

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906**

**SUPPLIER AND DISTRIBUTOR
MASTER RECLAMATION REQUIREMENTS
ORDER NO. R3-2006-0041**

(Waste Discharger Identification No. 3 271026001)

FOR

**CALIFORNIA AMERICAN WATER (SUPPLIER), LAS PALMAS RANCH WATER
RECLAMATION PLANT; MONTEREY COUNTY (DISTRIBUTOR), CSA 72-LAS PALMAS
RANCH IRRIGATION FIELDS;
MONTEREY COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter Water Board), finds that:

FACILITY INFORMATION

1. California American Water (hereafter referred to as the "Supplier") owns and operates a wastewater collection, treatment, water recycling, and reclaimed wastewater storage facility (hereafter referred to as the "Facility" or "Las Palmas Ranch Water Reclamation Plant"). The Supplier also owns and operates an approximately two-acre reuse site for the land application of reclaimed wastewater adjacent to the Facility. The Facility was historically owned and operated by Monterey County Department of Public Works until approximately April 2003.
2. The Facility is located in northern Monterey County, south of River Road, approximately three miles southwest of the City of Salinas, as shown on Attachment "A" of this Order. The Facility address is 21702 River Road (HWY 68), Salinas. The lower reach of the Salinas River is adjacent to and north of River Road.
3. The Supplier provides wastewater collection and treatment services to the Las Palmas Ranch residential development consisting of 1,030 homes and a school. Future wastewater discharges to the Facility may include commercial facilities within the development.
4. The Supplier currently provides reclaimed domestic wastewater to various recycled water users primarily consisting of Las Palmas Ranch homeowners' associations (hereafter referred to as the "Users") for irrigation of common green space areas and parkways. Future additional Users will likely include additional Las Palmas Ranch homeowners associations (HOAs), private landowners, the County of Monterey, and other private entities. There are currently a total of fifteen existing and projected reuse sites. The reclaimed wastewater distribution and irrigation systems for the various reuse areas are owned and managed by the various Users. As noted above, the Supplier is also a User.
5. Monterey County Public Works (hereafter referred to as the "Distributor") currently acts as the distributor of the reclaimed wastewater to the various Users under Community Services Area (CSA) 72-Las Palmas Ranch Irrigation Fields. The County will act as the permitted Distributor until such time as the various Users establish the Las Palmas Ranch Irrigation Association. An agreement between the various Users and Supplier is also pending.

Item No. 9 Attachment No. 1
December 1, 2006 Meeting
Las Palmas Ranch Development

Treatment & Disposal

6. The Facility consists of two individual wastewater treatment plants identified as Plant 1 and Plant 2. The two plants are adjacent to each other. Plant 1 was completed and operational in September 1989 as part of the phase I Las Palmas Ranch development. Plant 2 was put into service on July 26, 1996, to provide additional wastewater treatment capacity for phase II of the Las Palmas Ranch development.
7. Both plants have similar treatment system configurations consisting of influent equalization basins, primary clarifiers, multiple stage trickling filters, secondary clarifiers (with chemical coagulation), sand filters, and chlorination facilities. Both plants share an influent rotary screen (at plant 2) and emergency three-day peak flow raw (influent) wastewater storage pond (2.54 acre-feet; 0.83 million gallons), as well as two effluent storage ponds in series with an aggregate storage capacity of 74.8 acre-feet (24.4 million gallons). Effluent storage pond 1 has a capacity of 33.3 acre-feet (approximately 10 million gallons) and effluent pond 2 has a capacity of 41.5 acre-feet (approximately 14.4 million gallons). The effluent storage ponds provide approximately 120 days of storage at average flows.
8. Plants 1 and 2 are reportedly designed to handle peak daily flow rates of 90,000 and 145,000 gallons per day (gpd), respectively. Influent flow data submitted by the Supplier as part of the 2005 annual monitoring report indicates average monthly flow rates for Plants 1 and 2 are approximately 62,000 gpd and 134,000 gpd, respectively, resulting in a combined average monthly influent flow of 196,000 gpd. (These values are an average of the average monthly flow rates provided by the Supplier.)
9. An evaluation of reported average monthly flows for 2005 by Water Board staff indicate there is no significant difference in average dry weather (May through October) and average wet weather (November through April) flows for either facility. The ratios of average wet weather flow to average dry weather flow for Plants 1 and 2 were 1.02 and 1.12, respectively, for 2005. Ratios close to one indicate a

relatively low incidence of inflow and infiltration.

10. An engineering report by CH2MHill¹ estimated that average dry weather and peak daily flows at build-out were 199,300 gpd and 257,700 gpd, respectively. A hydraulic stress-test conducted by CH2MHill² indicated that the Facility has sufficient capacity to handle projected buildout flows.
11. Tertiary wastewater treatment data for 2005 is summarized in the following table for both plants.

¹ Las Palmas Ranch Water Reclamation Facility Evaluation, CH2MHill, 2001

² Las Palmas Ranch Water Reclamation Plant Hydraulic Road-Test Report, CH2MHill, 2002

**Summary of 2005 Effluent Data for Las
Palmas Ranch Reclamation Facility**

Parameter	Plant 1	Plant 2
Annual average/minimum/maximum values (units are mg/L or as otherwise noted)		
Flow ^a (gpd)	61,935 14,485 108,418	134,163 35,670 250,140
BOD ₅ ^b	2.1 1.0 8	3.3 1.0 9
Total Suspended Solids ^b	6.8 1.0 23.2	9.4 3 24
Settleable Solids (ml/L)	<1.0	<1.0
Total Nitrogen (as N) ^c	20.9 16.5 25.2	22.7 16.3 28.7
Nitrate (as N) ^c		7.8 4.4 12.5
TDS ^d	915 890 948	915 878 948
Sodium ^d	149 143 159	156 135 168
Chloride ^d	216 207 231	227 210 238
Sulfate ^d	99 96 103	99 97 102
Boron ^d	0.43 0.40 0.48	0.47 0.42 0.52
pH ^c	7.8 7.1 8.1	7.5 6.8 8.4
Turbidity ^a (NTU)	1.5 0.03 6.1	2.1 0.30 11.3
Chlorine Residual ^a	4.4 0.9 6.0	2.8 0.6 6.0
Total Coliform ^{a, f} (mpn/100 ml)	2.6 <2.0 228	4.4 <2.0 866

Notes:

- a. Collected daily
- b. Collected weekly
- c. Collected quarterly

- d. Collected semiannually
- e. Determined from 2005 quarterly sampling of combined effluent required by Monterey County
- f. Daily effluent total coliform values consistently <2.0; reported maximum values for both plants resulted from one-time anomalous detections on 12/11/05; Plant 2 also had detections of 8 on 4/25/05 and 23 on 8/16/05.

12. Both reclamation plants currently treat the wastewater to a high level with regard biochemical oxygen demand (BOD) and total suspended solids (TSS) removal as would be expected for a tertiary treatment facility.
13. With the exception of anomalous total coliform data as noted in the effluent data summary table above, both plants regularly achieve an effluent quality that meets the Title 22 specifications³ for disinfected tertiary recycled water.
14. The Distributor's ROWD application indicates the Supplier intends to modify the Facility with the addition of emergency shutoff valves on the Facility storm drains, a redundant effluent transfer pump between the effluent storage ponds, and evaluate alternatives to or modify its existing chlorination facility.
15. The recycled wastewater is never sent directly to the distribution system or reuse areas. The treated effluent first flows to the lower storage pond before being pumped to the upper storage pond. The Supplier has a contingency plan⁴ to prevent the introduction of effluent that does not meet the Title 22 specifications for disinfected tertiary recycled water, or "off-specification" wastewater, from entering the distribution system in the event of equipment failure. Water Board staff reviewed the contingency plan as part of the Distributor's Report of Waste Discharge application. This Order requires the Supplier to review and update the contingency plan annually.
16. In the event of alarms indicating low effluent chlorine residual, high effluent turbidity, failure

³ Title 22, Division 4, Chapter 3, Section 60301.230 of the California Code of Regulations

⁴ August 2005, RMC, Proposed Pond #1 Monitoring Plan submitted as part of the Distributor's August 2005 Engineering Report for the Production, Distribution and Use of Recycled Water prepared by RMC.

of the emergency generator to start during a power outage, or other equipment failure, effluent can be manually diverted to the three-day emergency storage reservoir and the pump station between the two storage ponds can be shut-down. Maximum response time to an alarm is reportedly 30 minutes.

17. In the event that off-specification effluent is introduced into pond 1, the Supplier will implement a monitoring plan⁵ to ensure the wastewater meets Title 22 requirements prior to being pumped to pond 2. If necessary, off-specification wastewater in pond 1 will be redirected through the treatment Facility.
18. Biosolids (i.e., sewage sludge) generated at the Facility are dewatered at the Facility via a screw press and are disposed of at the Monterey Regional Landfill along with mixed plant wastes via a roll-off dumpster.

Water Supply

19. The potable water supply for Las Palmas Ranch is provided by California Water Service Company (not affiliated with the Supplier) via water supply well located within the northeast corner of the development as shown on Attachment B. The total depth and screen interval of the well is unknown. As shown in the following table, the water supply is of relatively good quality with regard to analyzed constituents.

Water Supply Quality Data for Las Palmas Ranch

Parameter (mg/L)	July 2002	July 2005
Total Dissolved Solids	583	615
Sodium	51	52
Chloride	60	66
Sulfate	91	88
Nitrate (as N)	3	2.59

Groundwater

20. The spray irrigation areas are located primarily on alluvial soils consisting of sands, gravels, and clays. There are perched groundwater zones beneath the disposal areas. Clay aquitards of unknown thickness depth in the

vicinity of the disposal areas likely separate the shallow groundwater from the deeper water bearing zones used for domestic supply as is generally consistent within the Salinas River groundwater basin.

21. There are three groundwater monitoring wells located adjacent to and within various reuse areas in the phase I development area as shown on Attachment B. Semiannual groundwater (receiving water) monitoring was required by the previous order in January and July for monitoring wells MW-1, MW-3, and MW-5. A total of six monitoring wells were proposed for the Facility; three within the phase I development and three within the phase II development area. However, only three monitoring wells were reportedly installed within the phase I development area. Groundwater monitoring data available in Water Board files for this facility is sporadic and consists of sampling data for the three installed monitoring wells, MW-1, MW-2, and MW-3 within the phase I development. An evaluation of available groundwater data is presented in the following table:

⁵ Proposed Pond #1 Monitoring Plan, prepared by RMC, August 2005; attached to Distributor's ROWD application

Summary of Semiannual Groundwater Data

Parameter	MW-1	MW-2	MW-3
	Avg/Min/Max ^a (mg/L)		
Groundwater Depth (ft)	63.3	45.4	21.4
	58.6	39.4	19.4
	72.0	54	23.2
Total Dissolved Solids	153	1518.3	1471.7
	20	1320	1350
	324	1670	1620
Sodium	22.4	143.5	113.8
	8	95	88
	56	160	147
Chloride	33.5	174	129
	3.7	148	109
	134	238	196
Sulfate	8	278.8	269.8
	4.1	151	188
	16	370	302
Boron	0.18	0.34	0.34
	0.12	0.24	0.20
	0.30	0.54	0.50
Nitrate (as N)	0.5	11.2	11.0
	0.1	10.0	9.5
	1.6	12.1	13.2

Notes:

- a. Average, minimum and maximum values calculated from six samples collected 1/14/99, 8/25/99, 7/24/02, 1/30/03, 1/12/05, and 7/13/05; 8/25/99 and 1/30/03 data submitted for MW-1 and MW-3 transposed
22. Available groundwater data appears to be for first encountered shallow groundwater in the vicinity of the monitoring well locations. Well construction details were not available for the facility monitoring wells. No apparent trends in groundwater quality were noted for individual wells; however, significant differences in water quality are apparent based on well location and depth to groundwater. MW-1 is located in an area of higher ground surface elevation as compared to MW-2 and MW-3, and the average depth to groundwater in MW-1 is approximately 20 to 40 feet greater than for MW-2 and MW-3.
23. The presented groundwater data indicates that groundwater in the vicinity of MW-1 is of a much higher quality than for areas around MW-2 and MW-3. Groundwater in the vicinity of MW-2 and MW-3 is of marginally better quality than median water quality objectives for the 180-foot aquifer (although

TDS levels are at or near the median objective, other salts are below the applicable objectives). Poorer groundwater quality in the vicinity of MW-2 and MW-3 is likely the result of historical agricultural practices in the area. This is supported by the relatively high concentrations of total dissolved solids (TDS), sulfate and nitrate in MW-2 and MW-3 as compared to MW-1. Additional monitoring wells as proposed for the phase II development area are required to evaluate groundwater quality beneath the phase II irrigation areas.

Surface Water

24. Water quality data for the reach of the Salinas River upstream and downstream of the Development and reuse irrigation areas is available on the Central Coast Ambient Monitoring Program (CCAMP) website⁶. CCAMP is the Central Coast Regional Water Quality Control Board's regionally scaled water quality monitoring and assessment program. The following table is a summary of selected data for two surface water sampling stations; Salinas River at Chualar Bridge on Chualar River Road, approximately eight miles upstream of the Development, and Salinas River at Davis Road (Bridge), approximately four miles downstream of the Development.

⁶ www.ccamp.org

**Summary of Selected CCAMP Data for
Salinas River**

Parameter	Chualar Bridge ^a	Davis Road ^b
average/minimum/maximum values (units are mg/L or as otherwise noted)		
Flow ^c (ft ³ /sec)	192 0 3,470	
Total Nitrogen (as N)	-	7.2 ^g 0.5 28
Nitrate (as N)	2.33 ^d 0.18 6.02	9.8 ^h 0.3 42.2
TDS	470 ^e 340 740	1,072 ⁱ 246 14,200
Sodium	35.5 ^f 23 61	83 ^j 21 220
Chloride	32 ^d 12 65	108 ^k 11 1,070
Sulfate	-	175 ^l 68 390
Boron	0.16 ^f 0.11 0.24	65 ^j - 480
Total Coliform (mpn/100 ml)	3,025 ^d 30 30,000	18,994 ^m 50 240,000

Notes:

- Chualar River Road bridge crossing approximately 8 miles upstream of Development
- Davis Road bridge crossing approximately 4 miles downstream of Development
- Based on 75 years of USGS data up to 05/04/06 from Spreckles gauging station; 1 ft³/sec = 6.46x10⁵ gallons per day
- Based on 12 samples collected between 02/99 and 04/00
- Based on 9 samples collected between 02/99 and 01/00
- Based on 8 samples collected between 06/99 and 02/00
- Based on 10 samples collected between 07/02 and 11/04
- Based on 40 samples collected between 02/99 and 11/04
- Based on 36 samples collected between 02/99 and 11/04
- Based on 29 samples collected between 05/99 and 11/04
- Based on 33 samples collected between 02/99 and 11/04

- Based on 11 samples collected between 05/99 and 11/04
- Based on 37 samples collected between 02/99 and 08/04

25. Comparison of upstream and downstream data indicates significant degradation of surface water quality in the Salinas River between the Chualar River Road bridge crossing and the Davis Road bridge crossing. The observed impacts are likely attributable to the significant contribution of agricultural runoff, recharge of shallow impacted groundwater into the river channel,⁷ and the City of Salinas storm drain discharge to the Salinas River just upstream of the Davis Road bridge. Comparison of this data is somewhat suspect because the timing of upstream and downstream sampling events did not always coincide. Therefore, a portion of the observed impacts may also be attributable to variations in river flow and quality, and flow contributions at the time of sampling.

26. The average effluent flow for the Facility is approximately 0.28% of the average Salinas River flow. Any incidental runoff from the reuse irrigation areas would be a minor fraction of the total effluent flow and would constitute an even lower contribution to the Salinas River. Potential incidental runoff to the Salinas River would likely occur during significant storm events and higher Salinas River flows resulting in runoff flows and constituent loading to the Salinas River being virtually imperceptible.

PURPOSE OF ORDER

27. The Facility was formerly permitted under Waste Discharge and Water Reclamation Requirements Order No. 91-14 issued to Monterey County (Monterey County Service Area No. 72) by the Board on January 11, 2001. This Order reflects the change in ownership and updates various requirements, particularly the 2001 updated Title 22 regulations for recycled water. Order No. 91-14 included both Supplier and user requirements for one permitted entity.

⁷ Shallow groundwater quality generally trends towards increasing nutrient and salt concentrations along the reach of the Salinas River downstream of the Chualar River Road bridge crossing.

This Order also combines Supplier and distributor/user master reclamation requirements. However, these requirements apply to two separate entities designated as a Supplier and a Distributor.

28. The Supplier submitted a report of waste discharge (ROWD) application on August 11, 2003, following transfer of treatment facility ownership from Monterey County. This application was only for the production of recycled wastewater and did not include the distribution or user aspects of the reclamation project owned and managed by the various Las Palmas Ranch HOAs. Staff did not process the application pending the formation of the Las Palmas Ranch Irrigation Association to act as the permit holder for the distributor master water reclamation requirements.
29. The Distributor submitted an ROWD application on November 17, 2005 in an effort to acquire an interim permit for the distribution of the reclaimed wastewater to facilitate the implementation of additional reuse areas. The County will act as the interim Distributor until such time as the various Users establish a legal entity capable of managing the distribution of the reclaimed wastewater. At that time, the entity may apply for a modification to this Order substituting it for Monterey County Department of Public Works as the Distributor. The Distributor's obligations under this Order shall continue until the Water Board approves a modification or rescinds the Order.
30. Limited reuse areas combined with prolonged and significant storm events have resulted in emergency discharges to the Salinas River via over irrigation of spray fields tributary to the storm water retention pond on Las Palmas Parkway. Such a discharge recently occurred between January 29, 2005 and February 15, 2005, and resulted in an unknown volume of tertiary-treated wastewater being discharged to the Salinas River. Average flows in the Salinas River during the event were approximately 800 ft³/sec. Anecdotal evidence indicates that similar events occurred in January and December 2003.
31. More recently, Supplier initiated the emergency disposal of tertiary-disinfected wastewater on May 17, 2006 to emergency sprayfields conditionally approved on July 8, 2005. Application of recycled effluent to the emergency sprayfields was to prevent the at-capacity effluent storage ponds from backing up into the Facility and potentially resulting in the release of untreated or partially treated wastewater from the Facility.
32. Additional irrigation reuse areas are needed to draw down the effluent storage ponds prior to the wet season and to avoid future emergency discharges. Additional measures such as additional storage or alternative discharges may also be appropriate to deal with effluent flows when application of the recycled effluent is not permissible due to saturated reuse area conditions or rain events. However, the existing effluent storage ponds should provide sufficient capacity (120 days at average monthly effluent flows) if the irrigation of the reuse areas is properly managed.
33. Water balance analyses for the existing reuse irrigation areas and emergency discharges from the Facility indicate that additional reuse areas are needed to meet existing reclaimed wastewater flows during above average wet seasons. Order No. 91-14 restricted the disposal of reclaimed wastewater to approved areas. The Distributor intends to add approximately 40 acres of additional reuse areas.
34. This Order allows the Distributor to authorize additional reuse projects on a case-by-case basis in accordance with this Order and a permit-based program of rules and regulations for recycled water users.
35. The Supplier and Distributor will document compliance with all conditions of the respective supplier and distributor requirements of this Order and of Title 17 and Title 22 of the California Code of Regulations (CCR) as applicable.
36. The Distributor will demonstrate compliance with all applicable use area requirements to the satisfaction of the California Department of Health Services (DHS), and provide documentation thereof to the Water Board, for

new reuse areas prior to initiating irrigation with recycled wastewater. The Distributor will maintain and submit all information required per the applicable distributor master reclamation requirements order and coordinate irrigation needs of the Users for the reuse areas with the Supplier.

37. The Supplier and Distributor requirements of this Order do not prohibit the Supplier, Distributor or Users from investigating other potential reuse or disposal strategies as may be required to adequately handle reclaimed wastewater flows. However, discharges of reclaimed wastewater from the Facility must comply with this Order.
38. Alternative reuse or discharge strategies beyond the scope of the respective Supplier or Distributor requirements of this Order will require submittal of a report of waste discharge by the Supplier, Distributor, or Users, as applicable, to the Water Board for the issuance of revised waste discharge requirements prior to implementation.
39. Decisions regarding the funding and cost-sharing for ongoing operation and maintenance of reclamation related facilities, treatment system upgrades, and the construction of new distribution systems and reuse areas are the collective responsibility of the Supplier, Distributor and Users. Legal agreements between the Supplier, Distributor and Users should be in place to facilitate these activities in an effective and timely manner. Failure to enter such agreements does not excuse non-compliance with any requirement of this Order.

APPLICABLE LAW

Reclamation

40. California Water Code Section 13510 states that the people of the state have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state.
41. Section 13523.1 of the California Water Code authorizes regional water boards to issue master reclamation permits to a supplier and/or

distributor of recycled water in lieu of prescribing water reclamation requirements for a user of recycled water. Water Board Water Board After the regional water board issues a master reclamation permit, Section 13522.5(e) exempts any such user of recycled water from the requirement to file a report with a regional water board related to any material change in the character of the recycled water or its use, except when requested by the regional water board. This Order is intended to be a master reclamation permit that is consistent with Section 13523.1.

42. California Water Code Section 13512 states that it is the intention of the legislature that the State undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water demands of the State.
43. California Water Code Section 13576(e) states that the use of recycled water has proven to be safe from a public health standpoint and that the State Department of Health Services is updating regulations for the use of recycled water.
44. Section 13523.5 of the California Water Code states that a Water Board may not deny issuance of water reclamation requirements to a project which violates only a salinity standard in the basin plan.
45. On February 20, 1996, a Memorandum of Agreement (MOA) was executed between the California Department of Health Services and the State Water Resources Control Board (State Water Board), on behalf of the State Water Board and nine California Regional Water Quality Control Boards. The MOA allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and mechanisms necessary to assure ongoing and continuous future coordination of activities relative to the use of recycled water in California.
46. California Water Code Section 13523 provides that a regional water board, after consulting with and receiving the recommendations of the State Department of Health Services, and if it determines such action to be necessary to protect the public health, safety, or welfare,

shall prescribe water reclamation requirements for water which is used or proposed to be used as recycled water. The use of recycled water could affect the public health, safety, or welfare, and requirements for those uses are, therefore, necessary in accordance with the California Water Code.

47. California Water Code Section 13523.1 provides that (a) Each regional board, after consulting with, and receiving the recommendations of, the State Department of Health Services and any party who has requested in writing to be consulted, with the consent of the proposed permittee, and after any necessary hearing, may, in lieu of issuing waste discharge requirements pursuant to Section 13263 or water reclamation requirements pursuant to Section 13523 for a user of reclaimed water, issue a master reclamation permit to a supplier or distributor, or both, of reclaimed water.

(b) A master reclamation permit shall include, at least, all of the following:

- (1) Waste discharge requirements, adopted pursuant to Article 4 (commencing with Section 13260) of Chapter 4.
- (2) A requirement that the permittee comply with the uniform statewide reclamation criteria established pursuant to Section 13521. Permit conditions for a use of reclaimed water not addressed by the uniform statewide water reclamation criteria shall be considered on a case-by-case basis.
- (3) A requirement that the permittee establish and enforce rules or regulations for reclaimed water users, governing the design and construction of reclaimed water use facilities and the use of reclaimed water, in accordance with the uniform statewide reclamation criteria established pursuant to Section 13521.
- (4) A requirement that the permittee submit a quarterly report summarizing reclaimed water use, including the total amount of reclaimed water supplied, the total number of reclaimed water use sites, and the locations of those sites, including the names of the hydrologic areas underlying the reclaimed water use sites.

(5) A requirement that the permittee conduct periodic inspections of the facilities of the reclaimed water users to monitor compliance by the users with the uniform statewide reclamation criteria established pursuant to Section 13521 and the requirements of the master reclamation permit.

(6) Any other requirements determined to be appropriate by the regional board.

48. California Department of Health Services' criteria for the treatment and use of recycled water are promulgated in Title 22, Division 4, Chapter 3, Sections 60301-60355 of the California Code of Regulations (CCR).

Basin Plan

49. The Water Quality Control Plan, Central Coast Basin (Basin Plan) was adopted by the Water Board on November 19, 1989, and approved by the State Water Resources Control Board (State Board) on August 16, 1990. The Water Board approved amendments to the Basin Plan on February 11, 1994, and September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the Basin Plan.
50. The Basin Plan designates the existing and anticipated beneficial uses of groundwater in the vicinity of the land discharge to include:
- a. Municipal and Domestic Water Supply;
 - b. Agricultural Water Supply
 - c. Industrial Process Supply; and,
 - d. Industrial Service Supply.
51. The Basin Plan specifies median water quality objectives for certain groundwater basins, which are intended to serve as a baseline for evaluating water quality management in the basin. The objectives are, at best, representative of gross areas only, and are as follows for the 180 and 400 foot aquifer sub-area of the Salinas River groundwater basin beneath the Facility and recycled water irrigation reuse areas:

**Median Groundwater Objectives for the
Salinas River/180 Foot Aquifer
Groundwater Sub-basin/Sub-area**

Parameter	Concentration (mg/L)
TDS	1500
Cl	250
Sulfate	600
Boron	0.5
Sodium	250
Nitrate as N	1

Excerpted from Table 3-8, page III-16 of the Basin Plan

**Median Groundwater Objectives for the
Salinas River/400 Foot Aquifer
Groundwater Sub-basin/Sub-area**

Parameter	Concentration (mg/L)
TDS	400
Cl	50
Sulfate	100
Boron	0.2
Sodium	50
Nitrate as N	1

Excerpted from Table 3-8, page III-16 of the Basin Plan

52. The Salinas River is the closest surface water body to the Facility and reuse areas. The Basin Plan designates existing and anticipated beneficial uses of the Salinas River along the reach adjacent to the Facility and reuse areas (upstream of the Spreckles Gauge to Chular) that could be affected by the discharge to include:

- a. Municipal and Domestic Supply;
- b. Agricultural Water Supply;
- c. Industrial Process Supply;
- d. Industrial Service Supply;
- e. Groundwater Recharge;
- f. Water Contact Recreation;
- g. Non-Contact Water Recreation;
- h. Wildlife Habitat;
- i. Cold Freshwater Habitat;
- j. Warm Freshwater Habitat;
- k. Migration of Aquatic Organisms;
- l. Commercial and Sport Fishing.

53. The Basin Plan specifies water quality objectives for certain surface waters, which are

intended to serve as a baseline for evaluating water quality management in the basin. The objectives are, at best, representative of gross areas only, and are based on preservation of existing quality or water quality enhancement believed attainable following control of point sources. Water quality objectives are as follows for the Salinas River above Spreckles.

**Surface Water Quality Objectives for the
Salinas River (Above Spreckles)**

Parameter	Concentration (mg/L)
TDS	600
Cl	80
Sulfate	125
Boron	0.2
Sodium	70

Excerpted from Table 3-7, page III-13 of the Basin Plan

54. Municipal and domestic water supply beneficial use designations are applied to receiving waters in accordance with the provisions of State Water Resources Control Board Resolution No. 88-63. Resolution 88-63 designates all surface and groundwater within the State as suitable or potentially suitable for municipal or domestic supply except where:

- a. TDS exceeds 3,000 mg/L (5,000 uS/cm electrical conductivity);
- b. Contamination exists, that cannot reasonably be treated for domestic use; or,
- c. The source is not sufficient to supply an average sustained yield of 200 gallons per day.

55. Per Resolution 88-63, the Basin Plan designates all groundwater throughout the Central Coast Basin, except for that found in the Soda Lake Sub-basin, suitable for agricultural supply, municipal and domestic water supply, and industrial use.

56. Numeric inorganic constituent guidelines and water quality objectives for agricultural supply beneficial use are listed in Basin Plan Tables 3-3 and 3-4 on pages III-8 and III-9, respectively.

57. Section II.A.4. (Objectives for Groundwater) of the Basin Plan contains both narrative and numeric groundwater quality objectives for the

protection of municipal and domestic water supply beneficial uses. The narrative water quality objectives reference both primary and secondary Maximum Contaminant Levels (MCLs) for drinking water supply.

58. Primary MCLs for various constituents are set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
59. The narrative groundwater objectives found on page III-14 of the Basin Plan state, "Groundwater shall not contain taste or odor producing substances at concentrations that adversely affect beneficial uses." The Department of Health Services has established secondary MCLs for certain substances that will cause adverse taste and/or odor in drinking water. Secondary MCLs are generally presented as recommended, upper, and short-term water supply limits based on consumer acceptance levels. "Recommended" concentrations are desirable for a higher degree of consumer acceptance. "Upper" concentrations are acceptable if it is neither reasonable nor feasible to provide more suitable waters for supply. "Short-term" concentrations are acceptable only for existing systems on a temporary basis pending construction of treatment facilities or development of acceptable new water sources.
60. There are no narrative or numeric water quality objectives for the protection of the industrial supply beneficial use. Acceptable constituent levels for industrial use vary significantly from one industry to the next. For example, excessive salinity in industrial supply waters may impair beneficial use through such factors as scaling and corrosion or elevated salt concentrations for food processing industries. Certain industries may require extremely low salinity levels only achievable through pretreatment prior to use, even in cases where supply water has low salinity in comparison to other standards. It is therefore essentially impossible to ensure groundwater quality suitable for all industrial uses, as naturally occurring minerals may contribute salinity levels in excess of what is acceptable for certain types of industry. Thus, Water Board staff believes protection of agricultural, municipal and domestic supply

beneficial uses will be reasonably protective of most industrial uses.

Anti-Degradation

61. Any change in water quality authorized by these waste discharge requirements will not violate SWRCB Resolution 68-16
62. Resolution 68-16 provides if there is degradation of water quality it must not "unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed [by water quality control] policies." In short, the degradation may not violate water quality objectives or in the absence of objectives, must not unreasonably affect existing and designated beneficial uses. Also, if there is degradation the Board must determine that it has been demonstrated the change "will be consistent with the maximum benefit to the people of the State."
63. The application of disinfected tertiary recycled water to appropriately sited, designed and managed reuse areas as authorized by this Order will not cause degradation of receiving waters including Salinas River, Monterey Bay, and groundwater. This permit requires that recycled water meeting California Code of Regulations Title 22 criteria for disinfected tertiary recycled water be applied to applicable reuse areas at times and rates which do not result in surface runoff and minimizes the leaching of water, nutrients, and minerals to groundwater. In addition, this Order requires that no waste constituents be discharged at concentrations that exceed Basin Plan water quality objectives or background conditions in the groundwater basin or that exceed the assimilative capacity of the groundwater basin. Although the prescribed effluent limits are in excess of applicable surface water quality objectives for the Salinas River, any incidental runoff from reuse areas will not constitute an appreciable flow or constituent contribution to the Salinas River.
64. Wastewater reclamation is being implemented at this Facility to maximize the potable water supply. The reclamation project directly and incidentally provides a net environmental benefit by minimizing potable water supply

usage that would otherwise be utilized for routine landscape irrigation and by reducing seawater intrusion into the Salinas River groundwater basin by decreasing the amount of groundwater pumping within inland portions of the basin.

65. The Water Board finds that the application of disinfected tertiary recycled water for irrigation purposes will not degrade receiving water quality. Even if it did cause degradation the discharge would not cause or contribute to receiving water quality that is less than necessary to protect existing and potential beneficial uses. Any water quality degradation that may be authorized under this Order is necessary to accommodate important economic or social development and is consistent with the maximum benefit to the people of the State.

TMDL

66. Section 303(d) of the Clean Water Act requires states to identify and prepare lists of water bodies that do not meet water quality standards and to establish Total Maximum Daily Loads (TMDL) for listed water bodies.
67. The Salinas River and several of its tributaries are on the 303(d) list as impaired due to elevated concentrations of nutrients and fecal coliform. Waste load and load allocations will be developed for sources of nutrients and fecal coliform in the Salinas River, the Salinas River Lagoon (north), the Old Salinas River Estuary, as well as other water bodies within the Salinas River watershed. Allocations will be proposed in two separate TMDLs and presented to the Water Board for approval, after a 45-day public review period, at a regular Water Board meeting within the first six months of 2007 (anticipated). If Water Board staff determine that discharges from the Facility are causing or contributing to nutrient or fecal coliform related water quality impairment, waste discharges described in this Order may be modified to meet the allocations described in a proposed TMDL.

Biosolids Handling and Disposal

68. 40 CFR Part 503 sets forth the United States Environmental Protection Agency (USEPA) final rule for the use and disposal of biosolids,

or sewage sludge, and governs the final use or disposal of biosolids. The intent of this Federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment.

69. The promulgated regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not this Water Board, will oversee compliance with 40 CFR Part 503. See Paragraph C.6, *Supplier Requirements*, and MRP Section E, *Solids/Biosolids Monitoring*.
70. 40 CFR Part 503.4 (Relationship to other regulations) states that the disposal of sewage sludge in a municipal solid waste landfill unit, as defined in 40 CFR 258.2, that complies with the requirements in 40 CFR part 258 constitutes compliance with section 405(d) of the CWA. Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit must ensure that the sewage sludge meets the requirements in 40 CFR Part 258 concerning the quality of materials disposed in a municipal solid waste landfill unit.

Sanitary Sewer Overflows

71. The Supplier's sanitary sewer system collects wastewater using pipes, pumps, and/or other conveyance systems, and directs the raw sewage to the wastewater treatment facility. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the wastewater treatment facility. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system, and discharges to these facilities are not considered sanitary sewer overflows provided that the waste is fully contained within these temporary storage/conveyance facilities.
72. Sanitary sewer overflows can consist of varying mixtures of domestic sewage, industrial wastewater, and commercial wastewater. The

mixture generally depends on the pattern of land use in the sewage collection system area tributary to an overflow location. The chief causes of sanitary sewer overflows include, but are not limited to, line blockages due to grease, roots, or debris, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or ground water inflow/infiltration, lack of capacity, and contractor-related incidents.

73. Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Sanitary sewer overflows can pose a threat to public health, cause temporary exceedances of applicable water quality objectives, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.
74. The State Water Resources Control Board adopted Statewide General Waste Discharge Requirements for sanitary sewer systems and the associated monitoring and reporting program by issuing Order No. 2006-0003 (General Order) on May 2, 2006.
75. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to apply for coverage under and comply with the terms of the General Order.
76. The wastewater collection system and treatment facility are owned and operated by the Supplier, a privately owned company. As a privately owned facility the Supplier is not required to apply for coverage under the General Order. This Order contains a provision requiring the Supplier implement a sewer system management plan and to report and track overflow events. The sewer system management plan requirements contained within this Order (see Attachment C) are consistent with the General Order.

EVALUATION OF NUTRIENT AND SALT LOADING TO THE GROUNDWATER BASIN

77. The Regional Board sets effluent limitations to protect surface water and groundwater based on several factors in the Basin Plan. It must consider Tables 3-7 (page III-13) and 3-8 (page III-16) which list numeric water quality "objectives" for specific sub-basins and sub-areas. The Basin Plan states these "objectives" are "to serve as a water quality baseline for evaluating water quality management." The Basin Plan continues, "the values are at best representative of gross areas only." Thus, concentration limitations are not true water quality objectives that must be imposed in every portion of the sub-basin but instead are a starting point for water quality management. The Basin Plan explains that on a case-by-case basis the Water Board must consider other water quality objectives in the Basin Plan, existing and probable beneficial uses and actual groundwater quality naturally present (Basin Plan pages III-12 and III-15).

Nutrient Loading

78. Effluent sampling of both Plants for total nitrogen has been the only nutrient analysis conducted by the Supplier as required by the previous permit. However, Monterey County requires quarterly sampling of combined effluent from the effluent storage ponds for nitrate. Comparison of treatment system effluent total nitrogen and effluent storage pond nitrate data for 2005 in the data summary table is inconclusive with regard to the level of nitrification achieved in the multiple stage trickling filters due to differences in sampling location and timing. A relatively low amount of effluent ammonia would be normal for trickling filters, and under proper conditions nitrification would be expected to go essentially to completion. Consequently, the relatively high ratio of total nitrogen to nitrate based on available data is likely a result of a combination of factors including incomplete nitrification, additional nitrogen loading to the effluent storage ponds from migratory waterfowl, and nutrient cycling within the effluent storage ponds.

79. Given the potential nutrient benefits of the reclaimed wastewater for irrigation purposes, complete nitrification and subsequent denitrification is not essential. However, nitrogen loading to the groundwater basin as a result of the application of recycled water is a water quality concern. The application of nutrients in excess of the crop or landscaping demand can result in the leaching of nutrients beneath the root zone and the contamination of groundwater. The California Department of Health Services (DHS) has established a maximum contaminant level (MCL) for drinking water for nitrate of 45 mg/L (10 mg/L as nitrogen). Review of available groundwater data indicate shallow groundwater in the vicinity of irrigation area monitoring wells MW-2 and MW-3 already exceeds the MCL for nitrate. Review of Facility data indicate the Supplier is producing an effluent with annual average nitrate concentrations of less than the MCL.
80. To limit the leaching of nitrate to groundwater, the recycled water must be applied in an amount that will not cause nitrogen within the root zone to exceed the agronomic crop demand for nitrogen. When applying recycled water and nitrogen containing fertilizers, the total amount of nitrogen applied should take into consideration the amount of nitrogen required by the plants being irrigated while minimizing leaching of nitrogen below the root zone.
81. The preparation and implementation of a nutrient management plan is warranted to ensure recycled wastewater is applied at rates that will protect beneficial uses of the receiving water. This Order requires the Distributor, in conjunction with the Users, to prepare and implement a nutrient management plan.

Salt Loading

82. The effluent concentrations of TDS, sodium, and chloride are roughly one and a half, three, and four times the water supply concentrations, respectively. These increases are likely attributable to domestic use and self-regenerating type water softeners. Water supply and effluent sulfate concentrations are roughly the same, and boron data for the water supply is

not available. Delivered concentrations of these salts to the reuse areas are likely higher due to evaporation of wastewater from the effluent storage ponds⁸.

83. Irrigation projects, whether using fresh water or recycled wastewater, will contribute salt loading to the groundwater basin. Whether the salt loading will cause or contribute to exceedances of water quality objectives for salts in groundwater or impact beneficial uses depends on the extent to which the salts are diluted by other inflows of water to the basin.
84. The prolonged application of recycled wastewater can result in the buildup of salts in the soil column and leaching to groundwater. The evaporation and transpiration of the applied recycled wastewater concentrates salts in the root zone. Heavy rainfall or excessive irrigation will leach the accumulated salts from the root zone into the deeper vadose zone, where they accumulate and may eventually percolate to groundwater. This problem occurs for both freshwater and recycled water. However, recycled water generally contains higher salt concentrations than freshwater, resulting in higher salt loading.
85. Some plants are sensitive to the various salt ions in recycled wastewater. This Order is intended to prevent the application of recycled wastewater from impacting groundwater and to protect beneficial uses, including agricultural water supply. However, this Order does not ensure the application of recycled wastewater to the reuse areas will not cause damage to the vegetation being irrigated. This should be specified in contracts between the Supplier, Distributor and Users.
86. A salt balance and evaluation of the assimilative capacity of the groundwater basin beneath the reuse areas is generally needed to determine whether the salt loading will cause or contribute to exceedances of water quality objectives for salts in groundwater. The potential impact from salt loading is dependent on a number of factors, including the recycled wastewater application rate and salt

⁸ Effluent samples are collected at the end of the treatment systems prior to the effluent storage ponds.

concentrations, the background concentration of salts within the groundwater basin, additional salt loads to the basin, depth to groundwater, physical and chemical hydrogeology, and the extent to which the salt is diluted by other inflows of water to the basin. An allowance for dilution is generally provided to allow irrigation projects that use recycled wastewater. This allowance, however, can only be provided if assimilative capacity is available.

87. The evaluation of whether assimilative capacity is available is generally based on three criteria consisting of the following:
- groundwater quality in the vicinity of the application areas is below the applicable Basin Plan water quality objectives;
 - sub-basin or basin-wide salt balance, as appropriate, indicates the average recharge concentration of salts does not exceed the applicable Basin Plan water quality objectives; and
 - the recycled wastewater discharge will not impact any existing or potential future water supply wells.
88. Comparison of available groundwater data with applicable water quality objectives indicates shallow groundwater quality in the vicinity of the recycled wastewater irrigation areas already exceeds the median water quality objective for TDS of 1,500 mg/L for the 180-Foot Aquifer sub-area of the Salinas River groundwater basin, and the median water quality objectives for TDS, chloride, sulfate, boron, and sodium for the 400-Foot Aquifer sub-area of the Salinas River groundwater basin.
89. In the absence of median water quality objectives in the Basin Plan for the shallow groundwater perched above the 180-Foot Aquifer it is appropriate to apply the median water quality objectives for the 180-foot aquifer and the narrative water quality objectives for the protection of designated beneficial uses (i.e. the secondary MCLs) to the perched shallow groundwater.
90. The salt-related secondary MCLs applicable to this discharge are summarized as follows:

**Secondary Maximum Contaminant Levels
(mg/L)**

Parameter	Recom- mended	Upper	Short- Term
TDS	500	1,000	1,500
Chloride	250	500	600
Sulfate	250	500	600

91. Average effluent TDS, sodium, chloride, sulfate, and boron concentrations are less than the water quality objectives for the 180-Foot Aquifer sub-area of the Salinas River groundwater basin, but are equal to or exceed the water quality objectives for the 400-Foot Aquifer sub-area of the Salinas River groundwater basin.
92. The median TDS, chloride and sulfate water quality objectives for the 180-Foot Aquifer correspond to the short-term, recommended, and short-term secondary MCLs, respectively. The median water quality objectives for the 400-Foot Aquifer are less than the secondary MCLs for these constituents. The average TDS and sulfate concentrations in shallow groundwater in the vicinity of the reuse areas exceed the short-term and recommended secondary MCLs, respectively.
93. Available data indicate shallow groundwater already exceeds secondary MCLs for TDS and sulfate. However, available data do not indicate the ongoing irrigation of recycled wastewater within and surrounding the Development will impact the deeper water bearing zones (180- or 400-foot aquifers). The shallow groundwater zone and 180-foot and 400-foot aquifers are separated by clay aquitards of varying depth and thicknesses throughout the basin. In addition, it is impossible to ascertain natural background shallow groundwater quality near the Facility for salt constituents because years of agricultural and waste disposal uses in the area have probably contributed to the observed salt levels.
94. Comparison of Facility effluent data, shallow groundwater data, and applicable water quality criteria (median water quality objectives for the 180-Foot Aquifer and secondary MCLs) indicates recharge of shallow groundwater with the recycled effluent will likely result in improved water quality with respect to TDS

and sulfate concentrations in shallow groundwater. Whereas, recharge of shallow groundwater with the recycled effluent will likely increase sodium, chloride, and boron concentrations in the shallow groundwater over time. However, sodium, chloride and boron are being discharged at concentrations below the applicable water quality objectives and are not expected to result in shallow groundwater concentrations in excess of the applicable water quality objectives or impact beneficial uses.

95. Given the only other significant recharge contributions to the groundwater basin in the vicinity of the reuse areas are from higher quality (relatively lower salt concentrations) rain water and the percolation of Salinas River water, the average recharge concentration of salts is likely less than the applicable Basin Plan water quality objectives. However, a basin wide evaluation of salt loading incorporating agricultural irrigation inputs and sea water intrusion into the groundwater basin may indicate that the average recharge concentration of salts exceeds the applicable water quality objectives.
96. There is not sufficient evidence to support a finding that the Supplier, Distributor, or Users should be required to conduct a sub-basin or basin wide salt balance and assimilative capacity evaluation. Such a requirement would be overly burdensome and onerous given State policy encouraging water reclamation, the extent of the groundwater basin and the relatively small volume of this discharge relative to additional contributing sources of groundwater recharge. Moreover, available data indicate the discharge is in compliance with water quality objectives and is protective of beneficial uses.
97. However, salt load monitoring, evaluation, and reporting requirements for the recycled water discharge along with the evaluation of potential effluent salt reduction measures are appropriate and warranted to verify compliance with this Order and protect water quality. In addition, this data may be utilized for a basin wide salt balance conducted by others. The Supplier requirements contained within this Order require the Supplier to document effluent salt concentrations; whereas the Distributor

requirements require the Distributor to implement a salts management plan to evaluate and document salt loading to the individual reuse areas as well as the aggregate salt loading to the basin.

98. For recycled wastewater irrigation projects, best practicable treatment and control is generally considered to be oxidation, filtration, disinfection, application at agronomic rates, and the implementation of source controls to effectively control salt loads from commercial and industrial facilities. The Facility currently implements best practicable treatment. However, discharges to the Facility consist almost entirely of domestic wastewater from residential units. Therefore, commercial and industrial source control is unnecessary.
99. Effluent salt loading may be reduced by limiting or prohibiting the use of self-regenerating water softeners within the community. Per California Health and Safety Code Section 116786 a local agency⁹ may adopt an ordinance to limit the availability or prohibit the installation of residential self-regenerating water softeners. Before adopting such an ordinance, the local agency must find that this action is necessary to achieve compliance with waste discharge requirements, water reclamation requirements, or a master reclamation permit. The local agency must also adopt and enforce regulatory requirements that limit the volumes and concentrations of saline discharges from nonresidential sources to the extent technologically and economically feasible.
100. The use of alternative disinfection methods instead of chlorination, such as ultraviolet disinfection, that do not add chloride to the recycled water can also reduce effluent salt loading.

MONITORING & REPORTING PROGRAM

101. Monitoring and Reporting Program No. R3-2006-0041 is a part of the Order. The

⁹ "Local Agency," as defined in Health and Safety Code Section 116780, means a city, county, city and county, district, or any other political subdivision of the state.

Monitoring Program requires routine water supply, influent, effluent, groundwater, and facility monitoring to verify compliance with the Order and ensure protection of water quality.

102. As with this Order, the Monitoring and Reporting Program contains general requirements that apply to the both the Supplier and Distributor and specific requirements for the designated Supplier and Distributor.

ENVIRONMENTAL REVIEW

103. These waste discharge requirements are for an existing facility and are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Section 15301, Chapter 3, Title 14, of the California Code of Regulations.

EXISTING ORDERS & GENERAL FINDINGS

104. The Facility, including production and distribution of reclaimed wastewater, was formerly regulated by Waste Discharge and Water Reclamation Requirements Order No. 91-14, adopted by the Regional Water Quality Control Board on January 11, 1991.
105. Since the Supplier's design flow does not exceed one MGD, storm water discharges from the Facility do not have to be regulated under the State Water Resources Control Board's General Industrial Activities Storm Water Permit. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan and Best Management Practices.
106. Storm water collected from the plant treatment area is discharged into the treatment system via the emergency three-day influent storage pond adjacent to the treatment facility. Storm water from the treatment facility parking lot and irrigated slopes adjacent to the effluent storage ponds is tributary to a storm water drainage system collecting runoff from upland areas within the Las Palmas development. Storm water from these areas

discharges along River Road and eventually the Salinas River.

107. Storm water collected from the Las Palmas Development and associated reuse areas is directed to a series of storm water retention ponds located within the development. Storm water overflows from the detention ponds are directed to drainages along river road and eventually the Salinas River.
108. A permit and the privilege to discharge waste into waters of the State are conditional upon the discharge complying with provisions of Division 7 of the California Water Code and of the Clean Water Act (as amended or as supplemented by implementing guidelines and regulations) and with any more stringent effluent limitations necessary to implement water quality control plans, protect beneficial uses, and prevent nuisance. Compliance with this Order should ensure conditions are met and mitigate any potential changes in water quality due to the project.
109. On September 25, 2006, the Board notified the Supplier, Distributor, Users, and other interested parties of its intent to prescribe Supplier and distributor master water reclamation requirements for the Facility and associated reuse areas, respectively. In addition, the Board provided them with an opportunity for a public hearing and to submit their written views and recommendations.
110. The requirements of this Order conform with and implement the water reclamation criteria of the State Department of Health Services (Title 22) to protect the public health, safety, and welfare. The Board has consulted with the Department of Health Services regarding the regulation of this discharge.
111. The Board, at a public meeting held December 1, 2006, heard and considered all comments pertaining to the discharge and found this Order consistent with the above findings.
112. Any person affected by this action of the Board may petition the State Water Board to review the action in accordance with Section 13320 of the California Water Code and Title 23 of the California Code of Regulations,

Section 2050. The State Water Board must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

113. Requirements specified in this Order are intended to ensure proper treatment and handling of recycled domestic wastewater for the protection of public health. In addition, recycled water treatment and storage requirements of this Order in conjunction with the requirements for the application of the recycled wastewater in designated reuse areas does not pose a significant threat to surface water or underlying groundwater resources.
114. In addition to water recycling requirements, this Order contains requirements for waste discharge. The waste discharge requirements include flow limits, collection system requirements, and effluent limitations that consist of restrictions on biochemical oxygen demand (BOD) and total suspended solids (TSS) and are based on achievable limits for tertiary treatment as demonstrated by historical Facility effluent data and are lower than the minimum technology-based effluent limitations for secondary treatment¹⁰. Disinfected tertiary recycled water limitations are consistent with the requirements of CCR Title 22, Division 4, Chapter 3, Sections 60301-60335 for the given recycled water end use. Effluent limitations in this Order for nitrate, total dissolved solids, sodium, chloride, sulfate and boron have been scientifically derived to implement water quality objectives that protect beneficial uses. As discussed elsewhere in these findings, the waste discharge requirements of the Order take into consideration past, present, and probable future beneficial uses of the receiving waters, the environmental characteristics, including water quality, of the lower Salinas River hydrographic unit, coordinated control of all factors which affect water quality in the area, and the need to develop and use recycled water. The Water Board has not received any information regarding economic considerations

¹⁰ 40 CFR Part 133.102 contains BOD and TSS 30-day and 7-day average minimum technology based effluent limitations for secondary treatment of 30mg/L and 45 mg/L, respectively.

or the need for developing housing within the region that would justify less stringent standards.

IT IS HEREBY ORDERED, pursuant to authority in Sections 13263 and 13523.1 of the California Water Code, that Supplier, its agents, successors, and assigns, may produce and store reclaimed wastewater from the Las Palmas Ranch wastewater treatment and reclamation facility for distribution by the permitted Distributor, and that Distributor, its agents, successors, and assigns, may distribute reclaimed wastewater for approved irrigation applications providing they comply with the following:¹¹

Throughout these requirements footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows (requirements without footnotes are BPJ unless otherwise noted). Numbered footnotes generally reference code sections for direct citations:

BPJ	Best Professional Judgment of Regional Water Quality Control Board Staff
ROWD	The Discharger's Report of Waste Discharge
40CFR	Title 40 Code of Federal Regulations
BP	Central Coast Regional Water Quality Control Plan
DHS	California Department of Health Services
T22	Title 22 CCR, Division 4, Chapter 3, Water Reclamation Criteria
CWC	Porter-Cologne Water Quality Control Act (California Water Code)

The Supplier and Distributor alike shall comply with all Prohibitions, Specification, and Provisions as applicable, and shall ensure that indirect Users also comply with these

¹¹ General permit conditions, definitions and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985, included as part of this Order.

requirements. The Supplier and Distributor shall comply with the specific Supplier Requirements and Distributor/User Requirements, respectively. The Distributor shall ensure that indirect Users also comply with applicable Distributor/User Requirements.

A. PROHIBITIONS

1. The treatment, storage, distribution, or reuse of recycled water shall not create a nuisance as defined in section 13050(m) of the California Water Code.^{CWC}
2. No recycled water used for irrigation shall be applied during periods of rainfall or when soils are saturated such that runoff occurs.^{BPJ}
3. Recycled water shall be confined to areas of authorized storage and use without discharge to surface waters or drainages.^{BPJ}
4. No recycled water shall be discharged from the treatment facilities, storage ponds, or other containment, other than for designated irrigation or other approved reuse applications in accordance with this Order.^{BPJ}
5. The incidental discharge of recycled water to waters of the State shall not unreasonably affect the beneficial uses of the water, and not result in an exceedance of an applicable water quality objective in the receiving water.^{12 BPJ}
6. There shall be no cross-connections between the potable water supply and pipes containing recycled water. Supplementing recycled water with water used for domestic supply shall not be allowed except through an air-gap separation. In accordance with CCR Title 17, Section 7604, a reduced pressure principle backflow device shall be provided at premises where recycled water is used and there is no interconnection with the potable water system.^{13, BPJ, T22}

¹² February 24, 2004, SWRCB memorandum re: Incidental Runoff of Recycled Water.

¹³ This requirement does not apply to individual residences using recycled water for landscape irrigation as part of an approved dual plumbed use area as defined in CCR Title 22, Section 60312.

B. SPECIFICATIONS

1. Reclamation facilities shall be operated in conformance with the California Department of Health Services' "Guidelines for Use of Reclaimed Wastewater for Irrigation and Impoundment," "Guidelines for Worker Protection at Reclamation Use Areas," the American Water Works Association, California-Nevada Section's *Guidelines for the Distribution of Non-potable Water*, and the Distributor's approved reclaimed water use rules and regulations (which may clarify and/or modify the above guidelines) and the appropriate local administrative procedures.
2. Personnel involved in producing, transporting, or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water.^{T22, BPJ}
3. Personnel involved in inspecting, maintaining or operating any distribution system equipment for recycled water shall be informed of the possible health hazards that may result from contact and use of recycled water.^{T22, BPJ}
4. Delivery and application of recycled water shall cease during any period the Facility fails to produce "disinfected tertiary recycled water" meeting CCR Title 22 criteria. The delivery of recycled water shall not be resumed until all conditions which caused the limits to be violated have been corrected and effluent in the storage ponds is suitable for disinfected tertiary recycled water applications.^{BPJ}
5. Spray irrigation of recycled water shall be accomplished at a time and in a manner to minimize ponding and the possibility of public contact with sprayed materials.^{BPJ}
6. All recycled effluent storage reservoirs and use areas with public access shall be posted (in English and Spanish) to warn the public recycled wastewater is being stored or used.^{BPJ}
7. Recycled water systems shall be properly labeled and regularly inspected to ensure proper operation, absence of leaks, and absence of illegal connections.^{BPJ, T22}

8. Recycled effluent storage ponds and wastewater ponds shall have sufficient freeboard, no less than two feet¹⁴ (measured vertically, from the water surface up to the point on the surrounding berm or dike having the lowest elevation and not including engineered outlet structures), at all times and shall be designed and constructed to prevent overtopping as a result of windy storm conditions.^{BPJ}
9. The Supplier and Distributor shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the Supplier, Distributor or Users to achieve compliance with this Order and all applicable water reclamation requirements.
10. The Supplier and Distributor shall implement, and ensure that Users implement, annual employee training to ensure proper operation of reclamation facilities, worker protection, and compliance with this Order.
11. The Supplier and Distributor shall ensure that all above-ground equipment, including pumps, piping, storage reservoir, and valves, etc. under their respective control which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs. The Supplier and Distributor shall make all necessary provisions to inform the public that the water being stored or distributed is reclaimed municipal wastewater and is unfit for human consumption. The Supplier and Distributor shall ensure that each User complies with these requirements for all above-ground equipment under a User's control.

C. SUPPLIER REQUIREMENTS

Flow and Effluent Limitations

1. Monthly average influent wastewater flow volumes shall not exceed 0.20 MGD.^{ROWD, BPJ}

¹⁴ Lesser freeboard, no less than one foot, is acceptable for below grade impoundments, and may be approved by the Executive Officer for above ground impoundments if documented by a registered civil engineer that structural integrity and required capacity will not be compromised with the proposed freeboard.

2. The Facility effluent shall not exceed the following effluent limitations:

Effluent Limitations (mg/L)

Parameter	Daily Max	30-Day Mean	7-Day Mean
BOD ₅ ^a	--	10	25
Total Suspended Solids ^a	--	10	25
Nitrate as N ^a	--	8	10
Total Dissolved Solids ^b	--	1,500	--
Sodium ^b	--	250	--
Chloride ^b	--	250	--
Boron ^b	--	0.5	--
Sulfate ^b	--	600	--

Notes:

- a. As measured after disinfection and prior to the effluent storage basins
- b. As delivered concentrations measured in the second effluent storage pond

3. The effluent pH shall not be less than 6.5 or greater than 8.4.^{BP}

Disinfected Tertiary Recycled Water Limitations

4. The Supplier shall ensure that treated effluent put to use for disinfected tertiary recycled water applications shall be an adequately oxidized, filtered, and disinfected water, as defined in CCR Title 22, Division 4, Chapter 3, Sections 60301-60335, or alternatively defined and approved by State Department of Health Services (DHS).
5. The turbidity of the disinfected tertiary recycled water shall not exceed any of the following:^{15, 16, 17}

¹⁵ CCR Title 22, Div. 4, Chap.3, Section 60301.320

¹⁶ Pursuant to CCR Title 22, Div. 4, Chap.3, Section 60301.320(a) coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes.

- a. An average of 2 NTU within a 24-hour period;
 - b. 5 NTU more than 5 percent of the time within a 24-hour period; and
 - c. 10 NTU at any time.
6. Disinfected tertiary recycled water shall not contain total coliform concentrations exceeding the following limits:¹⁸
- a. the seven-day median concentration must not exceed an MPN of 2.2/100 ml; and
 - b. concentrations must not exceed 23/100 ml in more than one sample taken over a 30-day range;
 - c. concentrations must be less than 240/100 ml at all times.
7. The chlorine residual within the disinfection process following filtration shall provide a CT value¹⁹ of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.^{20, 21}

Reclamation Facility Operational Requirements

Alarms²²

8. Alarm devices required for various unit processes as specified in other sections of

¹⁷ Pursuant to CCR Title 22, Div. 4, Chap.3, Section 60301.320(b) for filtration via microfiltration, ultrafiltration, nonfiltration, or reverse osmosis the effluent turbidity shall not exceed 0.2 NTU more than 5 percent of the time within a 24-hour period, and 0.5 NTU at any time.

¹⁸ CCR Title 22, Div. 4, Chap.3, Section 60301.230

¹⁹ The product of total chlorine residual and modal contact time measured at the same point.

²⁰ CCR Title 22, Div. 4, Chap.3, Section 60301.230(a)(1)

²¹ Or pursuant to CCR Title 22, Div. 4, Chap.3, Section 60301.230 (a)(2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

²² CCR Title 22, Div. 4, Chap. 3, Section 60335

these regulations shall be installed to provide warning of:

- a. Loss of power from the normal power supply.
- b. Failure of a biological treatment process.
- c. Failure of a disinfection process.
- d. Failure of a coagulation process.
- e. Failure of a filtration process.
- f. Any other specific process failure for which warning is required by the regulatory agency.

All required alarm devices shall be independent of the normal power supply of the Facility.

9. The person to be warned shall be the plant operator, superintendent, or any other responsible person designated by the management of the reclamation plant and capable of taking prompt corrective action.
10. Individual alarm devices may be connected to a master alarm to sound at a location where it can be conveniently observed by the attendant. In case the reclamation plant is not attended full time, the alarm(s) shall be connected to sound at a police station, fire station or other full-time service unit with which arrangements have been made to alert the person in charge at times that the reclamation plant is unattended.

Power Supply²³

11. The power supply shall be provided with one of the following reliability features:
- a. Alarm and standby power source.
 - b. Alarm and automatically actuated short-term retention or disposal provisions as specified in Title 22 Section 60341.
 - c. Automatically actuated long-term storage or disposal provisions as specified in Title 22 Section 60341.

Flexibility of Design²⁴

12. The design of process piping, equipment arrangement, and unit structures in the reclamation plant must allow for efficiency and convenience in operation and maintenance

²³ CCR Title 22, Div. 4, Chap. 3, Section 60337

²⁴ CCR Title 22, Div. 4, Chap. 3, Section 60333

and provide flexibility of operation to permit the highest possible degree of treatment to be obtained under varying circumstances.

Personnel²⁵

13. Each reclamation plant shall be provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times.
14. Qualified personnel shall be those meeting requirements established pursuant to Chapter 9 (commencing with Section 13625) of the Water Code.

Maintenance²⁶

15. A preventive maintenance program shall be provided at each reclamation plant to ensure that all equipment is kept in a reliable operating condition.

Operating Records and Reports²⁷

16. Operating records shall be maintained at the reclamation plant or a central depository within the operating agency. These shall include: all analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; all corrective or preventive action taken.
17. Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken.
18. A monthly summary of operating records as specified in these requirements shall be filed monthly with the regulatory agency.²⁸
19. Any discharge of untreated or partially treated wastewater to the use area, and the cessation

²⁵ CCR Title 22, Div. 4, Chap. 3, Section 60325

²⁶ CCR Title 22, Div. 4, Chap. 3, Section 60327

²⁷ CCR Title 22, Div. 4, Chap. 3, Section 60329

²⁸ Per CCR Title 22 Div. 4, Chap. 3, Section 60301.740. "Regulatory agency" means the California Regional Water Quality Control Board(s) that have jurisdiction over the recycling plant and use areas.

of same, shall be reported immediately by telephone to Water Board, the State Department of Health, and the local health officer at the numbers provided in the Monitoring and Reporting Requirements.

Bypass²⁹

20. There shall be no bypass of untreated or partially treated wastewater from the reclamation plant or any intermediate unit processes to the point of use.

Off-Specification Effluent Contingency Plan

21. In the event effluent discharged to the effluent storage ponds does not meet the criteria for disinfected tertiary recycled water, the Supplier shall implement the Off-Specification Contingency Plan.^{30, ROWD}
22. The Off-Specification Contingency Plan shall be reviewed and updated annually as necessary. A copy of the revised Off-Specification Contingency Plan or statement indicating the Plan has been reviewed, but not updated shall be submitted to the Water Board as part of the annual monitoring report.^{BPJ}
23. Alternative reuse methods for off-specification effluent may be implemented on an as needed basis if they meet the criteria for the "Uses of Recycled Water" contained in CCR Title 22, Division. 4, Chapter 3, Article 3 (Sections 60303-60309) and prior approval is given by the Water Board and DHS.^{BPJ}

General Requirements

24. Extraneous surface drainage shall be excluded from the wastewater treatment and effluent storage facilities.^{BPJ}
25. All storm water contacting raw domestic wastewater or disinfected tertiary recycled water shall be contained and managed as such.^{BPJ}
26. The treatment, handling, and disposal of sewage sludge (biosolids) generated from

²⁹ CCR Title 22, Div. 4, Chap. 3, Section 60331

³⁰ August 2005, RMC, Proposed Pond #1 Monitoring Plan

treatment process shall be managed in accordance with 40 CFR part 503.^{BPJ}

27. The Supplier shall provide weekly irrigation reports to the Distributor and Users documenting Facility influent flows, User irrigation flows (including Facility irrigation flows reported separately), and the amount of recycled effluent in storage and remaining storage capacity.^{BPJ}

Sanitary Sewer Overflows/Sewer System Management Plan Requirements

28. The Supplier shall develop and implement a Sewer System Management Plan in accordance with Attachment C. The purpose of the Plan is to establish procedures to track, mitigate and prevent overflows from the Supplier's collection system. The Sewer System Management Plan shall be implemented immediately based on the implementation schedule contained in section E.9 of Attachment C.

D. DISTRIBUTOR/USER REQUIREMENTS

Reclamation Distribution System Requirements

Allowable Use Areas

1. The application of disinfected tertiary recycled water is limited to the following areas pursuant to Title 22, Division 4, Chapter 3, Section 60304 of the California Code of Regulations:
 - a. Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop,
 - b. Parks and playgrounds,
 - c. School yards,
 - d. Residential landscaping,
 - e. Unrestricted access golf courses,³¹ and
 - f. Any other irrigation use not specified in Section 60304 (Title 22) and not prohibited by other sections of the California Code of Regulations, or within these requirements.

³¹ For golf course use, the scorecards must clearly state that reclaimed water is used for irrigation.^{BPJ}

2. The Distributor may add additional use areas/Users for the application of disinfected tertiary treated wastewater as long as they meet all applicable requirements contained within this Order and the California Code of Regulations.
3. The Distributor shall notify the Water Board and California Department of Health Services (DHS) of all proposed use areas prior to implementation. The Water Board and/or DHS may require an engineering report for review prior to implementation of additional use areas.

Use Area Requirements³²

4. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
 - a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
 - b. The well contains an annular seal that extends from the surface into the aquitard.
 - c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
 - d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
 - e. The owner of the well approves of the elimination of the buffer zone requirement.
5. No impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well.
6. Any use of recycled water shall comply with the following:
 - a. Any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the regulatory agency.
 - b. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.

³² CCR Title 22, Div. 4, Chap. 3, Section 60310

- c. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
7. No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
 8. All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER - DO NOT DRINK". Each sign shall display an international symbol similar to that shown in figure 60310-A of CCR Title 22, Section 60310. The Department may accept alternative signage and wording, or an educational program, provided the applicant demonstrates to the Department that the alternative approach will assure an equivalent degree of public notification.
 9. Except as allowed under section 7604 of title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
 10. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.
 11. The Distributor shall ensure that backflow prevention devices are in proper working order by testing initially and annually thereafter, in accordance with CCR Title 18, Section 7605. Reports of testing and maintenance shall be maintained by the Distributor.

Design Requirements

12. The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless

the connection between the two systems is protected by an air gap separation which complies with the requirements of sections 7602(a) and 7603(a) of title 17, California Code of Regulations, and the approval of the public water system has been obtained.³³

13. All pipes installed above or below the ground, on and after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape.³⁴
14. The Distributor shall implement a Cross Connection Control Plan³⁵ to protect the public water supply system. The Cross Connection Plan shall be reviewed and updated annually as necessary. A copy of the revised Plan or statement indicating the Plan has been reviewed, but not updated shall be submitted to the Water Board as part of the Distributor's annual monitoring report.^{ROWD, BPJ}

Groundwater Limitations

15. The application of disinfected tertiary recycled water shall not cause nitrate concentrations in the groundwater affected by disposal activities to exceed 10 mg/l (as N) and shall not cause a statistically significant increase of nitrate concentrations in underlying groundwater.³⁶
BPJ, BP
16. The application of disinfected tertiary recycled water shall not cause groundwater to contain taste- or odor-producing substances in concentrations that adversely affect beneficial uses.^{BP}
17. The application of disinfected tertiary recycled water shall not cause mineral or organic constituent concentrations in underlying groundwater to exceed the median

³³ CCR Title 22, Div. 4, Chap. 3, Section 60315

³⁴ California Health & Safety Code Section 116815

³⁵ August 2005, RMC, Engineering Report for Production, Distribution, and use of Recycled Water, Appendix E - Las Palmas Ranch Cross Connection Control Plan

³⁶ The evaluation of this requirement will consider pre-existing conditions based on available characteristic groundwater quality data in the vicinity of the use areas.

groundwater objectives for the 180-Foot Aquifer sub-area of the Salinas River groundwater basin as determined by statistical analysis of samples collected from wells in the vicinity of the disposal area.^{BP, BPJ}

18. To protect the *municipal and domestic supply* beneficial uses of groundwater underlying the use areas, the application of disinfected tertiary treated water shall not cause groundwater to:^{BP, BPJ, T22}
 - a. exceed the Primary Maximum Contaminant Levels for organic chemicals set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5.5, Section 64444.
 - b. exceed the Primary Maximum Contaminant Levels for inorganic chemicals set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431.
 - c. exceed the levels for radionuclides set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443.
19. The application of disinfected tertiary recycled water shall not cause radionuclides to be present in groundwater in concentrations that are deleterious to human, plant, animal, or aquatic life, or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.^{BP}

Groundwater Monitoring Well Work Plan

20. **By March 31, 2007**, the Distributor shall submit a work plan for the installation of groundwater monitoring wells within the phase II development area. The work plan shall evaluate and propose locations for a minimum of three additional groundwater monitoring wells in the vicinity of recycled water application areas to evaluate background and downgradient groundwater conditions. The work plan shall also contain well driller's reports and construction details for the three existing monitoring wells (MW-1, MW-2, and MW-3) and an evaluation of the applicability of the existing well network. The new monitoring wells shall be installed, developed

and incorporated into the groundwater monitoring program for the 2007 third quarter monitoring event.

Nutrient Management Plan

21. Hydraulic and nutrient loading rates for the application of disinfected tertiary recycled water shall be based on food crop, vegetation or landscaping consumption and tolerance and shall not exceed what is reasonable for production of the food crops, vegetation or landscaping (i.e., recycled water shall be applied in an amount that will not cause nitrogen within the root zone to exceed the agronomic demand for nitrogen and result in the leaching of nitrate to groundwater).^{BPJ}
22. The Distributor shall prepare and implement a nutrient management plan for the application of recycled water to protect the beneficial uses of groundwater. The plan shall account for all nutrient loading to the application areas and ensure that the total amount of nitrogen applied does not exceed the amount of nitrogen required by the food crops, vegetation or landscaping being irrigated.
23. As part of the nutrient management plan, the Distributor shall submit an annual report documenting allowable and actual nitrogen loading to the recycled water application areas. The report shall include, at a minimum:
 - a. Analysis of the contributing sources of nutrients being applied to the recycled water application areas;
 - b. Analysis of annual nitrogen loading to the basin and individual application areas from each contributing source;
 - c. Analysis of the allowable nutrient and hydraulic loading (based on limiting nitrogen loading) of recycled water based on characteristic effluent data for nitrogen, other contributing nitrogen sources, and the nutritive requirements of the application areas;
 - d. Comparison of the actual and allowable annual nitrogen loading rates;
 - e. Analysis of groundwater monitoring data for nitrogen constituents;
 - f. Evaluation of potential impacts of nutrient loading on the groundwater basin;

- g. Evaluation of potential nutrient reduction measures; and,
- h. Recommendations and time schedules for the implementation of measures addressing excessive nitrogen loading (i.e. actual loading greater than allowable loading) as applicable.
24. **Annual nutrient management reports are due March 1st of each year** and may be included as part of the annual monitoring report. **The first annual nutrient management plan report is due March 1, 2008.** The plan shall be reviewed and updated annually thereafter as necessary. A copy of the revised plan or statement indicating the plan has been reviewed, but not updated shall be submitted to the Water Board as part of the annual monitoring reports.
25. Additional annual nutrient management reports will not be required upon request by the Distributor and approval by the Executive Officer given the following conditions are met:
- The initial nitrogen loading evaluation indicates the application of recycled water at appropriate hydraulic rates along with other nitrogen sources will not exceed the nutritive requirements of the food crops, vegetation or landscaping being irrigated
 - Recycled water is not over applied in an effort to increase disposal that may result in significant soil flushing and runoff;
 - A nutrient management plan is implemented for the controlled application of fertilizers by landscaping contractors maintaining the application areas; and,
 - Effluent nitrogen concentrations from the Facility regularly meet or are less than the effluent limitations of this Order and are stable.
- (Approval of this variance is contingent on reasonable and scientifically defensible assumptions being applied to the loading evaluation)
26. Discharges that exceed the hydraulic loading rate based on the nutritive requirements of the receiving vegetation may be allowable on a case-by-case basis upon request by the

Distributor and approval by the Executive Officer given the following conditions are met:

- The nitrogen loading evaluation indicates the land application of wastewater at appropriate hydraulic rates (based on soil permeability) will not exceed the nutritive requirements of the vegetation being irrigated by more than a total nitrogen concentration as determined by the following equation³⁷:

$$\Delta N = (\text{TOC} - 5) / 2$$

TOC = effluent Total Organic Carbon

- Wastewater is not over applied in an effort to increase disposal that may result in significant soil flushing and runoff;
- Effluent nitrogen concentrations from the Facility regularly meet or are less than the effluent limitations of this Order and are stable; and,
- The Discharger provides an assimilative capacity analysis and nitrogen balance showing that the additional nutrient loading to the groundwater basin will not cause or contribute to exceedances of water quality objectives for nitrate in groundwater

(Approval of this variance is contingent on reasonable and scientifically defensible assumptions being applied to the assimilative capacity analysis and nitrogen balance)

Salts Management Program

27. The Distributor shall implement a salts management program to document salt loading and evaluate and implement measures for the reduction of salt loading as the result of the application of recycled water. Salt reduction measures shall focus on all potential salt contributions from the water supply, and residential, commercial and industrial uses as

³⁷ Maximum of nitrogen that can be effectively denitrified during rapid infiltration under optimum operating conditions; Metcalf and Eddy, Third Ed., 1991, page 972.

applicable prior to disposal. The Distributor shall evaluate limiting or prohibiting domestic water softeners and conditioners under California Health and Safety Code Section 116786 and shall adopt an ordinance under Section 116786 as appropriate and feasible to reduce salt loading from the domestic use of water softeners.

28. As part of the salts management program, the Distributor shall submit an annual report documenting salt loading and salt reduction efforts. This report shall include, at a minimum:
- a. Analysis of annual salt (TDS, sodium, chloride, sulfate, and boron) loading to the basin and individual application areas;
 - b. Analysis of the contributing sources of salt mass in the recycled water (including the evaporative concentration of salts within the effluent storage ponds);
 - c. Analysis of groundwater monitoring data for salt constituents;
 - d. Evaluation of potential impacts of salt loading on the groundwater basin;
 - e. Evaluation of potential salt reduction measures including a water softener ordinance;
 - f. Summary of existing salt reduction measures and their impact; and,
 - g. Recommendations and time schedules for implementation of proposed salt reduction measures.
29. **Annual salts management reports are due March 1st of each year and may be included as part of the annual monitoring report. The first annual salts management report is due March 1, 2008.**

Individual Recycled Water Use Permits

30. The Distributor shall establish and enforce rules and regulations for recycled water users governing the design, construction and maintenance of recycled water use facilities and the use of recycled water, in accordance with the uniform statewide reclamation criteria established pursuant to California Water Code Section 13521.³⁸ The Distributor shall also

develop administrative procedures specifying how the recycled water rules and regulations and permit-based system for regulating users will be implemented. **The rules and regulations and implementation procedures shall be submitted to the Department of Health Services and Regional Water Board by June 30, 2007, for review and approval.** The rules and regulations shall be reviewed and updated annually thereafter as necessary. A copy of the revised rules and regulations or statement indicating they have been reviewed, but not updated shall be submitted to the Water Board as part of the annual monitoring reports.

31. The Distributor and Supplier shall require each User to (i) designate a Reclaimed Water Site Supervisor responsible for compliance with permit conditions and answerable to the Distributor³⁹, and (ii) immediately notify the Distributor of changes in the Reclaimed Water Site Supervisor and provide documentation that the new supervisor has received training.
32. Recycled Water Use permits, issued by the Distributor in accordance with the approved rules and regulations, form the basis of permitted recycled water use by specific Users. Recycled Water Use permits shall specify self-monitoring and reporting requirements for each User, and require compliance with all applicable requirements of this Order. The Distributor must provide a copy of the Recycled Water Use permit and this Order to the Users. Recycled Water Use permits shall require Users to have these available at all times for inspection by Water Board staff, the Distributor, or State/County Health Officers.
33. If someone other than the Distributor or User is responsible for applying the recycled water (i.e. secondary distributor like a truck hauler) then the Distributor shall inform the secondary distributor of these requirements in a written permit or other suitable manner. In addition, the secondary distributor shall fill out a Recycled Water Release Form when receiving reclaimed water from the Distributor. The

³⁸ CWC Section 13523.1(b)(3)

³⁹ CCR Title 17, Division 1, Chapter 5, Group 4, Article 1, Section 7586

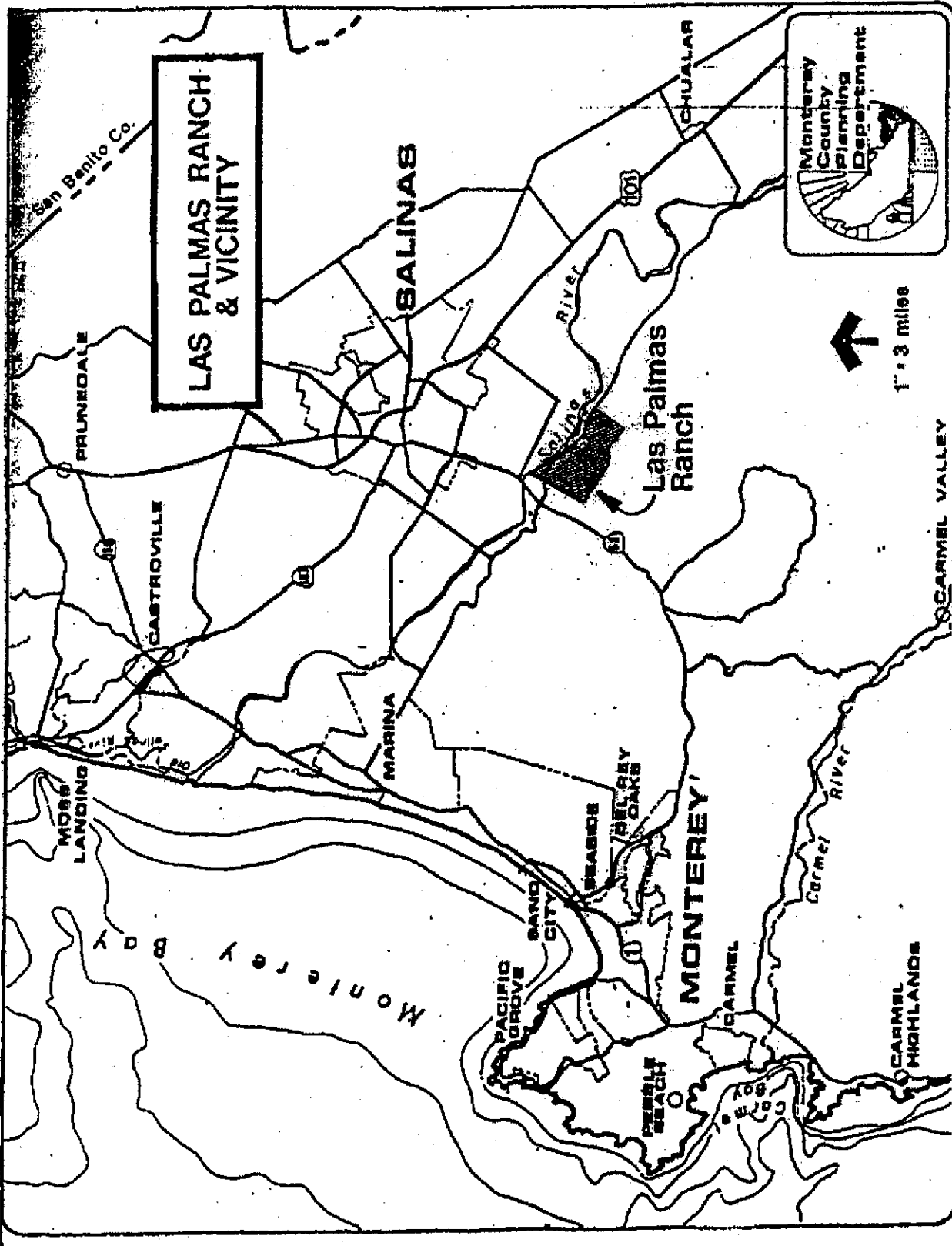
secondary distributors must carry the Recycled Water Release Form at all times.

E. PROVISIONS

1. This Order supersedes Order No. 91-14 for all uses specified by that Order. Order No. 91-14 is hereby rescinded.
2. The Supplier and Distributor shall comply with all applicable requirements of Monitoring and Reporting Program No. R3-2006-0041 as adopted by the Board and as may be amended by the Executive Officer. The Distributor shall be responsible for collecting necessary data and reports from the Supplier and Users. The Distributor shall require Users to appoint and train a Reclaimed Water Supervisor and to submit on-site observation reports and use data to the Distributor, who will compile and file self-monitoring reports with the Water Board. The Distributor, at its discretion, may appoint and train the Users' Reclaimed Water Supervisors and collect on-site observation reports and use data.
3. The Supplier shall be responsible for ensuring and documenting that reclaimed water meets the quality standards of this Order. The Distributor shall be responsible for regulating the design, construction, maintenance and operation of recycled water transport facilities, application areas and associated appurtenances owned and operated by the Users and for ensuring that Users meet all water application, operations and maintenance requirements of this Order. The Distributor shall conduct periodic inspections of User facilities and conduct monitoring and reporting to document compliance with the conditions of the Users' permits and this Order.
4. The Supplier, Distributor and Users shall permit the Board or its authorized representative in accordance with California Water code section 13267(c):
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of the Order,
 - b. Access to and copy of any records that must be kept under conditions of this Order,
 - c. Inspection of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order,
 - d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order.
5. The Supplier and Distributor shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated January 1984. The Board will revise this Order periodically and may revise these requirements when necessary.
6. The State Department of Health Services is currently revising the Title 22 regulations for water reuse. When revised regulations are finalized, the Executive Officer may authorize changes to the restricted and unrestricted recycled water uses consistent with those regulations. *DHS, BPJ*
7. Pursuant to Title 23, Division 3, Chapter 9, of the California Code of Regulations, the Discharger must submit a written report to the Executive Officer not later than December 5, 2012, addressing:
 - a. Whether there will be changes in the continuity, character, location, or volume of the discharge; and,
 - b. Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.

I, **ROGER W. BRIGGS, Executive Officer**, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on December 1, 2006.

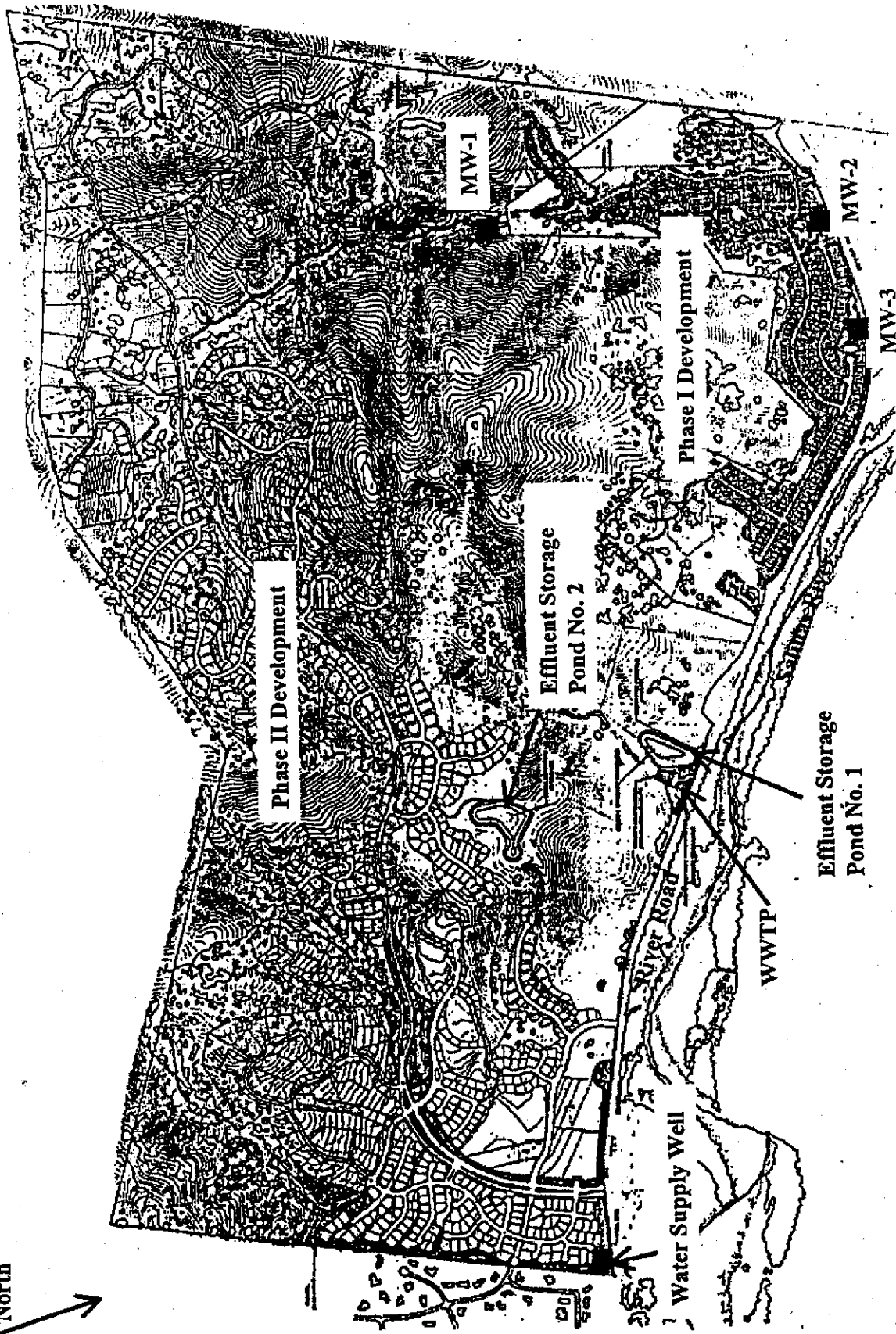
Ordered By: _____
Executive Officer



Order No. R3-2006-0041

Attachment A: Vicinity Map (Las Palmas Ranch Development)

North
↑



Order No. R3-2006-0041

Attachment B: Site Map (Las Palmas Ranch Development)

ATTACHMENT C

SANITARY SEWER SYSTEM REQUIREMENTS¹

A. BACKGROUND

1. These Requirements are attached by reference to facility specific waste discharge requirements for privately owned wastewater treatment facilities for which the associated sanitary sewer collection systems are owned by the same private entity. These Requirements are intended to provide consistency with State Water Resources Control Board Order No. 2006-0003 Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies.
2. To facilitate proper funding and management of sanitary sewer systems, the owner of the sanitary sewer collection system (Discharger) must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to a sewer system overflow (SSO) in a manner designed to minimize water quality impacts and potential nuisance conditions.
3. Many Dischargers in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with these requirements. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
4. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
5. It is the State Water Resources Control Board's (State Water Board) and Central Coast Regional Water Quality Control Board's (Central Coast Water Board) intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
6. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State and Regional Water Boards to effectively analyze the extent of SSOs statewide and their potential impacts on

¹ Adapted from State Water Resources Control Board Order No. 2006-0003
Statewide General WDR For Wastewater Collection Agencies

beneficial uses and public health. The monitoring and reporting program requirements contained herein are necessary to assure compliance with these requirements.

7. Information regarding SSOs must be provided to the State Water Board and Central Coast Water Board and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion
8. The Discharger must comply with all requirements contained herein. Any noncompliance with these Requirements constitutes a violation of the California Water Code and is grounds for enforcement action.
9. It is the intent of the Central Coast Regional Water Quality Control Board that sanitary sewer systems be regulated in a manner consistent with these Requirements. Nothing in these Requirements shall be:
 - a. Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
 - b. Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
 - c. Interpreted or applied to supersede any more specific or more stringent WDR or enforcement order issued by a Regional Water Board.

B. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
 - a. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
 - b. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and,
 - c. Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** - Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility.

Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

3. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
4. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
5. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
6. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
 - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Discharger shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Discharger shall take all feasible steps to contain and mitigate the impacts of an SSO.

Attachment C - Sanitary Sewer System Requirements

2. In the event of an SSO, the Discharger shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.
3. All SSOs must be reported in accordance with Section G of these Requirements.
4. In any enforcement action, the State and/or Central Coast Water Board will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Central Coast Water Board must consider the Discharger's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Central Coast Water Board will also consider whether:
 - a. The Discharger has complied with these Requirements, including requirements for reporting and developing and implementing a SSMP;
 - b. The Discharger can identify the cause or likely cause of the discharge event;
 - c. There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Discharger does not implement a periodic or continuing process to identify and correct problems.
 - d. The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Discharger;
 - e. The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
 - i) Proper management, operation and maintenance;
 - ii) Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow, etc...);
 - iii) Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
 - iv) Installation of adequate backup equipment; and,
 - v) Inflow and infiltration prevention and control to the extent practicable.
 - f. The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

E. SEWER SYSTEM MANAGEMENT PLAN (SSMP)

1. The Discharger shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State or Central Coast Water Board upon request. A copy of this document must be publicly available at the Discharger's office and/or available on the Internet. This SSMP must be approved by the Discharger's governing board at a public meeting as applicable.
2. In accordance with the California Business and Professions Code Sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields' pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
3. The mandatory elements of the SSMP are specified below. However, if the Discharger believes that any element of this section is not appropriate or applicable to the Discharger's sanitary sewer system, the SSMP program does not need to address that element. The Discharger must justify why that element is not applicable.
 - a. **Goals:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
 - b. **Organization:** The SSMP must identify:
 - i) The name of the responsible or authorized representative as described in Section K of this Order.
 - ii) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
 - iii) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Central Coast Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
 - c. **Legal Authority:** Each Discharger must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

Attachment C - Sanitary Sewer System Requirements

- i) Prevent illicit discharges into its sanitary sewer system (examples may include infiltration and inflow (I/I), stormwater, chemical dumping, unauthorized debris and cut roots, etc...);
 - ii) Require that sewers and connections be properly designed and constructed;
 - iii) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
 - iv) Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and,
 - v) Enforce any violation of its sewer ordinances.
- d. **Operation and Maintenance Program.** The SSMP must include those elements listed below that are appropriate and applicable to the Discharger's system:
- i) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
 - ii) Describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
 - iii) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan;
 - iv) Provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained; and,

- v) Provide equipment and replacement part inventories, including identification of critical replacement parts.
- e. **Design and Performance Provisions:**
- i) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and,
 - ii) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.
- f. **Overflow Emergency Response Plan** - Each Discharger shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:
- i) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
 - ii) A program to ensure appropriate response to all overflows;
 - iii) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc...) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
 - iv) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
 - v) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and,
 - vi) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.
- g. **Fats, Oils, and Grease (FOG) Control Program:** Each Discharger shall evaluate its service area to determine whether a FOG control program is

needed. If a Discharger determines that a FOG program is not needed, the Discharger must provide justification for why it is not needed. If FOG is found to be a problem, the Discharger must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- i) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
 - ii) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
 - iii) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
 - iv) Requirements to install grease removal devices (such as traps or interceptors) design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
 - v) Authority to inspect grease producing facilities, enforcement authorities, and whether the Discharger has sufficient staff to inspect and enforce the FOG ordinance;
 - vi) An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and,
 - vii) Development and implementation of source control measures, for all sources of FOG discharged to the sanitary sewer system, for each section identified in (f) above.
- h. **System Evaluation and Capacity Assurance Plan:** The Discharger shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:
- i) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity)

and the major sources that contribute to the peak flows associated with overflow events;

- ii) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in "i" above to establish appropriate design criteria;
- iii) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- iv) **Schedule:** The Discharger shall develop a schedule of completion dates for all portions of the capital improvement program developed in (i-iii) above. This schedule shall be reviewed and updated consistent with the SSMP program audit and update requirements as described in Sections E. 5 and E.8, respectively.

4. **Monitoring, Measurement, and Program Modifications:** The Discharger shall:

- a. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- b. Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- c. Assess the success of the preventative maintenance program;
- d. Update program elements, as appropriate, based on monitoring or performance evaluations; and,
- e. Identify and illustrate SSO trends, including: frequency, location, and volume.

5. **SSMP Program Audits** - As part of the SSMP, the Discharger shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Discharger's compliance with the SSMP requirements contained herein, including identification of any deficiencies in the SSMP and steps to correct them.

6. **Communication Program** – The Discharger shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Discharger as the program is developed and implemented.

The Discharger shall also create a plan of communication with systems that are tributary and/or satellite to the Discharger's sanitary sewer system.

7. **SSMP Certification** - Both the SSMP and the Discharger's program to implement the SSMP must be certified by the Discharger to be in compliance with the requirements set forth herein and must be presented to the Discharger's governing board for approval at a public meeting as applicable. The Discharger shall certify that the SSMP, and subparts thereof, are in compliance with these Requirements within the time frames identified in the time schedule provided below.

In order to complete this certification, the Discharger's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

8. **SSMP Updates** - The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing Board of the Discharger is required when significant updates to the SSMP are made. To complete the re-certification process, the Discharger shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.
9. **SSMP Implementation Schedule** - The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below. The Discharger shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

Task and Associated Section	Completion Date ¹			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Establish Online SSO Database Account Section G.6	3 months ²	3 months ²	3 months ²	3 months ²
Reporting Program ¹ Section G	12 months	12 months	12 months	12 months
SSMP Development Plan and Schedule No Specific Section	9 months	12 months	24 months	24 months
Goals and Organization Structure Section E.3.a. & b.	12 months	12 months	24 months	24 months
Overflow Emergency Response Program Section E.3.f.	24 months	30 months	42 months	45 months
Legal Authority Section E.3.c.	24 months	30 months	42 months	45 months
Operation and Maintenance Program Section E.3.d.	24 months	30 months	42 months	45 months
FOG Control Program Section E.3.g.	24 months	30 months	42 months	45 months
Design and Performance Section E.3.e.	36 months	39 months	48 months	51 months
System Evaluation and Capacity Assurance Plan Section E.3.h.	36 months	39 months	48 months	51 months
Final SSMP, incorporating all of the SSMP requirements Section E	36 months	39 months	54 months	57 months

Notes:

1. Completion date timeframes correspond to facility specific WDR adoption dates for which these Requirements are attached to the adopted WDR unless noted otherwise.
2. Three months from the date these Requirements are issued as part of wastewater treatment facility specific WDRs or from the date State Board establishes criteria for "non-enrollee" SSO database accounts if not available at the time these Requirements are issued.

10. **SSMP Availability** - A copy of the certified SSMP shall be maintained at appropriate locations (such as the Discharger's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Discharger shall allow the State or Central Coast Water Board or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of these Requirements;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of these Requirements;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these Requirements; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance with these Requirements or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. SSO MONITORING AND REPORTING REQUIREMENTS

1. These monitoring and reporting requirements establish monitoring, record keeping, reporting and public notification requirements for sanitary sewer system overflows. Revisions to these Requirements may be made at any time by the Executive Officer, and may include a reduction or increase in the monitoring and reporting.

General Monitoring and Reporting Requirements

2. The Discharger shall furnish to the State or Central Coast Water Board, within a reasonable time, any information which the State or Central Coast Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating these Requirements. The Discharger shall also furnish to the Executive Director of the State Water Board or Executive Officer of the Central Coast Water Board, upon request, copies of records required to be kept by these Requirements.
3. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or

other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man made or natural or concrete lined, shall be reported as required above.

4. All SSOs greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

Office of Emergency Services
Phone (800) 852-7550

5. The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (Local County Health Officers, Local Director of Environmental Health, State Water Board, or Office of Emergency Services) or State law.

SSO Database Accounts

6. The Discharger shall obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS)². These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30-days of receiving an account and prior to recording spills into the SSO Database, all Dischargers must complete the "Collection System Questionnaire", which collects pertinent information regarding a Discharger's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

SSO Categories

7. **Category 1** - All discharges of sewage resulting from a failure in the Discharger's sanitary sewer system that:
 - a. Equal or exceed 1000 gallons, or
 - b. Result in a discharge to a drainage channel and/or surface water; or
 - c. Discharge to a storm drain pipe that was not fully captured and returned to the sanitary sewer system.
8. **Category 2** - All other discharges of sewage resulting from a failure in the Discharger's sanitary sewer system.

² The State Board is currently developing database account criteria for sewer collection system owners other than those required to seek coverage under State Water Resources Control Board Order No. 2006-0003 (Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies). The State Board intends to post "non-enrollee" account application information on its SSO Program webpage located at <http://www.waterboards.ca.gov/sso/index.html> by November 2, 2006.

9. **Private Lateral Sewage Discharges** – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

10. **Category 1 SSOs** – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Discharger has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Discharger is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 8. k. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.
11. **Category 2 SSOs** – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).
12. **Private Lateral Sewage Discharges** – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Discharger's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Discharger must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Discharger) should be identified, if known.
13. If there are no SSOs during the calendar month, the Discharger will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.
14. In the event that the SSO Online Database is not available, the Discharger must fax all required information to the appropriate Regional Water Quality Control Board office in accordance with the time schedules identified above. In such events, the Discharger must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

15. At a minimum, the following mandatory information that must be included prior to finalizing and certifying an SSO for each category of SSO:
- a. **Category 1 SSOs:**
 - i) All information listed for Category 2 SSOs, as well as;

- ii) Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
- iii) Estimated SSO amount recovered;
- iv) Response and corrective action taken;
- v) If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken NA must be selected.
- vi) Parameters that samples were analyzed for (if applicable);
- vii) Identification of whether or not health warnings were posted;
- viii) Beaches impacted (if applicable). If no beach was impacted NA must be selected;
- ix) Whether or not there is an ongoing investigation;
- x) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- xi) OES control number (if applicable);
- xii) Date OES was called (if applicable);
- xiii) Time OES was called (if applicable);
- xiv) Identification of whether or not County Health Officers were called;
- xv) Date County Health Officer was called (if applicable); and
- xvi) Time County Health Officer was called (if applicable).

b. Category 2 SSOs:

- i) Location of SSO by entering GPS coordinates;
- ii) Applicable Regional Water Quality Control Board, i.e. identify the region in which the SSO occurred;
- iii) County where SSO occurred;
- iv) Whether or not the SSO entered a drainage channel and/or surface water;
- v) Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
- vi) Estimated SSO volume in gallons;
- vii) SSO source (manhole, cleanout, etc...);
- viii) SSO cause (mainline blockage, roots, etc...);
- ix) Time of SSO notification or discovery;
- x) Estimated operator arrival time;
- xi) SSO destination;
- xii) Estimated SSO end time; and
- xiii) SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

c. Private Lateral Sewage Discharges:

- i) All information listed above (if applicable and known), as well as;
- ii) Identification of sewage discharge as a private lateral sewage discharge; and
- iii) Responsible party contact information (if known).

16. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final

certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the Central Coast Water Board.

H. RECORD KEEPING

1. Individual SSO records shall be maintained by the Discharger for a minimum of five years from the date of the SSO. This period may be extended when requested by the State or Central Coast Water Board.
3. All records shall be made available for review upon State or Central Coast Water Board staff's request.
4. All monitoring instruments and devices that are used by the Discharger to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;
5. The Discharger shall retain records of all SSOs, such as, but not limited to and when applicable:
 - a. Record of Certified report, as submitted to the online SSO database;
 - b. All original recordings for continuous monitoring instrumentation;
 - c. Service call records and complaint logs of calls received by the Discharger;
 - d. SSO calls;
 - e. SSO records;
 - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
 - g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
 - h. A list and description of complaints from customers or others from the previous 5 years; and
 - i. Documentation of performance and implementation measures for the previous 5 years.
6. If water quality samples are required by an environmental or health regulatory agency or state law, or if voluntary monitoring is conducted by the Discharger or its agent(s), as a result of any SSO, records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical technique or method used; and,
 - f. The results of such analysis.

I. CHANGE IN OWNERSHIP

1. These Requirements are not transferable to any person or party, except after notice to the Central Coast Water Board Executive Officer. The Discharger shall submit this notice in writing at least 90 days in advance of any proposed transfer of the sanitary sewer collection system. The notice must include contact information for both the existing and new Discharger and a specific date for the transfer of ownership. The existing Discharger will be liable for violations up to the transfer date and the State or Central Coast Water Board will evaluate the regulatory mechanism by which the new Discharger will be required to implement sanitary sewer system requirements from the transfer date forward.

J. INCOMPLETE REPORTS

1. If the Discharger becomes aware that it failed to submit any relevant facts in any report required under these Requirements, the Discharger shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

K. REPORT CERTIFICATION

1. All reports required by these Requirements and other information required by the State or Central Coast Water Board shall be signed and certified as follows:
 - a. For a corporation; by a responsible corporate officer (i.e., president, secretary, or treasurer, or vice president of appropriate business function) as defined in 40CFR Part 122;
 - b. For a partnership or sole proprietorship; by a general partner or the proprietor, respectively;
 - c. For a "municipality", state, federal, or other public agency; by either a principal executive officer or ranking elected official; or,
 - d. Their "duly authorized representative."
 - e. An individual is a duly authorized representative only if:
 - i) The authorization is made in writing by a person described in paragraphs (i through iii) of this provision; and
 - ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.
 - f. Registration of authorized individuals, who may certify reports, will be in accordance with the California Integrated Water Quality System (CIWQS) protocols for reporting. (For purposes of electronic reporting, an electronic

signature and accompanied certification, which is in compliance with the Online SSO database procedures, meets this certification requirement.)