

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2002-0031

FOR  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

This Monitoring and Reporting Program (MRP) incorporates requirements for monitoring of the community disposal system, influent, individual on-site systems, effluent, groundwater, and other 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. Sample collection stations shall be established such that the samples collected are representative of the nature and volume of the material(s) sampled.

**COMMUNITY DISPOSAL SYSTEM INFLUENT MONITORING**

The Discharger shall monitor the Community Disposal System influent for the following constituents according to the following schedule:

Constituents	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Continuous	Daily	Monthly
pH	pH units	Grab	Monthly <sup>1</sup>	Monthly
Electrical Conductivity	$\mu$ mhos/cm	Grab	Monthly <sup>1</sup>	Monthly
BOD <sub>5</sub>	mg/l	Grab	Monthly <sup>1</sup>	Monthly
Nitrates	mg/l as N	Grab	Monthly <sup>1</sup>	Monthly
Total Suspended Solids	mg/l	Grab	Quarterly	Quarterly
Oil and Grease	mg/l	Grab	Quarterly	Quarterly

<sup>1</sup> After the first year of data has been collected these are to be sampled Quarterly

**COMMUNITY DISPOSAL SYSTEM MONITORING**

All Community Disposal System (CDS) facilities including collection system, sewer mains, headworks, distribution lines and boxes, diversion trenches, effluent disposal trenches, and other appurtenant monitoring systems associated with the CDS water level measuring tubes(s), shall be inspected on a weekly basis. Observations made during these inspections shall be recorded on a weekly basis. Septic tanks shall be monitored annually as described above in the individual systems monitoring.

Inspections of the leachfield system facilities will be comprised 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 or surfacing effluent, which would indicate a failure to the system.

A written report of the conditions observed for the system shall be prepared following each inspection. Such written description shall include name of the person making the entry, the condition of all the items listed in the above paragraphs, and shall identify any maintenance work necessary on the physical aspects of the system.

And the following measurements shall constitute the community leachfield-monitoring program:

Constituents	Units	Type of Sample	Sampling Frequency
Water Level Below Surface in All System Risers	Inches	Grab	Monthly
Flow	mgd	Continuous	Monthly

### INDIVIDUAL SYSTEMS MONITORING

All leachfield, septic tank, mound, pressure dosed, sand filter, or alternate system failures shall be reported quarterly, along with the reason for failure and the type and effectiveness of remedial action taken. The total number of system correction notifications, correction repairs, complaints, and inspections conducted annually and the type of system inspected shall be reported quarterly. A daily log of operator observations and comments shall be maintained and reported quarterly. Data collected on community leachfield riser water levels and mound system effluent quality shall be summarized and reported. In addition, a tabulation of the number of systems installed with a breakdown of system type and remaining systems to be install until build out shall be included. The following schedule shall constitute each system type frequency for monitoring:

System Type	Monitoring Frequency
Conventional Systems	Annually
Mound Systems	Annually
Pressure Dosed Systems	Annually
Sand Filter Systems	Annually
Alternative Technology Systems	Annually
Community Collection and Disposal System	Weekly

All systems shall be monitored every six months for the first year and annually afterwards except the CDS (CDS monitored weekly). All septic tanks within the Subdivision shall be inspected for scum and sludge depth annually and pumped when the combined scum and sludge depth is measured to be 25% of tank volume or greater. All mound and sand filter systems shall receive distribution manifold maintenance at least annually. Pressure dosed and alternative technology systems shall receive manufacturer's specified maintenance annually.

### MOUND SYSTEM MONITORING

Twenty-five Mound systems are to be inspected annually. The selection process for sampling shall be on a rotational basis, such that Mound systems where fluid is present in their upper and/or lower inspection risers shall be inspected/sampled every five years. Systems found to be in a failure or failing condition shall be monitored monthly until the system is repaired and functions properly. The upper and lower risers containing fluid shall be sampled for the following:

Constituent	Sample Type	Units
Total Coliform Organisms <sup>1</sup>	Grab	MPN/100 ml
Nitrate	Grab	mg/l
Chloride	Grab	mg/l
Ammonia	Grab	mg/l
Electrical Conductivity	Grab	µmhos/cm
pH	Grab	pH units
Orthophosphate	Grab	mg/l
BOD <sub>5</sub> <sup>2</sup>	Grab	mg/l

<sup>1</sup> Minimum of six (6) dilutions (thirty tube)

<sup>2</sup> 5-day, 20°C Biochemical Oxygen Demand

Note: Systems found to be in a failure or failing condition shall monitor septic tank effluent or mound system influent immediately and weekly thereafter for BOD, TSS, and Grease until the system is repaired and functions properly.

### SURFACE WATER MONITORING

All surface water samples shall be grab samples. Surface water samples shall be taken from the following:

Station	Description
S-1 (Inlet Ditch)	Water Supply Irrigation Ditch entering ALTS
S-2 (Maine Bar Canyon)	Major stream leaving ALTS, Middle Fork tributary
S-3 (Buckeye Canyon)	Intermittent spring fed stream, Middle Fork tributary
S-4 (Wildcat Canyon)	Intermittent spring fed stream, Middle Fork tributary
S-5 (Browns Bar Canyon)	Intermittent spring fed stream, Middle Fork tributary
S-6 (Outlet Ditch)	Water Supply Irrigation Ditch leaving ALTS South Fork tributary
S-7 (CDS Creek)	Spring fed stream, down gradient of CDS

The above listed stations shall be sampled annually between December - February excepting S-1 and S-6 shall be sampled in May for the following:

Constituents	Sample Type	Units
Total Coliform Organisms <sup>1</sup>	Grab	MPN/100 ml
Fecal Coliform Organisms <sup>1</sup>	Grab	MPN/100 ml
Chloride	Grab	mg/l
Nitrate	Grab	mg/l
Orthophosphate	Grab	mg/l
Electrical Conductivity	Grab	µmhos/cm
Flow	Estimated	cfs
pH	Grab	pH units
BOD <sub>5</sub> <sup>2</sup>	Grab	mg/l

<sup>1</sup> Minimum of five (5) dilutions (twenty five tube)

<sup>2</sup> 5-day, 20°C Biochemical Oxygen Demand

### GROUNDWATER MONITORING

Samples shall be taken from all Board approved groundwater-monitoring wells, according to Board approved sampling procedures (see Attachment B). Time of collection of a grab sample shall be recorded. The following shall constitute the groundwater-monitoring program:

Constituents	Units	Type of Sample	Sampling Frequency
Ground water elevation <sup>1</sup>	feet ± 0.1	Grab	Quarterly
20° C BOD <sub>5</sub>	mg/l	Grab	Quarterly
Temperature	Degrees °F	Grab	Quarterly
Total Coliform organisms	MPN/100 ml	Grab	Quarterly
pH	pH units	Grab	Quarterly
Total Dissolved Solids	mg/l	Grab	Quarterly
Electrical conductivity	µmhos/cm	Grab	Quarterly
Total nitrogen (N)	mg/l	Grab	Quarterly
Nitrate	mg/l	Grab	Quarterly
Nitrite	mg/l	Grab	Quarterly
Total Kjeldahl nitrogen	mg/l	Grab	Quarterly
Ammonia	mg/l	Grab	Quarterly
Total Alkalinity	mg/l	Grab	Quarterly
Total Hardness	mg/l	Grab	Quarterly
Chlorides	mg/l	Grab	Quarterly
Iron	mg/l	Grab	Quarterly
Boron	mg/l	Grab	Quarterly
Manganese	mg/l	Grab	Quarterly
Sodium	mg/l	Grab	Quarterly
Standard Minerals <sup>2</sup>	mg/l	Grab	Annually

<sup>1</sup> The ground water elevation shall be used to calculate the direction and gradient of ground water flow, which must be reported in the Discharger Self Monitoring Report.

<sup>2</sup> Standard Minerals shall include, at a minimum, the following: Barium, Calcium, Magnesium, Potassium, Sulfate, Total Alkalinity (include alkalinity series), and Total Hardness.

Based on results of the groundwater-monitoring program after a minimum of two years, the Discharger may request a reduction in the constituents monitored, sample frequency, and/or locations monitored. If such reductions are warranted, this MRP may be revised by the Executive Officer.

### 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:

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

<sup>1</sup> The District is required to conduct annual water quality sampling of its treated water system pursuant to the requirements of Department of Health Services. No additional sampling of the treated water supply appears to be warranted at this time. However, water supply quality shall be submitted to the Board as part of this Monitoring and reporting program.

### REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., influent, effluent, 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 to the Regional Board.

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.

Certification of the monitoring reports shall be as specified in General Reporting Requirements B.3. of the *STANDARD PROVISIONS AND REPORTING REQUIREMENTS FOR WASTE DISCHARGE REQUIREMENTS*, dated 1 March 1991, which is commonly referenced as the *Standard Provisions*.

#### Quarterly Reports

The Discharger shall establish a quarterly groundwater-sampling schedule such that samples are obtained approximately every three months. Quarterly Monitoring Reports for March, June, September, and December shall be submitted to the Regional Board by the **1<sup>st</sup> day of May, August, November, and February** each year. The Quarterly Report shall include the following:

1. All continuous, daily, weekly, monthly, and quarterly monitoring conducted during the quarter.

2. A narrative description of all preparations, monitoring, sampling, and analytical testing activities. The narrative shall be sufficiently detailed to verify compliance with the WDRs, this MRP, and the *Standard Provisions*. Field logs shall support the narrative for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of the casing volume; and total volume of water purged.
3. Calculation of groundwater elevations, an estimation of groundwater flow direction and hydraulic position with respect to nearby domestic or agricultural supply wells (if any) on the date of measurement, comparison to previous data, and discussion of seasonal trends, if any.
4. A narrative discussion of the analytical results for all media and locations monitored, including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable).
5. A comparison of monitoring data to the discharge specifications, groundwater limitations and surface water limitations, and explanation of any violation of those requirements.
6. Summary data tables of historical and current monitor well elevations and analytical results.
7. A scaled map showing the lots, relevant structures and features of the subdivision, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum.
8. A scaled map showing history and location of correction notices, failed systems, replaced systems, and complaints.
9. Copies of laboratory analytical report(s).

### **Annual Monitoring Report**

The December monthly report (**due by 1<sup>st</sup> day of February each year**) shall also serve as an Annual Monitoring Report. At a minimum, the Annual Monitoring Report shall include the following:

1. The contents of the December quarterly report and summarize all data collected during the year;
2. Tabular and graphical summaries of all well monitoring data obtained during previous years;
3. Information about disposal of screenings, sludges from domestic wastewater septic tanks, or other solids removed from liquid wastes that were disposed during the year such as volume, location, date, and transportation used;
4. A scaled Subdivision map showing each lot's status, its type of wastewater disposal system, location of the Community Collection System, lift stations, Community Disposal System, surface water monitoring locations, groundwater monitoring wells, and other relevant monitoring points, structures, and/or features of the wastewater collection, treatment, and disposal systems;

5. A narrative discussion of the analytical results for all media and locations monitored, including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
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. The names, certificate grades, and general responsibilities of all persons employed by the Discharger;
9. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations;
10. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration; and
11. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment and disposal facilities as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

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. Pursuant to Standard Provisions, General Reporting requirements B.3, the transmittal letter shall contain the following statement by the Discharger, or the Discharger's authorized agent:

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

MONITORING AND REPORTING PROGRAM NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

8

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

Ordered by:

  
GARY M. CARLTON, Executive Officer

1 March 2002

(Date)

GWL

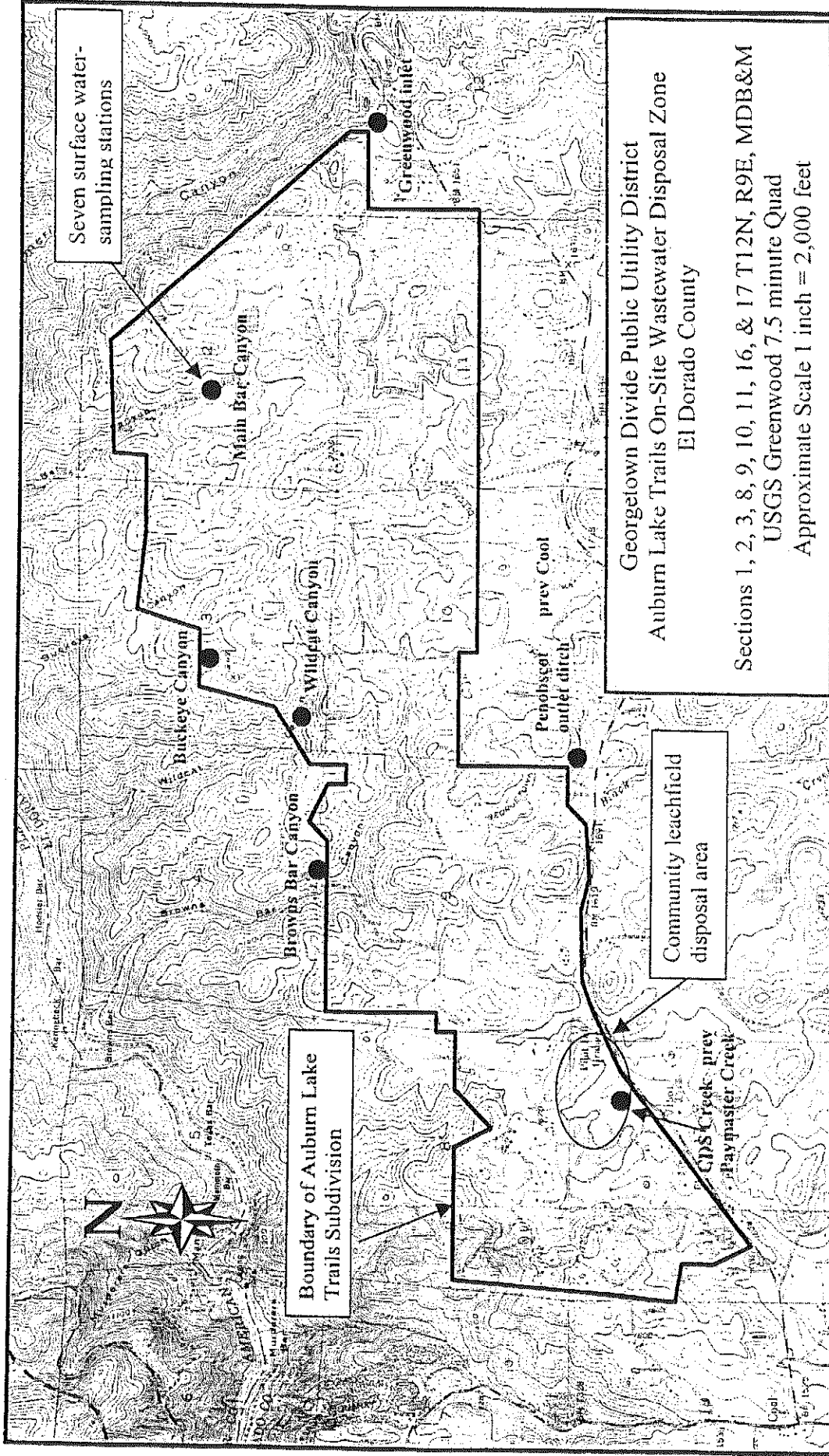
3/1/02

gw\\h:\h\word\WDRs\_ElDorado\AuburnLakeTrails\_mrp6.doc



# Attachment A

WASTE DISCHARGE REQUIREMENT'S ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY





**INFORMATION NEEDS FOR  
MONITORING WELL INSTALLATION WORKPLAN AND RESULTS REPORT**

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing the minimum listed information. Wells may be installed after staff approve the workplan. Upon installation of the monitoring wells, the Discharger shall submit a report of results, as described below. All workplans and reports must be prepared and signed by a California registered geologist, engineering geologist, or civil engineer.

**Monitoring Well Installation Workplan**

**A. General Information:**

- Monitoring well locations and rationale
- Survey details
- Equipment decontamination procedures
- Health and safety plan
- Topographic map showing any existing monitoring wells, proposed wells, waste handling facilities, utilities, and other major physical and man-made features.
- Characterize site geology and hydrology, and identify unconfined or confined aquifers

**B. Drilling Details: describe drilling and logging methods**

**C. Monitoring Well Design:**

- Casing diameter
- Borehole diameter
- Depth of surface seal
- Well construction materials
- Diagram of well construction
- Type of well cap
- Size of perforations and rationale
- Grain size of sand pack and rationale
- Thickness and position of bentonite seal and sand pack
- Depth of well, length and position of perforated interval

**D. Well Development:**

- Method of development to be used
- Method of determining when development is complete
- Method of development water disposal

**E. Surveying Details: discuss how each well will be surveyed to a common reference point**

F. Soil Sampling (if applicable):

- Cuttings disposal method
- Analyses to be run and methods
- Sample collection and preservation method
- Intervals at which soil samples are to be collected
- Number of soil samples to be analyzed and rationale
- Location of soil samples and rationale
- QA/QC procedures

G. Well Sampling:

- Minimum time after development before sampling (48 hours)
- Well purging method and amount of purge water
- Sample collection and preservation method
- QA/QC procedures

H. Water Level Measurement:

The elevation reference point at each monitoring well shall be within 0.01 foot. Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

I. Proposed time schedule for work.

**Monitoring Well Installation Report of Results**

A. Well Construction:

- Number and depth of wells drilled
- Date(s) wells drilled
- Description of drilling and construction
- Approximate locations relative to facility site(s)
- A well construction diagram for each well must be included in the report, and should contain the following details:

- Total depth drilled
- Depth of open hole (same as total depth drilled if no caving occurs)
- Footage of hole collapsed
- Length of slotted casing installed
- Depth of bottom of casing
- Depth to top of sand pack
- Thickness of sand pack
- Depth to top of bentonite seal
- Thickness of bentonite seal
- Thickness of concrete grout
- Boring diameter
- Casing diameter

- Casing material
- Size of perforations
- Number of bags of sand
- Well elevation at top of casing
- Depth to ground water
- Date of water level measurement
- Monitoring well number
- Date drilled
- Location

B. Well Development:

- Date(s) of development of each well
- Method of development
- Volume of water purged from well
- How well development completion was determined
- Method of effluent disposal
- Field notes from well development should be included in report.

C. Well Surveying: provide reference elevations for each well and surveyor's notes

D. Water Sampling:

- Date(s) of sampling
- How well was purged
- How many well volumes purged
- Levels of temperature, EC, and pH at stabilization
- Sample collection, handling, and preservation methods
- Sample identification
- Analytical methods used
- Laboratory analytical data sheets
- Water level elevation(s)
- Groundwater contour map

E. Soil Sampling (if applicable):

- Date(s) of sampling
- Sample collection, handling, and preservation method
- Sample identification
- Analytical methods used
- Laboratory analytical data sheets

03/01/02

gw\H:\h\Word\WDRs\_Placer\AuburnLakeTrails\_attachmentB.doc



System types for Auburn Lake Trails Subdivision

- A. Conventional subsurface disposal systems utilizing alternative fields.
- B. Conventional subsurface disposal systems utilizing pressure-dosing techniques.
- C. Select fill subsurface disposal systems utilizing pressure-dosing techniques.
- D. Elevated fill subsurface disposal systems utilizing alternative fields and/or pressure-dosing techniques.
- E. Elevated fill (mound) systems.
- F. Individual on-site primary wastewater treatment systems with connection to a common subsurface disposal system.
- G. Individual on-site primary wastewater treatment systems with connection to a common mound system.

It is intended that the forgoing system types shall not be considered exclusive in that advances in technology may provide future alternatives, which are cost effective and enhance the achievement of water quality and public health objectives.

The following variances (underlined) are required from El Dorado County Ordinance Code, Chapter 15.33.020:

- H. Disposal systems shall be designed to utilize the most permeable or absorptive portion of the soil formation as determined by a percolation test and soil profile analyses. There shall be a minimum of five feet of permeable soil below the bottom of the proposed conventional sewage disposal system. There shall be a minimum of four feet of soil below the distribution manifold in a proposed pressure dosed special design system. The five feet of soil below the bottom of a conventional sewage disposal system, and the four feet below the distribution manifold of a pressure dosed special design system shall be free from the effects of groundwater and possess appropriate textural and structural characteristics to promote effective renovation of wastewater.
- I. No property shall be improved in excess of its capacity to absorb sewage effluent in the quantities and by the means provided in this code unless appropriate measures (i.e. easements) have been taken to provide sufficient suitable lands for this purpose.

Mound Design Criteria		
Criterion	State of California Guidelines <sup>(a)</sup>	Auburn Lake Trails On-site Wastewater Disposal Zone
Maximum Slope	12% for <60 mpi 6% for 60-120 mpi	14%
<i>SWRCB Guidelines for Mound Systems-Jan 1980</i> see Table 1, page 9		
Fill depth below Bed/Trench (Mound Body Thickness)	36" for <10 mpi 24" for 10-60 mpi 12" for >60 mpi	48" minimum fill and unsaturated soils below 60" minimum fill and permeable soils below
see Table 9, page 36		
Unsaturated Depth (ground surface to groundwater or pervious or fractured bedrock)	24"	18" minimum
see Table 1, page 9		
Minimum Soil Depth (ground surface to impermeable surface)	36" minimum 60" for slope <2.5%	30" minimum
see Table 1, page 9		
Percolation Rate	<120 mpi at 20" depth	Same
see Table 1, page 9		
Design Flow Rates	150 gpd/bedroom	Same
see page 13		
Bed/Trench Geometry (refers to entire system geometry)	Square beds Ok if <60 mpi & flat otherwise, rectangular beds	Same
see page 15		
Reserve Area	100% replacement	100% replacement of bed area
see page 14		
Basal Loading Rate	0 - 30 mpi: 1.25 gpd/sf 31 - 45 mpi: 0.70 gpd/sf 46 - 60 mpi: 0.50 gpd/sf 61-120 mpi: 0.25 gpd/sf	Same
see Table 10, page 37		
<sup>(a)</sup> State Water Resources Control Board, <i>Guidelines for Mound Systems</i> , January, 1980		
Note: Fast soil < 10 mpi, Permeable soil 10-60 mpi, and Tight soil 61-120 mpi (ref Table 1 & 9)		

GWL

03/01/02

gw\H:\h\Word\WDRs\_Placer\AuburnLakeTrails\_attachmentC.doc



## INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

Auburn Lake Trails Subdivision (Subdivision) is about two miles east on Highway 193 from Cool and the intersection of Highway 49 and Highway 193. The Subdivision was created in 1972 by a developer call Trans-Land Company. It was to originally encompass 2,800 acres and include 1,850 residential lots, equestrian center, country club and golf course, commercial facilities, and a private campground. A legal dispute developed over wastewater disposal and other things and was settled in 1984. As a result of the legal settlement, the Subdivision was modified to 1,100 total lots, and Georgetown Divide Public Utility District (hereafter Discharger) became the regulatory agency responsible for waste disposal within the Subdivision and the owner of the community disposal system.

The Georgetown Divide Public Utility District (GDPUD) Board of Directors declared their intent to form the on-site district for the Auburn Lake Trails Subdivision in Ordinance No. 84-1 and Resolution No. 84-6 and held a public hearing in October 1984. Formation of the Auburn Lake Trails On-Site Wastewater Disposal Zone (Zone) was contingent on Finality of Judgment in Class Action law suite, Case Number 34594, Superior Court of the State of California mentioned above. The case was settled and the Zone was formed.

As set forth in the Resolution, GDPUD will review design, oversee installation, investigate problems, test, redesign (if necessary), operate and monitor, and maintain and repair as required, on-site systems in the Zone financed by fees collected from the individual homeowners. GDPUD will perform similar services on existing lots currently and those proposed for hookup to the community septic tank/leachfield system.

Some variances to Regional Board *Guidelines for Waste Disposal From Land Developments* and the State Water Resources Control Board *Guidelines for Mound Systems* dated January 1980 were agreed to in the previous Regional Board Order No. 84-126 to facilitate the installation of on-site systems with in the Subdivision. In a letter from the Discharger dated 20 January 1993, the Discharger requested review and comment from the Board on changes to the variances for Mound Design Criteria d. ii and iii, which it appears to have subsequently implemented. This Order reestablishes the types of systems and design criteria from Order No. 84-126, which are contained in Attachment C.

Along with the variance agreement in Order No. 84-126, significant monitoring was required to ensure water quality was protected. Groundwater monitoring was called out in the Monitoring and Reporting Program No. 84-126, however, groundwater monitoring or reporting has not been conducted since 1991. This Order requires the installation and quarterly monitoring of groundwater wells about the Subdivision and its Community Disposal System. It also requires additional monitoring and reporting and a requirement for the Discharger to give the homeowner 30 days to modify or replace failed systems.

This Order also requires a compliance evaluation of the groundwater beneath the Subdivision with State Water Resources Control Board (SWRCB) Resolution No. 68-16 or the "Antidegradation Policy".

If groundwater monitoring results show that the discharge of waste from the Community Disposal System and/or the on-site systems are causing groundwater to contain waste constituents in

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

concentrations statistically greater than background water quality, then within 120 days of the request of the Executive Officer, the Discharger shall submit a report showing that degradation of the groundwater complies with SWRCB Resolution No. 68-16, i.e., that it is (a) in the best interest of the people of the state, (b) that best practical treatment and control measures have been implemented to reduce the amount of degradation, (c) that the groundwater degradation will not exceed applicable water quality objectives, and (d) that the degradation is confined within specified boundaries.

### **Basin Plan, Beneficial Uses, and Regulatory Considerations**

Surface water drainage from the Subdivision is to the Middle and South Forks of the American River, tributary to Folsom Lake Reservoir, tributary to the Sacramento River. The *Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region, Fourth Edition* (Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. Beneficial uses often determine the water quality objectives that apply to a water body. For example, waters designated as municipal and domestic supply must meet the maximum contaminant levels (MCLs) for drinking waters. The Basin Plan sets forth the applicable beneficial uses (industrial, agricultural, and domestic supply in this instance) of groundwater, procedure for application of water quality objectives, and the process for and factors to consider in allocating waste assimilation capacity.

### **Antidegradation**

The antidegradation directives of section 13000 of the California Water Code (CWC) require that waters of the State that are better in quality than established water quality objectives be maintained "consistent with the maximum benefit to the people of the State." Waters can be of high quality for some constituents or beneficial uses and not others. Policies and procedures for complying with this directive are set forth in the Basin Plan (including by reference State Water Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality Waters in California," or "Antidegradation" Policy).

Resolution NO. 68-16 is applied on a case-by-case, constituent-by-constituent basis in determining whether a certain degree of degradation can be justified. It is incumbent upon the Discharger to provide technical information for the Board to evaluate that fully characterizes:

- all waste constituents to be discharged, the background quality of the uppermost layer of the uppermost aquifer
- the background quality of other waters that may be affected
- the underlying hydrogeologic conditions
- waste treatment and control measures
- how treatment and control measures are justified as best practicable treatment and control
- the extent the discharge will impact the quality of each aquifer
- the expected degradation compared to water quality objectives

INFORMATION SHEET

3

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

In allowing a discharge, the Board must comply with CWC section 13263 in setting appropriate conditions. The Board is required, relative to the groundwater that may be affected by the discharge, to implement the Basin Plan and consider the beneficial uses to be protected along with the water quality objectives essential for that purpose. The Board need not authorize the full utilization of the waste assimilation capacity of the groundwater (CWC 13263(b)) and must consider other waste discharges and factors that affect that capacity. The applicable beneficial uses (industrial, agricultural, and domestic supply in this instance), procedure for application of water quality objectives, and the process for and factors to consider in allocating waste assimilation capacity are set forth in the Basin Plan.

This discharge has been occurring for years. Previous conditions of discharge allowed no degradation. However, certain waste constituents in municipal wastewater are not fully amenable to waste treatment and control and it is reasonable to expect some impact on groundwater. Some degradation for certain constituents is consistent with maximum benefit to the people of California because the technology, energy, water recycling, and waste management advantages of municipal utility service to the State far outweigh the environmental impact damage of a community that would otherwise be reliant on numerous concentrated individual wastewater systems. Economic prosperity of valley communities is of maximum benefit to the people of California, and therefore sufficient reason to accommodate increases in wastewater discharge provided terms of reasonable degradation are defined and met. The proposed Order authorizes some degradation consistent with the maximum benefit to the people of the State.

Groundwater monitoring data at this site is incomplete to establish the most appropriate receiving water limits. In addition, as explained elsewhere in this information sheet, certain aspects of waste treatment and control practices have not been and are unlikely to be justified as representative of BPTC. Reasonable time is necessary to gather specific information about the facility and the site to make informed, appropriate, long-term decisions. This Order, therefore, establishes interim receiving water limitations to assure protection of the beneficial uses of waters of the State pending the completion of certain tasks and provides time schedules to complete specified tasks. The tasks provide that the Discharger is expected to identify, implement, and adhere to best practicable treatment and control as individual practices are reviewed and upgraded in this process. During this period, degradation may occur from certain constituents, but by interim conditions can never exceed water quality objectives (or ambient background water quality should it exceed objectives) or cause nuisance.

Water quality objectives define the least stringent limits that apply as water quality limitations for groundwater at this location. The exception is when ambient background water quality is unaffected by the discharge of waste and already exceeds the objective. The values below reflect water quality objectives that must be met to maintain specific beneficial uses of groundwater. Unless natural background for a constituent proves higher, the interim groundwater quality limit established in proposed WDR is the most stringent of the values listed for the following constituents.

INFORMATION SHEET  
 WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
 GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
 AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
 EL DORADO COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Value</u>	<u>Beneficial Use</u>	<u>Criteria or Justification</u>
Ammonia	mg/L	0.5	MUN <sup>1</sup>	Taste and Odor <sup>2</sup>
Boron	mg/L	0.5	AGR <sup>3</sup>	Class I irrigation water (Basin Plan)
		0.63	MUN <sup>1</sup>	Narrative Toxicity Criteria <sup>3</sup>
		0.7	AGR <sup>3</sup>	Boron sensitivity on certain crops <sup>4</sup>
		2	AGR <sup>3</sup>	Class II irrigation water (Basin Plan)
Chloride	mg/L	106	AGR <sup>3</sup>	Chloride sensitivity on certain crops irrigated via sprinklers <sup>4</sup>
		142	AGR <sup>3</sup>	Chloride sensitivity on certain crops <sup>4</sup>
		175	AGR <sup>3</sup>	Class I irrigation water (Basin Plan)
		250	MUN <sup>1</sup>	Recommended Secondary MCL <sup>5</sup>
		350	AGR <sup>3</sup>	Class II irrigation water (Basin Plan)
		500	MUN <sup>1</sup>	Upper Secondary MCL <sup>5</sup>
		750	AGR <sup>3</sup>	Salt sensitivity <sup>4</sup>
Conductivity (EC)	µmhos/cm	900	MUN <sup>1</sup>	Recommended Secondary MCL <sup>5</sup>
		1,000	AGR <sup>3</sup>	Class I irrigation water (Basin Plan)
		1,600	MUN <sup>1</sup>	Upper Secondary MCL <sup>5</sup>
		3,000	AGR <sup>3</sup>	Class II irrigation water (Basin Plan)
		Iron	mg/L	0.3
Manganese	mg/L	0.05	MUN <sup>1</sup>	Secondary MCL <sup>6</sup>
Nitrate as N	mg/L	10	MUN <sup>1</sup>	Primary MCL <sup>7</sup>
Nitrite as N	mg/L	1	MUN <sup>1</sup>	Primary MCL <sup>7</sup>
pH	pH Units	6.5 to	MUN	Secondary MCL <sup>8</sup>
		8.5		
Sodium	mg/L	69	AGR <sup>3</sup>	Sodium sensitivity on certain crops irrigated via sprinklers <sup>4</sup>
		207	AGR <sup>3</sup>	Sodium sensitivity on certain crops <sup>4</sup>
Total Coliform Organisms	MPN / 100 mL	2.2	MUN <sup>1</sup>	Basin Plan
Total Dissolved Solids	mg/L	450	AGR <sup>3</sup>	Salt sensitivity <sup>4</sup>
		500	MUN <sup>1</sup>	Recommended Secondary MCL <sup>5</sup>
		700	AGR <sup>3</sup>	Class I irrigation water (Basin Plan)
		1,000	MUN <sup>1</sup>	Recommended Upper MCL <sup>5</sup>
		2,000	AGR <sup>3</sup>	Class II irrigation water (Basin Plan)
Total Trihalomethanes	µg/L	80	MUN	MCL <sup>9</sup>

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
 GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
 AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
 EL DORADO COUNTY

<u>Constituent</u>	<u>Units</u>	<u>Value</u>	<u>Beneficial Use</u>	<u>Criteria or Justification</u>
Chloroform	µg/L	1.1	MUN <sup>1</sup>	Narrative Toxicity Criteria <sup>10</sup>
Bromodichloromethane	µg/L	0.27	MUN <sup>1</sup>	Narrative Toxicity Criteria <sup>10</sup>
Dibromochloromethane	µg/L	0.37	MUN <sup>1</sup>	Narrative Toxicity Criteria <sup>10</sup>
Bromoform	µg/L	4.0	MUN <sup>1</sup>	Narrative Toxicity Criteria <sup>3</sup>

- <sup>1</sup> Municipal and domestic supply
- <sup>2</sup> Council of the European Union, On the Quality of Water Intended for Human Consumption, Council Directive 98/83/EC (3 November 1998).
- <sup>3</sup> Agricultural supply
- <sup>4</sup> Ayers, R. S. and D. W. Westcot, Water Quality for Agriculture, Food and Agriculture Organization of the United Nations – Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985)
- <sup>5</sup> Title 22, California Code of Regulations (CCR), section 64449, Table 64449-B
- <sup>6</sup> Title 22, CCR, section 64449, Table 64449-A
- <sup>7</sup> Title 22, CCR, section 64431, Table 64431-A
- <sup>8</sup> United States Environmental Protection Agency
- <sup>9</sup> Title 22, CCR, section 64439
- <sup>10</sup> California Environmental Protection Agency, Office of Environmental Health Hazard Assessment Cancer Potency Factor as a Drinking Water Level, *California Environmental Protection Agency Toxicity Criteria Database*

Municipal wastewater contains numerous dissolved inorganic waste constituents (i.e., salts, minerals) that together comprise total dissolved solids (TDS). The concentration of each component constituent of TDS is not necessarily critical to a beneficial use. Specific constituents that are critical are individually listed. The cumulative impact from these other constituents, along with the cumulative affect of the constituents that are individually listed can be effectively controlled using TDS as a generic indicator parameter. Most dissolved inorganic substances in water are in the ionized form and so contribute to a solution's ability to conduct electricity, or its "electrical conductivity" (EC). EC varies both with the number and type of ions the solution contains and is strongly temperature dependent. It is standard practice to report a solution's EC at 25° Celsius (this value is technically called "specific conductance"). Un-ionized species of weak acids or bases and uncharged soluble organic materials, such as ethyl alcohol and glucose, are poor conductors of electricity even though these constituents comprise a portion of TDS contributing to a solution's EC. Although EC is affected by the nature of the various ions, their relative concentrations, and ionic strength of the water, EC measurements can provide a quick and inexpensive practical estimate of a solution's dissolved mineral content once the relationship is established for the solution. An empirical factor representing the relationship may be developed from simultaneous sampling and measurements of TDS and EC.

**Treatment Technology and Control**

Given the volume and character of municipal wastewater, primary in some cases and in others secondary treatment technology is generally sufficient to control degradation of groundwater from decomposable

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

organic constituents. If necessary, adding disinfection to the treatment train will significantly reduce populations of pathogenic organisms, and reasonable soil infiltration rates and unsaturated soils can reduce them further. Total coliform organisms, the indicator parameter for pathogenic organisms, should not be found in groundwater in a well-designed, well-operated facility. The groundwater limit for this constituent is nondetect, which is less than the water quality objective.

Chlorine disinfection of effluent causes formation of trihalomethanes, which are toxic priority pollutants. Treatment to reduce these in wastewater generally has not been performed, and little is known at this point on the typical impact on groundwater. The limitation is based on the water quality objective for human consumption.

Municipal wastewater typically contains nitrogen in concentrations greater than water quality objectives, which vary according to the form of nitrogen. Degradation by nitrogen can be controlled by an appropriate secondary treatment system (e.g., oxidation ditch), tertiary treatment for nitrogen reduction, and agronomic reuse on harvested crops. The effectiveness varies, but generally best practicable treatment and control should be able to control nitrogen degradation at a concentration well below the water quality objectives. The limitation reflects water quality objectives.

Waste constituents that are forms of salinity pass through the treatment process and soil profile and effective control of long-term effects relies upon effective source control and pretreatment measures. In the best of circumstances, long-term land discharge of treated municipal wastewater will degrade groundwater with salt (as measured by TDS and EC) and the individual components of salts (e.g., sodium, chloride). Not all TDS constituents pass through the treatment process and soil profile in the same manner or rate. Chloride tends to pass through both rapidly to groundwater. As chloride concentrations in most groundwaters in the region are much lower than in treated municipal wastewater, chloride is a useful indicator parameter for evaluating the extent to which effluent reaches groundwater. This Order sets water quality objectives for the interim while site-specific, constituent-specific limits are developed in conjunction with a BPTC evaluation of source control and pretreatment. Subsequent Orders will likely contain effluent limits for salt components that, if met, assure groundwater quality will be controlled to an acceptable level.

Other indicator constituents for monitoring for groundwater degradation due to recharged effluent include total coliform bacteria, ammonia, total nitrogen, and total trihalomethanes (when the effluent is chlorinated). Total trihalomethanes (TTHMs) are chlorinated organic materials that are toxic at low concentrations. Common TTHMs include bromoform, bromodichloromethane, dibromochloromethane, and chloroform. While the State drinking water regulations (i.e., Title 22, CCR, section 64439) establish a maximum contaminant level for TTHMs of 80  $\mu\text{g/L}$ , the actual concentrations at which TTHMs components are considered "toxic" to humans are much lower (e.g., chloroform's human health toxicity limit is 1.1  $\mu\text{g/L}$ ). The Basin Plan states that groundwaters "shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses." As indicated in the above table, groundwater limitations necessary to enforce the Basin Plan's narrative toxicity objective are significantly lower than that necessary to meet the maximum contaminant level for TTHMs components in drinking water.

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

7

Boron is another TDS constituent that may occur in wastewater in concentrations greater than groundwater depending on the source water, to the extent residents use cleaning products containing boron, and whether any industrial dischargers utilize boron (e.g., glass production, cosmetics). Because various crops are sensitive to boron, it has an individual limit intended to protect agricultural use.

Still other constituents in treated municipal waste that may pass through the treatment process and the soil profile include recalcitrant organic compounds (e.g., ethylene glycol, or antifreeze), radionuclides, and pharmaceuticals. Hazardous compounds are not usually associated with domestic wastes and when present are reduced in the discharge to inconsequential concentrations through dilution with domestic waste, treatment, and the implementation of effective pretreatment programs. Since it is inappropriate to allow degradation of groundwater with such constituents, the limitations are set to nondetect.

A discharge of wastewater that overloads soils with nutrients and organics can result in anaerobic conditions in the soil profile, which in turn creates organic acids and decreases soil pH. Under conditions of low soil pH (i.e., below 5), iron and manganese compounds in the soil can solubilize and leach into groundwater. Discharge of residual sludge to land may also lead to increases in groundwater alkalinity and hardness to concentrations that impair the water's beneficial uses and contribute to an overall increase in TDS. Overloading is preventable and does not constitute BPTC as used in Resolution 68-16. Dissolved iron and manganese, along with elevated alkalinity, hardness, and nitrogen concentrations, are useful indicators to determine whether components of the WWTP with high-strength waste constituents, such as sludge handling facilities, are effectively containing waste. Iron and manganese increases and changes in pH in groundwater are avoidable and limitations should reflect background. However, during this interim investigative period, interim limits are set at the water quality objective for iron, manganese, and pH.

### Title 27

Title 27, CCR, section 20380 et seq. ("Title 27"), contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent is acceptable.

Discharges of domestic sewage and treated effluent can be treated and controlled to a degree that will not result in unreasonable degradation of groundwater. For this reason, they have been conditionally exempted from Title 27, except for residual sludge and solid waste generated as part of the treatment process [section 20090(a) of Title 27]. The condition requires that the discharge not result in violation of any water quality objective in groundwater.

Treatment and storage facilities for sludge that are part of the WWTP are considered exempt from Title 27 under section 20090(a), under the condition that the facilities not result in a violation of any water quality objective. However, residual sludge (for the purposes of the proposed order, sludge that will not be subjected to further treatment by the WWTP) is not exempt from Title 27. Solid waste (e.g.,

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

grit and screenings) that results from treatment of domestic sewage and industrial waste also is not exempt from Title 27. This residual sludge and solid waste are subject to the provisions of Title 27.

Accordingly, the municipal discharge of effluent and the operation of treatment or storage facilities associated with a municipal wastewater treatment plant can be allowed without requiring compliance with Title 27, but only if resulting degradation of groundwater is in accordance with the Basin Plan. This means, among other things, degradation of groundwater must be consistent with Resolution No. 68-16 and in no case greater than water quality objectives. The conditions for sludge, solid waste, and biosolids management must be evaluated along with other aspects of BPTC.

## TERMS AND CONDITIONS

### Discharge Prohibitions, Specifications and Provisions

This Order establishes the need to monitor groundwater and the submittal of a complete technical report to evaluate the subdivision's water quality impacts. This Order's discharge performance specifications for BOD<sub>5</sub>, TSS, and Oil and Grease are based on the treatment technologies employed. This Order does not require the Discharger to disinfect the effluent. Storm water is allowed to runoff the subdivision and the subsurface land application areas under the general storm water permit. The discharge specifications regarding effluent resurfacing are consistent with Board policy for the prevention of health, pollution, or nuisance conditions, and are applied to all such facilities.

In order to protect public health and safety, this Order requires the Discharger to comply with many of the provisions of Title 22 and to implement best management practices with respect to effluent disposal (e.g., to dispose of effluent at reasonable rates considering soil conditions, climate, and subsurface irrigation management).

### Monitoring Requirements

Section 13267 of the CWC authorizes the Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the state. In recent years there has been increased emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving accountability of any discharger for meeting the conditions of discharge. Section 13268 of the CWC authorizes assessment civil administrative liability for failure to furnish technical or monitoring program reports, a statement of compliance, or falsifying any information provided therein.

This Order increases the previous Order's influent and effluent monitoring requirements, and includes flow rates, land application areas, and groundwater monitoring requirements. In order to adequately characterize its wastewater effluent, the Discharger is required to monitor for flow, pH, Electrical Conductivity, BOD, nitrates, and oil and grease. To ensure that community and individual disposal systems do not create nuisance conditions, the Discharger is required to monitor the effluent, systems' physical condition, and perform maintenance as required.



WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

The Title 27 zero leakage protection strategy relies heavily on extensive groundwater and unsaturated zone monitoring to increase the Discharger's awareness of, and accountability for, compliance with the prescriptive and performance standards. With a high volume, concentrated, uncontained discharge to land, monitoring takes on even greater importance. This Order includes monitoring of applied wastewater quality, application rates, and groundwater.

Title 27 regulations pertaining to groundwater monitoring and the detection and characterization of waste constituents in groundwater have been in effect and successfully implemented for many years. No regulation currently specifies similar criteria more suitable for a situation where extensive infiltration into groundwater occurs. When such infiltration occurs, it is appropriate that the Title 27 groundwater monitoring procedures be extended and applied on a case-by-case basis under CWC Section 13267.

This Order requires installation of an effective groundwater-monitoring network that includes monitoring points represented by wells forming a vertical line that extends from the soil surface into the uppermost layer of water in the uppermost aquifer. One or more wells will monitor the quality of groundwater unaffected by the discharge and serve as 'background.' Other monitoring wells will be for determining compliance with Groundwater Limitations D.1 and D.2.

The Discharger must monitor groundwater for constituents present in the discharge and capable of reaching groundwater and violating groundwater limitations. To determine if the treatment and control, and any dependency of the treatment process on sustained environmental attenuation or treatment, proves to be inadequate. As some groundwater limitations are based on background water quality, it is essential that the discharger install wells in a location that can provide groundwater quality representative of the discharge area but unaffected by both the discharge and other waste sources. This Order requires the Discharger to install sufficient well(s) to characterize receiving groundwater and background water quality with quarterly groundwater sampling events. For each constituent where no increase in concentration is authorized over background, the Discharger must, as part of each monitoring event, compare concentrations of constituents found in each monitoring well to the background concentration to determine compliance.

### Reopener

The conditions of discharge in this Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. However, information is presently insufficient to develop final effluent and groundwater limitations, so this Order contains interim limitations. Additional information must be developed and documented by the Discharger as required by schedules set forth in this Order. As this additional information is obtained, decisions will be made concerning the best means of assuring the highest water quality possible may involve substantial cost. It may be appropriate to reopen the Order if applicable laws and regulations change, but the mere possibility that such laws and regulations may change is not sufficient basis for reopening the Order. The CWC requires that waste discharge requirements implement all applicable requirements.

INFORMATION SHEET

10

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0031  
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT  
AUBURN LAKE TRAILS ON-SITE WASTEWATER DISPOSAL ZONE  
EL DORADO COUNTY

Several other more likely reasons for reconsidering terms of the Order exist, and the Order may be opened for this purpose at the Board's discretion. For example, Board procedures require periodic review of the effectiveness of requirements at a frequency proportional to the threat the discharge has to water quality with update as appropriate. The Order will definitely be reopened for consideration of BPTC and establishing final numeric groundwater limitations. It is also conceivable that monitoring of compliance may identify a waste constituent, possibly a toxic waste constituent, that violates or threatens to violate groundwater limitations, establishing a need to consider an appropriate numeric effluent limit for that waste constituent.

Surface water drainage is to the Middle and South Forks of the American River, tributary to Folsom Lake Reservoir, tributary to the Sacramento River.

GWL  
3/1/02

gw\lh:\h\word\WDRs\_Eldorado\AuburnLakeTrails\_info5.doc

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

STANDARD PROVISIONS AND REPORTING REQUIREMENTS  
FOR  
WASTE DISCHARGE REQUIREMENTS  
(Waste Discharge to Land)

1 MARCH 1991

**A. General Provisions:**

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws. This Order does not convey any property rights or exclusive privileges.
2. The Provisions of this Order are severable. If any provision of this Order is held invalid, the remainder of this Order shall not be affected.
3. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including but not limited to:
  - a. Violation of any term or condition contained in this Order;
  - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
  - c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge; or
  - d. A material change in the character, location, or volume of discharge.
4. Before making a material change in the character, location, or volume of discharge, the Discharger shall file a new Report of Waste Discharge with the California Regional Water Quality Control Board, Central Valley Region (hereafter Board). A material change includes, but is not limited to, the following:
  - a. An increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements;
  - b. A significant change in disposal method, location, or volume, e.g., change from land disposal to land treatment;
  - c. The addition of a major industrial, municipal, or domestic waste discharge facility; or

- d. The addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
5. Except for material determined to be confidential in accordance with California law and regulations, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board. Data on waste discharges, water quality, meteorology, geology, and hydrogeology shall not be considered confidential.
6. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the state resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.
7. The Discharger shall maintain in good working order and operate as efficiently as possible any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.
8. The Discharger shall permit representatives of the Board and the State Water Resources Control Board (SWRCB), upon presentations of credentials, to:
  - a. Enter premises where wastes are treated, stored, or disposed of and facilities in which any records are kept;
  - b. Copy any records required to be kept under terms and conditions of this Order;
  - c. Inspect at reasonable hours, monitoring equipment required by this Order; and
  - d. Sample, photograph, and video tape any discharge, waste, waste management unit, or monitoring device.
9. For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the Discharger shall employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.
10. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order shall not be a defense for the Discharger's violations of the Order.
11. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the California Water Code, Section 13050.
12. The discharge shall remain within the designated disposal area at all times.

**B. General Reporting Requirements:**

1. In the event the Discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the Discharger shall notify the Board by telephone at (916) 255-3000 as soon as it or its agents have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing within **two weeks**. The written notification shall state the nature, time, and cause of noncompliance, and shall include a timetable for corrective actions.
2. The Discharger shall have a plan for preventing and controlling accidental discharges, and for minimizing the effect of such events.

At a minimum this plan shall:

- a. Identify the possible sources of accidental loss or leakage of wastes from each waste management, treatment, or disposal unit;
- b. Evaluate the effectiveness of present waste management/treatment units and operational procedures, and identify needed changes of contingency plans; and
- c. Predict the effectiveness of the proposed changes in waste management/treatment units and procedures and provide an implementation schedule containing interim and final dates when changes will be implemented.

The Board, after review of the plan, may establish conditions that it deems necessary to control leakages and minimize their effects.

3. All reports shall be signed by the responsible persons identified below:
  - a. For a corporation: by a principal executive officer of at least the level of senior vice-president;
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor;
  - c. For a municipality, state, federal, or other public agency: by either a principal executive officer of ranking elected or appointed official; or
  - d. A duly authorized representative of a person designated in 3a, 3b, or 3c of this requirement if;
    - (1) the authorization is made in writing by a person described in 3a, 3b, or 3c of this provision;
    - (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility of activity, such as the position of plant manager, operator of a waste management unit, superintendent, or position of equivalent

responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

- (3) the written authorization is submitted to the Board.

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

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

4. Technical and monitoring reports specified in this Order are requested pursuant to Section 13267 of the Water Code. Failing to furnish the reports by the specified deadlines and falsifying information in the reports, are misdemeanors that may result in assessment of civil liabilities against the Discharger.
5. The Discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

California Regional Water Quality Control Board  
Central Valley Region  
3443 Routier Road, Suite A  
Sacramento, CA 95827-3003

or the current address if the office relocates.

**C. Provisions for Monitoring:**

1. All analyses shall be made in accordance with the Environmental Protection Agency (EPA) latest edition of: (1) *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA 600 Series) and (2) *Test Methods for Evaluating Solid Waste* (SW 846-latest edition). The test method may be modified subject to application and approval of alternate test procedures under the Code of Federal Regulations (40 CFR 136).
2. Chemical, bacteriological, and bioassay analysis shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a non-certified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to EPA guidelines or to procedures approved by the Board.

Unless otherwise specified, all metals shall be reported as Total Metals.

3. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Record of monitoring information shall include:

- a. the date, exact place, and time of sampling or measurements,
  - b. the individual(s) who performed the sampling of the measurements,
  - c. the date(s) analyses were performed,
  - d. the individual(s) who performed the analyses,
  - e. the laboratory which performed the analysis,
  - f. the analytical techniques or methods used, and
  - g. the results of such analyses.
4. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated at least yearly to ensure their continued accuracy.
  5. The Discharger shall maintain a written sampling program sufficient to assure compliance with the terms of this Order. Anyone performing sampling on behalf of the Discharger shall be familiar with the sampling plan.
  6. The Discharger shall construct all monitoring wells to meet or exceed the standards stated in the State Department of Water Resources *Bulletin 74-81* and subsequent revisions, and shall comply with the reporting provisions for wells required by Water Code Sections 13750 through 13755.22

**D. Standard Conditions for Facilities Subject to California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15):**

1. All classified waste management units shall be designed under the direct supervision of a California registered civil engineer or a California certified engineering geologist. Designs shall include a Construction Quality Assurance Plan, the purpose of which is to:
  - a. demonstrate that the waste management unit has been constructed according to the plans and specifications as approved by the Board, and
  - b. provide quality control on the materials and construction practices used to construct the waste management unit and prevent the use of inferior products and/or materials which do not meet the approved plans and specifications.

2. Prior to the discharge of waste to any classified waste management unit, a California registered civil engineer or a California certified engineering geologist must certify that the waste management unit meets the construction or prescriptive standards and performance goals in Chapter 15, unless an engineered alternative has been approved by the Board. In the case of an engineered alternative, the registered civil engineer or a certified engineering geologist must certify that the waste management unit has been constructed in accordance with Board-approved plans and specifications.
3. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the waste management unit.
4. Closure of each waste management unit shall be performed under the direct supervision of a California registered civil engineer or a California certified engineering geologist.

**E. Conditions Applicable to Discharge Facilities Exempted from Chapter 15 Under Section 2511:**

1. If the Discharger's wastewater treatment plant is publicly owned or regulated by the Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to California Code of Regulations, Title 23, Division 4, Chapter 14.
2. By-pass (the intentional diversion of waste streams from any portion of a treatment facility, except diversions designed to meet variable effluent limits) is prohibited. The Board may take enforcement action against the Discharger for by-pass unless:
  - a. By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production); and
  - b. There were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance; or
    - (1) by-pass is required for essential maintenance to assure efficient operation; and
    - (2) neither effluent nor receiving water limitations are exceeded; and
    - (3) the Discharger notifies the Board ten days in advance.

The permittee shall submit notice of an unanticipated by-pass as required in General Reporting Requirements B.1 above.



3. A Discharger that wishes to establish the affirmative defense of an upset (see definition in Conditions Applicable to Discharge Facilities Exempted from Chapter 15 Under Section 2511, Definitions E.6.a below) in an action brought for noncompliance shall demonstrate, through properly signed contemporaneous operating logs, or other evidence, that:
  - a. an upset occurred and the cause(s) can be identified;
  - b. the permitted facility was being properly operated at the time of the upset;
  - c. the Discharger submitted notice of the upset as required in General Reporting Requirements B.1 above; and
  - d. the Discharger complied with any remedial measures required by the waste discharge requirements.

In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof.

4. A Discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Board by **31 January**.
5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to disposal. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
6. Definitions:
  - a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.
  - b. The monthly average discharge is the total discharge by volumes during a calendar month divided the number of days in the month that the facility was discharging. This number is to be reported in gallons per day (gpd) or million gallons per day (mgd).

Where less than daily sampling is required by this Order, the monthly average shall be determined by the summation of all the measured discharges by the number of days during the month when the measurements were made.

- c. The monthly average concentration is the arithmetic mean of measurements made during the month.
- d. The "daily maximum" **discharge** is the total discharge by volume during any day.
- e. The "daily maximum" **concentration** is the highest measurement made on any single discrete sample or composite sample.
- f. A "grab" sample is any sample collected in less than 15 minutes.
- g. Unless otherwise specified, a composite sample is a combination of individual samples collected over the specified sampling period;
  - (1) at equal time intervals, with a maximum interval of one hour, or
  - (2) at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

7. Annual Pretreatment Report Requirements:

Applies to Dischargers required to have a Pretreatment Program as stated in waste discharge requirements.

The annual report shall be submitted **by 28 February** and include, but not be limited to, the following items:

- a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the influent and effluent for those pollutants EPA has identified under Section 307(a) of the Clean Water Act which are known or suspected to be discharged by industrial users.

The Discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR (Code of Federal Regulations) Part 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least **annually**. The Discharger shall also provide any influent, effluent, or sludge monitoring data for non-priority pollutants which may be causing or contributing to Interference, Pass Through, or any adverse impact to sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

- b. A discussion of Upset, Interference, Pass Through, or noncompliance incidents, if any, at the treatment plant which the Discharger knows or suspects were caused by industrial users of the system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Upset, Interference, Pass Through, or noncompliance with sludge disposal requirements.
- c. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.
- d. An updated list of the Discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the federal categorical standards. The Discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:
  - (1) Complied with baseline monitoring report requirements (where applicable);
  - (2) Consistently achieved compliance;
  - (3) Inconsistently achieved compliance;
  - (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
  - (5) Complied with schedule to achieve compliance (include the date final compliance is required);
  - (6) Did not achieve compliance and not on a compliance schedule; and/or
  - (7) Compliance status unknown.

A report describing the compliance status of any industrial user characterized by the descriptions in items (d)(3) through (d)(7) above shall be **submitted quarterly from the annual report date** to EPA and the Board. The report shall identify the specific compliance status of each such industrial user. This quarterly reporting requirement shall commence upon issuance of this Order.

- e. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the industrial users. The summary shall include but not be limited to, a tabulation of categories of dischargers that were inspected and sampled, how many and how often, and incidents of noncompliance detected.
- f. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:
  - (1) Warning letters or notices of violation regarding the industrial user's apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations;
  - (2) Administrative Orders regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (3) Civil actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (4) Criminal actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations
  - (5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
  - (6) Restriction of flow to the treatment plant; or
  - (7) Disconnection from discharge to the treatment plant.
- g. A description of any significant changes in operating the Pretreatment Program which differ from the Discharger's approved Pretreatment Program, including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority of enforcement policy; funding mechanisms; resource requirements; and staffing levels.
- h. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
- i. A summary of public participation activities to involve and inform the public.

- j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

Duplicate signed copies of these reports shall be submitted to the Board and EPA and SWRCB at the following addresses:

Regional Administrator  
U.S. Environmental Protection Agency W-5  
75 Hawthorne Street  
San Francisco, CA 94105

and

State Water Resource Control Board  
Division of Water Quality  
P.O. Box 944213  
Sacramento, CA 94244-2130

Revised March 1993 to update phone number of Central Valley Regional Water Quality Control Board

gw\h:\h\word\Guidelines\StdPrv2NC15.doc

