

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2003-0048

CONKEY REAL ESTATE DEVELOPMENT, LLC
PATRICIA TINTLE
TONY AND FRITZ GOSALVEZ
EMILY L. SPENCER TRUST
LONGS DRUGSTORES OF CALIFORNIA, INC.
HIGGINS CENTER WASTEWATER TREATMENT FACILITY
NEVADA COUNTY

This Monitoring and Reporting Program (MRP) incorporates requirements for monitoring of the all aspects of the wastewater collection, treatment, and disposal systems and is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

This MRP is effective upon date of signature; however, only groundwater samples need to be collected until the WWTF has been constructed and is in use. In the meantime, the Discharger shall submit monthly status reports and quarterly groundwater monitoring reports as described in the “Reporting” section of this MRP.

All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the “Reporting” section of this MRP.

SEPTIC TANK MONITORING

The Discharger report annually any maintenance, failures, and/or repairs conducted during the year to each of the STEP systems. The Discharger shall monitor each individual septic tank and septic tank effluent pumping system as follows:

<u>Constituents</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Sludge depth	Inches	Grab	Annual	Annual
Distance between sludge top & outlet port	Inches	Calculated	Annual	Annual
Scum layer	Inches	Grab	Annual	Annual
Distance between scum		Calculated	Annual	Annual

<u>Constituents</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
layer bottom & outlet port				
Last pump out date	Date	Grab	Annual	Annual
Volume pumped	Gallons	Grab	Annual	Annual
Effluent Oil and Grease	mg/l	Grab	Annual	Annual

Septic tanks shall be pumped when any one of the following conditions exist or may occur before the next inspection:

- a. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment;
- b. The scum layer is within three inches of the outlet port; or
- c. The sludge layer is within eight inches of the outlet port.

In lieu of septic tank measurements, the septic tank may be pumped annually.

GREASE TRAP MONITORING

The Discharger shall monitor each individual grease trap as follows:

<u>Constituents</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Sludge depth	Inches	Grab	As needed	Monthly
Scum Layer	Inches	Grab	As needed	Monthly
Clean & pump out dates	Date	Grab	As needed	Monthly
Volume pumped	Gallons	Grab	As needed	Monthly

INFLUENT MONITORING

The Discharger shall monitor the influent to the package treatment plans as follows:

<u>Constituents</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd	Continuous	Daily	Monthly
pH ¹	pH units	Grab	Monthly	Monthly
Electrical Conductivity ¹	μ mhos/cm	Grab	Monthly	Monthly
BOD ₅ ²	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Oil and Grease	mg/L	Grab	Quarterly	Quarterly

² 5-day, 20°C Biochemical Oxygen Demand

EFFLUENT MONITORING

Samples shall be collected downstream from the last portion of the package treatment plant prior to entering the subsurface disposal field. Sample collection time and person's name collecting them shall be recorded. Effluent discharged to subsurface irrigation disposal areas shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	Gpd	Continuous	Daily	Monthly
pH ¹	pH units	Grab	Monthly	Monthly
BOD ₅ ²	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Electrical Conductivity ¹	μmhos/cm	Grab	Monthly	Monthly
Total Coliform	MPN/100 ml	Grab	Monthly	Monthly
Oil and Grease	mg/L	Grab	Quarterly	Quarterly

² 5-day, 20°C Biochemical Oxygen Demand

SUBSURFACE IRRIGATION DISPOSAL AREA MONITORING

Inspections of the subsurface irrigation disposal areas shall be conducted on a monthly basis, and shall consist of a physical evaluation of the disposal site area to determine whether waste is being contained beneath the ground surface. The ground in the immediate vicinity and surrounding the disposal site shall be inspected to determine the presence of effluent on the ground surface. The inspection report shall include any findings of springs, unusual ponding, or otherwise surfacing effluent, which would indicate a failure to the system.

A written report of the conditions observed in each area shall be prepared following each inspection, and shall be submitted with the monthly report. Such written description shall include name of the person making the entry, the condition of all the items listed in the above paragraph, and shall identify any maintenance work necessary (i.e., mowing of grass) on the physical aspects of the system.

SLUDGE MONITORING

The volume of sludge removed shall be reported annually. A composite sample of sludge shall be collected in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, when removed from the digester and tested for the following metals on an annual basis:

Cadmium	Copper	Nickel	Mercury
Chromium	Lead	Zinc	Iron

Sampling records shall be retained for a minimum of five years. An entry in the operators log shall be kept of sludge quantities generated and of handling and disposal activities. The log shall be part of the annual report.

GROUNDWATER MONITORING

The Discharger shall conduct the following groundwater monitoring program. Prior to construction of any additional groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP, and shall be sampled and analyzed according to the schedule below.

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged at least three well volumes until pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Water table elevations shall be calculated and used to determine groundwater gradient and direction of flow. Samples shall be collected using approved EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Groundwater Elevation ¹	0.01 Feet	Measurement	Quarterly
Depth to Groundwater	0.01 Feet	Calculated	Quarterly
Gradient	Feet/Feet	Calculated	Quarterly
Gradient Direction	Degrees	Calculated	Quarterly
pH	S.U.	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Nitrates as Nitrogen	mg/L	Grab	Quarterly
Ammonia as Nitrogen	mg/L	Grab	Quarterly
Total Coliform Organisms ²	MPN/100 ml	Grab	Quarterly

¹ Groundwater elevation shall be based on depth-to-water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

² Using a minimum of 15 tubes or three dilutions

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Water supply monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Sampling Frequency</u>
Electrical Conductivity ¹	µmhos/cm	Annually
pH	pH units	Annually
Standard Minerals	mg/L	Annually

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, leachfield, groundwater etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the reports shall include:

1. If the WWTF is not yet operational, then the report shall describe the construction progress to date and the anticipated start-up date.
2. Once the WWTF is operational, then the report shall include the following:
 - a. Results of grease trap, influent, effluent, and disposal area monitoring;
 - b. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;
 - c. If requested by staff, copies of laboratory analytical report(s); and
 - d. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Quarterly Report

The Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarterly report is due by May 1st) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of groundwater monitoring and quarterly influent and effluent monitoring;
2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to

verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;

3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;
4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
5. A comparison of the monitoring data to the groundwater limitations and an explanation of any violation of those requirements;
6. Summary data tables of historical and current water table elevations and analytical results;
7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and
8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

An Annual Report shall be prepared as the fourth quarter monitoring report. The Annual Report will include all monitoring data required in the monthly/quarterly schedule and shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular groundwater monitoring report for the last quarter of the year;
2. If requested by staff, tabular and graphical summaries of all data collected during the year;
3. Results of the septic tank, sludge, and water supply monitoring;
4. Information about disposal of screenings, sludges from domestic wastewater septic tanks, or other solids removed from liquid wastes that were disposed during the year (volume, location, date, and transportation used);
5. A scaled Subdivision map showing each lot's status, location of the Community Collection System, lift stations, Community Disposal System, groundwater monitoring wells, and other relevant monitoring points, structures, and/or features of the wastewater collection, treatment, and disposal systems;

6. A comparison of monitoring data to the discharge specifications, groundwater limitations and surface water limitations, and explanation of any violation of those requirements;
7. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system and/or reporting program;
8. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;
9. The names, certificate grades, and general responsibilities of all persons employed by the Discharger;
10. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations; and
11. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

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

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

14 March 2003

(Date)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2003-0048

WASTE DISCHARGE REQUIREMENTS

FOR

CONKEY REAL ESTATE DEVELOPMENT, LLC
PATRICIA TINTLE
TONY AND FRITZ GOSALVEZ
EMILY L. SPENCER TRUST
LONGS DRUGSTORES OF CALIFORNIA, INC.
HIGGINS CENTER WASTEWATER TREATMENT FACILITY
NEVADA COUNTY

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

1. Conkey Real Estate Development, LLC., submitted a Report of Waste Discharge (RWD) and supplemental information, dated 31 May 2002, 1 June 2002, and 6 November 2002 for a new wastewater treatment and disposal system (WWTF) that will treat and dispose of domestic wastewater generated from the Higgins Center Commercial Development in Nevada County.
2. For the purposes of this Order, "WWTF" shall mean the grease traps, septic tanks, additional treatment system, disinfection, effluent conveyance lines, and subsurface disposal fields.
3. Higgins Center is about 20 miles north of Auburn at the intersection of Combie Road and Highway 49 as shown in Attachments A and B, which are attached hereto and made a part of this Order by reference. The commercial subdivision encompasses an area of 10.65 acres in Section 2, T13N, R7E, MDB&M. The treatment system and disposal area will be constructed on an additional 17.35 acres on Assessor's Parcel No. 57-071-57.
4. The term "Discharger", as used in this Order, includes the following entities: Conkey Real Estate Development, LLC, (project developer and owner of the gas station, mini mart, car wash, and fast food restaurant), Patricia Tintle (owner of the disposal area property), Tony and Fritz Gosalvez (owner of the professional offices), Emily L. Spencer Trust (owner of a private residence and the Red Wagon Restaurant), and Longs Drugstores of California, Inc. (owner of Longs Drugstore).

Proposed Wastewater Treatment System

5. Domestic wastewater from the businesses and one residence will flow into septic tanks prior to being pumped into the collection system. Grease traps will be required at some businesses. The collection system will convey the wastewater to a small Intermittent Cycle Extended Activated Sludge (ICEAS) treatment system where it will be treated and then disposed via subsurface irrigation.

6. The ICEAS system is a secondary/tertiary treatment unit which uses activated sludge, ozone pathogen deactivation and filtration. The treatment system consists of influent equalization, an aeration tank system, batch clarifier, ozone treatment and disinfection system, effluent filtration and pumping system, and an aerobic digestion unit. The system is controlled by a master computerized plant control system.
7. The equalization tank is a buried 5,120 gallon combination tank equipped with two raw sewage pumps. The aeration system consists of a 10,000 gallon buried tank equipped with diffusers. The clarifier has a capacity of 3,500 gallons and is a programmed batch operation that provides for sedimentation and de-nitrification. The clarifier is equipped with a transfer pump which transfers effluent to the ozone contact tank, and a return activated sludge pumping system that transfers settled sludge and de-nitrified sludge back to the aeration tank and/or equalization tank. The ozone contact tank is 3,000 gallons and is operated on a batch basis. Following the ozone treatment, the effluent is filtered through a pressure filtration system. The filtered backwash water is diverted back to the equalization tank for re-treatment. Filtered and disinfected effluent is diverted to a 5,000 gallon effluent pump tank equipped with a pumping system to pump the effluent to the disposal system.
8. Waste activated sludge will be treated by aerobic digestion using a 5,000 gallon digester tank. The waste activated sludge generated from the secondary treatment system will be periodically transferred to the digestion system for treatment, reduction, and stabilization. Stabilized and digested solids will be removed from the system in liquid form at approximately 1.5% solids concentration by licensed septic pumper.
9. The design wastewater flow is 11,960 gallons per day (gpd). The maximum package treatment system flow design is 17,000 gpd and daily peak flow is estimated to be 17,940 gpd. The Discharger states that the extra peak flow of 940 gpd will be equalized within the 5,120-gallon equalization tank and the package treatment system. The following are design flows from the proposed buildings:

<u>Lot #</u>	<u>Owner</u>	<u>Discharger type</u>	<u>Acreage</u>	<u>Flow (gpd)</u>
1	Conkey LLC	Gas Station/Mini Mart and Car Wash	1.41	2,000
2	Conkey LLC	Fast Food Restaurant	1.34	3,200
3	Longs, Inc.	Longs Drug Retail	0.45	1,850
4	Gosalves	Professional Offices	0.80	750
5	Longs, Inc.	Longs Drug Store	2.75	1,200
	Spencer	Red Wagon Restaurant and Residence	3.9	2,960
	Tintle	Disposal area	17.35	
		Total		11,960
		Peak daily flow estimate @ 1.5 ADWF		17,940

10. The RWD states that the ICEAS treatment system can treat domestic wastewater to secondary/tertiary standards. The Discharger reports influent and effluent quality will be as follows:

<u>Constituent</u>	<u>Influent</u>	<u>Effluent</u>
Biochemical Oxygen Demand	327 mg/L	13 mg/L
Total Suspended Solids	213 mg/L	9 mg/L
Total Dissolved Solids	50 ¹ mg/L	300 mg/L
Nitrogen	50 mg/L	7.5 mg/L
Turbidity	--	2.0 NTU
Total Coliform	--	<2.2 MPN
PH	7 to 8	7 to 8

¹TDS influent is taken as background potable water

Proposed Wastewater Disposal System

11. Effluent disposal will consist of a subsurface irrigation/disposal system using buried tubular emitters placed at approximately six to eight inches below ground surface and spaced at two-foot intervals. The system will be divided into four operating zones and the emitters will be operated on a “pulsed” basis over a 24-hour period and controlled by the treatment systems computer and by moisture sensors.
12. The subsurface irrigation/disposal area will be covered with golf course turf grass that will be mowed and maintained on a regular basis to promote growth and assist with the evapotranspiration.
13. The RWD states that the effluent will be applied to the disposal area at a peak daily flow application rate of 0.59 gpd per square foot, and an average daily flow loading rate of 0.39 gpd per square foot. This is based on a total disposal area of 0.7 acres.

Operation and Maintenance

14. The RWD states that the “individual dischargers have entered into a joint agreement for sewer use and disposal.” However, the RWD does not contain a signed agreement between the individual parties. In addition, the RWD states that once WWTF has been fully constructed and made operational, the ownership for the appurtenances will be deeded to the Nevada County Sanitation Maintenance District #1. However, the RWD does not contain a statement from Nevada County that it has agreed to accept the system.
15. Conkey Real Estate Development, LLC is the developer of this project and will sell the parcels of land to other individuals or corporations. While it is acceptable that Conkey Real Estate LLC and/or the other Dischargers install the WWTF at this time, it is imperative that this Order not allow a WWTF to begin discharging without a method for permanent financing and oversight to ensure its continued operation and maintenance. Therefore, this Order contains a prohibition that the WWTF may not begin operation until the Executive Officer has approved documentation that either (a) a public entity has accepted ownership and operation of the WWTF or (b) a private

entity has been created with adequate long-term financial resources and expertise to operate and maintain the WWTF in compliance with this Order.

Sanitary Sewer System

16. 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 plant (in this case, the dosing tanks). 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.
17. Within this system, a sanitary sewer overflow consists of domestic and commercial sewage. The chief causes of sanitary sewer overflows include grease blockages, root blockages, debris blockages, sewer line flood damage, air relief/vacuum valve failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and contractor caused blockages.
18. Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic wastes, nutrients, oxygen demanding organic compounds, oil and grease, and other wastes. Sanitary sewer overflows can cause temporary exceedences of applicable water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.

Site-Specific Conditions

19. The average annual rainfall at the site is approximately 37 inches per year.
20. The topography of site is characterized by a gently sloping rise toward the northeast with the disposal system located at the top of the hill.
21. The surrounding land uses are zoned for commercial and residential development.
22. In April 2002, three monitoring wells were constructed around the perimeter of the proposed primary disposal area. The wells were installed to depths ranging from 60 to 80 feet below ground surface (bgs) and the depth to groundwater was reported at depths ranging from approximately 25 to 70.5 feet bgs. Groundwater flow was toward the east-southeast with an approximate gradient of 0.27 feet/foot.
23. In April 2002, groundwater samples were collected from the newly installed monitoring wells and analyzed for a number of constituents. Selected results are presented in the table below.

	<u>Constituents</u>	<u>Units</u>	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>
pH		pH units	7.8	7.6	7.6

<u>Constituents</u>	<u>Units</u>	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>
Specific Conductivity	μ mhos/cm	306	358	428
Total Dissolved Solids	mg/L	199	198	253
Chloride	mg/L	3.8	4.9	8.7
Nitrate as Nitrogen	mg/L	0.67	2.02	0.77
Nitrite as Nitrogen	mg/L	0.08	0.09	0.33
Total Kjeldahl Nitrogen	mg/L	0.1	1.0	0.4
Ammonia as N	mg/L	<0.1	<0.1	<0.1
Total Coliform	MPN/100 mL	14	2	2
Fecal Coliform	MPN/100 mL	<2	<2	<2

24. In July 1990, a total of eight backhoe trenches were excavated to depths of approximately 11 feet bgs on the Tintle Property (Parcel No. 4, APN 57-071-57) to perform random percolation tests to determine if the area was suitable for a subsurface disposal system. This study indicated that the soils beneath the area generally consist of six inches to two feet of reddish brown sandy silt with minor organics overlain by approximately one to five feet of medium dense to dense sandy silt. This material grades into a highly weathered fractured, fractured metasedimentary rock and volcanic mudflow breccia. Results of the percolation testing indicated that the upper 26 to 30 inches of native soil had percolation rates on the order of 8 to 15 minutes per inch. Percolation rates from 48 to 60 inches below existing grade were 70 to 73 minutes per inch.
25. In September 2002, five backhoe trenches were excavated at locations within the proposed disposal area to depths ranging from 10 to 11 feet bgs. These excavations were performed at the request of Conkey Real Estate Development, LLC, to allow the Regional Board to observe subsurface soil conditions. Observations typically indicated that the upper three feet of soils consisted of dark reddish brown and yellowish red sand loam and silt loam underlain by weathered, friable volcanic or metavolcanic rock.
26. All portions of the WWTF are outside the 100-year flood zone.
27. The facility lies within the Wolf Creek Hydrologic Unit Area No. 516.32, as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986.

Groundwater Degradation

28. State Water Resources Control Board (SWRCB) Resolution No. 68-16 (hereafter Resolution 68-16 or the "Antidegradation Policy") requires the Regional Board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., quality that exceeds water quality objectives).

29. The Regional Board finds that the Discharger has not demonstrated that it is to the maximum benefit to the people of the State of California to degrade groundwater, and therefore groundwater degradation is not allowed under this Order.
30. This wastewater treatment facility provides treatment and control of the discharge that includes advanced treatment; disinfection; and disposal to a subsurface disposal field using a pressure dose system and evapotranspiration and percolation as disposal methods.

Basin Plan, Beneficial Uses, and Regulatory Considerations

31. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*, (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.
32. Surface water drainage from the surrounding area is to Ragsdale Creek, which is a tributary of the Bear River.
33. The beneficial uses of Bear River are municipal and domestic supply; agricultural irrigation and stock watering; industrial power; contact, canoeing and rafting, and other noncontact recreation; warm and cold freshwater habitat; warm and cold water migration; warm and cold water spawning; and wildlife habitat.
34. The beneficial uses of the underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
35. The State Water Resources Control Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. The wastewater treatment plant facilities will be underground and therefore not exposed to stormwater runoff. Because there is no storm water discharge, the Discharger is not required to obtain coverage under General Permit No. CAS000001.
36. On 14 December 2000, in accordance with the California Environmental Quality Act (CCR, Title 14, Section 15261 et. seq.), the Nevada County Planning Department certified a final Environmental Impact Report for the Higgins Center project.
37. Section 13267(b) of California Water Code provides that: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its*

region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

The technical reports required by this Order and the attached “Monitoring and Reporting Program No. R5-2003-0048” are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge waste subject to this Order.

38. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to CWC Section 13801, apply to all monitoring wells.
39. State regulations that prescribe procedures for detecting and characterizing the impact of waste constituents from waste management units on groundwater are found in Title 27. While the wastewater treatment facility is exempt from Title 27, the data analysis methods of Title 27 may be appropriate for determining whether the discharge complies with the terms for protection of groundwater specified in this Order.
40. The discharge authorized herein and the treatment and storage facilities associated with the discharge, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27, California Code of Regulations (CCR), Section 20005 et seq. (hereafter Title 27). The exemption, pursuant to Title 27 CCR Section 20090(a), is based on the following:
 - a. The waste consists primarily of domestic sewage and treated effluent;
 - b. The waste discharge requirements are consistent with water quality objectives; and
 - c. The treatment and storage facilities described herein are associated with a domestic wastewater treatment facility.
41. Pursuant to California Water Code Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

Public Notice

42. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.

43. The Discharger and interested agencies and persons were notified of the intent to prescribe waste discharge requirements for this discharge, and provided an opportunity to submit written views and recommendations an to be heard in a public meeting.
44. In a public meeting, all comments pertaining to the discharge were heard and considered.

IT IS HEREBY ORDERED that pursuant to Sections 13263 and 13267 of the California Water Code, Conkey Real Estate Development, LLC, Patricia Tintle, Tony and Fritz Gosalvez, Emily L. Spencer Trust, and Longs Drugstores of California, Inc., their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

[Note: Other prohibitions, conditions, definitions, and some methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated 1 March 1991.]

A. Discharge Prohibitions

1. The discharge of wastewater to the WWTF is prohibited until the Discharger has submitted, and the Executive Officer has approved, documentation that either (a) a public entity has accepted the ownership and operation of the WWTF or (b) a private entity has been created with adequate long-term financial resources and expertise to operate and maintain the WWTF in compliance with this Order.
2. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
3. Bypass or overflow of untreated or partially treated waste is prohibited.
4. Discharge of sewage from a sanitary sewer system at any point upstream of the package treatment plant is prohibited. Discharge of treated wastewater outside of the subsurface disposal area is prohibited.
5. Surfacing of wastewater within or downgradient of the subsurface disposal area is prohibited.
6. Discharge of waste classified as 'hazardous' under Section 2521, Chapter 15 of Title 23 or 'designated', as defined in Section 13173 of California Water Code is prohibited.

B. Discharge Specifications

1. The monthly average inflow to the package treatment plant shall not exceed 13,000 gallons per day.
2. The wastewater treatment and subsurface disposal areas shall not cause pollution or a nuisance as defined by Section 13050 of the California Water Code.

3. Public contact with wastewater and the subsurface disposal area shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.
4. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations.
5. Objectionable odor originating at the WWTF shall not be perceivable beyond the limits of the package treatment plant and subsurface disposal area .
6. All treatment, storage, and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
7. Application of wastewater shall be confined to the disposal areas as defined in this Order.
8. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge. In particular, the following items shall be completed in accordance with the Operation and Maintenance Plan required by the Provisions:
 - a. The Discharger shall conduct inspections of the treatment system on at least an annual basis.
 - b. The Discharger shall cut the vegetation and remove the plant litter from the subsurface disposal areas as needed to prevent root intrusion into the driplines and to remove the nitrogen accumulated by the plant material..
 - c. The Discharger shall annually evaluate whether wastewater is evenly distributed to all the driplines and make modifications to the systems as necessary.
 - d. The Discharger shall properly maintain the sewage piping and treatment system including the timely removal and disposal of accumulated scum/sludge. Sludge and solid waste removed from septic tanks shall be pumped and hauled only by a licensed septage hauler. Septic tanks that are cracked or otherwise damaged shall be promptly repaired or replaced. Septic tank filters and grease traps shall be cleaned on a routine basis.
9. The WWTF shall have sufficient treatment, storage, and disposal capacity to accommodate allowable wastewater flow and design seasonal precipitation during the winter months. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

10. A 100-foot buffer zone shall be maintained between any watercourse and the subsurface disposal areas.
11. A 100-foot buffer zone shall be maintained between any spring, wetlands, domestic well or irrigation well and the subsurface disposal areas.
12. A 50-foot buffer zone shall be maintained between the subsurface disposal areas and the property boundary.

C. Effluent Limitations

1. Effluent discharged from the package treatment plant shall not have a pH less than 6.5 or greater than 8.5.
2. Effluent discharged from the package treatment plant shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Nitrogen	mg/L	10	20
BOD ¹	mg/L	20	40
Total Coliform Organisms	MPN/100ml	2.2	23

¹BOD denotes 5-day biochemical oxygen demand at 20° C

D. General Solids Disposal Specifications

Sludge means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screenings generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the facility.

1. Sludge and solid waste shall be removed from screens, septic tanks, and the package treatment system, as needed to ensure optimal plant operation.
2. Treatment and storage of sludge shall be confined to the treatment facility property, and shall be conducted in a manner that precludes infiltration of waste constituents into soils in a mass or at concentrations that will violate the Groundwater Limitations of this Order.
3. Any storage of residual sludge or solid waste at the facility shall be temporary, and the waste shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or at concentrations that will violate the Groundwater Limitations of this Order.

4. Residual sludge and solid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at disposal sites operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.

E. Groundwater Limitations

The discharge, in combination with other site-derived sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

F. Provisions

1. All of the following reports shall be submitted pursuant to Section 13267 of the California Water Code and shall be prepared by a registered professional as described by Provision F.2.
 - a. **At least 30 days prior to use**, the Discharger shall submit a report certifying that the WWTF has been constructed in accordance with this Order. The report at a minimum shall provide the following:
 - i. The number, size, and construction material of each septic tank installed within the Higgins Center.
 - ii. A detailed description of the treatment system, including size and location of the unit, the material that the tanks are constructed of, and flow design capacity.
 - iii. A detailed description of the type of wastewater disinfection system has been installed and is capable of meeting effluent limits prescribed in this Order.
 - iv. A description of the type and location of the flow meter which has been installed to meet compliance with the Monitoring and Reporting Program.
 - v. A detailed description of the subsurface disposal system, including: the total acreage, total lineal feet of dripline installed, dimensions of the subsurface disposal trenches, depths at which the driplines were set, number and locations of all leachline observation ports, and types of infiltrators installed. In addition, the report shall include a description of the vegetation installed over the disposal area.
 - b. **At least 30 days prior to use**, the Discharger shall submit and implement an Operation and Maintenance (O&M) Plan for the WWTF and subsurface disposal area. The O&M Plan shall instruct field personnel on how to manage the day-to-day discharge operations to comply with the terms and conditions of this Order and how to

make field adjustments, as necessary, to preclude nuisance conditions (e.g., surfacing water). It shall also include a nuisance condition troubleshooting flowchart and a description of notification requirements. A copy of the O&M Plan shall be kept at the facility for reference by operating personnel. Key personnel shall be familiar with its contents. The O&M Plan shall include the following documents as report appendices:

- i. A Vegetation Control Plan which describes how vegetation will be controlled, maintained, and removed in the subsurface disposal area to prevent root intrusion and damage.
 - ii. A Inspection Plan which describes the procedures for annually inspecting and testing grease traps, septic tanks, and the treatment system to determine if collected grease/scum/sludge need to be removed, and evaluates whether wastewater is evenly distributed to all the driplines and make modifications to the systems as necessary.
 - iii. A maintenance plan which describes maintenance procedure of the grease traps, sewage piping, septic tanks, and treatment system including the timely removal and disposal of accumulated scum/sludge. Sludge and solid waste removed from grease traps, septic tanks, and treatment system shall be pumped and hauled only by a licensed septage hauler. Septic tanks that are cracked or otherwise damaged shall be promptly repaired or replaced. Septic tank and treatment system filters shall be cleaned on a routine basis
- c. By **1 May 2004**, the Discharger shall submit a *Background Groundwater Quality Study Report*. For each groundwater monitoring parameter/constituent identified in the Monitoring and Reporting Program, the report shall present a summary of monitoring data, a calculation of the concentration in background monitoring well(s), and a comparison of background groundwater quality to that in wells used to monitor the facility. Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least four consecutive quarterly (or more frequent) groundwater monitoring events.
- d. If groundwater monitoring reports show that groundwater exceeds the groundwater limitation required by this Order, then within **120 days** of the Executive Officer's request, the Discharger shall submit a technical report which shall include a comprehensive evaluation of treatment and control measures that address full mitigation of the source of exceedance(s). The report shall describe treatment and control alternatives studied, the alternative(s) recommended for implementation, and any specific methods the Discharger proposes to monitor and assure continuous optimal performance, the source of funding, and proposed schedule for implementation. The recommended improvements and implementation schedule are subject to the Executive Officer's approval, but the schedule for full implementation shall be as short as practicable and not exceed two years unless specifically approved by the Regional Board.

2. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, 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. All technical reports specified herein that contain workplans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal.
3. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2003-0048, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
4. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
5. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to assure compliance with terms of this Order.
6. Upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow, the Discharger shall take any necessary remedial action to (a) control or limit the volume of sewage discharged, (b) terminate the sewage discharge as rapidly as possible, and (c) recover as much as possible of the sewage discharged (including wash down water) for proper disposal. The Discharger shall implement all applicable remedial actions including, but not limited to, the following:
 - a. Interception and rerouting of sewage flows around the sewage line failure;
 - b. Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - c. Use of portable aerators where complete recovery of the sanitary sewer overflows are not practicable and where severe oxygen depletion is expected in surface waters; and
 - d. Cleanup of sewage-related debris at the overflow site.
7. The Discharger shall report to the Regional Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
8. The Discharger shall not allow waste-free wastewater to be discharged into the wastewater collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Waste-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of wastes.

9. The Discharger shall submit to the Regional Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharge shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board in writing when it returns to compliance with the time schedule.
10. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.
11. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or recession of this Order.
12. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
13. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, THOMAS R. PINKOS, 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 Valley Region, on 14 March 2003.

THOMAS R. PINKOS, Executive Officer