

INITIAL STUDY AND PROPOSED MITIGATED NEGATIVE DECLARATION

ADOPTION OF REGULATION TO ESTABLISH THE MAXIMUM CONTAMINANT LEVEL (MCL) FOR 1,2,3 -TRICHLOROPROPANE

PREPARED BY:

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Acronyms and Abbreviations				
1,2,3-TCP	1,2,3- Trichloropropane			
BAT	Best Available Technology			
Cal. Code Regs.	California Code of Regulations			
CEQA	California Environmental Quality Act			
Clean Water Act	Water Pollution Control Act of 1972			
DDW	Division of Drinking Water			
EIR	Environmental Impact Report			
GAC	Granular Activated Carbon			
GHG	Greenhouse Gas			
gpm	Gallons per minute			
HSC	California Health and Safety Code			
ISOR	Initial Statement of Reasons			
MCL	Maximum Contaminant Level			
MGD	Million Gallons per Day			
MM	Mitigation Measure			
NCCP	Natural Community Conservation Plan			
ng/L	nanograms per liter			
OEHHA	Office of Environmental Health Hazard Assessment			
ppt	Parts Per Trillion, ng/L			
PWS	Public Water System(s)			
Regional Water Board	Regional Water Quality Control Board			
RCRA	Resource Conservation Recovery Act			
§	Section			
SDWA	Safe Drinking Water Act			
State Water Board	State Water Resources Control Board			
USEPA	United States Environmental Protection Agency			
USFWS	United States Fish and Wildlife Service			

SUMMARY

This summary provides an Initial Study and proposed Mitigated Negative Declaration (IS/MND), which have been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA) and State CEQA Guidelines, for a project that consists primarily of adoption of a drinking water standard for 1,2,3-Trichloropropane (1,2,3-TCP). The Lead Agency for the project, as defined by CEQA, is the State Water Resources Control Board (State Water Board).

Project Description

The proposed project consists of the State Water Board adopting and implementing a regulation that establishes the Maximum Contaminant Level (MCL) (also referred to as "drinking water standard") for 1,2,3- 1,2,3-TCP in drinking water provided by public water systems (PWS) in California. The MCL would be applicable statewide, and would reduce the risk of cancer potentially caused by ingestion and inhalation of 1,2,3-TCP.

The Division of Drinking Water (DDW) of the State Water Board is responsible for adopting primary drinking water standards, which must be set in accordance with the requirements of section 116365 of the California Safe Drinking Water Act (SDWA)(Health & Safety Code (HSC), div. 104, pt. 12, ch. 4, §116270 et seq.). Pursuant to California HSC section 116365, the State Water Board must set the MCL as close to the Office of Environmental Health Hazard Assessment (OEHHA)-published public health goal (PHG) as is feasible, and that to the extent technologically and economically feasible, avoids any significant risk to public health.

The State Water Board staff made a preliminary recommendation for an MCL of 5 parts per trillion (ppt). The preliminary staff recommendation was based on consideration of what is technologically achievable and protective of public health. Even if the State Water Board were to adopt a MCL that was higher (less stringent) than the proposed 5 ppt, the potential impacts to the environment from treatment of drinking water would be similar; the only difference being fewer PWS would be required to treat for 1,2,3-TCP.

The Initial Study addresses environmental factors potentially impacted by the proposed rulemaking, specifically the reasonably foreseeable impacts of compliance with the new MCL. In order to comply with the new MCL, PWS with sources of water that exceed the MCL may need to either stop use of the contaminated source and find additional, uncontaminated sources; blend existing sources to reduce the contamination below the proposed MCL; or treat the water to remove the 1,2,3-TCP so that it meets the MCL. How the PWS addresses 1,2,3-TCP could cause potential impacts on the environment.

The proposed regulation does not prescribe any particular means for a PWS to address 1,2,3-TCP, but does identify best available technology (BAT) to achieve compliance with the established standard (MCL). The proposed regulation identifies Granulated Activated Carbon (GAC) as the BAT for removal of 1,2,3-TCP from drinking water. While the BAT is non-prescriptive (public water systems may be permitted to achieve compliance with the proposed MCL via other means), it is expected to be the primary option utilized to comply with proposed regulation. This IS/MND, therefore, focuses on the impacts associated using GAC to treat 1,2,3-TCP in drinking water sources.

At this time, there are public water systems permitted to use GAC to successfully treat drinking water to remove 1,2,3-TCP to less than 5 ppt, and although each situation is unique, the State Water Board is able to use that experience to understand the potential impacts of the treatment and the effective measures that have been able to reduce any potential impacts to less than significant. Those potential impacts relate to Biology, Hazards and Hazardous Materials, Hydrology and Water Quality, Public Services, and Utilities and Service Systems, and the mitigation measures that will be required to reduce any potential impacts to less than significant are identified in those sections.

Project Objectives

The objective of the proposed regulation is to establish a statewide drinking water standard that is protective of public health, consistent with the requirements of HSC 116365 to set the MCL as close to the PHG set by OEHHA as feasible, and to the extent technologically and economically feasible avoids significant risk to public health. Doing so will have the benefit of:

- Ensuring that water supplied by PWS in California is protective of public health by limiting concentrations of 1,2,3-TCP in drinking water to 5 ppt;
- Reducing public health risk of cancer attributed to 1,2,3-TCP;
- By providing safe drinking water, reducing need for consumption of alternative sources of water, such as bottled water.

Agency Determination

The proposed regulation will have a less than significant effect on the environment. Currently, some affected public water systems already utilize large scale GAC to successfully treat drinking water for 1,2,3-TCP to less than 5 ppt without significant effects on the environment. Any potential effects that have been identified have been successfully mitigated.

Public Participation and Review

Over the last several years, DDW has received input from impacted water systems expressing concern about the lack of a standard for 1,2,3-TCP. Local community groups and environmental justice groups have requested that the State Water Board set the development of an MCL for 1,2,3-TCP as one of its highest priorities. These requests have been made both in writing as well as in person at public State Water Board meetings and other forums.

In May and early June 2016, the State Water Board held three focused stakeholder meetings on the proposed regulation to establish an MCL for 1,2,3-TCP. These focused stakeholder meetings engaged representatives from public water systems most impacted by 1,2,3-TCP contamination in their drinking water supply. The stakeholder meetings were held in Visalia, Bakersfield, and Fresno on May 17, May 19 and June 2, 2016, respectively.

Additionally, publicly noticed workshops were held in Sacramento, Bakersfield, and Fresno on July 20, July 26, and July 28, 2016, to inform the public of the preliminary staff recommendation for an MCL of 5 ppt. These forums, held outside of the rulemaking process, provided opportunity for stakeholder comment and for the solicitation of alternatives to the proposed regulation. State Water Board staff noted comments and concerns raised at the workshops. The timeframe of the stakeholder meetings and public workshops allowed the State Water Board to consider comments in developing this analysis. After the regulation is formally noticed, a public comment period will be held as provided for in the California Administrative Procedure Act (APA). The project is subject to rule-making requirements of the APA and its implementing regulations.

The 30-day public comment period for the IS/MND for the proposed MCL for 1,2,3- TCP begins on March 4, 2017, in parallel with the APA public comment period on proposed regulations. Comment letters must be received by 5:00 p.m. on April 21, 2017. The proposed regulation, including this draft environmental document, will be available online beginning March 4, 2017 at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/123TCP.shtml

INITIAL STUDY / DRAFT MITIGATED NEGATIVE DECLARATION

Pursuant to the California Environmental Quality Act, as amended

A. PROJECT DESCRIPTION

1. Project title:

Adoption of a regulation to establish the Maximum Contaminant Level (MCL) for 1,2,3-Trichloropropane (1,2,3-TCP) in drinking water provided by PWS.

2. Lead agency name & address:

State Water Resources Control Board Division of Drinking Water

1001 I Street Sacramento, CA 95814

3. Contact person & phone number:

Kim Niemeyer, Staff Counsel (916) 341-5547 kim.niemeyer@waterboards.ca.gov

4. Project location:

Statewide

5. Project sponsor's name & address:

State Water Resources Control Board Division of Drinking Water 1001 I Street Sacramento, CA 95814

6. General plan designation:

Not Applicable

7. Zoning:

Not Applicable

8. Environmental Analysis of Reasonably Foreseeable Methods of Compliance:

The proposed project consists of the State Water Board establishing an MCL of 5 ppt for 1,2,3-TCP in drinking water provided by public water systems in California. An MCL of 5 ppt represents the highest level of public health protection that is technologically achievable. Current analytical laboratory methods for detecting 1,2,3-TCP are unable to consistently reach below 5 ppt. The preliminary MCL of 5 ppt also represents the greatest potential impact on the environment, since it would require the most PWS to treat for 1,2,3-TCP; however, the impacts related to the use of GAC to treat 1,2,3-TCP would be relatively consistent whether the PWS was required to treat to 5, 15, 35, or 70 ppt.

Based on existing data that DDW has on 1,2,3-TCP in drinking water, over two hundred water sources would exceed the recommended MCL of 5 ppt. When the regulation is put into effect, all community and nontransient-noncommunity water systems will be required to conduct sampling to ascertain whether or not their sources are contaminated. It is anticipated that additional sources will be found to be impacted. How a PWS will address that contamination cannot be predicted, and will depend on their unique circumstances, including whether it is able to stop use of an affected well or by blending sources.

Public Resources Code section 21159 requires the State Water Board to:

Perform at the time of the adoption of a rule or regulation requiring the installation of pollution control equipment or a performance standard or treatment requirement, including a rule or regulation that requires the installation of pollution control equipment or a performance standard or treatment requirement pursuant to the California Global Warming Solutions Act of 2006, an environmental analysis of the reasonably foreseeable methods of compliance.

Such an analysis must, at a minimum, include:

- An analysis of the reasonably foreseeable environmental impacts of the methods of compliance.
- An analysis of reasonably foreseeable feasible mitigation measures.
- An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation.
- For a rule or regulation that requires the installation of pollution control equipment adopted pursuant to the California Global Warming Solutions Act of 2006, the analysis shall also include reasonably foreseeable greenhouse gas emission impacts of compliance with the rule or regulation. This section does not apply, however, because this regulation does not require the installation of pollution control equipment pursuant to the Global Warming Solutions Act.

The analysis must take into account a reasonable range of environmental, economic and technical factors, population and geographic areas and specific sites. A project-level analysis is not required, and the State Water Board is not required to engage in speculation or conjecture.

Reasonably Foreseeable Methods of Compliance and Potential Alternative Means of Compliance

The proposed regulation identifies GAC as the BAT to treat 1,2,3-TCP. GAC uses activated carbon as a filter to remove the 1,2,3-TCP from water. Generally, the activated carbon is composed of black granules of coal, wood, nutshells or other carbon-rich materials that have been treated to increase adsorption capacity. As contaminated water flows through the activated carbon, the contaminants adsorb (stick) to the surface of the granules and are removed from the water. Granular activated carbon or "GAC" can treat a wide range of contaminants, and is identified as the BAT for a number of organic chemicals.

The regulations, however, do not require the use of GAC, and a PWS may address 1,2,3-TCP in their water supply above the MCL in the manner it finds most appropriate. This may include discontinuing use of a contaminated source, where other sources are sufficient to provide necessary supplies; drilling additional wells in uncontaminated aquifers, where there is an ability to do so; blending a contaminated source with an uncontaminated source to reduce concentrations of 1,2,3-TCP to below the MCL; or consolidating with another PWS. The State Board anticipates that a limited number of PWS facilities could choose to meet the requirements of the regulation through alternatives to the BAT.

Reasonably Foreseeably Environmental Impacts of the Alternative Methods of Compliance

The table below identifies the reasonably foreseeable alternative methods of compliance and the associated potential environmental impacts. No analysis of potential mitigation measures is provided because impacts related to the alternative methods of compliance are either non-existent or too speculative to know.

Alternatives to Comply with the Proposed Regulation	Potential Impact
Removal of Contaminated Source from Use	No Expected Environmental Impact
Blending of Contaminated Source with Uncontaminated Source to Meet MCL Prior to Distribution	No Expected Environmental Impact
Drilling and Construction of New Well in Uncontaminated Aquifer	Any potential Environmental Impacts would likely be minimal, but would depend on site specific factors. Compliance with local and state regulations for new wells would be required.
Switching from Contaminated Well to Surface Water	Expected Environmental Impacts are speculative. Due to the high costs of treatment for surface water this is not generally considered a viable alternative for systems that have relied upon groundwater for their drinking water source.
Consolidation	Expected Environmental Impacts are speculative. Although the State Water Board could require a small community system serving a disadvantaged community to consolidate with another PWS if it was unable to meet the new MCL, any potential impacts would be very site specific, and would require additional analysis and would significant additional considerations.
Granulated Active Carbon (GAC)	Insignificant Environmental Impact with mitigation.

This analysis takes into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites. Because the MCL will apply state-wide, there could be a wide range of options for compliance. Some PWS may be able to change to a surface water source, which have generally not had problems with 1,2,3-TCP contamination, while that would not be an option for many. Even if a PWS were to have or be able to obtain rights to a surface water source, surface water would require filtration and disinfection treatment, and the costs for surface water treatment are generally higher than the costs required to treat groundwater for 1,2,3-TCP using GAC.

Removal of contaminated sources from distribution would require that a PWS have other uncontaminated sources that are of sufficient quantity to meet demand without the use of the contaminated well. However, many of the known contaminated sources are clustered, and if one source is contaminated, it is likely that the others are too. For example, Kern County has over 100 sources with detectable concentrations of 1,2,3-TCP, so once one well is known to be contaminated, other sources within the same aquifer are either also contaminated or have a likely risk of becoming contaminated. Similarly, drilling a new well or blending contaminated sources with other uncontaminated sources requires that a PWS have access to an uncontaminated aquifer, which would likely not be the case. In addition, even if access to an uncontaminated groundwater aquifer were available, the initial cost of drilling a new well could be more than the initial cost of installing BAT.

In some cases, a PWS may be able to comply with the proposed MCL through consolidation with an adjacent PWS. This would consist of the combination of physical facilities and/or managerial control and resources of two or more PWS in relatively close proximity to one another. As an alternative to treatment, consolidation of a PWS with an adjacent larger PWS is evaluated to determine whether such consolidation is both feasible and preferable to providing treatment. In cases where such a consolidation could be accomplished at a comparable or lower cost than treatment, consolidation is the preferred alternative. Such relatively low costs for consolidation are relatively rare, occurring primarily in cases where the service areas of the two PWS are in very close proximity such that only a short section of connecting pipeline would be necessary to connect the systems.

Analysis of the Reasonably Foreseeable Environmental Impacts and Mitigation Measures Related to GAC

In the "Initial Statement of Reasons" (ISOR) prepared pursuant to the Administrative Procedure Act, it was assumed that if treatment is required, GAC will be used. As described previously, GAC is commonly used to adsorb natural organic compounds, taste and odor compounds, and synthetic organic chemicals in drinking water treatment. Activated carbon is an effective adsorbent because it is a highly porous material and provides a large surface area to which contaminants may adsorb. The GAC treatment technique is accomplished by filtering the water through vessels, also known as contactors, which contains GAC. The water passes through the contactor at a flow rate that allows for a minimum contact period in order for the GAC to bind the specific contaminants in the water. Over time the GAC media will lose its adsorptive capabilities and must be replaced since it can longer remove the contaminants from the drinking water.

Potential environmental impacts related to GAC come from the addition of the GAC tanks to the PWS, and the need to backwash and eventually dispose of the carbon filters. It is anticipated that the typical well requiring treatment will have a flowrate of 500 gallons per minute (gpm), and will be using a 12-foot diameter tank. Larger cities may require two or more tanks. The tanks will likely be placed within the existing footprint of the drinking water facility and adjacent to the existing well and distribution facilities. A concrete pad for the tank to be placed on would likely range in size from about 200 square feet (sq. ft.) for a single tank, 1500 sq. ft. for two tanks, and approximately 2,100 sq. ft. (.05 acres) for three tanks.

Backwashing occurs after installation of new filters, and also periodically to remove accumulated fine particles on the top of the filter. In the assumptions about how GAC would be implemented that was included in ISOR, it was assumed that replacement of the filters would occur every 8 months and that maintenance backwashing would occur every 16 weeks.

It is also assumed that the backwash water would be free of detectable concentrations of 1,2,3-TCP, but would contain fine sediment. The assumptions included in the ISOR are that treatment systems with a design flowrate of less than 1 million gallons per day (MGD) would not have a backwash holding tank before discharging, and that treatment systems with a design flowrate equal to or greater than 1 MGD do have a backwash holding tank, where the fines would settle out prior to disposal and would allow the PWS to control the flow of the backwash water.

The amount of backwash will depend on the system, but relying on a typical design for a 50-gpm well with a three-foot diameter GAC contact vessel, the amount of backwash from the start-up process (assuming a 2 hour backwash with another 15 minute "forward flush to waste," where the filter is placed into normal service mode but the effluent is diverted to disposal), is about 14,000 gallons of wash water. For occasional backwash every 16 weeks, the volume of waste water would be about 1,700 gallons. The backwash could either be hauled away for disposal, or discharged to the sewer or storm drains, if permitted by the local municipality. Discharges to the ground or surface waters could also be permitted by the appropriate Regional Water Quality Control Board, if appropriate.

When the GAC becomes exhausted, the treatment efficiency will reduce and the GAC will need to be replaced. A public water system may choose to:

- 1. Return the GAC to the vendor for reactivation and reuse at the public water system.
- 2. Return the GAC to the vendor, who would then reactive the filter for another beneficial use, such as groundwater cleanup.
- 3. Dispose of the spent GAC at a suitable location.

The ISOR also included an assumption that small treatment systems (≤1.0 MGD design flow) use a GAC system with carbon disposal. Because the proposed drinking water standard is so low, the concentration of 1,2,3-TCP that would be present in the spent filters is assumed to be very low, and, therefore, the spent carbon would not require special disposal. Because of the value of the spent carbon filters, and the fact that filters for drinking water can be regenerated for reuse by the public water system or use in other activities, such as projects for groundwater cleanup, it was assumed that large treatment systems (>1.0 MGD design flow) use a GAC system with offsite carbon regeneration.

Depending on the drinking water source and the duration that a GAC filter remains in service, there is a potential for spent GAC to accumulate sufficient levels of regulated contaminants that the spent GAC itself could become classified as hazardous waste. Although it is not likely that GAC filters would accumulate waste in sufficient levels to become hazardous, site specific evaluations will need to be performed to determine whether the spent GAC is a hazardous waste or not. A mitigation measure is, therefore, included to require at least an initial testing of the spent filters to ensure that site specific conditions do not cause filters to become hazardous waste, as defined by the California hazardous control law.

Resource Conservation Recovery Act (RCRA) is the federal law that creates the framework for the proper management of hazardous and non-hazardous waste. The Department of Toxic Substance Control received authorization from the United States Environmental Protection Agency (U.S. EPA) in 1992 to implement RCRA, Subtitle C hazardous waste requirements and the associated regulations. Receiving authorization from the U.S. EPA means that DTSC is the primary authority enforcing the RCRA hazardous waste requirements in California. RCRA Subtitle C establishes standards for the generation, transportation, treatment, storage, and disposal of hazardous waste in the United States. DTSC requirements are either the same, more extensive or greater in scope than the subtitle C requirements. If the requirements of DTSC hazardous waste are followed, there should be a less than significant impact on the environment, even if the GAC filter was found to be hazardous waste. Compliance with DTSC requirements includes testing spent filters to determine if they contained hazardous levels of waste, and if so, transporting the spent filters appropriately, disposing of them at a facility approved to accept such waste, and maintaining records of how filters are disposed of.

In addition to the above assumptions, it is also understood that in order to construct and implement a new or expanded water treatment or change operation and management of an existing facility treatment, section 116550 of the Safe Drinking Water Act requires that a PWS apply to the State Water Board for an amended permit. This issuance of an amended permit is a discretionary action by the State Water Board, and would provide additional opportunity to consider site specific impacts from the installation of the GAC facility or the construction of a new well. Where the PWS is a public entity, the PWS will likely be the lead agency for looking at the impacts of its treatment upgrade because it would have the principal responsibility for deciding how to address 1,2,3-TCP over the MCL. Where the PWS is a private entity, and no additional permits are required from the municipality, the State Water Board could be the lead agency for projects involving upgrades to water systems to address the 1,2,3-TCP contamination.

Similarly, the Clean Water Act and/or the Porter-Cologne Water Quality Control Act require that discharges of waste from water treatment systems be permitted consistent with the applicable basin plan and State Water Board plans and policies, including 68-16 and 88-63. This means that in order to discharge the backwash, a PWS would need to obtain a permit from the applicable Regional Water Board before it discharged the backwash to surface water or to the ground, if it could impact groundwater.

9. Setting and Surrounding Land Uses:

The proposed regulation will establish a state-wide MCL for 1,2,3 TCP in drinking water. PWS that will need to treat their drinking water sources for 1,2,3-TCP may be found in all areas of the state. Only PWS that rely on groundwater for the source of their drinking water are anticipated to have impacts; PWS relying on surface water are not expected to have any detection of 1,2,3-TCP above the proposed MCL of 5 ppt. The proposed regulation does not prescribe any particular method that a public water system must use to achieve compliance with the MCL, but GAC has been identified as the BAT, and the impacts of that technology are the focus of this Initial Study/Mitigated Negative Declaration.

10. Responsible and Trustee Agencies:

Agency	Responsible or Trustee Agency	Date Response Received	Mitigation Measures Recommended
California Department of Fish and Wildlife	Trustee	2/3/17	Measures that would assure sensitive fish, wildlife, plants, and their habitats would not be impacted, or set up the document as a programmatic EIR, where site specific analysis could occur in the future.
Department of Toxic Substances Control	Responsible	2/3/17	No additional mitigation recommended.

As a discretionary action, adoption of the proposed regulation fits the CEQA definition of a project (Pub. Resources Code, § 21065 (c)). The State Water Board, as the project's lead agency, has consulted with state responsible and trustee agencies before deciding whether a project's impacts are significant (Pub. Resources Code, § 21080.3; Cal. Code Regs., tit. 14, § 15063) and prior to determining what type of CEQA document to prepare. The list of agencies consulted was developed with assistance from the California Office of Planning and Research. A draft Initial Study was transmitted on January 23, 2017 to all identified agencies.

Responses were received from the California Department of Fish and Wildlife and the Department of Toxic Substances Control. Mitigation measures were recommended by California Department of Fish and Wildlife, which have been incorporated into this project.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less Than Significant With Mitigation" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry		Air Quality	
	Biological Resources		Cultural Resources		Geology/Soils	
	Greenhouse Gas	\boxtimes	Hazards and	\boxtimes	Hydrology/Water	
	Emissions		Hazardous Materials		Quality	
	Land Use/Planning		Mineral Resources		Noise	
	Population/Housing		Public Services		Recreation	
	Transportation/Traffic	\boxtimes	Utilities/Service		Mandatory Findings of	
			Systems		Significance	
C.	the basis of this initial eva	luatio	on:			
	I find that the proposed p environment, and a NEG	ΑŤΙV	'E DECLARATION will be	e pre	epared.	
	I find that although the pr					
	environment, there will not be a significant effect in this case because revisions in					
	the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.					
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.					
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.					
	I find that although the pr			signi	ficant effect on the	
	environment, because all potentially significant effects (a) have been analyzed					
	adequately in an earlier E					
	standards, and (b) have I NEGATIVE DECLARATI					
	imposed upon the propos					
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Sig	nature:				Date:	
Pri	nted Name:				For:	

D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 16 different broad environmental categories, such as air quality, cultural resources, land use, and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. Each question in the Checklist essentially requires a "yes" or "no" reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination. The Checklist table provides, in addition to a clear "yes" reply and a clear "no" reply, two possible "in-between" replies, including one that is equivalent to "yes, but with changes to the project that the proponent and the Lead Agency have agreed to, no", and another "no" reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple "no" reply. Each possible answer to the questions in the Checklist, and the different type of discussion required is discussed below:

Potentially Significant Impact

Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

Less Than Significant With Mitigation

Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

Less Than Significant Impact

Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

No Impact

Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g., the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

E. ENVIRONMENTAL CHECKLIST

The State Water Board has prepared this Initial Study to evaluate foreseeable environmental impacts and determine if a significant impact to the environment is likely as a result of adopting the proposed regulation. The adoption of the proposed regulation is for statewide application and does not address a site specific project. The subsequent evaluation of the environmental factors considers potential impacts that may result from the adoption of the most stringent proposed 1,2,3-TCP MCL against a baseline of not adopting the regulation. It is expected that the most stringent MCL would result in the greatest environmental impact because of it would require the most number of PWS to treat its source water, although the impacts associated with treatment would be similar whether the MCL was set at 5ppt or at some less stringent level.

The MCL for 1,2,3-TCP would establish an enforceable primary drinking water standard as a health protective drinking water standard to be met by PWS. The purpose of the proposed regulation is to protect the public by reducing exposure to 1,2,3-TCP in drinking water. The proposed regulation does not dictate the manner in which an individual public water system must comply with the new MCL; however, it is assumed that GAC is the reasonably foreseeable method of compliance, and the responses to the checklist focus on the potential impacts from the implementation of GAC treatment.

Aesthetics

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS:				
Would the project:				
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?				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

Background:

It order to meet the MCL, PWS may need to construct or expand drinking water treatment plants, which could occur in a variety of settings in California. These lands could be visible from roads and neighboring properties and may also be partially visible from open space areas. A GAC system would not, however, be expected to be very large, and would likely consist of one to two tanks, approximately 12 feet in diameter and 5 feet high.

Discussion of Impacts:

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact

As noted above, the tanks will not be too large and their impact on a scenic vista would be minimal. Structures would be located adjacent to wells and existing drinking water treatment and distribution facilities. Many local jurisdictions have siting requirements that would protect scenic areas, and where no such limits exist, impacts to visual resources are still not anticipated. Site alterations are expected, but impacts to scenic vistas would be less than significant because the facilities would be located next to areas already disturbed by infrastructure related to the treatment and/or distribution of drinking water and would not be very large.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact

There are currently 1260.7 miles of state designated scenic highway resources. Federal, state and local regulations would prohibit these facilities from being constructed within highway rights-of-way. Project facilities would be located outside of highway rights-of-way. The nature of these facilities would also preclude construction in or on historic buildings and rock outcroppings.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact

See the response to item (a) above.

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

Less than Significant Impact

Although permanent sources of external lighting, such as security lighting, may be included as part of a treatment facility, such lighting is not anticipated to be substantial and would not adversely affect day or nighttime views.

Agriculture Resources

II. AGRICULTURE AND FOREST RESOURCES:

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air				
project: a) Convert Prime Farmland, Unique				
Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
contract?				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code § 12220(g).), timberland (as defined by Pub. Resources Code § 4526), or timberland zoned Timberland Production (as defined by Gov. Code § 51104(g).)?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				

Background:

The installation of new or expanded drinking water treatment systems could occur on a wide variety of soil types throughout the state, including areas that could be categorized as agricultural or forest areas. The proposed regulation does not change zoning or land use designation.

Discussion of Impacts:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact

The project will not result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact

The project will not affect existing agricultural zoning or any aspect of a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220(g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104(g))?

No Impact

The project will not cause rezoning of forest land or timberland.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact

The project would not result in any direct loss of forest land.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact

The project would not result in conversion of Farmland to non-agricultural use.

Air Quality

III. 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:

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	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) 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 which exceed quantitative thresholds for ozone precursors)?				
d) Expose sensitive receptors to substantial pollutant concentrations?				
e) Create objectionable odors affecting a substantial number of people?				

Background:

Impacts to air quality will insignificant. Although additional pumps would be necessary to force the groundwater through GAC, the additional energy required is not significant. In addition, any construction related air quality impacts are expected to be temporary.

Discussion of Impacts:

a) Conflict or obstruct implementation of the applicable air quality plan?

No Impact

The proposed regulation would not impact the implementation of an applicable air quality plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

No Impact

See the response to item (a) above.

c) 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 which exceed quantitative thresholds for ozone precursors)?

No Impact

See the response to item (a) above.

d) Expose sensitive receptors to substantial pollutant concentrations?

No Impact

See the response to item (a) above.

e) Create objectionable odors affecting a substantial number of people?

No Impact

GAC does not produce objectionable odors and would not have an impact in creating objectionable odors affecting a substantial number or people.

Biological Resources

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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IV. BIOLOGICAL RESOURCES:

Would the project:

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	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 California Department of Fish (DFG) and Game or U.S. Fish and Wildlife Service (USFWS)?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				
c) Have a substantial adverse effect on federally protected wetlands as defined by § 404 of the 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 wildlife 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 policy or ordinance?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?				

Background:

It is not anticipated that the project will have a significant effect on biological resources. The GAC treatment facilities would generally be located adjacent to existing wells and distribution works, within the footprint of the existing facilities. One to three 12 foot diameter tanks would likely be installed on concrete pads, the impact of which would be de minimus. A concrete pad approximately 200 sq ft could accommodate a 12 foot tank, and with a 2100 sq. ft. (.05 acre) pad being able to be accommodate three tanks.

Nonetheless, because of the varying locations and existing conditions at PWS where treatment may be required, there is the potential that sensitive biological resources could be significantly impacted. Where the PWS needs to install the GAC in an area outside of the existing footprint of the drinking water facility and will need a pad larger than 2100 sq. ft. (.05 acre), impacts to biological resources will need to be assessed and avoided, or mitigated if avoidance is not possible. This assessment of potential impacts would be done either by the PWS during the approval of the upgrade of its treatment system, or the State Water Board during the process of amending the PWS's permit. If impacts to biological resources are identified as being potentially significant, MM-1 requires that the public water system survey and map the biological resources that would be significantly affected, and either avoid those impacts, and if avoidance is not possible, mitigate them. If sensitive wildlife species would be significantly impacted, a permit from the appropriate wildlife agency is required. If impacts to existing wetlands or riparian habitat cannot be avoided, impacts must be mitigated off-site, but preferably within the same watershed, at a ratio of 1 to 1.5.

Disturbances due to construction activities to install GAC would be temporary and would not take up much area.

Discussion of Impacts:

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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Measure 1

See discussion above.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less than Significant Impact with Mitigation Measure 1

See the discussion above.

c) Have a substantial adverse effect on federally protected wetlands as defined by § 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact with Mitigation Measure 1

See the discussion above...

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact

The proposed project would not impact fish or wildlife species movement.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact

The proposed regulation would not preempt, or supersede the authority of local policies or ordinances protecting biological resources.

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?

No impact

The proposed regulation would not conflict with any adopted Habitat Conservation Plan, Natural Community Plan, or other approved local, regional or state habitat conservation plan.

Cultural Resources

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES:				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA §15064.5?				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA §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?				

Background:

To address potential effects on tribal cultural resources, the Water Board must also fulfill the requirements of Assembly Bill 52 (AB 52). AB 52 requires a lead agency to notify tribes traditionally and culturally affiliated with a project area of the details of the proposed project, provided the tribes have requested such notification (Pub. Res. Code § 21080.3.1(d)).

The State Water Board Office of Public Participation (OPP) includes the office of the Tribal Liaison. OPP provided DDW with a current list of tribes that have requested to be contacted for AB 52 Consultation. All of the tribes on the list were contacted in June 2016. DDW was notified by postal carrier and/or electronic email receipt that the correspondence was received. If any of the notified tribes request consultation, then the lead agency must consult with the tribe to discuss avoidance and mitigation of significant impacts to tribal cultural resources (Pub. Res. Code § 21080.3.2). No tribes requested consultation on this project.

Discussion of Impacts:

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA § 15064.5?

Less Than Significant Impact

Adoption of the regulation will not cause a substantial adverse change in the significance of a historical resource.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA §15064.5?

Less than Significant Impact

Adoption of the regulation will not cause a substantial adverse change in the significance of a historical resource.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact

Projects would occur in areas adjacent to existing drinking water treatment and distribution facilities, areas already disturbed by recent human activity. In addition, the addition of GAC would not require much disturbance to the ground, and would largely consist of installation of above-ground tanks, avoiding impacts to paleontological resources or geologic features.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact

Projects would occur in areas adjacent to existing drinking water treatment and distribution facilities, areas already disturbed by recent human activity. In addition, the addition of GAC would not require much disturbance to the ground, and would largely consist of installation of above-ground tanks, avoiding affects to buried human remains.

Geology / Soils				
ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS:				

Would the project:

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	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 on 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 and 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 soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				

Background:

The adopted regulation would affect PWS statewide and could potentially require new construction or expansion of water treatment facilities. The location of the additional treatment facilities would be in areas adjacent to existing drinking water treatment and distribution facilities. The treatment facilities would generally consists of additional tanks, and would not be expected to cause adverse effects, including risk of loss, injury or death, if they were exposed to seismic activity or strong shaking.

Discussion of Impacts:

- 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 on 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 and Geology Special Publication 42.
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?

Less than Significant Impact

Adoption of the regulation will not have a substantial adverse effect caused by geologic or soil conditions. In addition, the project is not expected to involve the construction of habitable structures; therefore, it would not result in any human safety risks related to fault rupture, seismic ground-shaking, ground failure, or landslides. The regulation will have a less than significant impact on exposing people or structures to potential adverse effects, including the risk of loss, injury, or death associated with earthquake faults.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact

Earthmoving or construction activities are likely required in order for PWS to comply with the proposed regulation. Such activities would not result in substantial soil erosion or the loss of topsoil because they would involve minor alteration of existing structures, facilities, mechanical equipment, or topographic features.

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?

No Impact

Treatment facilities added to a drinking water system to address 1,2,3-TCP would not cause soil to become unstable. If located on unstable soil, the project would not cause any additional landslide or other soil problems, or create a risk to life or property. .

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No impact

The project would not involve construction of buildings (as defined in the Uniform Building Code) or any habitable structures. New construction or expanded water treatment could occur in areas with expansive soils, but this activity would not create a substantial risk to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Less than Significant Impact

GAC treatment requires disposal of backwash water, which could potentially be disposed of on land if permitted by the appropriate Regional Water Board. In order to obtain a permit from the Regional Water Board, the PWS would need to demonstrate that it met applicable requirements for waste discharges to land. Because the backwash water would not contain 1,2,3-TCP, and generally be free of contamination, potential impacts related to soil type being adequate for wastewater disposal would be minimal. Similarly, if disposal to land was not feasible, other disposal methods may be available, including discharge to sanitary sewer system, storm drains, surface water or hauling.

Greenhouse Gas Emissions

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				

Background:

In 2006, California passed the California Global Warming Solutions Act of 2006, which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas (GHG) emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions). State law requires local agencies to analyze the environmental impact of GHG emissions under CEQA.

Discussion of Impacts:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant-Impact

Newly constructed or expanded drinking water treatment projects for the proposed regulation can lead to construction-related emissions from the operation of heavy equipment. However, the construction phase is of limited duration and would typically require few construction vehicles at any given time; therefore, it would not create a significant impact on the environment. Similarly, there may be slight increases in truck traffic due to the need for GAC media transportation for regeneration, or hauling of backwash waster, where required. Any increases, however, are expected to be insignificant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact

The project would not conflict with any State or county plan, policy or regulation adopted for the purpose of reducing the emissions of GHG and no impact would occur.

Hazards & Hazardous Materials

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS:				
Would the project:				
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 one-quarter mile of an existing or proposed school?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 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 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?				

Background:

As noted previously, the ISOR included assumptions that small treatment systems (≤1.0 MGD design flow) use a GAC system with carbon disposal. Because the MCL is so low (ppt), the filters would be changed out prior to the concentration of 1,2,3-TCP reaching hazardous waste levels. Nonetheless, there is a potential for filters to accumulate hazardous waste concentrations of other constituents. MM-2 requires that prior to the initial regeneration or disposal of GAC filters, PWS using GAC system with virgin filters follow procedures to classify the exhausted GAC, and determine if it is classified as hazardous waste, and if it is found to be hazardous waste to transport and dispose of the filters in compliance with California Hazardous Waste Control Law. If the initial testing shows GAC is classified as hazardous, continued testing would be required prior to offsite management of each filter. If initial testing shows GAC filter is not classified as hazardous, then the PWS need not test each filter before sending the filter for regeneration or disposal, as long as the source water and operation and maintenance of the GAC system has not changed.

Because of the value of the spent carbon filters, and the fact that filters for drinking water can be regenerated for reuse at the facility or used in other activities, such as groundwater cleanup projects, it is recognized that large treatment systems (>1.0 MGD design flow) will likely send filters out for offsite carbon regeneration. Although properly regenerated filters are safe for reuse, to prevent potential contamination of drinking water from the regenerated filters, it is important that the facility providing the filters be certified. MM-3 requires GAC materials used for drinking water must be certified in accordance with Section 64591, Indirect Additives, California Waterworks Standards. Water systems planning on using reactivated GAC must ensure contaminants are not introduced into the media during the reactivation process and contaminants will not leach from the reactivated GAC into the drinking water. For example, the latest version of the NSF/ANSI-61 standard includes specific requirements for the safe reactivation and regeneration of exhausted media at off-site facilities that can minimize the potential for cross contamination.

As noted above, with the use of a certified facility, it is anticipated that regenerated GAC filters would be safe for reuse. The reuse of filters, however, could result in the accumulation of regulated contaminants, eventually causing the GAC filter to be classified as hazardous waste, requiring specialized transport and disposal. MM-4, therefore, requires that if a PWS uses regenerated GAC filters, the PWS must comply with requirements of California Hazardous Waste Control Law, as necessary, prior to the transport and offsite management of the GAC filters, and maintain records of such compliance. This may be done by conducting assessments of the GAC filter to determine whether it meets hazardous waste levels, and if it does, transporting and disposing of the filter in compliance with California hazardous waste requirements. This requirement could also be met by contracting with a regeneration facility that performs such testing, transporting, and treatment services, as long as proper evidence of compliance with hazardous waste requirements is provided.

If requirements of California Hazardous Waste Control Law are followed, there would be a less than significant impact on the environment from the disposal of the GAC filters. This would include testing spent filters to determine if they exhibit hazardous characteristics, and if so, managing of the spent filters at a facility approved to accept such waste and maintaining records of how filters are managed.

Discussion of Impacts:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

See discussion in background section, above

Less than Significant Impact with Mitigation Measures 2, 3, and 4, above.

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?

See the discussion in background section, above.

Less than Significant Impact with Mitigation Measures 2, 3, and 4, above.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact with Mitigation Measures 2, 3, and 4, above.

See the response to (a) above.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Gov. Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant. Most drinking water facilities will not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Gov. Code §65962.5. However, even if a drinking water facility were located on such a site, the implementation of the drinking water standard for 1,2,3-TCP, including the treatment of the water using GAC or some other treatment process would not create a significant hazard to the public or 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 public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less than Significant Impact

Drinking water treatment facilities may be located in the vicinity of an airport or airstrip, but they would not add substantial numbers of employees or any residents to these areas. The proposed regulation would not otherwise create safety hazards within the vicinity of an airport or airstrip.

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?

Less than Significant Impact

See the response to (e) above.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact

The proposed regulation is not expected to 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?

Less than Significant Impact

The proposed regulation would not add population or housing to wildland areas nor would the projects covered by the proposed regulation create any new significant fire risk within wildland areas.

Hydrology / Water Quality

_ ,				
ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY:				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				
f) Otherwise substantially degrade water quality?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				
i) 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?				
j) Be subject to inundation by seiche, tsunami, or mudflow				\boxtimes

Potential impacts to water quality come from the need the dispose of backwash water. Backwashing occurs after installation of new filters, and also periodically to remove accumulated fine particles on the top of the filter. In the assumptions about how GAC would be implemented, which was included in ISOR, it was assumed that replacement of the filters would occur every 8 months and that maintenance backwashing would occur every 16 weeks. Backwash water would be free of detectable levels of 1,2,3-TCP, but would contain fine sediment. The assumptions included in the ISOR are that treatment systems with a design flow rate of less than 1 MGD would not have a backwash holding tank before discharging, and that treatment systems with a design flow rate equal to or greater than 1 MGD do have a backwash holding tank, where the fines would settle out prior to disposal and would allow the PWS to control the flow of the backwash water. The disposal of the backwash could either be hauled away for disposal, or discharged to the sewer or storm drains, if permitted. Discharges to the ground or to surface water could also be permitted by the appropriate Regional Water Board, if appropriate.

Discussion of Impacts

a) Violate any water quality standards or waste discharge requirements?

Less than Significant Impact with Mitigation

The proposed regulation establishes an MCL for a 1,2,3-TCP which will improve the overall quality of drinking water. Backwash water may contain fine sediments and other constituents, such as chlorine, that may not be appropriate for all manners of disposal. Although backwash water will not be hazardous nor expected to violate current state and local regulations, it will nonetheless be necessary to control how the backwash water is disposed of.

Backwash water may be hauled away, disposed of in the sanitary sewer system or through the storm drain, if approved by the municipality that controls the sanitary sewer or storm drain system. Similarly, the backwash water may be disposed of to surface waters or on the ground, if properly permitted by the appropriate Regional Water Board. With proper disposal, backwash generated from GAC treatment will have a less than significant impact on water quality.

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Either have backwash water hauled away by an authorized entity; obtain permission from the local municipality to discharge the backwash to the sanitary sewer or storm drain system, or apply to the local Regional Water Board for waste discharge requirements to dispose of the backwash water to surface water or on land.

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)?

No Impact

The proposed regulation would not include projects that would interfere with local groundwater recharge and supply. The project would involve treatment of groundwater that was already being pumped for drinking water supply, and would not cause an increase in demand.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site?

No Impact

The project would not involve altering existing drainage patterns or the course of a stream or river in a manner that would result in erosion or siltation.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact

See the response to (c) above.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact with Mitigation

Although the GAC treatment system would create backwash that would need to be disposed of, it would not exceed the capacity of the storm water drainage system. PWS that wanted to discharge to the stormwater drainage system would need to get permission from the local municipality. (See MM-5)

f) Otherwise substantially degrade water quality?

No Impact

The project is intended to improve water quality be reducing levels of 1,2,3-TCP in drinking water..

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map?

No impact

The implementation of proposed regulation would not require the construction of new housing.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No impact

The implementation of proposed regulation would not result in construction of new structures that could impede or redirect flood flows within a 100-year flood hazard zone.

i) 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?

No impact

The implementation of proposed regulation would not result in construction or modification of dams or levees or activities that would expose people to significant damage from dam or levee failure and no adverse impacts would occur.

j) Be subject to inundation by seiche, tsunami, or mudflow.

No impact

The implementation of proposed regulation would not be subject to substantial risks due to inundation by seiche, tsunami, or mudflow, and no impact would occur.

Land Use / Planning

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?				
b)Conflict with any applicable land use plan, policy, 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?				

Background:

The proposed regulation may require treatment of drinking water, which could include installing tanks for GAC treatment. Structures would be located adjacent to wells and existing drinking water treatment and distribution facilities.

Discussion of Impacts:

a) Physically divide an established community?

Less than Significant Impact

The installation of GAC treatment adjacent to existing wells or drinking water distribution systems would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, 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?

Less than Significant Impact

Adoption of the proposed regulation is not expected to conflict with any applicable land use plan, policy, or regulation. The proposed regulation is consistent with policies of the State Water Board and Regional Water Boards. The proposed regulation is not expected to conflict with another agency's plan and does not address zoning or land use designations. PWS would need to obtain permission from a local agency before being allowed to discharge backwash water to the agency's sanitary sewer or storm water system.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than Significant Impact

The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

Mineral Resources

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 California Surface Mining and Reclamation Act of 1975 (SMARA) required identification of mineral resources in California. SMARA maps identify and classify mineral resources as to their relative value for extraction.

Discussion of Impacts:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No impact

Adoption of the proposed regulation is not expected to impact the availability of a known mineral resource. Construction activities may include earthmoving (i.e., excavation), conveyance piping installation, and tank installations. These actions would be relatively small in scale and would not result in the loss of availability or physically preclude future mining activities from occurring.

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?

No Impact

Adoption of the proposed regulation is not expected to result in the loss of availability of a locally-important mineral resource recovery site. Construction activities may include earthmoving (i.e., excavation), conveyance piping installation, and tank installations. These actions would be relatively small in scale and would not result in the loss of availability of delineated mineral resource recovery sites.

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII. NOISE:				
Would the project result in:				
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 ground borne vibration or ground borne 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 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 or working in the project area to excessive noise levels?				

Construction of expanded or new treatment facilities would involve short-term use of heavy equipment for hauling, excavation, etc. The construction phase is of limited duration and would typically require few construction vehicles at any given time; therefore, it would create a temporary impact on the level noise. There would also be minor increase in noise levels from the use of additional pumps to run the GAC. Any noise increase due to the pumps would be insignificant.

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?

No Impact

The project could involve general maintenance, earthmoving and construction related to compliance projects and/or daily activities, generally small in scale, but could temporarily generate noise. Any treatment facility would be consistent with local agency noise standards.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact

The project could involve earthmoving and construction. Construction would generally be small in scale and temporary where the potential for exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels is less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact

The project would cause only minor increases in ambient noise levels due to running of pumps. Pumps would be located adjacent to existing drinking water wells, treatment and distribution facilities, and so additional noise would be insignificant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact

Construction activities would generally be small in scale, but could generate temporary noise. Noise generating activities would comply with their respective county standards, keeping temporary noise levels to less than significant levels. Therefore, the project will not result in substantial noise, and its impacts would be less than significant.

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 or working in the project area to excessive noise levels?

No impact

The project would not expose people residing 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 or working in the project area to excessive noise levels?

No impact

The project would not expose people residing or working within the project area to excessive noise levels.

Population / Housing				
ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING:				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				

Projects related to the proposed regulation are not expected to substantially affect population and housing. PWS will not be increasing their supplies, but rather treating existing drinking water supplies to meet the new drinking water standard for 1,2,3-TCP.

Discussion of Impacts:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact

The proposed regulation will not induce substantial population growth. The PWS will be treating its existing drinking water supply.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact

The project would not displace existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact

The project would not displace people.

Public Services

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			\boxtimes	
Police protection?			\boxtimes	
Schools?			\boxtimes	
Parks?			\boxtimes	
Other public facilities?				

Any new or expanded treatment for PWS facilities would be located in areas where existing drinking water system facilities already exist. Expanded or new treatment to a PWS will not require additional public services.

Discussion of Impacts:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection? Police protection? Schools? Parks? Other public facilities?

Less than Significant Impact With Mitigation

Background:

See MM-5. If permitted by the local municipality, the PWS may request to discharge backwash from its treatment system into the sanitary sewer system or storm water system. By requiring permission before discharge, the municipality can control whether the discharge occurs, and if allowed, can regulate the flow. Use of the backwash tank would allow the PWS to control the volume of the discharge so that the sanitary sewer or storm water systems are not overwhelmed.

Drinking water treatment facilities will not require additional public services such as fire protection, police protection, schools, parks, and other public facilities. Drinking water treatment projects would not result in substantial adverse physical impacts associated with provisions of or need for new or physically altered governmental facilities. New or expanded treatment systems would be constructed adjacent to existing drinking water wells and treatment facilities.

Recreation **ENVIRONMENTAL FACTOR** Potentially Less Than Less Than No Significant Significant Significant **Impact** Impact with **Impact** Mitigation XV. RECREATION: \boxtimes a) Would the project 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? \boxtimes b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

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The California Department of Parks and Recreation, local park and/open space districts, municipalities, and other private parties own and operate numerous park and recreational facilities in the counties. These facilities provide a variety of outdoor recreational, educational, and sporting opportunities for local residents, and visitors for around the world. Expanded or new construction for PWS treatment of 1,2,3-TCP will not involve the use of recreational facilities.

Discussion of Impacts:

a) Would the project 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?

No Impact

The proposed regulation is not expected to involve the use of recreational facilities.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact

The proposed regulation is not expected to involve the use of recreational facilities.

Transportation / Traffic			
ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	No Impact

XVI. TRANSPORTATION/TRAFFIC:

Would the project:

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Exceed, individually or cumulatively conflict with an applicable congestion management program, including, but not limited to level of service (LOS) standards and travel demand measures, or other standards 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 those 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?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				

Compliance with the proposed regulation at existing PWS facilities is not expected to substantially increase traffic or traffic related hazards associated with the daily operations. Though there might be some additional traffic related to changing out GAC filters or hauling out backwash water, it is not expected to cause significant impacts to traffic. The construction of new treatment facilities is expected to increase traffic, but is considered to have a less than significant impact as construction is temporary.

Discussion of Impacts:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant Impact

The implementation of the proposed regulation will not conflict with an applicable plan, ordinance, or policy related to transportation. Construction of GAC will have a negligible impact on traffic (mobilization of earth-moving equipment and materials to and from the sites). Long term operation of the drinking water treatment system is not a significant trip generating activity. Some truck traffic may occur for material deliveries. Adoption of the proposed regulation is not expected to conflict with a transportation related ordinance.

b) Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than Significant Impact

See the response to item (a) above.

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?

No Impact

The project will not result in changes to air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact

The project's impact on traffic would not substantially increase hazards.

e) Result in inadequate emergency access?

No Impact

The project would not result in inadequate emergency access.

f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact

The project would not conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Utilities / Service Systems

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Board?				

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 effects?				
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
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 which 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?				

Impacts to utility providers could occur from the need to dispose of backwash water. Backwashing occurs after installation of new filters, about every 8 months, and also about every 16 weeks to periodically to remove accumulated fine particles on the top of the filter. For larger systems (design flow greater than 1 million gallons per day), the treatment system would have a backwash holding tank in which the backwash could be held, allowing fines to settle out prior to disposal and would allowing the PWS to control the flow of the backwash water. (Smaller systems may not have a backwash holding tank.) The amount of backwash will depend on the system, but a typical design for a 50 gallon per minute well with a three foot diameter GAC contact vessel, the amount of backwash from the start-up process is about 14,000 gallons of wash water. For occasional backwash every 16 weeks, the volume of waste water would be about 1,700 gallons. The disposal of the backwash could either be hauled away for disposal, or discharged to the sewer or storm drains, if permitted. Discharges to the ground or surface waters could also be permitted by the appropriate Regional Water Quality Control Board, if appropriate.

In addition to backwash, the GAC treatment system also needs to dispose of the carbon filters. Small treatment systems (≤1.0 MGD design flow) would likely use a GAC system with carbon disposal. Because the source water concentration is so low (ppt), the concentration of 1,2,3-TCP that would be present in the spent filters is assumed to be very low, and, therefore, would not require special disposal. Because of the value of the spent carbon filters, and the fact that filters for drinking water can be regenerated for use in other activities, such as projects for groundwater cleanup projects, it was assumed that large treatment systems (>1.0 MGD design flow) will use a GAC system with offsite carbon regeneration.

Discussion of Impacts:

a) Exceed wastewater treatment requirements of the applicable Regional Water Board?

Less than Significant Impact with Mitigation

As noted above, backwash can be disposed of by either being hauled away, discharged to the sewer or storm drains, or discharged to the ground if permitted by the appropriate Regional Water Board. MM-5 requires that the PWS "Either have backwash water hauled away by an authorized entity; obtain permission from the local municipality to discharge the backwash to the sanitary sewer or storm drain system, or apply to the local Regional Water board for waste discharge requirements to dispose of the backwash water on land or to surface waters." If the local municipality allows the discharge to the sanitary sewer system, it can set the requirements for the PWS's discharge. For example, it may require the PWS to use its backwash tanks to limit the flow as to not overwhelm its system.

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 effects?

Less than Significant Impact with Mitigation

See response to (a) above. MM-5 requires that if the PWS wants to discharge its backwash from GAC to the sanitary sewer system, it must get permission and work with the utility to ensure that the backwash does not overwhelm the system. If there is inadequate capacity at the sanitary sewer system, the PWS has other options for disposal, including having the backwash hauled away or seeking a permit from the appropriate Regional Water Board to discharge the backwash to land or to surface waters.

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 effects?

Less than Significant Impact with Mitigation

See response to (a) above. MM-5 requires the PWS to obtain permission from the local agency before it discharges to a storm drain. Generally, the local municipality's storm water system is permitted through the State or Regional Water Boards, and the local agency is required to control discharges into its stormwater system. Non-stormwater discharges may be allowed, but it is up to the local agency to determine if such discharges are allowed under its permit, and whether there is sufficient capacity. If sufficient capacity does not exist, the PWS has other options to discharge of the backwash, as described previously.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than Significant Impact

The proposed project is the regulation of 1,2,3-TCP in drinking water. As noted in the discussion about the reasonable methods of compliance, use of GAC to treat the water is likely the most feasible option for PWS. There may, however, be opportunities to rely on other sources and to shut off the contaminated well, which could reduce available supplies. The regulation would likely not impact supplies, but rather make existing supplies safer.

e) Result in a determination by the wastewater treatment provider which 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?

Less than Significant Impact with Mitigation

See the response to item (c) above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact

GAC treatment systems are anticipated to generate solid waste, specifically spent GAC filters about every 8 months. The spent GAC will either be hauled away for regeneration and reuse or will be disposed of. Because the source water concentration is so low (ppt), the concentration of 1,2,3-TCP that would be present in the spent filters is assumed to be very low, and, therefore, would not require special disposal. However, to ensure that there are not site-specific circumstances that could cause GAC filters to accumulate concentrations of regulated contaminants that could make the filters hazardous, MM-2 requires that PWS perform initial testing of spent filters, and if the filters are found to be hazardous, to transport and dispose of the filters in accordance with hazardous waste requirements. Because of the value of the spent carbon filters, and the fact that filters for drinking water can be regenerated for use in other activities, such as projects for groundwater cleanups, most large treatment systems (>1.0 MGD design flow) will use a GAC system with offsite carbon regeneration. MM-4 requires a PWS that uses regenerated GAC filters to comply with requirements of hazardous waste management, as necessary, prior to the transport and disposal of the GAC filters, and maintain records of such compliance.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact with Mitigation

Solid waste discharges are required to comply with federal, state, and local statutes and regulations related to solid waste. As noted above, the spent filters will likely be regenerated, but any that are disposed of would not be hazardous and could be disposed of in the local landfill. MM-2 and MM-4 require that prior to disposal the PWS test the filters to ensure that they are not hazardous, and if they are to transport and dispose of the filters in compliance with hazardous waste management requirements.

Mandatory Findings of Significance

ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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ENVIRONMENTAL FACTOR	Potentially Significant Impact	Less Than Significant with Mitigation	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, substantially 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 which will cause substantial adverse effects on human beings, either directly or indirectly?				

Discussion of Impacts:

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, substantially 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?

Less than Significant Impact

The proposed regulation would require new or additional treatment of drinking water by PWS whose source water is above the proposed MCL of 5 ppt for 1,2,3 –. The reasonably foreseeable treatment technology that would be employed is GAC. GAC is not a novel technology and has been employed in drinking water treatment plants for many years. Potential impacts related to GAC are from siting the tanks, the disposal of the backwash water and the spent filters. The tanks will generally be located within the exiting footprint of the drinking water treatment and distribution facility, and would be de minimum in size. For tanks that needed to be sited outside of the existing footprint and would be in excess of 2100 sq. ft., siting of tanks could cause significant impacts. Those impacts would be considered when the PWS approves new treatment and when the State Water Board issues an amended permit. If significant impacts to biological resources are identified, the impacts must be avoided or mitigated.

Backwash water would not contain 1,2,3-TCP, but could contain other constituents in drinking water, such as chlorine. A mitigation measure has been incorporated to ensure that backwash water is properly disposed of. Spent filters would be regenerated or disposed of in the local landfill. To ensure that the spent GAC are not hazardous waste, testing is required, and if it is determined hazardous waste exists, compliance with California's hazardous waste law is required.

Therefore, the project would not degrade the environment.

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)?

Less than Significant Impact

Because the regulation applies state-wide, PWS across the state will need to test for 1,2,3-TCP, and if detected above the MCL, treat for the constituent in their drinking water sources. Previous testing has indicated that there are at least 200 sources (about 100 systems) that have detections of 1,2,3-TCP above the proposed MCL. Initial testing required as part of this regulation may identify additional sources that require treatment. It is not anticipated that treatment by all of the affected PWS will cause cumulatively considerable impacts. As noted previously, disposal of the backwash water and the spent carbon filters would be the impacts associated with treatment. A mitigation measure has been included to address disposal of backwash water to ensure that it does not overwhelm a sanitary sewer or storm water system, and to ensure that the discharge is permitted if it is discharged to the ground or surface waters. Testing of carbon filters to ensure they are not hazardous waste would be required prior to sending the filters for regeneration or disposal of in the local landfill, and if it is found to be hazardous waste to transport and dispose of the filters in compliance with California Hazardous Waste Control Law.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact

The proposed regulation is being established to require monitoring of 1,2,3-TCP in drinking water and to establish an enforceable maximum level of the chemical permitted in drinking water with the intention to improve the overall quality of drinking water. The proposed regulation is not expected to cause any adverse effect on human beings, either directly or indirectly.

F. APPENDIX

