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Representing Over Fifty Wastewater Agencies

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July 25, 2014

Via Electronic Mail Jeannine Townsend Clerk to the Board State Water Resources Control Board 1001 | Street, 24th Floor Sacramento, CA 95814 commentletters@waterboards.ca.gov

Subject:

Comment Letter - General Order Waste Discharge Requirements (WDRs) for Small Domestic Wastewater Systems and/or Negative Declaration and Initial Study

Dear Ms. Townsend:

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to comment on the Negative Declaration and General Order for Small Domestic Wastewater Treatment Systems (Small Domestic Systems) (Draft Negative Declaration and Draft General Order, respectfully). CVCWA is a non-profit association of public agencies located within the Central Valley region that provide wastewater collection, treatment, and water recycling services to millions of Central Valley residents and businesses. Many of CVCWA's members are small agencies that manage wastewater treatment systems that may utilize the Draft General Order for obtaining regulatory compliance. Accordingly, we approach these matters with the perspective of balancing environmental and economic interests consistent with state and federal law.

As a preliminary matter, CVCWA would like to specifically acknowledge and thank State Water Resources Control Board (State Board) staff for their efforts in working with CVCWA and others to develop a balanced Draft General Order. Overall, the Draft General Order recognizes the limited economic resources available to these small agencies, but still provides the appropriate level of protection for water quality. To improve the usefulness of the Draft General Order, CVCWA provides the following specific comments. CVCWA's comments are organized in a manner that matches the order in which the language in question appears in the Draft General Order. In addition to the comments provided here, CVCWA attaches a track-changes version of the Draft General Order that includes some of CVCWA's recommended substantive revisions, as well as editorial revisions. We look forward to working the State Board staff to resolve any remaining outstanding questions or concerns.

I. Comments on the Findings:

• Finding 3: Finding 3 includes reference to the collection system as being part of the wastewater system for the purposes of the Draft General Order. Accordingly, provisions contained in the Draft General Order will apply to the collection system since it will be considered as part of the wastewater system. This may be appropriate for some small systems, however, other small systems with collection systems that are greater than one mile in length are also subject to State Board Order No. 2006-0003-DWQ, which sets forth specific requirements for sanitary sewer systems. CVCWA is concerned that by including reference to the collection system as being part of the wastewater system, it could inadvertently result in duplicative requirements, and potentially, duplicative liability. To protect small systems from being subject to duplicative, or even conflicting requirements, we recommend that the Draft General Order be amended to include the following footnote to the term "collection system." New footnote #1:

The term "wastewater system" shall not mean to include the collection system where the collection system serving the small Domestic Treatment System is greater than one mile and is otherwise subject to State Board Order No. 2006-0003-DWQ.

• Finding 4: Finding 4 would limit eligibility for the Draft General Order to small domestic systems that have a monthly average flow rate of 100,000 gallons per day (gpd) or less. To clarify what is meant by average flow rate, CVCWA recommends that eligibility for the Draft General Order be determined based on average dry weather flow for the effluent, and that that amount not exceed 100,000 gpd. Calculation of the flow rate for determining eligibility would be determined by evaluating the average daily flow over three consecutive dry weather months (e.g., July, August, and September). Such an approach is consistent with that taken by the Central Valley Water Regional Water Quality Control Board (Central Valley Water Board), and better reflects how wastewater systems are designed and operated.

• Finding 7: The Draft General Order appropriately includes and allows for the production and use of recycled water subject to California Code of Regulations, title 22. However, the Draft General Order also appropriately regulates the discharge of treated wastewater to land that is not considered to be recycled water subject to title 22. For the sake of clarity, we recommend that Finding 7 be revised as follows to clarify that the Draft General Order is not limited to being used only for recycled water applications:

This General Order allows the production and use of recycled water (as defined in Water Code section 13050(n)) and requires all recycled water use to comply with the <u>applicable</u> requirements described in California Code of Regulations, title 22, division 4, chapter 3 (hereafter title 22). <u>This General Order allows for the discharge of treated wastewater effluent to land that does not meet the definition of recycled water, and is not subject to title 22.</u>

• The term "designated waste" is primarily used in conjunction with the regulation of waste disposal sites such as landfills. (See Wat. Code, §§ 13172-13173.) Sewage treatment plants are not considered waste disposal sites for such purposes, and discharges from sewage treatment plants are exempted from disposal site regulations as long as certain conditions are met. (See Title 27, § 20090(a).) The requirements in the Draft General Order ensure that discharges from facilities subject to this order meet the pre-condition for exemption from Title 27. Accordingly, wastewater effluent from small domestic systems is not a designated waste, and reference to such term should be deleted.

Next, wastewater effluent characterizations are established as part of the application process and reference to such characterizations are unnecessary here in Finding 8.

With respect to "Table 1: Summary of Domestic Wastewater Characteristics," the table cites to data from a 2005 U.S. Environmental Protection Agency Onsite Wastewater Treatment System Manual to characterize typical domestic wastewater. However, the values cited from this manual appear low in comparison to values reported in Table 4-14 of Crites and Tchobanoglous 1998.

For example, Table 4-14 of Crites and Tchobanoglous, the upper range values for biochemical oxygen demand and chemical oxygen demand are 400 and 1000 milligrams per liter (mg/L), respectively. Further, with water conservation occurring, especially in current extreme drought conditions, wastewater treatment plants are seeing concentrations of typical constituents in wastewater influent increasing. Considering the difference in ranges between reference documents and a trend in increasing concentrations due to water conservation, the finding should provide additional context with respect to the values as they are presented in Table 1.

- Finding 13: Due to the many differences amongst the various water quality control plans, the attempt to identify groundwater beneficial uses in Finding 13 is confusing. Rather than trying to identify the beneficial uses in this manner, we recommend that Finding 13 be simplified, and that State Board staff follow the approach taken in the recently adopted General Order for Recycled Water Use. In the General Order for Recycled Water Use, the finding is simplified to remove Table 2, and the reference to Table 2.
- Finding 15: The intent of including this finding is not known as it fails to provide any
 connection between requirements contained in the Draft General Order and the
 potential issues identified. At the very least, the finding should be revised as provided for
 in the attached track-change version of the Draft General Order.
- Finding 16: As discussed further below, a majority of the set backs proposed in the Draft General Order are not appropriate for application to Small Domestic Systems. Further, the proposed set backs would apply to all Small Domestic Systems subject to this Draft General Order, and would not grandfather current set backs established for existing Small Domestic Systems. Based on our comments below, we recommend that Finding 16 be revised to reflect the changes needed.
- Finding 17(c): The technical report requirement may be appropriate for new Small
 Domestic Systems seeking coverage under the Draft General Order. However, for
 existing Small Domestic Systems, re-creation of a new technical report would be difficult
 and would act as a disincentive to existing Small Domestic Systems seeking coverage.
 Rather than requiring a new technical report, existing Small Domestic Systems should be
 allowed to use any existing technical reports as long as the Small Domestic System has
 not substantially changed since they were prepared.
- Finding 18: Finding 18 implies that Small Domestic Systems eligible for coverage under the Draft General Order will not have an option to be regulated under an individual permit if the applicable regional water quality control board (Regional Board) so chooses to regulate them under the Draft General Order. Rather than allowing Regional Boards to mandate the form of regulatory coverage, we recommend that Small Domestic Systems be given the option of being subject to the Draft General Order, or be allowed to obtain an individual permit if they so choose.
- Finding 23: Consistent with our comments above, all references to the discharge limitation for the Draft General Order need to be revised to clarify that the Draft General Order is limited to Small Domestic Systems that have an average dry weather flow of wastewater effluent of 100,000 gpd or less.

II. Comments on Draft General Order Provisions

- Prohibition A.7: The Draft General Order contains many requirements with respect to
 ensuring compliance with applicable basin plan provisions. Considering the many other
 permit provisions, it is not appropriate to also include a discharge prohibition that creates
 duplicative liability. CVCWA recommends deletion of Prohibition A.7.
- Provision B.1.a: Consistent with comments above, the flow rate limitation should be
 expressed as an average dry weather flow rate for wastewater effluent (not influent) of
 100,000 gpd as a monthly average. However, as noted in the Draft General Order, we
 agree that the flow rate does not limit the application of stored wastewater effluent that
 may be applied under appropriate conditions.
- Provision B.1.b.3: Section C of the Draft General Order incorporates all applicable
 groundwater limitations contained in basin plans. Thus, it is not necessary to include a
 statement here that implies that Section C is limited in requiring compliance with
 groundwater limitations. Moreover, surface water limitations are not applicable in the
 context of this order, therefore, reference to surface water limitations here is
 inappropriate.
- Provision B.1.f: As indicated above, for existing facilities where technical reports are currently available, such reports should be sufficient for the purposes of this Draft General Order. It would be costly for Small Domestic Systems covered by this order to obtain a new technical report just to ensure that the technical report was prepared and stamped by a licensed individual. Further, the technical report that must accompany the report of waste discharge (ROWD) is much broader than just information with respect to design and treatment characterizations. CVCWA understands the need to have wastewater facilities be properly designed, and that it is appropriate for reports detailing design information to be stamped by qualified engineers. However, for non-design information, CVCWA is concerned that such reports prepared by qualified engineers will be costly, and are not necessary. To address this concern, we recommend that the Draft General Order be revised to clarify that only the design components of any technical report are required to be prepared by a licensed individual as specified.
- Provision B.1.g: CVCWA understands and supports the concept of having Small Domestic Systems connect to larger, centralized systems where such connection makes sense, and when such connection is feasible and practicable. The Central Valley Water Board also supports such concepts, and adopted Resolution R5-2009-0028 to encourage the regionalization of Small Domestic Systems. In the Central Valley Water Board's resolution, it indicates that such actions are appropriate when it is feasible and practicable. CVCWA recommends that the same principals of feasible and practicable be carried forward here in the Draft General Order.

Provision K & Setback Requirements Contained in Table 4: CVCWA is significantly
concerned with many of the setback requirements contained in Table 4, and is concerned
that many existing facilities will be unable to comply with these requirements.
 Moreover, many of the set back requirements proposed have no existing bases in law or
policy.

It is also important to note that there are other provisions in the Draft General Order that are being imposed to achieve the same purposes as those that set back requirements are intended to achieve. For example, proposed Table 4 includes set back requirements from Flowing Streams and Ephemeral Stream Drainages. However, the Draft General Order specifically prohibits the direct or indirect discharge of wastewater to surface waters or surface water drainage courses. The purpose of the discharge prohibition is to ensure that wastewater effluent regulated under the Draft General Order does not enter surface waters or surface water drainage facilities. The use of set backs from such facilities would be for the same purpose but their use is unnecessary because regardless of the set back requirement, wastewater effluent is prohibited from entering such streams or drainages.

Next, CVCWA comments that it is imperative that the Draft General Order clearly distinguish between wastewater effluent that is recycled water being used as recycled water under title 22, and wastewater effluent that is *not* recycled water and not subject to title 22. Title 22 includes, e.g., redundancy requirements that are not applicable to wastewater effluent per se. Accordingly, it is inappropriate for the Draft General Order to prescribe the application of such requirements to all land applications and wastewater effluent impoundments covered by the Draft General Order.

In light of these various concerns, CVCWA has made significant revisions to Table 4 in the attached track-change version of the Draft General Order. Considering the significant number of proposed changes, it may be more appropriate to only maintain the set back requirements to domestic wells, and not include set back requirements for the other categories such as flowing streams and property lines.

Finally, for existing facilities, they should be "grandfathered in" so as to avoid them needing to substantially change the footprint of the facility to comply with the set back requirements contained in the Draft General Order.

 Provision B.2.a and B.3.c: As drafted, these provisions would limit "gauging" activities being performed by homeowners and contractors. CVCWA does not believe it appropriate or necessary to limit gauging activities in such a manner. It would be more appropriate to state: "Gauging and limited repairs may be performed by homeowners or contractors as allowed by the Business and Professions Code"

- Provision B.5.b.i: The Draft General Order allows for the continued operation of ponds subject to certain conditions. One of the conditions indicates that existing operations may no longer be appropriate if a new California Environmental Quality Act (CEQA) evaluation is triggered. The language as proposed is confusing, and we are uncertain as to the intent of this sentence. Further, CEQA can be triggered for a number of different reasons, and some of those reasons may be unrelated to ponds. Thus, at the very least, the Draft General Order should be revised to clarify that the operation of existing ponds may continue until a discretionary determination related to the ponds triggers the need for CEQA evaluation.
- Provision B.6: With respect to this provision, it is important to clarify that the
 requirements for subsurface disposal systems identified in this provision are disposal
 options like leach fields and seepage pits. These provisions are not applicable to
 engineered subsurface irrigation systems, which are often used with recycled water
 irrigation systems.
- Provision B.7.a: As proposed, wastewater effluent could not be applied within 24 hours of a forecasted precipitation event that has a 50-percent probability of occurring. However, the requirement lumps all forecasted precipitation events into one category and fails to recognize that some forecasted precipitation events are extremely small in nature and would not include sufficient precipitation to create runoff. In particular, short durational summer rain events may be forecasted, but overall are insignificant events that fail to create saturated soil conditions of concern. Accordingly, the provision should be modified to address the size or severity of precipitation events.
- Provision B.7.e: For Land Application Areas (LAAs) that allow storm water to runoff at times of the year when wastewater effluent is not applied, the Draft General Order would require compliance with title 22, and its associated requirements for disinfected, secondary-23 water. As indicated previously, title 22 includes certain redundancy requirements that may not be applicable to small systems that land-apply wastewater effluent. Thus, rather than referencing title 22, we recommend that wastewater effluent applied in such a manner be required to be disinfected, secondary-23 water.
- Provision D.1.a Table 5: Rather than imposing an effluent limit for Biochemical Oxygen
 Demand (BOD) set at 90, which was based on an estimated incoming BOD load that may
 or may not be applicable to the Small Domestic System in question, CVCWA recommends
 that the limit require that BOD be reduced by 65-percent.
- Provision E.1.a.iii.: The collection system maintenance requirement proposed here should apply only to Small Domestic Systems that are not otherwise subject to the State Board Order No. 2006-0003-DWQ.

- Provision E.1.a.vi.: This requirement could require significant volumes of materials be included as part of the Spill Prevention and Emergency Response Plan. That amount of materials could be so large that it would defeat the practical purpose of having a Spill Prevention and Emergency Response Plan. Thus, we recommend its deletion.
- Provision E.2.c: The date of notification here is inconsistent with the annual report date
 of March 1, which CVCWA recommends. To avoid confusion, CVCWA recommends that
 this date be changed to March 1 so that the notification required in this provision is
 provided concurrently with the annual report.
- Provision E.2.g: This proposed provision would apply appropriately to new facilities, however, its application to existing facilities may be problematic in some cases. The provision needs to be revised to distinguish application of this requirement between new facilities and existing facilities.
- Provision E.2.n: Rather than mandating that all changes in character, location or volume
 of discharge trigger the need for a new ROWD, CVCWA recommends that the provision
 be changed to allow for the applicable Regional Board to require a ROWD, but that such a
 requirement is not automatically triggered by changes in the discharge.
- Provision E.3.a: The General Reporting Requirements would require immediate
 notification for any non-compliance and does not recognize that some non-compliance
 may be relatively minor that is not a threat to public health or the environment. CVCWA
 recommends that such notification here be limited to cases of substantial noncompliance. Further, the notification requirements should be consistent with Water
 Code section 13271.
- Provision E.3.b: It is CVCWA's understanding that once a wastewater agency notifies the
 California Office of Emergency Services (CalOES), that CalOES then notifies the
 appropriate Regional Board and local county environmental health department. To avoid
 confusion and duplication of effort, CVCWA recommends that wastewater agency
 notification with respect to the spill of sewage be addressed through its notification to
 CalOES.

III. Comments on Attachments

In the information sheet and Attachment A, the term "conceptual wastewater plan" is
used for the first time. To our knowledge, the term is not defined or explained elsewhere
in the Draft General Order. Before being able to comment substantively on this term,
CVCWA needs to better understand what is intended with reference to a "conceptual
wastewater plan."

- Attachment A includes a step in the application process for contacting the applicable
 Regional Board. As part of this step, CVCWA recommends that the applicable Regional
 Board also review its existing files for the facility in question to better determine if the
 information has changed, and if new information is necessary to be created. Considering
 the economic situation for most of these Small Domestic Systems, CVCWA wants to be
 certain that entities are not required to develop new studies, reports, or information that
 are not necessary.
- Attachment B1, Provision 1.2.2.: As indicated above, for Small Domestic Systems subject to State Board Order No. 2006-0003-DWQ, this information is not necessary to be included as part of the ROWD for disposal of wastewater effluent.
- Attachment B1, Provision 2.3.1.: Reference to application of wastewater for beneficial
 uses is not an appropriate reference with respect to recycled water projects. Recycled
 water use is governed by title 22, and title 22 engineering reports are required for such
 projects. Application of recycled water for beneficial use is a not a specific condition
 associated with recycled water use even though recycled water use may result in being
 used beneficially.
- Attachment C, Recreational Vehicle Discharge Monitoring The quarterly monitoring requirement here should be allowed to be reduced to annually if during peak discharge periods these constituents are non-detectable and if the waste patterns have not changed.
- Attachment C, Solids Disposal Monitoring It is not appropriate to include screenings and grit as part of this monitoring requirement. Such an action would be onerous.
- Attachment C, Groundwater Monitoring As proposed, the monitoring provision implies
 that groundwater monitoring reports would need to be prepared under the supervision
 of a California licensed civil engineer or geologist. Nothing in the law requires
 groundwater monitoring reports to be prepared by such licensed individuals, and
 requiring small communities to do so would be an extraordinary expense. Accordingly,
 CVCWA recommends that the groundwater monitoring requirements provision be
 revised to clarify that such licensed individuals may be necessary for design reports, but
 not monitoring reports.

We appreciate your consideration of these comments. If you have any questions or if CVCWA can be of further assistance, please contact me at (530) 268-1338 or eofficer@cvcwa.org.

Sincerely,

Debbie Webster,

Executive Officer

Debie Webster

Enclosure



DRAFT

STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2014-XXXX-DWQ

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

Adoption Date



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STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

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STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

ACRONYMS AND ABBREVIATIONS				
afy	acre feet per year			
AGR	Agricultural Supply			
Antidegradation Policy	State Water Board Resolution 68-16			
AQUA	Aquaculture			
Basin Plan	Water Quality Control Plan			
BOD	Biochemical Oxygen Demand			
BPTC	Best Practicable Treatment or Control			
CalOES	California Office of Emergency Services			
CDPH	California Department of Public Health			
CEQA	California Environmental Quality Act			
E. coli	Escherichia coli			
e.g.	Latin exempli gratia (for example)			
FDS	Fixed Dissolved Solids			
FEMA	Federal Emergency Management Agency			
FRESH	Fresh Water Replenishment			
General Order	General Waste Discharge Requirements Order			
gpd	gallons per day			
GWR	Groundwater Recharge			
1/1	Inflow and Infiltration			
IND	Industrial Service Supply			
LAA	Land Application Area			
MBR	Membrane Biological Reactor			
MCL	Maximum Contaminant Level			
mg/L	Milligrams per liter			
MPI	Minutes Per Inch			
MPN	Most Probable Number			
MRP	Monitoring and Reporting Program			
MUN	Municipal Supply			
N	Nitrogen			
NOA	Notice of Applicability			
NPDES	National Pollutant Discharge Elimination System			
NTU	Nephelometric Turbidity Unit			
OWTS Policy	On-Site Wastewater Treatment System Policy			
P	Phosphorus			
pdf	Portable Document Format			
Perc Rate	Percolation Rate			
PROC	Industrial Process Supply			
REC-1	Water Contact Recreation			
Regional Water Board	Regional Water Quality Control Board			
RV	Recreational Vehicle			
ROWD	Report of Waste Discharge			
SAP	Sampling and Analysis Plan			



ACRONYMS AND ABBREVIATIONS				
State Water Board	State Water Resources Control Board			
TBD	To Be Determined			
TDS	Total Dissolved Solids			
TKN	Total Kjeldahl Nitrogen			
TMDL	Total Maximum Daily Load			
TSS	Total Suspended Solids			
USEPA	United States Environmental Protection Agency			
Wat. Code	Water Code			
WILD	Wildlife Habitat			
WDRs	Waste Discharge Requirements			
WQO 97-10-DWQ	Water Quality Order 97-10 Division of Water Quality			
WW	Wastewater			
§ or §§	Section or Sections			



STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

BACKGROUND INFORMATION

Findings:

The State Water Resources Control Board (State Water Board) finds that:

- Water Code section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, that could affect the quality of the waters of the state, file a Report of Waste Discharge (ROWD) to obtain coverage under Waste Discharge Requirements (WDRs) or a waiver of WDRs. "Waste" is defined in Water Code section 13050(d).
- 2. Discharges to land from Small Domestic Wastewater Treatment Systems (hereafter Small Domestic Systems) have certain common characteristics, such as similar constituents, concentrations of constituents, disposal techniques, flow ranges, and they require the same or similar treatment standards. These types of discharges are appropriately regulated under a General Waste Discharge Requirements Order (General Order). State Water Board Water Quality Order 97-10-DWQ (WQO 97-10-DWQ) is a 1997 General Order addressing Small Domestic Systems. Once effective, this General Order will supersede WQO 97-10-DWQ which will no longer be available for additional enrollees.
- 3. For the purposes of this General Order, the term "wastewater system" shall mean the collection system¹, treatment equipment, pumping stations, treatment ponds, clarifiers, sand/media filters, disinfection systems, recycled water systems (including distribution systems), storage ponds, land application areas, and other systems associated with the collection, treatment, storage, and disposal of wastewaterwastewater effluent.
- 4. Only Small Domestic Systems, with a monthly average <u>wastewater effluent flow</u> rate of 100,000 gallons per day (gpd) or less <u>(average dry weather flow)</u>, that discharge to land are eligible for coverage under this General Order. Small Domestic Systems are typically located at individual residences, rural parks, schools, campgrounds, mobile home parks, roadside rest stops, small commercial or residential subdivisions, restaurants, resort hotels/lodges, small correctional facilities, temporary fire-fighting camps, and recreational vehicle (RV) dump locations, including RV parks. An owner and/or operator of such a wastewater system is hereafter referred to as Discharger in this General Order.
- 5. Wastewater treatment technologies evolve over time. Septic tanks and gravity fed leach fields provide the lowest level of acceptable treatment. Additional Other treatment may include aerobic treatment systems, sand/media filters, package treatment plants, constructed wetlands, activated sludge, membrane biological reactors, and disinfection systems. Similarly, additional control overother disposal of options of the treated effluent may include pressure dosing, drip irrigation, land application, mound/at grade systems, percolation ponds or evapotranspiration

¹ The term "wastewater system" shall not mean to include the collection system where the collection system serving the small Domestic Treatment System is greater than one mile and is otherwise subject to State Board order No. 2006-0003-DWQ.



GENERALSHORSE BEEPARED IN SIDE OF SIDE OF SIDE OF SIDE OF SIDE OF SMALL DOMESTIC SYSTEMS in and site conditions are favorable for the use of seepage pits (groundwater quality shall be maintained consistent with this



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- General Order). The discussion of treatment and disposal alternatives is not intended to limit the selection of alternatives available to the wastewater system designer.
- 6. All WDRs must implement the applicable Regional Water Quality Control Board's (Regional Water Board's) Water Quality Control Plan (Basin Plan) for the region in which the discharge occurs; therefore this General Order requires Dischargers to comply with all applicable Basin Plan requirements, including any prohibitions and/or water quality objectives, governing the discharge. The Discharger must comply with any more stringent standards in the applicable Basin Plan. In the event of a conflict between the requirements of this General Order and the Basin Plan, the more stringent requirement prevails.
- 7. This General Order allows the production and use of recycled water (as defined in Water Code section 13050(n)) and requires all recycled water use to comply with the applicable requirements described in California Code of Regulations, title 22, division 4,chapter 3, (hereafter title 22). This General Order allows for the discharge of treated wastewater effluent to land that does not meet the definition of recycled water, and is not subject to title 22.
- 8. Wastewater and treated wastewater <u>effluent</u> quality vary depending upon source water quality, the activities generating the wastewater, water conservation efforts, inflow and infiltration, and treatment technology. Typical domestic wastewater and treated wastewater characteristics are presented in Table 1. Published wastewater textbooks and/or United States Environmental Protection Agency (USEPA) wastewater publications may also be used to characterize wastewater characteristics. Domestic wastewater wastewater effluent may contain chemicals not listed here at concentrations which exceed Basin Plan water quality objectives or would result in classification of the wastewater

as a designated waste (as defined in Water Code section 13173). Upon application, the Discharger shall characterize any such site specific waste streams.

Table 1: Summary of Domestic Wastewater Characteristics

		Typical	Septic	Septic	Secondary
Constituent	<u>Units</u> ^a	Domestic	Tank	Tank	Treatment
		Wastewater ^b	<u>Influent^c</u>	<u>Effluent^c</u>	Effluent [₫]
Biochemical Oxygen Demand	mg/L	155-286	150-250	100-140	20-40
Chemical Oxygen Demand	mg/L	500-660	250-500	160-300	_e
Total Suspended Solids	mg/L	155-330	40-140	20-55	30-140
Ammonia (as N)	mg/L	4-13	30-50	30-50	e
Organic Nitrogen (as N)	mg/L		20-40	20-40	_e
Total Kjeldahl Nitrogen (as N)	mg/L	26-75	50-90	50-90	_e
Total Phosphorus (as P)	mg/L	6-12	12-20	12-20	e
Oil and Grease	mg/L	70-105	20-50	10-20	e

mg/L denotes milligrams per liter.

Data from Table 8-4, Small and Decentralized Wastewater Management Systems, Crites and



Data from Table 3-7, USEPA Onsite Wastewater Treatment System Manual, June 2005, EPA/625/R-00/008.

Data from Table 4-16, Small and Decentralized Wastewater Management Systems, Crites and Tchobanoglous, 1998.

e. "--" denotes data not available.

- 9. Discharges from RV holding tanks or portable toilets may contain chemicals that can pollute groundwater quality. Some commercially available products used to control holding tank/portable toilet odors may contain harmful chemicals such as formaldehyde, zinc, or phenol. The harmful chemicals can kill the bacteria in the wastewater treatment system and cause wastewaterwastewater effluent to be inadequately treated. Inadequately treated wastewaterwastewater effluent may cause additional problems such as leachfield/ seepage pit failure, surfacing wastewaterwastewater effluent, and potential exposure and health risks. Discharge of the harmful chemicals to groundwater that creates pollution may result in enforcement activities requiring groundwater remediation. The best and least expensive method to prevent groundwater pollution is to not use harmful chemicals by educating RV owners about the pollution hazard.
- 10. Total dissolved solids (TDS) consists of both volatile (organic) and fixed (inorganic) fractions. A varying concentration of volatile dissolved solids will exist in wastewater effluent depending upon the wastewater source and treatment technology. In a properly operated land application system, volatile dissolved solids in percolate are generally reduced to negligible concentrations (less than 2 mg/L) by filtration and biological degradation following percolation through five feet of soil. However, fixed dissolved solids (FDS) do not degrade biologically. Elevated concentrations of FDS in land applied effluent can change soil chemistry and degrade groundwater quality.
- 11. Wastewater <u>effluent</u> discharged to land in close proximity to a surface water body may impact surface water quality. Additional monitoring may be required by Regional Water Boards to determine if the discharge has degraded surface water quality. The USEPA recommends *Escherichia coli* (E. coli) and enterococci bacteria, which exist in fecal material from humans and other warm-blooded animals, as the best indicators of health risk from water contact.² Because both bacteria are present in domestic wastewater, there is no need to monitor separately for them in wastewater effluent. The effectiveness of disinfection procedures are similar for bacteria, therefore total coliform organisms, which is a less expensive analysis, is appropriate to determine if wastewater effluent is effectively disinfected.
- 12. Use of recycled water in lieu of potable water is encouraged by the State Water Board as described below:
 - a. The State Water Board's Strategic Plan Update 2008-2012 includes a priority to increase sustainable local water supplies available for meeting existing and future beneficial uses by 1,725,000 acre-feet per year (afy) in excess of 2002 levels by 2015.
 - b. The State Water Board's Policy for Water Quality Control for Recycled Water states the following goals (in part): 1) Increase the use of recycled water over the 2002 level by at least 1 million afy by 2020 and by at least 2 million afy by 2030.

² USEPA Internet page accessed June 10, 2014 < http://water.epa.gov/type/rsl/monitoring/vms511.cfm>.



¹ USEPA, Process Design Manual, Land Treatment of Municipal Wastewater, Section 4.2.1, 1981.

- 2) Increase the amount of water conserved in urban and industrial uses by 20 percent compared to 2007. 3) Substitute as much recycled water for potable water as possible by 2030.
- 13. Existing and potential beneficial uses of groundwater are determined by each Regional Water Board and are listed in their respective Basin Plans. Beneficial uses for groundwater of the state are: municipal supply (MUN), industrial service supply (IND), industrial process supply (PROC), fresh water replenishment (FRESH), aquaculture (AQUA), wildlife habitat (WILD), water contact recreation (REC-1), agricultural supply (AGR), and groundwater recharge (GWR). Table 2 lists the existing and potential beneficial uses of groundwater for each region. Some beneficial uses only apply to certain geographical areas within regions. To the extent that the applicable Basin Plan designates additional or different beneficial uses than listed below, the Basin Plan

shall control

Table 2: General Summary of Identified Groundwater Beneficial Uses by Region

	Region	Existing Beneficial Uses
4	North Coast	MUN, AGR, IND, PROC, FRESH
2	San Francisco Bay	MUN, AGR, IND, PROC, FRESH, GWR
3	Central Coast	MUN, AGR, IND,
4	Los Angeles	MUN, AGR, IND, PROC, AQUA
5	Central Valley - Sacramento and	MUN, AGR, IND, PROC
	San Joaquin Rivers	8
5	Central Valley - Tulare Lake	MUN, AGR, IND, PROC, REC-1, WILD
6	Lahontan	MUN, AGR, IND, FRESH, WILD, AQUA
7	Colorado River	MUN, AGR, IND
8	Santa Ana	MUN, AGR, IND, PROC
8	San Diego	MUN, AGR, IND, PROC, FRESH, GWR

14. Basin Plans establish groundwater quality objectives to protect beneficial uses. The objectives may be narrative, numerical, or both. This General Order requires the Discharger to comply with those objectives in receiving groundwater.

WASTEWATER EFFLUENT DISPERSAL

- 15. Wastewater <u>effluent</u> dispersal will occur by different methods. It may be percolated from ponds; applied to the surface by spray, flood, or drip methods; or discharged to a subsurface dispersal area such as a leachfield or seepage pit. The choice of disposal method will depend upon the amount of wastewater <u>effluent</u> generated, the value of the wastewater <u>effluent</u> for irrigation, and the receiving environment.
 - a. Wastewater <u>effluent</u> discharged to a pond for treatment and/or storage can result in groundwater degradation or nuisance odors. Ponds can also be vulnerable to damage caused by burrowing animals.

Wastewater <u>effluent</u> percolated from a pond to <u>the subsurfacegroundwater</u> has the potential to degrade groundwater quality to an unacceptable extent if the



effluent is inadequately treated and additional constituent removal does not occur in the soils. When this is likely to occur, rReducing the amount of wastewater (wastewater effluent?) percolated by lining a pond with a synthetic or low permeability liner can control the percolation rate, but an alternative method of wastewater effluent disposal or additional treatment may be required. Land application (discussed below) is often selected as the method to dispose of the wastewater from lined ponds.

Overloading a wastewater <u>effluent storage</u> pond with biochemical oxygen demand (BOD) constituents can result in nuisance odor generation. Source control of BOD constituents, additional <u>pre</u>treatment prior to discharge to the pond, or mechanical aeration of <u>wastewaterwastewater effluent</u> in the pond are typically used to prevent a pond from generating nuisance odors.

Burrowing animals can result in rapid failure of a containment berm. The population of such animals should be immediately controlled as soon as practically possible, and repairs to the containment berm should be completed as soon as possible.

b. When land application of wastewater <u>effluent</u> is selected as a disposal method, adequate acreage must be available to allow application rates that will not create nuisance conditions (e.g. vectors, nuisance odors, off-site discharge) or degrade groundwater quality to an unacceptable extent.

Crops are generally grown and harvested from a land application area (LAA) to take up <u>wastewater_effluent</u> constituents such as nitrogen and dissolved solids, as well as maintain roots which promote <u>wastewater_effluent</u> infiltration rates. When climatic conditions are favorable, double cropping an LAA can increase the uptake of <u>wastewater_effluent</u> constituents.

Hydraulic loading of an LAA must be controlled to prevent off-site wastewater <u>effluent</u> discharge; if <u>wastewater effluent</u> is not disinfected prior to land application, storm water that falls on the LAA must be contained to prevent the potential migration off- site of pathogenic organisms. LAAs are sometimes equipped with a tailwater control system that allows for reapplication of <u>wastewater effluent</u> to the LAA or returning tailwater to <u>a wastewaterthe</u> treatment facility or effluent storage -pond.

c. Subsurface disposal areas may be constructed as leachfields or when conditions allow, seepage pits. If seepage pits are employed, they are often located at the end of a leachfield distribution pipe to maximize shallow distribution of wastewater effluent.

If conditions are not favorable for traditional leachfield construction, an at-grade, or an above grade (mound) system may be used. Typically, at-grade and above grade systems are dosed using a dosing pump and pump controller. Dosed systems use relatively small diameter pipe to distribute the wastewaterwastewater effluent to zones within the dispersal area. Even in well operated systems, some suspended solids will be pumped into the distribution piping. Cleanouts or a flushing system on the distribution piping are required to remove the solids that will accumulate if the emitters are small enough diameter to prevent suspended solids from passing through the distribution equipment. Gravelless trench systems which do not use gravel, typically use distribution



piping and a dosing system, and should be constructed with cleanouts or a flushing system similar to at-grade and/or above grade systems when needed. Subsurface disposal areas should be planted with shallow rooted plants to prevent erosion and provide for uptake of wastewater-wastewater effluent nutrients; for some types of subsurface disposal areas, deep-rooted plants such as trees and shrubs should be removedmay need to be controlledremoved from a subsurface disposal system area to prevent damage to the disposal system by roots, to prevent roots from damaging the leachfield. Similarly, burrowing animals can damage an at-grade or above grade (mound) disposal system and result in leakage. Burrowing animals should be immediately controlled as soon as practicable and repairs to the disposal system completed as soon as possible.

16. Setbacks from wastewater treatment areas, dispersal areas, and/or LAAs from domestic wells, flowing and/or ephemeral streams, lakes/reservoirs, and property lines are provided in this General Order. Setbacks are included as a means of reducing pathogenic risks by coupling pathogen inactivation rates with groundwater travel time to a well or other potential exposure route (e.g. water contact activities). In general, a substantial unsaturated zone reduces pathogen survival compared to saturated soil conditions. Fine grained (silt or clay) soil particles reduce the rate of groundwatertransport and therefore are generally less likely to transport pathogens; coarse grained soil particles or fracture flow groundwater conditions may be more likely to transport pathogens. Setbacks also provide attenuation of other wastewater constituents through physical, chemical, and biological processes. The setbacks provided in this General Order are based on the title 22 water recycling criteria; the On-Site Wastewater Treatment System (OWTS) Policy; and commonly imposed setbacks by regulatory agencies.

APPLICATION PROCESS

- 17. Dischargers seeking coverage under this General Order shall file an ROWD with the appropriate Regional Water Board. The application process is summarized in Attachment A. Some Regional Water Boards may provide procedures for electronic submittal of application documents. An ROWD consists of:
 - a. A completed Form 200, which is available at: http://www.waterboards.ca.gov/publications forms/forms/docs/form200.pdf>.
 - b. An application fee that serves as the first annual fee. Fees are based on threat and complexity ratings, and the treatment technology employed. Threat and complexity ratings are defined in the fee schedule listed in California Code of Regulations, title 23, section 2200 and also available at: http://www.waterboards.ca.gov/resources/fees/docs/ fy1112fee_schdl wdr.pdf>.
 - c. A technical report that describes the wastewater generation, treatment, storage, and disposal. Submittal of the report in the recommended format provided in Attachment B1 will allow for an expedited review by Regional Water Board staff. (Some Regional Water Boards may have different or additional technical report requirements in addition to Attachment B1. An applicant is advised to inquire with the Regional Water Board before performing investigations and/or preparing the technical report.)

Upon review of the ROWD, Regional Water Board staff will determine if coverage



under this General Order is appropriate. The Regional Water Board's Executive Officer will issue a Notice of Applicability (NOA) when coverage under this General

- Order has been authorized. The NOA will contain the necessary site-specific monitoring and reporting requirements.
- 18. Dischargers covered by WQO 97-10-DWQ or another administrative mechanism may continue discharging under that authority until notified of the need to update their coverage by the State Water Board or Regional Water Board.
- 19. Although a Discharger may be eligible for coverage under this General Order, the appropriate Regional Water Board may determine that the discharge would be better regulated by a waiver of WDRs, individual WDRs, a different general order, an enforcement order, or a National Pollutant Discharge Elimination System (NPDES) Permit.

ANTIDEGRADATION ANALYSIS

- 20. State Water Board Resolution 68-16, the *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (hereafter the Antidegradation Policy) requires that disposal of waste into the waters of the state be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state. The quality of some waters is higher than established by adopted policies and that higher quality water shall be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires the following:
 - a. Higher quality water will be maintained until it has been demonstrated to the state that any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in the policies.
 - b. Any activity that produces a waste and discharges to existing high quality waters will be required to meet WDRs that will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.
- 21. The Antidegradation Policy requires maintenance of high quality of waters of the state unless limited degradation is consistent with the maximum benefit to the people of the state. When issuing NOAs under this General Order, Executive Officers must assure that Dischargers implement BPTC as necessary to maintain the highest water quality consistent with the maximum benefit to the people of the state.
- 22. This General Order allows discharges to numerous groundwater bodies, each with its own chemical characteristics. There are not sufficient data to determine which receiving waters are high quality waters. To the extent a discharge covered under this General Order may be to high quality waters, this General Order authorizes limited degradation consistent with the Antidegradation Policy as described in the findings below.
- 23. This General Order limits a <u>wastewater effluent</u> discharge flow rate to 100,000 gpd (ADWF); therefore, only small Dischargers will be eligible for coverage. Discharge of domestic wastewaterwastewater effluent at lower flow rates inherently has less potential to significantly degrade water quality.



- 24. Limited degradation of groundwater by some waste constituents associated with domestic wastewater effluent, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of centralized wastewater treatment systems far exceed any benefits derived from reliance on numerous, concentrated individual wastewater systems, and the cumulative impact on water quality will be substantially less. The economic prosperity of communities and associated industry is of maximum benefit to the people of the state and provides sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this General Order provided the terms of the applicable Basin Plan, and other applicable State Water Board and Regional Water Board policies are consistently met. The State Water Board recognizes variability in a small community's ability to construct wastewater treatment systems based on financial resources.
- 25. Constituents of concern that have the potential to degrade groundwater include salinity, nutrients, and pathogens (represented by coliform bacteria). This General Order provides guidance on preparing a monitoring program that ensures the treatment is effective. Each of the <u>wastewaterwastewater effluent</u> constituents of concern are discussed below:
 - a. Salinity is a measure of dissolved solids in water. Excessive salinity can reduce the beneficial uses of water. Salinity can be affected by the discharge of wastewaterwastewater effluent with elevated concentrations of TDS. TDS consists of both volatile (organic) and fixed (inorganic) fractions. In a welloperated land application system, volatile dissolved solids in percolate will be reduced to negligible concentrations.
 - b. Nitrogen is a nutrient normally present in domestic wastewaterwastewater effluent at a concentration that can degrade groundwater quality. The potential for degradation depends upon the wastewater treatment and disposal method and the environment into which the wastewater effluent is discharged. When needed, nitrogen concentrations can be reduced in a number of ways, such as nitrification, denitrification, and/or crop uptake and removal.
 - c. Pathogens and other microorganisms are present in domestic wastewater. Wastewater treatment processes will reduce the concentration of pathogens but disinfection is required to significantly reduce their presence. Coliform bacteria are used as a surrogate (indicator) because they are excreted by warm-blooded animals, are present in high numbers, survive in the environment similar to pathogenic bacteria, and are easy to detect and quantify. Disinfection of wastewater is not required in every situation, such as when the wastewater application is performed in such a way that public contact is minimized through physical controls and/or notification.

When needed, disinfection can be performed in a number of ways. The title 22 water recycling criteria lists disinfection requirements for specific activities.



26. Compliance with the General Order, the NOA, California Department of Public Health (CDPH) requirements, and any mitigation measures will ensure compliance with the applicable Basin Plan.

TITLE 27 EXEMPTION

- 27. The wastewater treatment, storage, and disposal activities described in this General Order are exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste* in California Code of Regulations, title 27, division 2, Subdivision 1, section 20005, et seq. The activities are exempt from the requirements of title 27 so long as the activity meets, and continues to meet, all preconditions listed below. (Cal. Code Regs., tit. 27, § 20090.)
 - a. Sewage—Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to California Code of Regulations, title 23, division 3, chapter 9, or for which WDRs have been waived, and which are consistent with applicable water quality objectives; and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludge or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable State Water Board promulgated provisions of this division. (Cal. Code Regs., tit. 27, § 20090(a).)
 - b. Wastewater—Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leach fields if the following conditions are met:
 - (1) the applicable Regional Water Board has issued WDRs, reclamation requirements, or waived such issuance;
 - (2) the discharge is in compliance with the applicable water quality control plan; and
 - (3) the wastewater does not need to be managed according to, California Code of Regulations, title 22, division 4.5, chapter 11, as a hazardous waste. (Cal. Code Regs., tit. 27, § 20090(b).)
 - c. Underground Injection—Discharges of waste to wells by injection pursuant to the Underground Injection Control Program established by the USEPA under the Safe Drinking Water Act, 42 US Code section 300(h), see Code of Federal Regulations title 40, Parts 144 to 146. (Cal. Code Regs., tit. 27, § 20090(c).)
 - d. Soil Amendments—Use of nonhazardous decomposable waste as a soil amendment pursuant to applicable best management practices, provided that Regional Water Boards may issue waste discharge or reclamation requirements for such use. (Cal. Code Regs., tit. 27, § 20090(f).)
 - e. Fully Enclosed Units—Waste treatment in fully enclosed facilities, such as tanks, or in concrete lined facilities of limited areal extent, such as oil water separators designed, constructed, and operated according to American Petroleum Institute specifications. (Cal. Code Regs., tit. 27, § 20090(i).)



Table 3: Summary of Wastewater System and California Code of Regulations,
Title 27 Exemptions

Example of Wastewater System Element/ Activity	Potentially Applicable Exemption(s)
Wastewater collection, treatment, storage, and disposal systems.	Section 20090 (a) Sewage, domestic wastewater, and treated effluent
Applying wastewaterwastewater effluent to evaporation ponds, storage ponds, percolation ponds, rapid infiltration basins, leach fields, seepage pits, land application areas, spray fields, etc.	Section 20090 (b) Wastewater discharges to land
Disposal of wastewaterwastewater effluent in injection wells or seepage pits.	Section 20090 (c) Underground injection
Application of treated wastewater containing suspended solids to a land application area.	Section 20090 (f) Soil amendments, nonhazardous decomposable waste
Wastewater collection, flow equalization, and treatment in a septic tank, Imhoff tank, sand/media filter, package treatment tank, aeration basin, clarifier, sludge holding/thickening tank, pumping sumps, lined sludge drying beds, etc.	Section 20090 (i) Waste treatment in fully enclosed facilities.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

- 28. This General Order is intended to cover both new and existing Small Domestic Systems.
 - a. The adoption of this General Order for existing Small Domestic Systems is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15301 (ongoing or existing projects), section 15302 (replacement or reconstruction of existing utility systems), and section 15303 (new construction or conversion of small structures).
 - b. For new or expanding Small Domestic Systems, the State Water Board considered the environmental impacts associated with the adoption of this General Order and prepared an Initial Study in accordance with California Code of Regulations, title 14 section 15063. Analysis in the Initial Study and early consultation with responsible and trustee agencies did not identify any significant impacts on the environment. Therefore, a Negative Declaration was prepared. The State Water Board adopted the Negative Declaration (Resolution 2014-xxxx) on



c. New or expanding systems are subject to further CEQA evaluation on a site-specific basis by local agencies performing CEQA evaluations of proposed projects. The potential significant environmental impacts from discharges of domestic <u>wastewaterwastewater effluent</u> can be mitigated to less than significant impacts by compliance with this General Order, the NOA, and any mitigation measures adopted by local agencies.

OTHER REGULATORY ISSUES

- 29. Dischargers that meet the criteria for coverage under State Water Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, or updated order, are required to obtain coverage.
- 30. Consistent with Water Code section 13241, the State Water Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
 - a. Past, present, and probable future beneficial uses of water.
 - b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
 - c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
 - d. Economic considerations.
 - e. The need for developing housing within the region(s).
 - f. The need to develop and use recycled water.
- 31. Water Code section 13263(i) states, The State Water Board or a Regional Water Board may prescribe general WDRs for a category of discharges if the State Water Board or that Regional Water Board finds or determines that all of the following criteria apply to the discharges in that category:
 - 1) The discharges are produced by the same or similar operations.
 - 2) The discharges involve the same or similar types of waste.
 - 3) The discharges require the same or similar treatment standards.
 - 4) The discharges are more appropriately regulated under general WDRs than individual WDRs.

Small Domestic Systems that will be regulated under this General Order are consistent with the criteria listed above and therefore a general order is appropriate. All discharges regulated under this order will be from similar operations and will be consistent with the description of domestic wastewater as defined in Finding 8. The discharges will use similar treatment methods (e.g. screening, settling, biological treatment, clarification, and application to land). Individual WDRs are not necessary because the discharges are similar and discharge requirements would be similar if individual WDRs were issued.



32. Technical and monitoring reports specified in this General Order are required. (Wat. Code, § 13267.) Failing to furnish the reports by the due date or falsifying information in the reports, are misdemeanors that may result in assessment of civil liabilities against the Discharger. Water Code section 13267 states, in part:

"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

The technical reports required by this General Order, the NOA, and the Monitoring and Reporting Program (MRP) are necessary to assure compliance with this General Order. The burden and cost of preparing the reports is reasonable and consistent with the interest of the state in maintaining water quality.

- 33. The effluent limitations contained in this General Order are technology based. USEPA has developed technology based effluent limits for secondary treatment for use in NPDES permits. However, pond treatment systems often cannot comply with the limits that apply to activated sludge treatment systems due to algae growth in the pond. In response, USEPA developed an equivalent to secondary treatment definition for alternative biological treatment technologies such as a trickling filter or waste stabilization pond. (40 C.F.R. §133.05). Although this General Order only authorizes discharges to land, some of the secondary treatment standards are appropriate to demonstrate that wastewater is adequately treated. For pond and/or trickling filter wastewater systems, the total suspended solids limit is not appropriate because application of algal solids to land is not a concern.
- 34. This General Order does not preempt or supersede the authority of municipalities, flood control agencies, or other local agencies to prohibit, restrict, or control discharges of waste subject to their jurisdiction.
- 35. The State Water Board has notified potential Dischargers and all other known interested parties of the intent to prescribe WDRs as described in this General Order.
- 36. The State Water Board, in a public meeting, has heard and considered all comments pertaining to the proposed discharge.



IT IS HEREBY ORDERED

IT IS HEREBY ORDERED that upon adoption of this General Order, WQO 97-10-DWQ is classified as in effect, but inactive for future Discharger enrollment.

Pursuant to Water Code section 13263 and 13267, the Discharger, its agents, successors, and assigns, in order to meet the provisions contained in division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

A. Prohibitions

- 1. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.
- 2. The use of cesspools, an excavation or device that allows wastewater infiltration into the soil without treatment, is prohibited.
- 3. The treatment, storage, and/or disposal of waste in or at the wastewater system shall not cause or contribute to a condition of pollution, contamination, or nuisance as defined in Water Code section 13050.
- 4. Bypass or overflow of treated or untreated waste is prohibited.
- 5. The discharge of waste to land not owned, operated, or controlled by the Discharger is prohibited. An exception to this prohibition is when recycled water is used as described in a title 22 Engineering Report approved by CDPH.
- 6. The discharge of waste classified as hazardous (Cal. Code Regs., tit. 23, § 2521(a)), or designated (Wat. Code, § 13173) is prohibited.
- 7. The discharge of waste in violation of, or not consistent with, the applicable Regional Water Board's Basin Plan is prohibited.

B. Requirements by Wastewater System Type

1. All Wastewater Systems

- a. The Discharger shall not discharge treated wastewater in excess of the flow limit(s) specified in the NOA. In no case shall the flow rate of wastewater effluent discharged discharged to the headworks exceed 100,000 gpd as a monthly average (ADWF). Headworks are defined as the facilities where wastewater enters a wastewater treatment plant. Headworks may include bar screens, comminutors, a wet well, and pumps. Dischargers that store wastewater effluent and apply it to an LAA during irrigation season may land apply more than 100,000 gallons per day of treated wastewater to an LAA during the irrigation season as allowed by the NOA.
- b. Treatment and disposal of <u>treated</u> wastewater must demonstrate Best Practicable Treatment or Control (BPTC) for domestic wastewater. BPTC shall be demonstrated by compliance with all of the following:
 - i. Compliance with this General Order.
 - ii. Compliance with effluent limitations included in this General Order.
 - iii. Compliance with the NOA, which will specify the following (at a minimum):



- 1. Site-specific flow limit(s).
- 2. Site-specific wastewater system treatment and disposal methods provided in Section B.2 through B.8 of this General Order.
- 3. Applicable Basin Plan groundwater and/or surface water limitations inaddition to those provided in Section C of this General Order.
- c. The siting, design, construction, operation, maintenance, and monitoring of the wastewater system shall comply with the requirements of the applicable Regional Water Board's Basin Plan.
- d. Nuisance odors shall not be perceivable beyond the property line of the wastewater treatment facility.
- e. Public contact with wastewater shall be deterred through such means as fences, signs, and other acceptable alternatives.
- f. For systems with a design flow rate greater than 3,500 gpd, the technical report required as part of the ROWD shall be prepared by a California licensed professional civil engineer. For systems with a design flow rate less than 3,500 gpd, the technical report shall be prepared by a California licensed professional engineer or other appropriately licensed professional (e.g., a California licensed professional geologist or California registered environmental health specialist).
- g. For new or expanding Small Domestic Systems within or nearby the boundaries of a centralized wastewater district or regional service area, the Discharger must demonstrate a good faith effort to connect to the centralized system and provide evidence that connection to the system was not approved feasible and practicable reasonably or economically feasible.
- h. A Regional Water Board may require additional investigations or monitoring to demonstrate beneficial uses of water are protected and antidegradation requirements are satisfied. Acceptable methods may include, but not be limited to, evaluation of the wastewater system's treatment performance, groundwater monitoring, or additional sampling to characterize the wastewaterwastewater effluent discharge.
- i. The Discharger shall comply with any water quality related mitigation measures adopted in a CEQA document addressing the facility.
- j. When producing or using recycled water, the Discharger shall comply with the provisions of the title 22 Engineering Report sections identified as applicable in the NOA.
- k. The Discharger shall comply with the setbacks described in Table 4.



Table 4: Summary of Wastewater System Setbacks

Equipment or Activity	Domestic Well	Flowing Stream ^a	Ephemeral Stream Drainage ^b	Property Line	Lake or Reservoir ^d	
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System	50 ft.	50 ft.	25 ft.	25 <u>5</u> ft.°	50 ft.	
Leach Field [†]	100 ft.	100 ft.	50 ft.	25 5 ft.c	200 -100	
Seepage Pit	150 ft.	150 ft.	50 ft.	50 -?? ft.	200 ft.	
LAN	D APPLICAT	TON AREA	REQUIREME	VTS	,	
LAA (disinfected tertiary recycled water) ⁹	100 - <u>50</u> ^m ft.	25 ft.	5 0 ft.	25 ft.	200 ft.	
LAA (disinfected sec-2.2 or sec-23 recycled water) h	100 ft.	50 ft.	50 ft.	50 ft.	200 ft.	
LAA (undisinfected secondary recycled water) ⁱ	150 ft.	100 ft.	100 ft.	50 ft.	200 ft.	
Spray Irrigation (disinfected tertiary recycled water) k No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place with feet of a residence or a place where public exposure co similar to that of a park, playground, or school yard.					e within 100 ure could be	
WASTEW/	TERWASTE	WATER EF	FLUENT STO	RAGE AND/	OR	
Impoundment (disinfected tertiary recycled water) ^g	100 ft.	100 ft.	100 ft .	50 ft.	200 ft.	
Impoundment (disinfected sec-2.2 or sec-23 recycled water) h	100 ft.	100 ft.	100 ft.	50 ft.	200 ft.	
Impoundment (undisinfected secondary recycled water) ⁱ	150 ft.	150 ft.	150 ft.	50 ft.	200 ft.	

LAA denotes Land Application Area. Sec denotes secondary.

Lake or reservoir boundary measured from the high water line.



A flowing stream shall be measured from the ordinary high water mark established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation type, presence of litter or debris, or other appropriate means.

Ephemeral Stream Drainage denotes a surface water drainage feature that flows only after rain or snow-melt and does not have sufficient groundwater seepage (baseflow) to maintain a condition of flowing surface water. The drainage shall be measured from a line that defines the limit of the ordinary high water mark (described in "a" above).

The setback distance shall be maintained when individual domestic supply wells are to be installed and the minimum distance between waste disposal and wells cannot otherwise be assured.

- Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System addresses equipment located below ground or that impedes leak detection by routine visual inspection.
- Leach Field includes all subsurface dispersal systems, including mound systems except seepage pits.

Disinfected tertiary recycled water is defined in California Code of Regulations, title 22, section 60301.230.

- Disinfected secondary-2.2 recycled water is defined in California Code of Regulations, title 22 section 60301.220. Disinfected secondary-23 recycled water is defined in California Code of Regulations, title 22, section 60301.225.
- Undisinfected secondary recycled water is defined in California Code of Regulations, title 22, section 60301.900.
- Additional restrictions for spray irrigation of recycled water are contained in California Code of Regulations, title 22, section 60310(f)
- A reduced setback is allowed as described in California Code of Regulations, title 22, section 60310(a) if all the conditions in the section are met and compliance is documented in the ROWD and NOA.

2. Septic Systems

- a. __Limited Ggauging and limited repairs may be performed by homeowners or contractors as allowed by the Business and Professions Code (Bus. & Prof. Code, section 7044 and/or section 7048). With certain exceptions, anyone performing construction work in California must be licensed by the California Contractors' State License Board. Septic tank and/or leach field service (repairs, pumping, etc.) shall be performed only by a California licensed General Engineering (A), Plumbing (C-36), or Sanitation System (C-42) contractor. The Discharger shall maintain a record of all septic service activities for a minimum of five years. At a minimum, the record shall include the date, nature of service, service company name, and service company state contractor license number.
- b. Owners and/or operators of wastewater systems that accept wastes from RVs or other mobile waste systems must ensure that such wastes do not deleteriously affect the wastewater system or adversely affect beneficial uses of groundwater with holding tank additives that may contain, among other chemicals, formaldehyde, zinc, and/or phenol.
 - Use of holding tank chemicals shall be discouraged by the wastewater system owner/operator. Education of visitors can be accomplished by providing an information sheet upon check-in. Information on holding tank chemicals is provided in Attachment B2. The sale or provision of such additives by the Discharger to operators of RVs served by the Discharger's wastewater facility may be determined to be evidence of noncompliance with this section.
- c. To the maximum extent possible, RV wastes shall not be discharged to a septic tank or functionally equivalent system (e.g. Imhoff tank) without subsequent additional treatment (e.g., aerated pond, recirculating sand filter, etc.) prior to disposal.
- d. Septic tanks shall be pumped when any one of the following conditions exists:
 - i. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
 - ii. The scum layer is within 3 inches of the outlet device.



- iii. The sludge layer is within 8 inches of the outlet device.
- e. Septage is the liquid, solid, and semisolid material that results from wastewater treatment in a septic tank, which must be pumped, hauled, treated, and disposed of properly. (40 C.F.R. § 503.) Septage disposal shall only be to a legal disposal site that has been issued WDRs by a Regional Water Board allowing septage disposal. Septage shall be handled in such a manner as to prevent its reaching surface waters or watercourses.

3. Aerobic Treatment Units

number.

- a. Within **90 days** of the issuance of an NOA, the Discharger shall submit a Sludge Management Plan consistent with the requirements of Provision E.1.c of this General Order. The Discharger must obtain written approval from the Regional Water Board's Executive Officer prior to any disposal of sludge. The Executive Officer shall be notified of any changes in an approved Sludge Management Plan at least **90 days** in advance of the proposed change.
- b. Modifications to a Sludge Management Plan deemed part of an emergency action shall be noticed to the Regional Water Board within **five days** of disposal with a rationale for the emergency modification.
- c. -GLimited gauging and limited repairs may be performed by homeowners or contractors as allowed by the Business and Professions Code (Bus. & Prof. Code, §§ 7044, 7048). With certain exceptions, anyone performing construction work in California must be licensed by the California Contractors' State License Board. Septic tank, aerobic treatment unit, and/or leach field service (repairs, pumping, etc.) shall be performed only by a California licensed General Engineering (A), Plumbing (C-36), or Sanitation System (C-42) contractor. The Discharger shall maintain a record of all service activities. At a minimum, the record shall include the date, nature of
- d. Owners and/or operators of wastewater systems that accept wastes from RVs or other mobile waste systems must ensure that such wastes do not deleteriously affect the wastewater system or adversely affect beneficial uses of groundwater with holding tank additives that may contain, among other chemicals, formaldehyde, zinc, and/or phenol.

service, service company name, and service company state contractor license

- Use of holding tank chemicals shall be discouraged by the wastewater system owner/operator. Education of visitors can be accomplished by providing an information sheet upon check-in. Information on holding tank chemicals is provided in Attachment B2. The sale or provision of such additives by the Discharger to operators of RVs served by the Discharger's wastewater facility may be determined to be evidence of noncompliance with this section.
- e. Aerobic treatment units shall be pumped when any one of the following conditions exists:
 - The combined thickness of sludge and scum exceeds one-third of the tank depth of the final settling tank or interferes with the operation of the system



(mixed liquor³ aerator solids shall not exceed the manufacturer's recommendation).

- ii. The scum layer is within 3 inches of the outlet device.
- iii. The sludge layer is within 8 inches of the outlet device.
- f. Septic tanks (a septic tank may be used as a pretreatment step to minimize the amount of solids discharged to an aerobic treatment unit) shall be pumped when any one of the following conditions exists:
 - The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
 - ii. The scum layer is within 3 inches of the outlet device.
 - iii. The sludge layer is within 8 inches of the outlet device.
- g. Septage is the liquid, solid, and semisolid material that results from wastewater treatment in a septic tank, which must be pumped, hauled, treated, and disposed of properly. (40 C.F.R. § 503.) Septage disposal shall only be to a legal disposal site that has been issued WDRs by a Regional Water Board allowing septage disposal. Septage shall be handled in such a manner as to prevent its reaching surface waters or watercourses.

4. Activated Sludge Systems

- a. Within 90 days of the issuance of an NOA, the Discharger shall submit a Sludge Management Plan consistent with the requirements of Provision E.1.c of this General Order. The Discharger must obtain written approval from the Regional Water Board's Executive Officer prior to any disposal of sludge. The Executive Officer shall be notified of any changes in an approved Sludge Management Plan at least 90 days in advance of the proposed change.
- b. Modifications to a Sludge Management Plan deemed part of an emergency action shall be noticed to the Regional Water Board within **five days** of disposal with a rationale for the emergency modification.

5. Pond Systems

a. Sufficient freeboard shall be maintained at all times in ponds to provide adequate storage capacity and prevent wastewater spills. Freeboard shall be measured vertically from the lowest elevation of the pond berm to the pond water surface. If freeboard is less than one foot, the discharger shall immediately implement the contingency plan contained in the Spill Prevention and Emergency Response Plan (Provision E.1.a).



When the activated sludge in an aeration tank is mixed with primary effluent or raw wastewater and return sludge, this mixture is referred to as mixed liquor when it is in the aeration tank.

- b. Pond systems shall have sufficient capacity to accommodate wastewater, design seasonal precipitation, ancillary inflow and infiltration, and wind driven waves. Design seasonal precipitation shall be based on the following precipitation criteria:
 - i. If wastewater spills do not occur, existing pond systems may continue to operate at their present size if they are covered under individual WDRs, a general order issued by a Regional Water Board, or by WQO 97-10-DWQ. Operation of such ponds may continue until a new CEQA evaluation is triggered. When the CEQA evaluation is performed, the Executive Officer may require the pond size requirement to be consistent with the specification defined in Pond Systems 5.b.ii (below).
 - ii. For new or expanding pond systems covered under this General Order, seasonal precipitation used in the pond sizing water balance calculations shall be based on the following:
 - a. The 100-year return annual total precipitation value distributed monthly in accordance with average (mean) precipitation values. Adequate freeboard to comply with the specification described above shall be considered in the calculations.
 - b. The Executive Officer may allow a lower standard for the return annual total precipitation value, with approval of a technical report describing how operation of the wastewater system will not result in wastewater spills. In no case shall the Executive Officer allow less than a 50-year return annual total precipitation value. If the Discharger seeks relief from the 100-year return annual total precipitation value, the Discharger shall certify that the Spill Prevention and Emergency Response Plan (Provision E.1.a) has been prepared, and is adequate to respond to forecast conditions using the 100-year return annual total precipitation value distributed monthly in accordance with average (mean) precipitation values. Adequate freeboard to comply with the specifications described above shall be considered in the calculations.
- c. All ponds shall be managed to mitigate breeding of mosquitoes including, but not limited to the following:
 - i. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
 - ii. Weeds shall be minimized through control of water depth, a shoreline synthetic liner, harvesting, or herbicides.
 - iii. Dead algae, vegetation, and debris shall be removed from the water surface.
 - iv. Coordination with the local mosquito abatement or vector control district to supplement the measures described above in cases where other methods are infeasible.
- d. Objectionable odors shall not create nuisance conditions beyond the limits of the wastewater treatment facility. A dissolved oxygen concentration less than 1.0



- mg/L in the upper one foot of any wastewater pond shall be evidence of the potential to generate objectionable odors.
- e. Burrowing animals active in areas that may compromise the integrity of a pond containment shall be immediately controlled and repairs to the containment completed as soon as possible.
- f. Prior to any removal, drying, treatment, or disposal of sludge for pond maintenance, the Discharger shall submit a Sludge Management Plan consistent with the requirements of Provision E.1.c and obtain written approval from the Regional Water Board's Executive Officer. The Executive Officer shall be notified of any changes in an approved Sludge Management Plan at least **90 days** in advance of the proposed change.

6. Subsurface Disposal Systems

- a. Wastewater Wastewater effluent shall not surface in any location of the disposal area.
- b. Subsurface disposal systems shall hold in reserve sufficient land area for possible future 100-percent replacement of the subsurface disposal system, or establish an equivalent contingency that is approved by the Regional Water Board and described in the NOA. If less than 100-percent replacement area was previously permitted under existing individual WDRs, WQO 97-10-DWQ, or a county permit, the minimum reserve area previously permitted shall be maintained.
- c. No part of the disposal system(s) shall extend to a depth where waste may pollute groundwater.
- d. All new or rehabilitated disposal areas associated with effluent pressure distribution systems (pressure-dosed systems) shall be equipped with cleanouts or a flushing system to allow solids to be removed from distribution pipes and orifices when needed.
- e. Deep rooted plants such as trees or shrubs shall be removed as needed from a subsurface disposal system area to prevent damage to the dispersal area system by roots.
- f. Burrowing animals active in areas that may result in wastewaterwastewater effluent leakage from an at-grade or above grade (mound) disposal system shall be promptly immediately controlled and repairs to the disposal system completed as soon as possible.
- g. Subsurface disposal systems including leach fields and seepage pits, must comply with USEPA Underground Injection Control requirements when classified as a Class V well. Subsurface disposal systems with at least one of the following characteristics are classified as Class V wells:
 - i. The system has the capacity to serve 20 or more persons per day.
 - ii. The system receives wastewater other than domestic wastewater such as that generated by manufacturing, chemical processing, industrial fluid disposal, automotive repair, or recycling.



iii. The system receives sewage containing biological agents (such as wastewater from recreational vehicles or portable toilets).

Disposal systems that are classified as Class V wells must be registered with USEPA either by completing the online form at: http://www.epa.gov/region09/water/groundwater/injection-wells-register.html, or by completing and submitting Form 7520-16: Inventory of Injection Wells. Form 7520-16 is available at: http://epa.gov/region09/water/groundwater/uic-pdfs/7520-16.pdf.

7. Land Application and/or Recycled Water Systems

- a. Wastewater Wastewater effluent shall not be applied to an LAA within 24 hours of forecasted precipitation with a greater than 50-percent probability of occurring, during precipitation events, within 24 hours after precipitation, or when the LAA surface soil is saturated.
- b. Spray irrigation with treated wastewater is prohibited when wind speed (including gusts) exceeds 30 miles per hour. Wind speed may be measured onsite or at a nearby weather station operated by a governmental organization.
- c. Discharge of wastewaterwastewater effluent from an LAA is prohibited.
- d. If undisinfected wastewater wastewater effluent is applied to an LAA, storm water runoff from the LAA is prohibited.
- e. If storm water is allowed to runoff from an LAA (during the time of year wastewaterwastewater effluent is not applied), all applied wastewaterwastewater effluent shall be comply with the requirements for, disinfected secondary-23 recycled water. (Cal. Code Regs., title 22,
- § 60301.225.) Land application of more highly treated water is acceptable. Alternatively, a Discharger may submit a technical report, for Executive Officer approval, describing how the LAA will be operated to prevent pathogens from migrating off the LAA with stormwater.
- f. If recycled water is applied, it shall comply with the title 22 water recycling criteria, this General Order, the NOA, a title 22 Engineering Report, and any CDPH approval conditions.
- g. Public contact with wastewaterwastewater effluent/recycled water shall be precluded through use of fences, signs, and/or other appropriate means or as required by Title 22, where applicable. All public use areas where recycled water is used shall be posted with signs that are visible, in a size no less than 4 inches by 8 inches and include the following wording, "Recycled Water Do Not Drink." (Cal. Code Regs., tit. 22, § 60310(g).)
- h. Land application areas shall be managed to mitigate breeding of mosquitoes including, but not limited to the following:
 - i. There shall be no standing water 48 hours after application of wastewaterwastewater effluent.
 - ii. Tailwater ditches must be maintained essentially free of emergent, marginal, or floating vegetation.

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iii. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store wastewaterwastewater effluent or recycled water.



iv. Coordination with the local mosquito abatement or vector control district to supplement the measures described above in cases where other methods are infeasible.

8. Sludge/Solids/Biosolids Disposal

- a. Sludge means the solid, semisolid, and liquid residues removed during primary, secondary, or other wastewater treatment processes. Solid waste refers to grit and screenings generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the wastewater system. Biosolids refers to sludge that has undergone sufficient treatment and testing to qualify for reuse pursuant to the USEPA Part 503 Biosolids Rule. (40 C.F.R. § 503.)
- b. Sludge and solid waste shall be removed from screens, sumps, tanks, and ponds as needed to ensure optimal plant operation.
- c. Treatment and storage of sludge shall be confined to the wastewater system property, and shall be conducted in a manner that precludes infiltration of waste constituents into soil in a mass or at concentrations that will violate the groundwater limitations of this General Order.
- d. Any storage of residual sludge, solid waste, or biosolids at the wastewater system shall be temporary, and the waste shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or at concentrations that will violate the groundwater limitations of this General Order.
- e. Residual sludge, and solid waste shall be disposed of in a manner approved by the appropriate Regional Water Board's Executive Officer and consistent with the Consolidated Requirements for Treatment, Storage, Processing, or Disposal of Solid Waste. (Cal. Code Regs., tit. 27 div. 2.) Removal for further treatment, disposal, or reuse at disposal sites operated in accordance with valid WDRs issued by the State Water Board or Regional Water Board will satisfy this specification.
- f. Use and disposal of biosolids shall comply with the USEPA Part 503 Biosolids Rule. (40 C.F.R. § 503.)

C. Groundwater and Surface Water Limitations:

1. The discharge shall not:

- a. Pollute groundwater or surface waters.
- b. Adversely affect beneficial uses of groundwater or cause an exceedance of any applicable Basin Plan water quality objectives for groundwater or surface water.



D. Effluent Limitations:

1. The discharge shall not:

a. Exceed applicable technology based effluent limits. The limits presented below are average monthly limits unless otherwise specified.

Table 5: Effluent Limitations for Wastewater Treatment Systems

Effluent Limitations Based on Technology Performance						
Activated Sludge, MBR, or similar (not including residential aerobic treatment units)						
Constituent Units Limit						
BOD	mg/L	30 (monthly average), 45 (7-day average)				
TSS	mg/L	30 (monthly average), 45 (7-day average)				
Wastewater Pond	or Trickling F	ilter ¹ (not including residential recirculating sand filters)				
Constituent	Units	Limit				
BOD	mg/L	90- ²				
TSS		Not Applicable				

BOD denotes biochemical oxygen demand; TSS denotes total suspended solids; MBR denotes membrane biological reactor.

Limit applies when treated wastewater is applied to an LAA.

The limit is based on a 65-percent reduction of incoming BOD. An incoming BOD of 250 mg/L was used to calculate the value.

E. Provisions

1. Technical Report Preparation Requirements

- a. Within 90 days of the issuance of an NOA, aside from residential septic tanks serving four or fewer residences, the Discharger shall prepare and implement a Spill Prevention and Emergency Response Plan (Response Plan) to prevent accidental releases of wastewater, and to effectively respond to such releases, minimizing the environmental impact. At a minimum, the Response Plan shall address the following:
 - i. Operation and Control of Wastewater Treatment A description of the wastewater treatment equipment, operational controls, and treatment system schematic including valve/gate locations.
 - ii. Sludge Handling A description of the sludge handling equipment, operational controls, and disposal procedures.
 - iii. Collection System Maintenance A description of collection system cleaning and maintenance, equipment tests, and alarm functionality tests to minimize the potential for wastewater spills originating in the collection system or headworks.



- iv. Emergency Response A description of emergency response procedures including for emergencies such as power outage, severe weather, flooding, or inadequate freeboard (for systems with wastewater or recycled water ponds). An equipment and telephone list for contractors/consultants, emergency personnel, and equipment vendors.
- v. Notification Procedures Coordination procedures with fire, police, Governor's Office of Emergency Services (CalOES), Regional Water Board, and local county health department personnel.
- vi. Appendices Including manufacturers' manuals and a list of reference materials.

The Response Plan shall be maintained at the treatment facility and shall be presented available to the Regional Water Board upon request.

b. Within 90 days of the issuance of an NOA containing an MRP, the Discharger shall prepare and implement a written sampling and analysis plan (SAP) sufficient to assure compliance with the terms of this General Order and the NOA. Anyone performing sampling on behalf of the Discharger shall be familiar with the SAP. SAPs shall address the need for sample filtration and how filtration will be accomplished. When sampling groundwater or liquid waste, the chemical constituents available to migrate shall be considered. In general, dissolved waste constituents can migrate through soil to groundwater or surface water. In cases where the waste only threatens groundwater, samples shall be filtered prior to chemical preservation, digestion, or analysis for some analytes. If overland flow of liquid waste to surface water is possible, the total constituent concentrations may be available for movement and analyses shall be conducted on unfiltered samples.

At a minimum, the SAP shall describe the following:

Sample chain-of-custody procedures and documentation.

Sampling locations.

Sampling frequencies.

Sample handling/preservation procedures.

Analytical methods.

Sample containers, preservatives, and holding times.

For groundwater monitoring, well purging and field methods.

The SAP shall be maintained at the treatment facility and shall be presented available to the

Regional Water Board upon request or as required by the NOA.

c. Within 90 days of the issuance of an NOA directing preparation, the Discharger shall submit and implement a Sludge Management Plan. At a minimum, the plan shall describe the following:

Estimate the amount of sludge and seum that will be generated.



Describe how sludge, scum, and supernatant will be stored and disposed of to protect groundwater quality.

If sludge will be subject to further treatment, describe the treatment and storage requirements.

Describe cleaning of digesters or storage vessels and the treatment and disposal of the residuals. If drying of residuals is planned, describe how that will be performed to prevent nuisance odors, prevent vectors, and protect groundwater quality.

The Sludge Management Plan shall be maintained at the treatment facility and shall be <u>presented_available_to</u> the Regional Water Board upon request or as required by the NOA.

2. For All Wastewater Systems:

- a. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Water Board may take enforcement action against the Discharger for bypass unless:
 - i. Unavoidable and/or Unscheduled Bypass
 - Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production), and
 - 2. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate backup equipment or wastewater storage facilities should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that would otherwise occur during normal periods of equipment downtime or preventive maintenance; or

ii. Scheduled Bypass

- 1. Bypass is required for essential maintenance to assure efficient operation,
- 2. Neither effluent nor groundwater limitations are exceeded,
- The Discharger notifies the Regional Water Board 10 days in advance, and
- 4. The prohibition against discharge to surface water is not violated.



- b. A Discharger that wishes to establish the affirmative defense of an upset (see definition in Provision E.5.a) in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that all of the following is true:
 - i. An upset occurred and the cause(s) can be identified.
 - ii. The permitted facility was being properly operated at the time of the upset.
 - iii. The Discharger submitted notice of the upset as required in Provision E.3.a.
 - iv. The Discharger complied with any remedial measures required by this General Order, the NOA, or direction from the Regional Water Board. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof.
- c. A Discharger whose wastewater flow rate has been increasing, or is projected to increase, shall estimate when the flow rate will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last 3 years average dry weather flow rates, peak wet weather flow rates, and total annual flow rates, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the Discharger shall notify the Regional Water Board by March February 1st. Providing the notification in an annual report is acceptable.
- d. The requirements prescribed herein do not authorize the commission of any act causing damage to the property of another, or protect the Discharger from liabilities under federal, state, or local laws. This General Order does not convey any property rights or exclusive privileges and does not create a vested right to continue to discharge wastewaterwastewater effluent.
- e. This General Order does not relieve the Discharger from responsibility to obtain other necessary local, state, or federal permits to construct facilities necessary for compliance with this General Order, nor does this General Order prevent imposition of additional standards, requirements, or conditions by any other agency.
- f. The prohibitions, requirements, limitations, and provisions of this General Order are severable. If any provision of this General Order is held invalid, the remainder of this General Order shall not be affected.
- g. To the maximum extent possible, the wastewater system shall be sited and designed to prevent flood or surface water from inundating wastewater ponds or otherwise render the wastewater system inoperable. For design purposes, the most recent Federal Emergency Management Agency (FEMA) approved 100-year base flood elevations shall be used.
- h. The Discharger shall ensure that all site operating personnel are familiar with the contents of the wastewater system NOA, this General Order, and the title 22



Engineering Report (for recycled water uses when applicable). A copy of this General Order, the NOA, and technical reports required by this General Order (not including previously submitted monitoring reports) shall be kept at the wastewater treatment facility for reference by operating personnel.

- i. Access to the wastewater system shall be limited to authorized persons.
- j. The Discharger shall comply with all of the conditions of this General Order. Any noncompliance with this General Order constitutes a violation of the Porter-Cologne Water Quality Control Act and/or appropriate Regional Water Board's Basin Plan and may be grounds for an enforcement action.
- k. Wastewater facilities shall be supervised and operated by persons possessing a wastewater treatment operator certificate of the appropriate grade. (Cal. Code Regs., tit. 23, div. 3, ch. 26.)
- I. The State Water Board will review this General Order periodically and will revise requirements when necessary.
- m. After notice and opportunity for a hearing, coverage of this General Order may be terminated or modified for cause including, but not limited to, any of the following:
 - i. Violation of any of the terms or conditions contained in this General Order.
 - ii. Obtaining this General Order by misrepresentation, or failure to disclose fully all relevant facts.
 - iii. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge.
 - iv. A material change in the character, location, or volume of discharge.
- n. Before making a material change in the character, location, or volume of discharge, the Discharger shall file an ROWD with notify the Regional Water Board. A material change includes, but is not limited to, any of the following:
 - i. An increase in area or depth used for waste disposal beyond that specified in the NOA.
 - ii. A significant change in disposal method, location, or volume (e.g., change from land application to percolation pond).
 - iii. The addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

The Regional Water Board may require that a new ROWD be filed prior to the change.

O. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this General Order, the Discharger shall notify the Regional Water Board in writing

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- of the situation and of what measures have been taken or are being taken to assure full compliance with this General Order and the NOA.
- p. Except for material determined to be confidential in accordance with California law, all reports prepared in accordance with terms of this General Order shall be available for public inspection at the offices of the Regional Water Board. Data on waste discharges, water quality, geology, and hydrogeology are not confidential.
- q. The Discharger shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from noncompliance with this General Order.
 Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.
- r. The Discharger shall maintain in good working order, and operate as efficiently as possible any facility, control system, or monitoring device installed to achieve compliance with this General Order and the NOA.
- s. The Discharger shall permit representatives of the Regional Water Board and/or the State Water Board, upon presentation of credentials, to:
 - i. Enter premises where wastes are treated, stored, or disposed of, and facilities in which any records are kept.
 - ii. Copy any records required under terms and conditions of this General Order.
 - iii. Inspect at reasonable hours, monitoring equipment required by this General Order.
 - iv. Sample, photograph, and/or video record any discharge, waste material, waste treatment system, or monitoring device.
- t. For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of this General Order, the Discharger shall employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.
- u. The fact that it would have been necessary to halt or reduce the permitted activity to maintain compliance with this General Order shall not be a defense for the Discharger's violations of the General Order.
- v. The discharge shall remain within the disposal area designated in the NOA at all times. (With the exception of activities allowed in an approved title 22 Engineering Report.)
- w. In the event of any change in control or ownership of the facility or wastewater disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this General Order by letter, a copy of which shall be immediately forwarded to the Regional Water Board.



x. The Discharger shall pay an annual fee to the State Water Board in accordance with the fee schedule for each fiscal year. (Cal. Code Regs., tit. 23, § 2200.) Fees are based on threat to water quality and complexity ratings, will be determined based on information in the ROWD, and are subject to revision by the State Water Board. Annual invoices are issued by the State Water Board for the state fiscal year (July 1 to June 30).

3. General Reporting Requirements:

- a. If the Discharger does not <u>substantially</u> comply, or will be unable to <u>substantially</u> comply, with this General Order for any reason, the Discharger shall notify the Regional Water Board by telephone. Current phone numbers for Regional Water Board offices may be found on the NOA or on the Internet at:
 - <http://www.waterboards.ca.gov/about_us/contact_us/docs/rwqcbs_directory.pdf>
 Notification shall occur as soon as the Discharger or its agents have knowledge of such noncompliance or potential for noncompliance, and the Discharger shall confirm this notification in writing within 10 days. The written notification shall state the date, time, nature, cause of noncompliance, immediate response action, and a schedule for corrective actions.
- b. In the event of a wastewater containment failure, the Discharger shall immediately notify CalOES. Notification shall be provided as soon as possible and when the notice can be provided without substantially impeding cleanup or other emergency measures. (Wat. Code, § 13271.) In addition to notifying CalOES, the appropriate Regional Water Board and local county environmental health department shall
- also be notified. A written report to the Regional Water Board shall be submitted within **10 days** of the failure describing the cause of the failure and how a recurrence will be prevented. Such a failure shall be promptly corrected in accordance with the requirements of this General Order.
- c. All reports submitted in response to this General Order, including monitoring reports, shall be signed by a person identified below:
 - i. For a private residence: by the property owner of the residence.
 - ii. For a corporation: by a principal executive officer of at least the level of senior vice-president.
 - iii. For a partnership or sole proprietorship: by a general partner or the proprietor.
 - iv. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected or appointed official.
 - v. A duly authorized representative of a person described above if all of the following are completed:
 - 1) The authorization is made in writing by a person described above.
 - 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity,



such as the position of plant manager, operator of a waste management unit, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3) The written authorization is submitted to the Regional Water Board.

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

d. The Discharger shall mail a copy of each monitoring report and any other reports required by this General Order to the appropriate Regional Water Board or provide electronic submittals of reports or data as specified by the Regional Water Board. Contact and mail address information is available on the NOA or at:

http://www.waterboards.ca.gov/about_us/contact_us/docs/rwqcbs directory.pdf>

4. Monitoring Requirements

- a. The Discharger shall comply with the MRP issued with the NOA, and any future revisions, as specified by the appropriate Regional Water Board's Executive Officer. A model MRP is provided as Attachment C. However, the Executive Officer may modify or replace the MRP for site-specific treatment and disposal conditions when issuing the NOA, or revise the MRP when deemed necessary.
- b. Unless otherwise approved by the Regional Water Board's Executive Officer, all water quality analyses shall be conducted at a laboratory certified for the analyses by the CDPH Environmental Laboratory Accreditation Program. If a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided an acceptable Quality Assurance/Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Regional Water Board staff. The Quality Assurance/Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Water Board.
- c. The results of any monitoring done more frequently than required by an MRP shall be reported in the next regularly scheduled monitoring report. Values obtained through additional monitoring shall be used in calculations as appropriate.
- d. Treated wastewater samples shall be collected downstream of all treatment works where a sample representative of the discharge can be obtained prior to disposal. In some cases, it may be necessary to collect samples for different analyses from



- different sampling locations (e.g. immediately downstream of a disinfection system for pathogens).
- e. The Discharger shall furnish, within a reasonable time, any information the Regional Water Board may request to determine whether cause exists for modifying, revoking, reissuing, or terminating the Discharger's coverage under this General Order. The Discharger shall also furnish to the Regional Water Board upon request, copies of records required to be kept by this General Order.
- f. All noncompliance issues shall be reported with the next regularly scheduled monitoring report in addition to any other reporting requirements.
- g. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this General Order, and records of all data used to complete the application for this General Order. Records shall be maintained for a minimum of 3 years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board's Executive Officer.
- h. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed MRP shall be properly maintained and calibrated as recommended by the manufacturer to ensure their continued accuracy.
- i. The Discharger shall construct all groundwater monitoring wells to meet or exceed the standards stated in Department of Water Resources' Bulletins 74-81, 74-90, and subsequent revisions unless deviation is approved by the Regional Water Board or local well construction enforcing agency, and shall comply with the reporting provisions for wells. (Wat. Code, § 13751.)

5. Definitions

- a. <u>Upset</u> means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.
- b. The monthly average flow rate is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number shall be reported in gpd or million gallons per day.
- c. The <u>monthly average concentration</u> is the arithmetic mean of measurements recorded during a calendar month. If only one sample is collected in a calendar month, then that sample measurement is the monthly average concentration.
- d. The <u>daily maximum concentration</u> is the highest measurement recorded for any grab or composite sample collected during a day in a calendar month.
- e. The <u>7-day median</u> total coliform organism value shall be calculated as the median concentration of the results for the last 7 calendar days. If only one sample is



collected within a 7-day period, then that one sample becomes the 7-day median value.

- f. A grab sample is an individual sample collected in less than 15 minutes.
- g. Unless otherwise specified, a <u>composite sample</u> is a combination of individual samples collected over the specified sampling period. The method of compositing shall be reported with the results.
- h. A <u>time-weighted sample</u> is collected at equal time intervals, with a maximum interval of one hour.
- i. A <u>flow-weighted sample</u> is collected at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow. The duration of the sampling period shall be specified in the MRP.
- j. A <u>day</u> is the mean solar day of 24 hours beginning at mean midnight. All references to day in this General Order are calendar days.

CERTIFICATION

I, Jeanine Townsend, Clerk to t attachments is a full, true, and o Board, on			
AYE: list members NO: List members (if any) ABSENT:			
List members (if any) ABSTAIN: List members (if any)			
		Jeanine To	



INFORMATION SHEET SUMMARY WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

The attachments to this Information Sheet will help Dischargers understand the process of obtaining coverage under these *General Waste Discharge Requirements for Discharges to Land by Small Domestic Systems* (General Order). The attachments describe the permitting process and the information needed by Regional Water Quality Control Board (Regional Water Board) staff to prepare a notice of applicability (NOA), which provides the Discharger coverage under the General Order. Although not required, organization of the technical report described in Attachment B1 in the format presented in the attachment will allow streamlined review of the facility information and may reduce the time required to prepare an NOA. Some Regional Water Boards have implemented procedures for electronic submittal of technical reports and monitoring data. The Dischargers shall comply with those submittal requirements when applicable.

The Discharger is encouraged to contact the Regional Water Board staff early in the process to discuss their conceptual wastewater plan. Attachment A shows the generalized permitting process; it is recommended each of the items in the box labeled "Contact Regional Water Board to Discuss" be listed on a meeting agenda so that they are adequately discussed.

The Conceptual Wastewater Plan listed on Attachment A shall be complete enough for a meaningful discussion with the Regional Water Board staff so that any significant issues can be identified early in the process. However, the details of the Conceptual Wastewater Plan are unlikely to be finalized at this stage of the process. Determinations regarding the Conceptual Wastewater Plan may require additional investigation by the Discharger before the Regional Water Board staff can provide definitive answers to questions about the Conceptual Wastewater Plan.

Questions the Discharger may have regarding any of the attachments (such as the report requirements described in Attachment B1) should also be discussed at the meeting. At the conclusion of the meeting, the Discharger should understand if any additional investigations are required to provide a complete Report of Waste Discharge.

The attachments included in this Information Sheet consist of the following:

<u>Name</u>	Title
Attachment A	Generalized Permit Application Process Summary
Attachment B1	Recommended Report of Waste Discharge Format
Attachment B2	Safe Wastewater Disposal for Recreational Vehicles
Attachment C	Model Monitoring and Reporting Program



ATTACHMENT A GENERALIZED PERMIT APPLICATION PROCESS SUMMARY WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

The Discharger shall perform the following:

- · Determine availability of regional collection system
- Determine need to submit a Report of Waste Discharge (ROWD)
- Develop a Conceptual Wastewater Plan



Contact Regional Water Board to discuss:

- Wastewater characterization/treatment/disposal plan
- · Water balance precipitation value
- Threat and Complexity/Application Fee
- Storm water runoff/wastewater disinfection needed?
- Title 22 Engineering Report needed?
- Groundwater monitoring needed?
- Sanitary Sewer Overflow General Order Applicability
- Operator Certification Required?
- · California Environmental Quality Act status
- Electronic ROWD application/monitoring report procedures



Submit Report of Waste Discharge (electronic submittal if requested by Regional Water Board)

- Completed Form 200
- Application fee payment
- Technical Report (prepared consistent with the guidance in Attachment B1if required).



Regional Water Board ROWD Review

- If the ROWD is complete, a notice of applicability (NOA) will be prepared.
- If incomplete, a Notice of Incomplete ROWD will be transmitted to the Discharger.



NOA Issued

- The NOA authorizes the wastewater discharge consistent with the ROWD, NOA, General Order, and title 22 Engineering Report (if applicable).
- The NOA will specify compliance criteria, monitoring requirements, and reporting requirements. In some cases, electronic reporting may be required.

ATTACHMENT B1 RECOMMENDED REPORT OF WASTE DISCHARGE FORMAT WATER QUALITY ORDER 2014-xxxx-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

GENERAL INFORMATION FOR DISCHARGER

The information presented in the Report of Waste Discharge (ROWD) is relied upon by staff to prepare the Notice of Applicability (NOA) for coverage by these General Waste Discharge Requirements for Discharges to Land by Small Domestic Systems (General Order). The Discharger shall ensure that the information presented in the ROWD is accurate. Misstatements, errors, or omissions that exist in the ROWD may be included in the NOA and become enforceable.

Waste Discharge Requirements (WDRs) are generally updated at 10 or 15 year intervals depending on the waste's potential to impact water quality. The ROWD shall state realistic growth projections. Underestimating growth may result in additional or more frequent permitting requirements. Overestimating growth will result in the need for the Discharger to prepare have more treatment, storage, and disposal capacity than might otherwise be immediately required.

The ROWD outline presented below is intended to provide general guidance for Dischargers and consultants. Submitting an ROWD consistent with the format will help the Discharger include all of the information that Regional Water Quality Control Board (Regional Water Board) staff need and will expedite review of the document and speed the permitting process. Contacting your Regional Water Board representative to discuss the project before preparing the ROWD is recommended.

BACKGROUND

- 1.1. Wastewater system description
 - 1.1.1. Briefly, describe what the wastewater system is and how wastewater is generated.
 - 1.1.2. Provide a site location map and a site plan.
 - 1.1.3. Provide information on the location of wastewater system buildings, wastewater treatment system components, groundwater wells, and surface water bodies.
 - 1.1.4. Provide the Assessor's Parcel Number(s), section number(s), and Township and Range.
 - 1.1.5. Describe the water supply to the residence(s), business(es), and/or other facilities being served by the wastewater system.

1.2. Service area description

1.2.1. Describe the proximity of the wastewater system to an existing regional collection system; if nearby, discuss what efforts for connection have been taken and why connection to the regional system cannot reasonably be accomplished at this time. If located within a regional system service area, or in close proximity to a collection system, provide written documentation that a



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good faith effort to connect to the regional system was made and that the request was not approved.

- 1.2.2. Wastewater collection system (describe the following):
 - 1.2.2.1. Age and condition of collection system.
 - 1.2.2.2. Piping construction and layout (show on map).
 - 1.2.2.3. Lift stations and backup pumping systems.
 - 1.2.2.4. Failure warning system.
 - 1.2.2.5. Inflow and infiltration (I/I) estimates (and any control that is necessary).
 - 1.2.2.6. Maintenance of collection system and spill response.
- 1.2.3. Storm water collection system
 - 1.2.3.1. Storm water collection area (show on map).
 - 1.2.3.2. Storm water disposal area in relation to wastewater wastewater effluent disposal area.
 - 1.2.3.3. Storm water disposal permit (if needed).

2. WASTEWATER CHARACTERIZATION AND TREATMENT

- 2.1. Domestic wastewater characterization (untreated wastewater).
 - 2.1.1. Describe the generation of wastewater (retirees, families, recreational vehicle [RV], institution, etc.).⁴ If RV waste is allowed, describe educational and institutional controls in place to minimize the potential for deleterious RV waste constituents to be discharged to the wastewater system.
 - 2.1.2. Domestic wastewater flow rate (describe how determined). Describe any special events or seasonal variations that cause high wastewater flow rates or other sources of wastewater (e.g. swimming pool filter, potable water treatment backwash water, well attended festivals, etc.).
 - 2.1.3. Characterize domestic wastewater for biochemical oxygen demand (BOD), total suspended solids (TSS), and specific constituents of concern as needed based on site activities. Characterize wastewater for holding tank chemicals identified in the General Order (and others as appropriate) if RV waste is discharged to the system.
- 2.2. Wastewater treatment system
 - 2.2.1. Provide a wastewater treatment schematic.
 - 2.2.2. Describe wastewater pretreatment components.

⁴ Recreational vehicle (RV) holding tank connections, RV waste dump stations, etc. create special conditions for treatment and monitoring. Please refer to the General Order for more information.



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- 2.2.2.1. Domestic wastewater pretreatment systems (e.g. septic tank effluent pump system, grease traps, etc.).
- 2.2.2.2. Describe storage, treatment, and disposal of pretreatment residuals.
- 2.2.3. Describe preliminary treatment activities (e.g., screening, comminution, grit removal).
 - 2.2.3.1. Describe storage, treatment, and disposal of preliminary treatment residuals.
- 2.2.4. Describe primary treatment activities (remove settleable/flotable matter)
 - 2.2.4.1. Describe storage, treatment, and disposal of primary treatment residuals.
- 2.2.5. Describe treatment technology (e.g., activated sludge, membrane biological reactor, aerated lagoon, oxidation ditch, Imhoff tank, septic tank, etc.) include engineered design capacity in description.
 - 2.2.5.1. Describe storage, treatment, and disposal of treatment residuals (e.g. sludge, septage, etc.).
- 2.2.6. Size and location of treatment equipment (e.g. septic tank volume, package treatment plant, membrane biological reactor, pond size include acreage and storage capacity, pond liners, and number and horsepower of aerators, etc.).
- 2.2.7. Disinfection system equipment
- 2.2.8. Storage facilities
 - 2.2.8.1. If wastewaterwastewater effluent will be stored prior to disposal, describe the size and location of wastewaterwastewater effluent storage ponds, include a map showing all the ponds and describe them as lined or not. Describe the materials, age, and condition of any liners.
- 2.2.9. Predicted wastewater effluent quality
 - 2.2.9.1. Characterize the wastewaterwastewater effluent for TSS, BOD, total coliform organisms (if needed), and specific constituents of concern as needed. If RV waste is discharged to the system, characterize effluent quality for holding tank chemicals identified in the General Order (and others as appropriate).
- 2.2.10. Treated effluent disposal method
 - 2.2.10.1. Describe how treated wastewater will be dispersed (land application area, leach field, percolation pond).
 - 2.2.10.2. Describe the proposed disposal area (and the 100-percent replacement area when needed, such as for a leach field disposal system) include acreage, surrounding land use, depth to groundwater, and the proximity of drainage ways, surface waters, and municipal, industrial, or agricultural wells.



GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

- 2.2.10.2.1. If land application is proposed, describe how storm water that falls on the land application area (LAA) is handled. If storm water is allowed to run off the LAA, contact your Regional Water Board representative to discuss wastewater disinfection requirements.
- 2.2.10.2.2. Provide a water balance that demonstrates adequate storage/disposal capacity. Identify the safety factors used in the calculations. Please contact your Regional Water Board representative to determine the precipitation values to be included in the water balance for new or expanding facilities. Typically, for new or expanding systems, the 100-year return annual total precipitation value, distributed monthly in accordance with average (mean) precipitation values monthly is required. Some exemptions for existing ponds or sites that develop an acceptable Spill Prevention and Emergency Response Plan may apply. Rainfall depth duration frequency data is available on the Department of Water Resources Internet web page at:
 - http://www.water.ca.gov/floodmgmt/hafoo/hb/csm/engineering/
- 2.2.10.2.3. Support the assumptions and calculations in the water balance with adequate information. Information may include published infiltration values, site-specific percolation tests, application rates, or other sources. Cite the information source used: if a sitespecific investigation, provide a copy of the report.
- 2.2.10.2.4. The use of subsurface disposal including leach fields and/or seepage pits serving more than 20 people, or systems that accept non-sanitary waste (generated by manufacturing, contains biocidal agents such as RV or portable toilets, etc.) must comply with the United States Environmental Protection Agency Underground Injection Control requirements. Please refer to General Order Requirement B.6.g and http://www.epa.gov/region9/-water/groundwater/uic.html to determine if federal requirements apply to the proposed project. If registration is required, documentation of registration shall be provided in the ROWD.

2.3. Recycled Water Projects

- If treated wastewater will be applied for recycled water use beneficial uses (such as those described in title 22 water recycling criteria), provide a title 22 Engineering Report and the California Department of Public Health (CDPH) review/approval letter. Guidance for preparation of a title 22 Engineering Report is available on the Internet at: http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Recharge/ ERGUIDE2001.PDF>
 - Describe how any CDPH requirements will be implemented in the



- 2.3.1.2. If needed, describe the disinfection requirements for the planned reuse.
- 2.4. Operation and Maintenance
 - 2.4.1. Describe routine operation and maintenance procedures
 - 2.4.2. Treatment operator training and qualifications requirements
 - 2.4.3. Contingency plans for repairs/spills/treatment issues

3. GROUNDWATER QUALITY

SMALL DOMESTIC SYSTEMS

3.1. Depending upon the threat to groundwater quality, groundwater monitoring may be required. Please contact your Regional Water Board representative to determine if groundwater monitoring is required.

4. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

- 4.1. Some existing Small Domestic Systems will be determined to be categorically exempt from the California Environmental Quality Act (CEQA) under Title 14, section 15301 (ongoing or existing projects), section 15302 (replacement or reconstruction of existing utility systems), and section 15303 (new construction or conversion of small structures). The potential for categorical exemptions shall be examined and discussed with the Regional Water Board representative prior to submitting an ROWD.
- 4.2. New or expanding Small Domestic Systems will likely require CEQA evaluation that should be performed by local agencies. The CEQA evaluation shall be submitted with the ROWD. At a minimum, the evaluation shall include the Initial Study, a list of any adopted mitigation measures related to water quality, and the Notice of Determination.
 - 4.2.1. The ROWD must include a description of how any water quality related mitigation measures will be implemented.

5. ADDITIONAL TECHNICAL REPORTS

- 5.1. If required by the General Order, a *Sludge Management Plan* shall be submitted with the ROWD.
 - 5.1.1. Estimate the amount of sludge and scum that will be generated.
 - 5.1.1.1. Describe how sludge, scum, and supernatant will be stored and disposed of to protect groundwater quality.
 - 5.1.1.2. If sludge will be subject to further treatment, describe the treatment and storage requirements.
 - 5.1.1.3. Describe cleaning of digesters or storage vessels and the treatment and disposal of the residuals. If drying of residuals is planned, describe how that will be performed to prevent nuisance odors, prevent vectors, and protect groundwater quality.



ATTACHMENT B2
SAFE WASTEWATER DISPOSAL FOR RECREATIONAL VEHICLES
WATER QUALSTACER SELECTIONAL VEHICLES
GENERAL WASTE DISCHARGE REQUIREMENTS OR DISCHARGES TO LAND BY
SMALL DOMESTIC SYSTEMS FOR DISCHARGES TO LAND BY
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EPA 909-F-99-002 JULY 1999

DO NOT USE CHEMICAIS WHICH HARM SEPTIC SYSTEMS

Formaldehyde. ad1ve ingredient in some deodorizers. also called Formahn fOfmaldehyde an EPA-recogruzed pmbable caranogen 0 e. causes cancer)

Para-dichlorobenzene Known caranogen and drink1119 water contaminant Common ingredtenl11 mothballs urinalcakes and bowl fresheners

OTHER CHEMICALS TO BIWARE OF INCIUDE heavy metals (such as Ztnc). benzene, toluene x ene. neg (anti-freeze). methylene chlonde. 1,1.1 tnchloroelhane (TCA), triChlorethylene (TCE) and perchloroelhylene (PCE). Strong acids and bases such as sulfuriC add or caustic soda, can destroy biOlogicalacllv1ty and damage tanks and pipes.

A healthy, well-maintained and appropriately sized septic tank will generally require less pumping over its service life, savang time and money.

ALERT FOR RV, BOAT AND MOBILE HOME OWNERS AND PARK OPERATORS ABOUT SAFE WASTEWATER DISPOSAL

If you spend any time in a recreational vehicle (RV) or boat, you probably know of the problem of odors from sewage holding tanks. There are a number of commercial products available to control those odors. Some of those products contain chemicals which may pollute water resources. If you use those chemicals and then empty your holding tank into a septic system (or other onsite wastewater treatment system) or dispose of holding tank waste Illegally, you may be creating heath and enVironmental hazards. These chemicals and their by-products may pass through onsde wastewater treatment systems, flowing to soil, ground water, and possibly nearoy surface waters. They may also corrode treatment system parts, creating a safety hazard.

How septic systems work. A typical sepiJC system contains two major components: a septic tank and an absorption field, also known as a dramfield or leachfield. These systems use natural processes to treat wastewater onsite, as opposed to offsite at a municipal wastewater treatment plant. The purpose of the septic tank is to separate sohds from the liqu1d waste, and to promote partial breakdown of contaminants by microorganisms (bacteria) naturally present in wastewater. The leachfield also treats the wastewater through physical, biological and chemical processes in the soil

Mixing chemicals with waste In sewage holding tanks or septic systems may produce toxic fumes, corrode pipelines and tanks, and pollute soil and ground water when discharged.

When chemicals, such as formaldehyde, are added to septic systems, they can cause bacteria in the system to die. When this happens, the septic system cannot treat waste adequately. Solds that are allowed to pass from the septic tank, due to inadequate or Incomplete treatment, may clog the leachfield. Furthermore, cl>gg00 systems may send Inadequately or incompletely treated sewage to the surface, threatening the health of people or pets who come into contact with it. Or it may percolate to ground water, where

the chemicaJs and untreated wastewater could contam1nate nearby drinking water wells, rivers and streams. Please *read labels carefully* toidentify any hazardous ingredients.

Inspection port
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The restoration of contaminated ground water is extremely costly and can take years. To prevent problems,RVand mobile home parks, as well as dump stallon operators, may take measures to control hazardous chemical disposal into their waste treatment systems. If they do not, and their system causes contamination, they may be forced to close the dump station or the park until the problem can be corrected.



REPORT SEWAGE SPILLS and other health hazards to the local health department. Keep People and Pets Away!

PARK OPERATORS:

The United States Department of Health, Education and Welfare said in 1957 that "... there are no known chemicals, yeasts, bacteria, enzymes or other substances capable of



eliminating or reducing the solids and scum in a septic tank" and according to EPA, this is still true. No products have been verified by EPA to eliminate the need for routine maintenance, and some may actually accelerate system failure by allowing solids to clog the dispersal system; while the products may claim to "remove" studge, they may just "move studge, they may just "move studge. Tanks should be checked routinely (see photo) for solids and scum buildup.

Sludge Removal (pumpouts) may be needed more often for RV, Mobile Home and Boat waste systems than for single-tamily septic systems, especially if your tanks are undersized and/or your residents are conservative with water. Oversizing your tanks, or adding additional tanks, may allow greater waste stabilization. Consult a wastewater professional.



RVers CAN HELP... Here's How:

- Minimize your need of holding tank deodorizers by using rest stop facilities when you can.
- If you must use a holding tank deodorizer, read the label carefully.
 Biodegradable (enzyme and citrus-based) products are available.
 Whichever product you

choose, follow label directions and add no more than recommended amounts.

- Some products that claim to be flushable, such as some types of cat litter, may clog hoses and septic tanks; use toilets for waste and toilet paper only.
- Ask questions of your park manager about drinking water and wastewater management. Sanitation costs can be minimal, but not free.
- Educate other RVers. Don't be shy about health.

FREE HOTLINES!

Septic System Care: The National Small Flows Clearinghouse, (800) 624-8301, EST, or www.nslc.www.edu. The Safe Drinking Water Act Hotline, US EPA: (800) 426-4791, EST, or www.epa.gov/ogwdw

U.S. EPA, Region 9, WTR-9 Ground Water Office 75 Hawthorne Street San Francisco, CA 94105-3109 OFFICIAL BUSINESS - PENALTY FOR PRIVATE USE \$200

ATTACHMENT B2 SAFE WASTEWATER DISPOSAL FOR RECREATIONAL VEHICLES WATER QUALITY ORDER 2014-XXXX-DWQ
GENERAL WASTE DISCHARGE REQUIREMENT C
FOR DISCHARGES TOMORES MONITORING AND REPORTING PROGRAM SMALL DOMESTIC SYSTEMSVATER QUALITY ORDER 2014-XXXX-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC SYSTEMS

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board (Regional Water Board) Executive Officer.

The State Water Resources Control Board (State Water Board) and Regional Water Boards are transitioning to the paperless office system. In some regions, Dischargers will be directed to submit reports (both technical and monitoring reports) to the State Water Board's GeoTracker database over the Internet in portable document format (pdf). In addition, analytical data shall be uploaded to the GeoTracker database under a site-specific global identification number. Information on the GeoTracker database is provided on the Internet at:

http://www.waterboards.ca.gov/ust/electronic submittal/index.shtml>

Water Code section 13267 states, in part:

"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish. under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

Water Code section 13268 states, in part:

- "(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).
- (b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs."



SMALL DOMESTIC SYSTEMS

The Discharger owns and operates the wastewater system that is subject to the notice of applicability (NOA) of Water Quality Order 2014-xxxx-DWQ. The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a California Environmental Laboratory Program (ELAP) certified laboratory, or:

- 1. The user is trained in proper use and maintenance of the instruments;
- 2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
- 3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
- 4. Field calibration reports are maintained and available for at least three years.

SEPTIC TANK MONITORING

Monitoring of septic tank effluent shall include the following:

Parameter	<u>Units</u>	Sample Type	Sampling Frequency	Reporting Frequency
Flow Rate	gpd	Metered ^a	Continuous	Annually

gpd denotes gallons per day. mg/L denotes milligrams per liter.

Septic tanks shall be inspected and/or pumped at least as frequently as described below. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.



Flow rate may be metered or estimated based on potable water supply meter readings or other approved method.

Parameter	<u>Units</u>	Measurement Type	Inspection/Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank	Feet	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually
Effluent filter condition (if equipped, clean as needed)	NA	NA	Annually

NA denotes not applicable.

Septic tanks shall be pumped when any one of the following conditions exists:

- 1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
- 2. The scum layer is within 3 inches of the outlet device.
- 3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

AEROBIC TREATMENT UNIT MONITORING

Monitoring of aerobic treatment unit effluent shall include the following:

Parameter	<u>Units</u>	Sample Type	Sampling Frequency	Reporting Frequency
Flow Rate	gpd	Metered ^a	Continuous	Quarterly

gpd denotes gallons per day.

Aerobic treatment units may be integrated in a treatment train and all components shall be inspected to verify operational status. It is highly recommended that a service agreement with a qualified service provider/vendor be required by the Regional Water Board. Because aerobic treatment units generate more biosolids than septic systems (similar to the activated sludge process), systems shall be inspected and/or pumped at least as frequently as described below. Depending upon the amount of solids removed from the aerobic treatment



Flow rate may be metered or estimated based on potable water supply meter readings or other approved method.

unit, less frequent inspections may be allowed by the Regional Water Board Executive Officer. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

<u>Parameter</u>	<u>Units</u>	Measurement Type	Inspection/Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank	Feet	Staff Gauge	Quarterly
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Quarterly
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Quarterly
Effluent filter condition (if equipped, clean as needed)	NA	NA	Quarterly

NA denotes not applicable.

Aerobic treatment units shall be pumped when any one of the following conditions exists:

- 1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the final settling tank or interferes with the operation of the system (mixed liquor aerator solids shall not exceed the manufacturer's recommendation).
- 2. The scum layer is within 3 inches of the outlet device.
- 3. The sludge layer is within 8 inches of the outlet device.

All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

ACTIVATED SLUDGE MONITORING

Samples of effluent shall be taken at an area that represents the effluent quality distributed to the disposal area. At a minimum, effluent monitoring shall consist of the following:

Constituent	<u>Units</u>	Sample Type	Sample Frequency	Reporting Frequency
Flow Rate ^a	gpd	Meter	Continuous	Quarterly
Biochemical Oxygen Demand	mg/L	Grab	Monthly	Quarterly
Total Suspended Solids	mg/L	Grab	Monthly	Quarterly

gpd denotes gallons per day.



At a minimum, the total flow shall be measured monthly to calculate the average daily flow for the

POND SYSTEM MONITORING

Influent Monitoring

Influent samples shall be taken from a location that provides representative samples of the wastewater flow rate. At a minimum, influent monitoring shall consist of the following:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Flow Rate ^a	gpd	Meter	Continuous	Quarterly

gpd denotes gallons per day.

Wastewater Pond Monitoring

All wastewater and treated wastewater storage ponds (lined and unlined) shall be monitored as specified below:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Dissolved Oxygen	mg/L	Grab	Monthly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Odors		Observation	Monthly	Quarterly
Berm condition		Observation	Monthly	Quarterly
Biochemical Oxygen Demand 1	mg/L	Grab	Monthly	Quarterly

mg/L denotes milligrams per liter.

DISINFECTION SYSTEM MONITORING

If disinfection is performed, samples shall be collected from immediately downstream of the disinfection system. Depending upon the level of disinfection and wastewaterwastewater effluent disposal, monitoring requirements vary. Disinfection monitoring shall be customized to the site-specific conditions from the following:

Constituent	<u>Units</u>	Sample <u>Type</u>	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL	Grab	TBD ^a	Quarterly
Turbidity	NTU	Grab/Meter	TBD ^a	Quarterly

MPN/100 mL denotes most probable number per 100 mL sample. NTU denotes nephelometric turbidity unit.

TBD (to be determined) shall be specified in the NOA or as required by California Code of Regulations, title 22 section 60321.

At a minimum, the total flow shall be measured monthly to calculate the average daily flow for the

Biochemical oxygen demand only required when wastewaterwastewater effluent from the pond is applied to a land application area.

RECREATIONAL VEHICLE DISCHARGE MONITORING

Any wastewater system that has accepted recreational vehicle waste in the previous 12 months shall perform the following additional monitoring. Samples shall be collected to characterize effluent that is stored in unlined wastewaterwastewater effluent ponds or that will be applied to a

disposal area. Wastewater Wastewater effluent shall be monitored as specified below:

Constituent	<u>Units</u>	Sample Type	Sample Frequency	Reporting Frequency
Zinc	mg/L	Grab	Quarterly	Quarterly
Phenol	mg/L	Grab	Quarterly	Quarterly
Formaldehyde	mg/L	Grab	Quarterly	Quarterly

mg/L denotes milligrams per liter.

SUBSURFACE DISPOSAL AREA

Subsurface disposal areas may be configured many different ways (e.g. traditional leach field, pressure-dosed, drip system, mound/at grade, gravel less, etc.). In general, monitoring shall be sufficient to determine if wastewaterwastewater effluent is evenly applied, the disposal area is not saturated, burrowing animals and/or deep rooted plants are not present, and odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the disposal area (and any sand or media filter if present). Monitoring shall include, at a minimum, the following:

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, etc. a	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
Saturated Soil Conditions ^b	Quarterly	Quarterly
Plant Growth ^c	Quarterly	Quarterly
Vectors or Animal Burrowing ^d	Quarterly	Quarterly
Seepage Pit Condition ^e	Quarterly	Quarterly

a. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.

e. Seepage pits shall be inspected to ensure they are allowing wastewater wastewater effluent to infiltrate as designed.



Inspect a disposal area for saturated conditions. If a mound system is used, inspect perimeter base for signs of wastewaterwastewater effluent seepage or saturated soil conditions.

Shallow-rooted plants are generally desirable, Deep rooted plants such as trees or shrubs shall be removed as needed from a subsurface disposal system area to prevent damage to the dispersal system by roots.deep-rooted plants such as trees shall be removed as necessary.

d. Evidence of animals burrowing shall be <u>promptly</u> <u>immediately</u> investigated and burrowing animal populations controlled as necessary.

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Visual inspection of the water level in the seepage pit is adequate.

LAND APPLICATION AREA MONITORING

The Discharger shall monitor LAAs when wastewater <u>effluent</u> and/or supplemental irrigation water is applied. If <u>wastewaterwastewater effluent</u>/supplemental irrigation water is not applied during a reporting period, the monitoring report shall so state. LAA monitoring shall include the following:

Constituent	<u>Units</u>	Sample Type	Sampling Frequency	Reporting Frequency
Supplemental Irrigation	gpd	Meter ^a	Monthly	Quarterly
Wastewater Effluent Flow a	gpd	Meter ^a	Monthly	Quarterly
Local Rainfall	Inches	Weather Station b	Monthly	Quarterly
Acreage Applied ^c	Acres	Calculated	Monthly	Quarterly
Application Rate	gal/acre/mo	Calculated	Monthly	Quarterly
Soil Erosion Evidence		observation	Monthly	Quarterly
Containment Berm Condition		observation	Monthly	Quarterly
Soil Saturation/Ponding		observation	Monthly	Quarterly
Nuisance Odors/Vectors		observation	Monthly	Quarterly
Discharge Off-Site		observation	Monthly	Quarterly

gpd denotes gallons per day.

Meter requires meter reading, a pump run time meter, or other approved method. <u>Influent flow may</u> suffice where there is not storage.

Weather station may be site-specific station or nearby governmental weather reporting station.

Acreage applied denotes the acreage to which wastewater effluent is applied.

Application rate may also be reported as inch/acre/month.

SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

GROUNDWATER MONITORING

The Discharger shall monitor groundwater quality if required by the NOA. Consistent with the Business and Professions Code, groundwater monitoring reports, well construction workplans, etc. shall be prepared under the supervision of a California licensed civil engineer or geologist. Prior to construction of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Water Board for review and approval. Once installed, all monitoring wells designated as part of the monitoring network shall be sampled and analyzed according to the schedule below.

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged of at least three well volumes and until pH and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are described in an approved Sampling and Analysis Plan. Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Units</u>	Sample Type	Sampling/Reporting Frequency ^c
0.01 Feet	Calculated	Quarterly/Annual
0.01 Feet	Measurement	Quarterly/Annual
Feet/Feet	Calculated	Quarterly
degrees	Calculated	Quarterly
Std. Units	Grab	Quarterly
mg/L	Grab	Quarterly
MPN/100 mL	Grab	Quarterly
mg/L	Grab	Quarterly Annual
mg/L	Grab	Quarterly Annual
mg/L	Grab	Quarterly Annual
	0.01 Feet 0.01 Feet Feet/Feet degrees Std. Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Onits Onits Output Output

MPN/100 mL denotes most probable number per 100 mL sample. Std. Units denotes standard units.

SURFACE WATER MONITORING

Because of the difficulty in monitoring bacteria in surface water, sample collection procedures must be described in a Sampling and Analysis Plan. Natural bacteria levels can vary significantly, and may be correlated with rainfall. When possible, surface water bacteria samples should be collected under dry weather conditions. It is critical when monitoring bacteria that all containers and surfaces a sample contacts are sterile. Sample containers must be autoclaved or manufactured to maintain sterility; use of screw top bottles, Whirl-pak bags, or similar containers is acceptable. The sample hold time for bacteria samples is typically no more than six hours. Monitoring shall include, at a minimum, the following:

Constituent	<u>Units</u>	Weather (Rain/Dry)	Sampling Frequency	Reporting Frequency
Escherichia coli (E. coli)ª	MPN/100 mL	Observation	Quarterly	Quarterly
Enterococci ^b	MPN/100 mL	Observation	Quarterly	Quarterly

MPN/100 mL denotes most probable number per 100 mL sample



Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

b. Using a minimum of 15 tubes or three dilutions.

Monitoring of the constituents zinc, phenol, and formaldehyde are required only when recreational vehicles were allowed to discharge to the wastewater system in the previous 12 months and at levels detected in the effluent.

a. Analysis by USEPA Method 1603 or equivalent.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

During the life of this General Order, the State Water Board or Regional Water Board may require the Discharger to electronically submit monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) program Internet web site or alternative database. Electronic submittal procedures will be provided when directed to begin electronic submittals. Until directed to electronically submit monitoring reports, the Discharger shall submit hard copy monitoring reports.

A. Quarterly Monitoring Reports

Quarterly reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g. the January-March Quarterly Report is due by May 1st). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

- 1. Results of all required monitoring.
- 2. A comparison of monitoring data to the discharge specifications, applicable effluent limits, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format.)
- 3. If requested by staff, copies of laboratory analytical report(s) and chain of custody form(s).

B. Annual Report

Annual Reports shall be submitted to the Regional Water Board by February March 1st following the monitoring year. The Annual Report shall include the following:

- 1. Tabular and graphical summaries of all monitoring data collected during the year.
- 2. An evaluation of the performance of the wastewater treatment facility, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation as described in the General Order (Provision E.2.c) shall also be submitted.
- 3. If disinfection with ultraviolet light is performed, describe disinfection system maintenance activities performed in the calendar year. The description shall address



inspections performed, lamp bulb replacement, lamp sleeve cleaning, and manufacturer recommended maintenance activities.

- 4. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
- 5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
- 6. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The Discharger shall implement the above monitoring program as of the date of this MRP.

Ordered by:

NAME, Executive Officer		

	(Date)	

