ensure that recycled water quality meets the quality standards of the General Permit and associated waste discharge requirement order(s) for the wastewater treatment plant(s).

PROVISION

A duly authorized representative for each responsible entity, as determined by those involved in the operation, shall each sign the completed NOI form for the Use Area. While enforcement actions for violations of this General Permit may be taken against all responsible entities for violations of any part of this General Permit, in general, responsibilities for Producers, Distributors and Users are as follows:

a. The Producer shall be responsible for ensuring that recycled water meets the quality standards of this General Permit and associated waste discharge requirement order(s) for the WWTP(s).

b. The Distributor shall be responsible for the operation and maintenance of transport facilities and associated appurtenances necessary to convey and distribute the recycled water from the point of production to the point of use with all applicable Title 22 requirements.

c. *The* Producer and Distributor *shall be responsible for the application and use of recycled water in the Use Area and associated operations and maintenance in accordance with all applicable Title 22 requirements and this General Permit. The* Producer and Distributor are *also responsible* for ensuring that Users *maintain the minimum land application acreage and impoundment capacity to comply with the terms and conditions of*

this General Permit.

Also, the proposed General Permit has several other requirements for recycled water producers and distributors to protect water quality (as discussed in the GEOLOGY and SOILS section). The proposed General Permit requires application of recycled water at agronomic rates rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to Recycled Water Use Areas. Individualized Irrigation Management Plans, based upon general Irrigation Management Plans, must account for soil characteristics; recycled water characteristics (nutrients, including nitrogen and phosphorous content; specific ion toxicity, including chloride, boron, sodium, bicarbonate; and other parameters); requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements); climatic conditions; precipitation, evapotranspiration rate, wind; other supplemental nutrient additions (e.g., chemical fertilizers) used in the operation of the Use Area; and management of impoundments used to store or collect recycled water. The prohibitions, specifications, and provisions of the proposed General Permit are expected to provide adequate mitigation to ensure compliance with water quality objectives.

b. If the proposed General Permit results in an increased use of recycled water, this use may be a substitute for groundwater use. Hence, the proposed General Permit may help prevent the reduction of groundwater supplies. Groundwater recharge reuse projects directly augment groundwater supplies.
c. It is possible that a golf course or park whose construction is facilitated by the availability of recycled water could alter drainage patterns, although because golf course / park turf is relatively permeable, it is unlikely that this type of facility would greatly increase runoff from the previous condition. Such a facility would be evaluated under CEQA at the time it is proposed. Hence, this potential impact is expected to be less than significant.
d. For the reasons noted in HYDROLOGY and WATER QUALITY (a), the proposed General Permit is not expected to result in the substantial degradation of water quality; any degradation is expected to be less than significant.
e. The implementation of the proposed General Permit is not expected to place housing or other structures which would impede or re-direct flood flows within a 100-yr. flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
f. It is possible that the proposed General Permit could encourage an agency to reduce the volume of wastewater it discharges to a stream, and to increase the volume of water it recycles. This could affect downstream water users and the aquatic community in the stream. Before an agency can do this, however, it must obtain authorization to do so from the State Water Board, Division of Water Rights. This authorization is required to contain conditions

established to protect downstream beneficial uses and is separately required to comply with the CEQA.

g. The implementation of the proposed General Permit is not expected to place within a 100-year flood hazard area structures which would impede or redirect flood flows.
h. The implementation of the proposed General Permit is not expected to expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
i. The implementation of the proposed General Permit is not expected to result in circumstances where a specific project may be subject to inundation by seiche, tsunami, or mudflow.

5.9 **LAND USE AND PLANNING.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, General Permit, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

a. The implementation of the proposed General Permit is not expected to physically divide an established community.
b. The implementation of the proposed General Permit is not expected to conflict with any applicable land use plan, General Permit, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
c. The implementation of the proposed General Permit is not expected to result in conflict with any applicable habitat conservation plan or natural community conservation plan.

5.10 **MINERAL RESOURCES.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact mineral resources. However, this does not preclude the possibility of mineral resources that could be impacted by construction activities in response to this proposed General Permit. Any future activity would be subject to CEQA on an individual case-by-case basis, and potential impacts to mineral resources would be evaluated at that time.

5.11 **NOISE.** Would the project result in:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels?	☐	☐	☐	☑

a. In some circumstances, noises typical of irrigation systems (sprinkler heads, pumps, valves, water hammer) could expose some individuals in the immediate vicinity of the point of use to excessive noise levels. Projects are generally expected to be subject to local noise ordinance restrictions, therefore the impacts are expected to be less than significant.
b. In extreme circumstances it may be possible that water hammer induced vibrations could elevate groundborne vibration or noise levels for some individuals in the immediate vicinity of the point of use. Such groundborne vibration or noise levels are generally expected to be subject to local noise ordinance restrictions, therefore the impacts are expected to be less than significant.
c. The implementation of the proposed General Permit is not expected to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d. The implementation of the proposed General Permit is not expected to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the implementation of the proposed General Permit is not expected to expose people residing in or working in the project area to excessive noise levels.
f. For a project within the vicinity of a private airstrip, the implementation of the proposed General Permit is not expected to expose people residing in or working in the project area to excessive noise levels

5.12 **POPULATION AND HOUSING.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area either directly (*e.g.*, by proposing new homes and businesses) or indirectly (*e.g.*, through extension of roads or other infrastructure)?	☐	☐	☑	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

5.12.a. An effect of the proposed General Permit maybe the production of more recycled water to address the state's limited water supply, which does not always satisfy existing demand. Some communities have limited water resources and must have additional water resources to allow substantial population growth. Using recycled water can be a strategy to obtain the additional water resources necessary for growth. This strategy, however, has been used without the presence of the General Permit. Although the proposed General Permit will standardize recycled water use requirements for most landscape irrigation projects, it is not expected that the increase in recycled water use will result in growth substantially beyond what would occur in the absence of the proposed General Permit. Any new development will be subject to local CEQA review.

5.12.b. The proposed General Permit is not expected to displace substantial numbers of existing residences.

5.12.c. The proposed General Permit is not expected to displace substantial numbers of people.

5.13 **PUBLIC SERVICES.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact public services. However, this does not preclude the possibility of public services that could be impacted by construction activities in response to this proposed General Permit. Any future activity would be subject to CEQA on an individual case-by-case basis, and potential impacts to public services would be evaluated at that time.

5.14 **RECREATION.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact recreational uses. However, this does not preclude the possibility of recreational uses that could be impacted by construction activities in response to the proposed General Permit. Any future activity would be subject to CEQA on an individual case-by-case basis, and potential impacts to recreational resources would be evaluated at that time.

5.15 **TRANSPORTATION / CIRCULATION.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (*i.e.*, result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☑
b) Exceed, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (*e.g.*, sharp curves or dangerous intersections) or incompatible uses (*e.g.*, farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted policies supporting alternative transportation (*e.g.*, bus turnouts, bicycle racks)?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact transportation uses or circulation patterns. However, this does not preclude the possibility of transportation uses or circulation patterns that could be impacted by construction activities in response to the proposed General Permit. Any future activity would be subject to CEQA on an individual case-by-case basis, and potential impacts to transportation/circulation would be evaluated at that time.

5.16 **UTILITIES AND SERVICE SYSTEMS.** Would the project:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	☐	☐	☑	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	☐	☐	☑	☐

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

The implementation of the proposed General Permit is not expected to directly impact utilities and service systems.

a. The implementation of the proposed General Permit is not expected to result in exceedances of wastewater treatment requirements of the applicable Regional Water Quality Control Board.
b. The proposed General Permit may facilitate an increased use of recycled water that could result in construction of more wastewater conveyance and treatment facilities. Any future construction would be subject to CEQA on an individual case-by-case basis, and potential impacts to utilities and service systems would be evaluated at that time.
c. It is unlikely that implementation of the proposed General Permit would create a need for significant construction of additional storm water drainage facilities. As the General Permit prohibits unauthorized discharges of recycled water, i.e., "incidental runoff" of recycled water, the volume of discharges to storm water drainage facilities should be reduced. Where discharges to storm water drainage facilities occur, the General Permit requires that all storm water discharges, including conditionally authorized or exempted non-storm water discharges, from recycled water use areas comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to Municipal Separate Storm Sewer Systems (MS4s) under their jurisdiction. The need for construction of any additional storm water drainage facilities, for example, for an expanded wastewater treatment plant, would be less significant.
d. The implementation of the proposed General Permit is not expected to affect water supplies available to serve the project from existing entitlements and resources, or otherwise require new or expanded entitlements.
e. By its nature as a recycled water use authorization, the implementation of the proposed General Permit is not expected to require a determination by wastewater treatment providers regarding the availability of adequate treatment capacity to serve a recycled water use project.

f. By its nature as a recycled water use authorization, the implementation of the proposed General Permit is not expected to require a determination of sufficient landfill capacity.
g. The implementation of the proposed General Permit is expected to comply with federal, state, and local statutes and regulations related to solid waste.

5.17 **MANDATORY FINDINGS OF SIGNIFICANCE.**

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☑	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

a. Please reference discussion in 5.8.a (HYDROLOGY and WATER QUALITY).
b. Please reference discussion in 5.8.a (HYDROLOGY and WATER QUALITY).

   In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Chapter 488, Statute 2006, enacting Sections 38500-38599 of the Health and Safety Code). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs the California Air Resources Board (ARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources. Please reference discussion in 5.3.d (Air Quality).
c. Please reference discussion in 5.8.a (HYDROLOGY and WATER QUALITY).

6. Alternative Means of Compliance

The CEQA requires an analysis of reasonably foreseeable alternative means of compliance with the rule or regulation (i.e., the General Permit), which would avoid or eliminate the identified impacts[36]. Recycled Water Users may voluntarily seek coverage under the General Permit. For those who do not seek coverage under the General Permit or who do not qualify for eligibility under the General Permit, the rules and regulations defined in the Water Code, California Health and Safety Code, and the California Code of Regulations will apply, as described in section 3.

Recycled Water Producers and Distributors who are approved for coverage under the General Permit will be required to employ the control strategies described in section 4, or other additional strategies, to control and prevent pollution, and meet the requirements of the proposed General Permit. The alternative means of compliance with the General Permit consist of the different combinations of Best Management Practices (BMPs) that recycled water users might employ; alternative regulatory tools Producers and Distributors may pursue in lieu of coverage under the proposed General Permit; and potentially investment in various treatment technologies to comply with alternative regulatory tools (e.g., individual waste discharge requirements). Because there are innumerable ways to combine BMPs, not all of the possible alternative means of compliance can be discussed herein.

For example, a Recycled Water Producer or Distributor may choose to obtain or continue authorizations to distribute recycled water pursuant to an individual Master Reclamation Permit[37]. A benefit of master reclamation permits is that individual recycled water users are not required to seek an individual authorization from a regional water board, thus avoiding additional regulatory burdens and costs. However, a Regional Water Board may only issue a master reclamation permit with the consent of the proposed permitee (i.e., a recycled water producer). Authorizations pursuant to master reclamation permits represent the bulk of recycled water used for landscape irrigation in California.

Staff evaluated existing water recycling requirements and, as described in Table 3, estimates that approximately 4500 individual users of recycled water for landscape irrigation exist statewide.

[36] 14 CCR section 15187(c)(3)
[37] Water Code section 13523.1

Permit Type	**Estimated No. of Landscape Irrigation Users**
Water Reclamation Requirements	65
Waste Discharge Requirements (w/ WRRs)	50
Master Reclamtion Permits[38]	20
Landscape Irrigation Users[39]	4300
General Reclamation Order	
San Fransisco Bay Region[40]	15
Colorado River Basin Region[41]	19
Approximate Total	4500

Table 3 – Approximate numbers of existing landscape irrigation users of recycled water.

Since the General Permit substantially mimics the requirements of master reclamation permits, where a master reclamation permit authorizes recycled water use for landscape irrigation, this compliance alternative would be environmentally comparable to enrolling for coverage under the proposed General Permit.

A Recycled Water Producer or Distributor may also choose to pursue coverage under individual water reclamation requirements, individual waste discharge requirements or one of the two regional water board general orders[42] that address landscape irrigation uses of recycled water. While enrollment under a general order is a ministerial action, the preparation and adoption of individual water reclamation requirements or individual waste discharge requirements requires significant staff resources, consultation with the CDPH, and ultimately, approval by the regional water board. This process results in lengthy[43] application reviews necessary to

[38] Not all Master Reclamation Permits include an explicit authorization for "landscape irrigation." E.g., San Elijo Water Reclamation Facility; Order No. R9-2000-0010

[39] Estimate based on review of May 2000, *Municipal Wastewater Reclamation Survey*, Office of Water Recycling

[40] General Water Reuse Requirements *for Municipal Wastewater and Water Agencies*; Order No. 96-011

[41] *General Waste Discharge Requirements for Discharge of Recycled Water for Golf Course and Landscape Irrigation*; Order No. 97-700

[42] The San Francisco Bay Region (Order No. 96-011) and Colorado River Region (Order No. 97-700) each adopted general requirements for the reuse of specific types of recycled water within their regions. The two orders each provide a mechanism to streamline the recycle water permitting process for producers, distributors, and users of recycled water. The Colorado River Region Order is applicable to tertiary treated recycled water used in "golf course and landscape irrigation" but does not define "landscape irrigation".

[43] Often six to eighteen months will pass between the time a complete application is sent to the regional water board and an individual authorization is adopted.

approve recycled water use for landscape irrigation process. However, individual water reclamation requirements and individual waste discharge requirements are developed for the specific scenario.

It is conceivable that a Producer or Distributor who implements a combination of extraordinary BMPs for their specific scenario could have environmentally superior permit requirements than the requirements included in the proposed General Permit. The regulatory oversight inherent in individual water reclamation requirements and individual waste discharge requirements, in some cases, may be a more suitable compliance alternative to enrolling for coverage under the proposed General Permit.

Analysis of Alternatives means of Compliance with the Project

The proposed General Permit is intended to to provide provide an alternative to current practice of prescribing individual water reclamation requirements, individual waste discharge requirements and regional board-specific general reclamation requirements. However, given the extensive amount of resources necessary to develop a master reclamation permit relative to the benefit derived from a master reclamation permit, the General Permit is not intended to undermine the existing master reclamation permit. Rather, the General Permit intends to mimic existing master reclamation permits. Recycled water producers, distributors and users that operate under a master reclamation permit will be allowed to retain coverage to operate under a master reclamation permit. Alternatively, recycled water Producers and Distributors, may request coverage under this General Permit. Where a master reclamation permit includes an authorization for landscape irrigation uses of recycled water, dual coverage is not required.

7. Reasonable Alternatives to Proposed Activity, Public Health

The environmental analysis must include an analysis of reasonable alternatives to the proposed activity.[44] The proposed activity is to adopt a general permit for landscape irrigation uses of recycled water. The purpose of this analysis is to determine if there is an alternative that would feasibly attain the basic objective of the rule or regulation (the proposed activity), but would lessen, avoid, or eliminate any identified impacts with respect to public health standards. The alternatives analyzed include taking no action, a “Minimum Public Health Standards” alternative, and a “Tertiary and Better” alternative. These alternatives are discussed in the subsections below.

Alternatives Considered and Not Further Analyzed

Other regulatory options considered but not further analyzed in this I.S. include the following:

[44] PRC 21159

- An alternative that would require, as a minimum standard, the use of recycled water that achieves the quality of recycled water beyond the standards required for "disinfected tertiary recycled water"
- Recycled water produced by an entity other than a public entity at a domestic wastewater treatment plant, as defined in Water Code section 13625(b)(1)[45] and section 13625(b)(2)[46].
- Uses of recycled water for uses other than "landscape irrigation" uses (e.g., agricultural irrigation, groundwater recharge, commercial and industrial uses, snow making, etc.)

7.1 "No Action" Alternative

Under the "no action" alternative, the State Water Board would not adopt a general permit for landscape irrigation uses of recycled water. This would be contrary to state law[47]. This alternative is also inconsistent with the intent of the state Legislature as expressed in AB 1481 and the Governor who signed the bill into law.

Theoretically, the State Water Board could adopt a general permit for landscape irrigation that explicitly discouraged recycled water use. In this scenario, which could also be considered a "no action" alternative in the sense that this alternative would not act to promote the use of recycled water to the maximum extent, potential environmental impacts could include the following:

- The impacts of continued reliance on water exports from the Sacramento-San Joaquin River Delta, the Colorado River, and the Owens Valley for landscape irrigations uses where disinfected tertiary water could otherwise be available;
- The impacts of continued reliance on local groundwater resources for landscape irrigations uses where disinfected tertiary water could otherwise be available;
- The impacts of failing to meet water demands of rapidly growing population with by using existing water supplies for landscape irrigations where disinfected tertiary water could otherwise be available;
- The subsequent economic and social impacts of not meeting the water demands of the state; and

[45] "Wastewater treatment plant" means any of the following: (1) Any facility owned by a state, local, or federal agency and used in the treatment or reclamation of sewage or industrial wastes.
[46] "Wastewater treatment plant" means any of the following: (2) Any privately owned facility used in the treatment or reclamation of sewage or industrial wastes, and regulated by the Public Utilities Commission pursuant to Sections 216 and 230.6 of, and Chapter 4 (commencing with Section 701) of Part 1 of Division 1 of, the Public Utilities Code.
[47] Water Code section 13552.5

- The energy and greenhouse gas emission consequences of continuing to fully rely on the existing imported water system throughout the state.

7.2 "Minimum Public Health Standards" Alternative

Under the "Minimum Public Health Standards" alternative, the State Water Board would adopt a general permit for landscape irrigation uses of recycled water that, as a minimum standard, allows for recycled water of the quality of "undisinfected secondary," defined in Title 22, or better provided the use is consistent with the minimum respective Title 22 defined use (See Table 2). The respective Title 22 defined use must also be considered "landscape irrigation" as defined in the proposed General Permit.

Under this alternative, the general permit would necessarily have multiple sets of requirements based upon the respective recycled water quality and use. For example, one set of requirements would be developed for disinfected tertiary recycled water use on "unrestricted access golf courses" while another unique set of requirements would be developed for Secondary-23 recycled water used on "Landscape Impoundment w/ out Decorative Fountain" (e.g., a golf courses water hazard). The complexity of such a general permit would result in confusion by those subject to the permit and comprise assurances that the terms and conditions of the permit are being met. Additionally, the State Water Board is only authorized to prescribe general waste discharge requirements for a category of discharges if it determines that all of the following criteria apply to the discharges in that category[48]:

- The discharges are produced by the same or similar operations.
- The discharges involve the same or similar types of waste.
- The discharges require the same or similar treatment standards.

In order to justify this authorization based on the notion that the wastes have similar operations, wastes, or treatment standards, a general permit would include requirements based on the discharges that pose the greatest risk to public health and the environment. This result would likely be in an increased regulatory burden on most producers, distributors, and users of recycled water; especially those that produce disinfected tertiary recycled water. This could create what some refer to as an "overly restrictive " regulatory environment that could impede the use of recycled water throughout the State.

In its comments, the CDPH noted concerns regarding the use of the proposed general permit for projects or use-sites that would receive recycled water not meeting the definition of disinfected tertiary recycled water. CDPH

[48] Water Code section 13263(i)

recommended that such projects or use-sites be excluded from the proposed general permit or adopt a separate permit for non-disinfected tertiary recycled water use. The State Water Board does not have the resources necessary to develop a separate permit for non-disinfected tertiary recycled water use by the deadline prescribed in the new law[49].

7.3 "Disinfected Tertiary and Better" alternative

Under the "Disinfected Tertiary and Better" alternative, the State Water Board would adopt a general permit that, as a minimum standard, authorizes the use of recycled water that achieves the quality of "disinfected tertiary recycled water," as defined in Title 22[50], for landscape irrigation uses.

One of the primary conditions on the use of recycled water is protection of public health[51]. Domestic wastewater contains pathogens harmful to humans that are typically measured by means of total or fecal coliform, as indicator organisms. The potential transmission of disease by pathogenic organisms is a common concern. Public health problems can be prevented with appropriate control over public access to the use areas and restrictions on the type and use and adherence to defined water recycling criteria[52] and other direction provided by the CDPH. In part, to ensure the highest level of public health protection, this alternative would require that recycled water used pursuant to the General Permit be at least the quality of disinfected tertiary recycled water[53].

In response to a June 18, 2008 workshop regarding the development of this General Permit, the CDPH expressed concerns regarding the use of the General Permit for projects or use-sites that would receive recycled water not meeting the definition of disinfected tertiary recycled water. In its letter[54], the CDPH recommended that such projects or use-sites be excluded from the proposed General Permit.

A tradeoff of "streamlining" the approval process is that the CDPH will likely have a reduced role in reviewing and approving recycled water projects authorized pursuant to the General Permit. One method to ensure the highest level of public health protection in absence of reduced CDPH oversight is to require that recycled water used pursuant to the General Permit be at least the quality of disinfected tertiary recycled water.

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[49] July 31, 2009
[50] Filtered and subsequently disinfected wastewater that meets the criteria defined in Title 22, sections 60301.230 and 60301.320
[51] Water Code sections 13521, 13522, 13550(a)(3)
[52] California Code of Regulations (CCR) Title 22 section 60301 et. seq.
[53] Title 22, sections 60301.230 and 60301.320
[54] Dated June 26, 2008

This also eliminates the complexity and potential confusion inherent in "Minimum Public Health" alternative. Disinfected tertiary recycled water would be approved for all "landscape irrigation" uses, not just specific selected uses, as would be the practice under the in "Minimum Public Health" alternative, as illustrated in Table 2. The establishment and enforcement of baseline public health quality requirements consistent with public health criteria for the use of disinfected tertiary treated recycled water in conjunction with the implementation of BMPs will help reduce and/or eliminate potential public health issues concerning the use of recycled water.

Additionally, under the "Disinfected Tertiary and Better" alternative, the State Water Board would be prescribing general waste discharge requirements for discharges that generally maintain the same or similar wastewater treatment operations, involve the treatment of the same or similar types of waste, and require the same or similar treatment standards as required by law[55].

8. Reasonable Alternatives to Proposed Activity, Water Quality Standards

As discussed in Section 7, the environmental analysis must include an analysis of reasonable alternatives to the proposed activity. The proposed activity is to adopt a general permit for landscape irrigation uses of recycled water. The purpose of this analysis is to determine if there is an alternative that would feasibly attain the basic objective of the rule or regulation (the proposed activity), but would lessen, avoid, or eliminate any identified impacts with respect to water quality standards. The alternatives analyzed include taking no action, a "No Limitations, Require BMPs" alternative, and a "Limitations, Require BMPs" alternative. These alternatives are discussed in the subsections below.

Alternatives Considered and Not Further Analyzed

Other regulatory options considered but not further analyzed in this I.S. include the following:

- An alternative that would allow for the use of recycled water with a quality that exceeds water quality objectives.
- An alternative that would require, as a minimum standard, the User of recycled water to employ sophisticated demineralization technology (e.g., reverse osmosis).

[55] Water Code section 13263(i)

- Recycled water produced by an entity other than a public entity at a domestic wastewater treatment plant, as defined in Water Code section 13625(b)(1)[56] and section 13625(b)(2)[57].
- Uses of recycled water for uses other than "landscape irrigation" uses (e.g., agricultural irrigation, groundwater recharge, commercial and industrial uses, snow making, etc.)
- Limitations for "Emerging Contaminants." In its June 26, 2008 comments, the CDPH recommended that the proposed general order not be applicable to landscape irrigation projects for use areas in which there is evidence that "emerging contaminants" are a concern (e.g., close to drinking water sources). The General Order applies the recommendations of the CDPH rather than require effluent limitations or implementing a monitoring program for "emerging contaminants." It is understood that the constituents that are the subject of study and that are the scrutiny of the CDPH, the United States Environmental Protection Agency, and the United States Geological Survey, will in all likelihood, change over time as their relative importance or unimportance to human health becomes better known. The proposed General Order includes language to allow the State Water Board to modify the General Order as more information becomes available and is determined to be appropriate and consistent with CDPH recommendations to protect public health and with other research programs sponsored by or administered by the State Water Board (e.g., a "blue-ribbon" advisory panel to guide future actions relating to so-called "emerging constituents").

- Authorization to discharge wastes to Waters of the United States pursuant to California Water Code section 13263(i). Since federal law is unequivocal that discharges of wastes, including wastes within recycled water (e.g., salts), to "Waters of the United States" must be in compliance with the Code of Federal Regulations, Chapter 40, Part 122, this I.S. does not include an analysis of an alternative that allows for discharges inconsistent with Code of Federal Regulations, Chapter 40, Part 122.

8.1 "No Action" Alternative

Under the "no action" alternative, the State Water Board would not adopt a general permit for landscape irrigation uses of recycled water. This would be contrary to state law[58]. This alternative is also inconsistent with the intent of the

[56] "Wastewater treatment plant" means any of the following: (1) Any facility owned by a state, local, or federal agency and used in the treatment or reclamation of sewage or industrial wastes.
[57] "Wastewater treatment plant" means any of the following: (2) Any privately owned facility used in the treatment or reclamation of sewage or industrial wastes, and regulated by the Public Utilities Commission pursuant to Sections 216 and 230.6 of, and Chapter 4 (commencing with Section 701) of Part 1 of Division 1 of, the Public Utilities Code.
[58] WATER CODE section 13552.5

state Legislature as expressed in AB 1481 and by the Governor who signed the bill into law.

Theoretically, the State Water board could adopt a general permit for Landscape Irrigation that explicitly discouraged recycled water use. In this scenario, potential environmental impacts could include substantially the same impacts identified in Section 7.1.

8.2 "No Effluent Limitations, Require BMPs" Alternative

Under the "No Effluent Limitations, Require BMPs" Alternative, the State Water Board would adopt a general order that does not include numerical effluent limitations for any of the constituents identified in Section 3.1 but would require recycled water users to implement Best Management Practices (BMPs) necessary to achieve a safe and efficient irrigation system.

In areas where groundwater quality is especially vulnerable to degradation (e.g., due to minimal separation to groundwater or very permeable soils), increased scrutiny should be afforded to the characteristics of recycled water that could threaten to degrade or pollute groundwater quality. Theoretically, a potential solution could be to identify 'zones of exclusion' where the proposed General Permit would not be applicable.

Hydrogeologic conditions within California vary regionally, locally, spatially, seasonally, and according to land use activities. It is infeasible to complete a hydrogeologic site investigation on a statewide basis that would yield sufficient information necessary to delineate accurate 'zone of exclusion.' Groundwater may also flow beyond hydrogeologically arbitrary regulatory or jurisdictional boundaries. The concept of a 'zone of exclusion' creates numerous hydrogeological challenges and associated regulatory challenges that effectively make implementation of the concept impracticable. Ideally, any waste discharge requirement limitation on salt loading, or other waste constituents in recycled water, should be derived from a complete, detailed technical analysis of the entire applicable basin, to include actual and potential uses of the basin, replenishment rates, volume of groundwater, soil types, and groundwater movement. Similar data would also be required on a more localized basis to fully judge the impact of the discharge on immediately adjacent groundwater users.

However, such detailed hydrological data is often not available and is very expensive to develop on a localized, basin-wide, or statewide basis. Absent such information, it is the responsibility of both the project proponent and the California Water Boards to exercise sound and reasoned judgment in evaluating the effects of case-specific proposed projects. If after review of the available factual data, it is determined that the case-specific effects of a proposed project

will likely pollute groundwater quality (e.g., where groundwater quality is vulnerable to degradation) the project should not be considered eligible for coverage under the General Permit.

The General Permit contains no numeric salinity effluent limitations for the use of recycled water. However, the General Permit requires that all recycled water provided to Users, shall be treated in and managed in conformance with all applicable provisions of the Recycled Water Policy adopted by the State Water Board on February 3, 2009. The General Permit also includes a prohibition on "discharge or use of recycled water in a manner that causes, or contributes to an exceedance of an applicable water quality objective." Since in a previous decision[59] the State Water Board determined that a recycled water Producer cannot shift responsibility for discharged salt to the recycled water user, it would be inconsistent to establish salinity limitations in the General Permit for recycled water users. Therefore, the General Permit requires that the Producer remains responsible for ensuring that recycled water meets the water quality standards and of the General Permit and the associated waste discharge requirement order, including its numeric effluent limitations, for the wastewater treatment plant.

By requiring the Producer to remain responsible for ensuring that recycled water meets the water quality standards of the waste discharge requirements for the wastewater treatment plant and requiring the User to develop and maintain an O&M plan, the General Permit establishes a basic regulatory strategy to manage the salinity of most recycled water used for landscape irrigation on a statewide basis.

In Water Quality Order No. 80-7 the State Water Board determined the following:

> *Ideally, any waste discharge requirement limitation on salt loading should be derived from a complete, detailed technical analysis of the entire basin, to include actual and potential uses of the basin, replenishment rates, volume of groundwater, soil types, and groundwater movement. Similar data would also be required on a more localized basis to fully judge the impact of the discharge on immediately adjacent groundwater users. We realize that such detailed hydrological data is often not available and is very expensive to develop both on a basin-wide and localized basis. Absent such information we feel it is the responsibility of both the project proponent and the Regional Board to exercise sound and reasoned judgment in evaluating the effects of proposed projects. Available trade-offs, alternative water supplies, water use reductions, and water conservation should be explored as potential mitigating measures. We have attempted to accomplish such a balancing in [Water*

[59] San Luis Obispo Golf & Country Club, Central Coast Region, State Board WQO No. 2000-07

> *Quality Order No. 80-7]. We wish to underscore the need to develop the factual data necessary to intelligently engage in such balancing in future projects.*

In general, this determination continues to be appropriate. It remains the responsibility of both the project proponent and the California Water Boards to exercise sound and reasoned judgment in evaluating the case-specific effects of proposed projects and the available factual data for each project. This General Permit attempts to accomplish the balancing of the factors identified in Water Quality Order No. 80-7 and establishes a basic regulatory strategy to manage the salinity of most recycled water used for landscape irrigation. If, after review of the available factual data, it is determined the case-specific effects of a proposed project are inconsistent with the requirements of this General Permit the project is not eligible for coverage under this General Permit.

Consistent with the determination in Water Quality Order No. 80-7, it remains the responsibility of both the project proponent and the California Water Boards to exercise sound and reasoned judgment in evaluating the case-specific effects of proposed recycled water use projects and the available factual data for each project. If, after review of the available factual data, it is determined the case-specific effects of a proposed project are inconsistent with the requirements of this General Permit the project is not eligible for coverage under this General Permit.

In the majority of cases, the implementation of BMPs to ensure the operation of a safe and efficient irrigation system should provide a feasible means of attainment of the basic objectives of the proposed General Permit while lessening, avoiding, or eliminating any potential impacts with respect to water quality standards.

An Irrigation Management Plan is one means to require a conceptual plan and measures to ensure the use of recycled water occurs at an agronomic rate while employing practices to ensure irrigation efficiency necessary to minimize application of salinity constituents (by mass) to Recycled Water Use Areas and minimize ponding. An Irrigation Management Plan can account for soil characteristics; recycled water characteristics (e.g., nitrogen content, suspended solids, salinity, sodicity, nutrients); requirements of the plant species being irrigated (e.g., seasonal demand, climate, nutrient requirements); soil moisture, precipitation, evapotranspiration rate, and any other nutrient additions (e.g., chemical fertilizers) used in the operation of the Recycled Water Use Area.

8.3 "Effluent Limitations, Require BMPs" Alternative

Under the "Effluent Limitations, Require BMPs" Alternative, the State Water Board would adopt a general order that includes numerical effluent limitations for

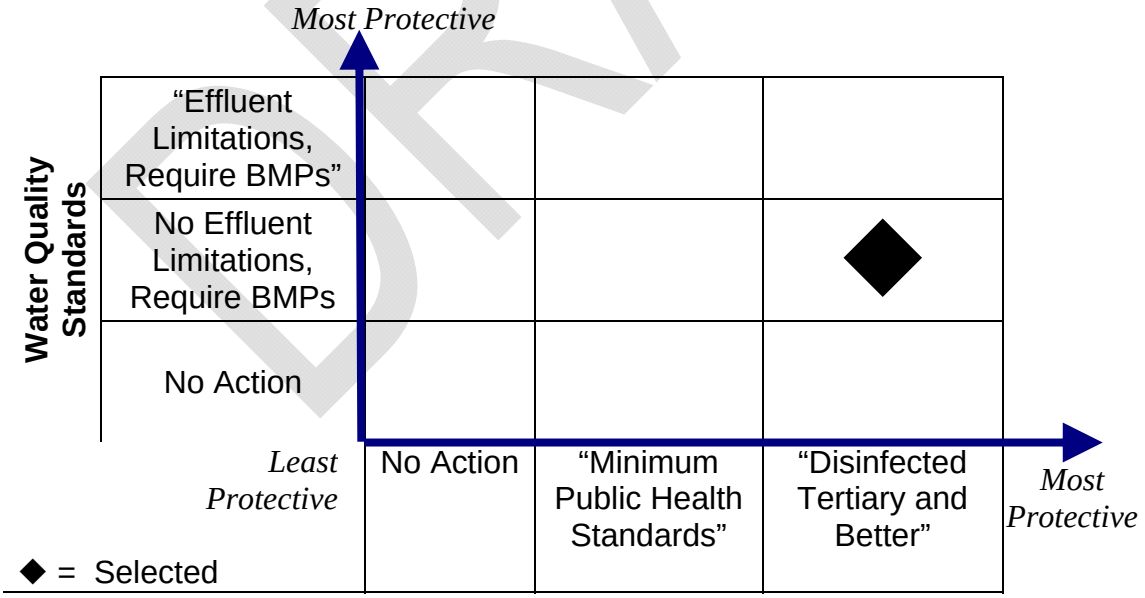
one or all of the constituents identified in Section 3.1. The general order would also require recycled water Producers and Distributors to implement BMPs necessary to achieve a safe and efficient irrigation system.

In a previous decision[60], the State Water Board determined that a recycled water Producer cannot shift responsibility for discharged salt to the recycled water user. Therefore, a General Permit that requires allows a Producer or Distributor to require a User to be responsible for the salinity of recycled water is inconsistent with precedent. The proposed General Permit requires that the Producer remains responsible for ensuring that recycled water meets the water quality standards and of the General Permit and the associated waste discharge requirement order, including its numeric effluent limitations, for the wastewater treatment plant.

Under this Alternative, the implementation of BMPs as discussed in Section 8.2 would also be required.

9. Reasonable Alternatives to Proposed Activity, Summary

In previous sections, staff evaluated Alternative Means of Compliance, and numerous alternatives to the proposed activity with respect to both public health protection and protection of water quality standards. Figure 1 illustrates the collective relative protection to public health and water quality afforded by the various alternatives.



[60] San Luis Obispo Golf & Country Club, Central Coast Region, State Board WQO No. 2000-07, p 10-12

Alternatives **Public Health Standards**

Figure 1 – Summary of selected alternatives

10. CEQA Determination

The adoption of the proposed General Permit that implements both the "Disinfected Tertiary and Better" Alternative for public health standards and the "No Effluent Limitations, Require BMPs" Alternative for water quality standards. As a result, the General Permit for landscape irrigation uses of recycled water provides a uniform interpretation of state standards to ensure the safe, reliable use of recycled water for landscape irrigation uses, consistent with state and federal water quality law.

In some limited scenarios, the projects authorized pursuant to the General Permit could result in temporary or localized adverse impacts to the environment. Such impacts are not expected to be significant since they would be limited, short-term, or may be mitigated through careful design and scheduling of the project. The benefits derived from meeting water quality and public health standards to achieve the expressed, national policy of the Clean Water Act, Porter-Cologne, water recycling goals, and water conservation efforts far outweigh the potential adverse environmental impacts that may be associated with the projects undertaken pursuant to the General Permit.

This I.S. (including the environmental checklist, section 5) and initial draft of the General Waste Discharge Requirements for Landscape Irrigation Uses of Recycled Water (Appendix A-1) represents the necessary information required pursuant to state law[61] to conclude that the properly implemented methods of compliance will not have a significant adverse effect on the environment.

In review of this I.S., there is no substantial evidence, in light of the whole record before the State Water Board, that the proposed General Permit may have a significant effect on the environment. Based on this I.S., I find that the proposed General Permit may have a less than significant adverse effect on the environment, but that those impacts will be mitigated.

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Dorothy Rice **Date**
Executive Director

[61] Public Resources Code, section 21159