CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2005-0170

NPDES NO. CA0085162

WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS FOR GRIZZLY RANCH COMMUNITY SERVICES DISTRICT WASTEWATER COLLECTION, TREATMENT, AND RECYCLING FACILITY PLUMAS COUNTY

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

REPORT OF WASTE DISCHARGE

1. The Grizzly Ranch Community Services District (GRCSD, hereafter referred to as Discharger), submitted a Report of Waste Discharge (ROWD) on 18 June 2003, and applied for a permit to discharge treated wastewater (effluent) to Big Grizzly Creek, a water of the United States, under the National Pollutant Discharge Elimination System (NPDES). The ROWD also requests recycling requirements to produce recycled water for irrigation at the golf course in the development. The ROWD was initially deemed incomplete on 17 July 2003 due to the absence of the proper United States Environmental Protection Agency (USEPA) forms and lack of receiving water (Big Grizzly Creek) characterization. On 5 September 2003, the Discharger submitted additional information that completed the ROWD.

2. The GRCSD was formed in November 2003 to oversee the operation, maintenance, and monitoring of the wastewater collection, treatment, disposal, and recycled water production system for the Grizzly Ranch development, among other duties. The GRCSD is a public entity in accordance with Section 53090 et seq. of the California Government Code, and is therefore vested with all the powers necessary to collect funds to perform the necessary operation, maintenance, and monitoring to comply with this Order.

WASTEWATER COLLECTION, TREATMENT, AND RECYCLED WATER SYSTEM DESCRIPTION AND GENERAL SITE INFORMATION

3. The Discharger will own and operate a sewer system, and wastewater treatment plant (the sewer system and plant shall be referred to as "Facility"). The Discharger will provide sewer service to domestic and commercial users within the GRCSD's jurisdiction. The Grizzly Ranch development will consist of 380 single-family homes, an 18-hole golf course, a golf clubhouse, and some limited commercial facilities such as small stores, shops, and offices. The average annual monthly wastewater flow from the development will be 61,000 gallons per day (gpd), and

the design flow will be 81,000 gpd. Wastewater flow from each component of the development is estimated as follows (design flow):

Development Component	**Design Flow (gallons per day)**
Single-family Housing	76,000
Commercial	1,000
Clubhouse	4,000
TOTAL	**81,000**

4. The development is in Sections 15, 16, 17, 20, 21, and 22, T23N, R14E, MDB&M, as shown in Attachment A, a part of this Order. The Discharger owns the wastewater treatment plant property **(**AP No. 028-020-004**)**. The golf course, on which recycled water application will take place, consists of parcels 028-010-006, 028-010-031, 028-010-036, and 0280-010-037, which are owned by Grizzly Creek Golf, LLC. Separate water reclamation requirements will be issued to Grizzly Creek Golf, LLC for the use and management of the recycled water on the golf course. The Facility and discharge (including stream discharge and recycling area) lie within the Sloat Hydrologic Unit No. 518.33, as depicted on interagency hydrologic maps prepared by the State of California Department of Water Resources (DWR) in August 1986.

5. The Facility will consist of:

   a. A headworks with flow metering and a rotary drum screen for grit and large solids removal;

   b. A sequencing batch reactor for waste strength reduction and nitrogen removal;

   c. Multi-media filters for additional removal of biochemical oxygen demand (BOD), total suspended solids (TSS), and turbidity, prior to disinfection;

   d. An emergency storage pond (Emergency Pond);

   e. An irrigation storage pond (Irrigation Pond) and irrigation system;

   f. An outfall diffuser in Big Grizzly Creek;

   g. A pumping station and irrigation distribution piping for recycled water irrigation.

   Refer to the Information Sheet for additional details on the treatment process.

6. Between 16 November and the last Saturday in April, when dilution of effluent is 100:1 or greater, effluent discharge to Big Grizzly Creek is permitted at the point latitude 39°48’15” North and longitude 120°29’29” West. When this dilution cannot be maintained, and from the last Saturday in April to 15 November, reuse of the treated effluent (recycled water) for golf course irrigation is practiced; discharge to Big Grizzly Creek is then prohibited, with some exceptions.

7. According to the Discharger, until average monthly flow to the Facility reaches the amount produced by 30 homes (approximately 6,000 gallons per day), the Facility cannot be efficiently operated. Until such time the Discharger will haul wastewater from the Facility to a permitted receiving facility or wastewater treatment plant, and forgo start-up of the wastewater treatment Plant. This Order requires the Discharger to provide records of wastewater hauling and to perform wastewater pumping and hauling in a sanitary manner by licensed personnel.

8. Big Grizzly Creek is tributary to the Middle Fork of the Feather River; creek flow is controlled by the outlet structure of Grizzly Valley Dam, which impounds Lake Davis. Grizzly Valley Dam is managed and operated by DWR, which constructed the dam in 1966 as part of the State Water Project.

9. By a memorandum of agreement between the California Department of Fish and Game (DFG) and DWR, as delineated in Water Rights Decisions 15254 and 15255, releases from Grizzly Valley Dam must be greater than or equal to 10 cubic feet per second (cfs), with some exceptions. This minimum 10 cfs release is necessary to protect the fishery resource in Big Grizzly Creek. An exception to the minimum release is allowed for five consecutive days during which release can be reduced to five cfs, generally for fish counts by DFG.

10. There are currently two water rights on Big Grizzly Creek. One, the Ramelli water right, for up to five and one half cfs, to a maximum of 700 acre feet per year (there is also an option in the water right agreement for an additional 100 acre feet in a given year, but the 100 acre feet must be returned the next year, reducing the subsequent year's allotment to 600 acre feet) held by the United States Department of the Interior, Forest Service (USFS). The second water right, for up to one and one half cfs, the Val Verde water right, is held by the Sierra Health Foundation. The withdrawal point for the Ramelli water right is upstream of the Facility discharge to Big Grizzly Creek, and for the Val Verde water right, downstream of the discharge.

11. The Ramelli water right is currently used for flood irrigation of pasture. Historically, exercise of this right was utilized by withdrawing water from Big Grizzly Creek for two continuous weeks at a time, followed by approximately a week or more with no withdrawal. For the last several years, the water right has been exercised continuously at an approximately equal withdrawal rate throughout the season, from mid May to mid October. Continuous exercise of the water right reduces the withdrawal rate to approximately 2.7 cfs to assure the maximum annual allotment of 800 acre feet is not exceeded. Although not part of the release agreement, reductions of releases to five cfs are timed to occur in September and to coincide with periods when the Ramelli water right is not being exercised. This Order prohibits direct discharge of effluent to Big Grizzly Creek prior to 15 November. Therefore, during discharge of Facility effluent to the receiving water minimum flow in Big Grizzly Creek: 1) should never be less than 4.5 cfs (even assuming full diversion of the Ramelli water right in November-an extremely unlikely occurrence); 2) will seldom be less than 7.3 cfs (assuming the Ramelli water right will be used in November); and 3) will almost always be 10 cfs or more.

12. Lake Davis contains a large population of illegally introduced Northern Pike (Pike), a voracious predator fish. Pike are damaging to the local trout fishery in Lake Davis and potentially to fisheries in San Francisco Bay and the Sacramento/San Joaquin Delta, if the Pike were to escape Lake Davis. DFG has been attempting to eradicate the Pike for many years. In 1998 Lake Davis was treated with rotenone. Although the treatment at first appeared successful, Pike have reappeared and continue to multiply. Currently, one potential Pike management plan entails partially draining the lake prior to treatment by rotenone, or other means. DFG staff indicates that if the proposed partial draining of the lake occurs, the minimum 10 cfs water release can be maintained, unless several years of severe drought were to occur soon after lake draining.

13. The ROWD describes the expected Facility effluent characteristics as follows:

    a. Monthly Average (dry weather) Flow: 0.061 million gallons per day (mgd)
    b. Daily Peak Wet Weather Flow: 0.12 mgd
    c. Design Flow (dry weather): 0.081 mgd

Constituent	**mg/L**	**lb/day**
BOD [1]	10	6.75[2]
Total Suspended Solids	10	6.75[2]
Total Nitrogen	10	6.75[2]
Total Coliform	<2.2 (MPN/100 mL)	NA

[1]5-day, 20°C biochemical oxygen demand
[2]Based on the design flow of 0.081 mgd

14. A schematic of the proposed Facility is shown in Attachment B, a part of this Order.

15. Soil conditions beneath the Irrigation and Emergency ponds are ill defined. However, as indicated, the Irrigation Pond will have a synthetic liner, and in general will receive only a small portion of treated wastewater. The Emergency Pond will also be lined, and will contain wastewater only for the time necessary to process by-passed, improperly treated, wastewater back through the Facility after a process upset. In addition, this Order calls for a liner inspection procedure to assure that the Emergency Pond liner maintains its integrity and is substantially free of leaks. Inspection will be performed on the dry liner after wastewater has been removed from the Emergency Pond.

16. All areas of the Facility that present a potential human health threat or could be sensitive to vandalism will be fenced.

17. The Facility lies outside of the boundaries of the 100-year flood plain according to Federal Emergency Management Administration (FEMA) maps for the area.

18. Average annual precipitation at the Facility, which falls as a combination of rain and snow, is 24.6 inches as given by DWR weather station information for the area. The 100-year return frequency rainfall season precipitation is approximately 46 inches. Average annual evaporation in the area is 35.3 inches.

19. The sewer system is consists entirely of low pressure pipeline. Each home, as well as all other wastewater dischargers, will be equipped with a small storage vault (approximately 30 gallons for residences), and a grinder pump. The grinder pump will deliver wastewater to the sewer system. Pumping will be controlled by level in the storage vault. The GRCSD will be responsible for operation and maintenance of these pump vaults, and before they can obtain a building permit all property owners must sign a licensing agreement with the GRCSD to allow the GRCSD access to the pumps.

20. All sewer systems experience some infiltration and inflow (I/I), which is groundwater and surface water that enters a sewer system. This Order requires leak testing of the sewer system prior to any discharge of wastewater to the Facility. This Order also requires submission of testing results to Regional Board staff, and a certification that the collection, treatment, and disposal systems have been constructed in substantial conformance with the plans and specifications. The testing and certification must be performed by a registered California civil engineer. The provisions of this Order also require a Sanitary Sewer System Overflow and Prevention Plan and an I/I Identification and Reduction Program.

21. Groundwater depth in the vicinity of the Facility during the winter is unknown. However, there are many springs on the property; groundwater is therefore expected to be shallow.

22. The Discharger will operate one or more wells as part of a community potable water supply for the project. The water supply may have high arsenic concentrations, and the Discharger will treat the water with an adsorbent media prior to distribution. The media must be backwashed periodically to minimize water treatment system pressure loss. Backwashing does not desorb arsenic; the effluent arsenic concentration during backwash is generally lower than the influent due to system adsorption of arsenic from the backwash water (the raw water supply will be used for backwash). Backwash water will be discharged to the Irrigation Pond. This Order requires the Discharger to monitor the backwash water to assure excessive arsenic is not being discharged.

23. The Discharger will maintain a small fuel storage tank (120 gallons) at the Facility for emergency operation of a generator in case of a power outage. The fuel tank will provide a 12-hour supply to the generator for operation of the wastewater treatment plant.

24. The USEPA and the Regional Board have classified this discharge as a minor discharge.

WATER QUALITY CONTROL PLAN, NATIONAL TOXICS RULE, AND CALIFORNIA TOXICS RULE

25. The Regional Board adopted a Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin (hereafter Basin Plan), which designates beneficial uses, establishes water quality objectives for those beneficial uses, and establishes implementation programs and policies to achieve water quality objectives for all waters of the Basin. These requirements implement the Basin Plan.

26. The USEPA adopted the *National Toxics Rule* (NTR) on 5 February 1993 and the *California Toxics Rule* (CTR) on 18 May 2000. These Rules contain water quality standards applicable to this discharge for priority pollutants. These priority pollutants are listed in Attachment C, which is part of this Order. The State Water Resources Control Board SWRCB adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy or SIP) that contains guidance on implementation of the NTR and the CTR.

BENEFICIAL USES OF THE RECEIVING WATER

27. The Basin Plan on page II-2.00 states: "Existing and potential beneficial uses which currently apply to surface waters of the basins are presented in Figure II-1 and Table II-1. The beneficial uses of any specifically identified water body generally apply to its tributary streams."

28. The Basin Plan does not specifically identify any beneficial uses for Big Grizzly Creek and its tributaries. However, the Basin Plan does identify present and potential beneficial uses for the Middle Fork of the Feather River, to which Big Grizzly Creek is directly tributary, which include: municipal and domestic supply (MUN); water contact recreation and canoeing and rafting (REC-1); non-contact recreation (REC-2); cold freshwater habitat (COLD); warm fresh water habitat (WARM) cold water spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD). Refer to the Information Sheet for the rationale for assigning these beneficial uses to Big Grizzly Creek.

29. The beneficial uses of groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

WATER RECYCLING CRITERIA

30. The SWRCB adopted Resolution No. 77-1 titled, *Policy With Respect to Water Reclamation in California* on 6 January 1977. This policy requires the Regional Board to encourage water recycling and reuse in water-short areas of the state. If recycled water is not used to replace potable water uses to the maximum extent practicable, the Regional Board Basin Plan, at IV-14.00, requires a justification for this lack of recycling.

31. In 1996 the SWRCB and the California Department of Health Services (DHS**)** set forth principles, procedures, and agreements to which the agencies committed themselves, relative to the use of recycled water in California, in the document *Memorandum of Agreement Between the Department of Health Services and The State Water Resources Control Board On Use of Reclaimed Water* (the MOA). This Order is consistent with the MOA.

32. These requirements are consistent with and implement the California Code of Regulations, Title 22, Division 4, Chapter 3 (Title 22). When the effluent is being applied to the golf course, and application is not restricted (e.g. the recycled water can be applied at any time of the day, including those times that golfers are present), Title 22 requires that:

a. The wastewater be oxidized, which requires that its organic matter is stabilized, nonputrescible, and contains dissolved oxygen (§60301.650);

b. The wastewater be filtered, which requires that it be coagulated and passed through a specified filter media, and that it meets specific effluent turbidity criteria (§60301.320);

c. For a chlorine disinfection process, the product of total chlorine residual and modal contact time (CT) be a minimum of 450 mg-minutes per liter and the contact time be a minimum of 90 minutes (§60301.230(a)(1));

d. The median count of total coliform bacteria measured in the disinfected effluent not exceed 2.2 MPN /100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed (§60301.650(2)(b));

e. The count of total coliform bacteria measured in the disinfected effluent does not exceed 23 MPN/100 mL in more than one sample in any 30 day period (§60301.650(2)(b)), and;

f. The count of total coliform bacteria measured in the disinfected effluent never exceeds 240 MPN/100 mL (§60301.650(2)(b)).

This Order requires daily testing of the disinfected wastewater for coliform is required during golf course irrigation in accordance with Title 22.

33. Title 22 requires that the Discharger submit an Engineering Report to DHS for their review prior to implementing a water recycling project. The Discharger has provided an engineering report to DHS and the Regional Board. This Order prohibits the discharge of wastewater from the Facility until DHS has indicated their complete satisfaction with the Engineering Report.

34. The Regional Board has consulted with the DHS and the Plumas County Environmental Health Department, and has considered their recommendations regarding the public health aspects of the recycled water project.

EFFLUENT LIMITATIONS AND REASONABLE POTENTIAL

35. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information Guidelines), and 307 (Toxic Pretreatment Effluent Standards) of the Clean Water Act (CWA), and amendments thereto, are applicable to the discharge.

36. Federal regulations contained in 40 CFR Part 122.44 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard (reasonable potential). A Basin Plan standard is defined as the beneficial use and the water quality objective that protects the beneficial use. The SIP provides the method for determining reasonable potential for priority pollutants defined in the NTR and CTR. Determining reasonable potential for pollutants other than those contained in the CTR and NTR is accomplished by analyzing Facility operations, past effluent monitoring results, and other pertinent factors. In addition, the USEPA has provided guidance for the analysis of reasonable potential in their *Technical Support Document* for *Water Quality Based Toxics Control (TSD)*(EPA/505/2-90-101), which has been considered in this permit for developing effluent limitations for pollutants other than those in the CTR and NTR. For the determination of reasonable potential the TSD allows consideration of a mixing zone (a zone surrounding the area of receiving water discharge where water quality objectives may not be met prior to adequate dilution of effluent).

37. The 1Q10 flow for a stream is defined as the statistical value that represents a one-day low flow value that has a recurrence frequency of 10 years. The 7Q10 flow is defined as the statistical value that represents the 7-day average low flow that has a recurrence frequency of 10 years. In developing effluent limitations, the Basin Plan and the SIP allow for the usage of dilution credits (depending on the potential impact of a mixing zone to aquatic species that may move through the zone) at the point of effluent discharge to the receiving water. The 1Q10 and 7Q10 flows are used in establishing appropriate dilution credits for non-carcinogens. The harmonic mean stream flow is used when establishing effluent limitations for carcinogens.

38. As indicated in the above findings, the minimum flow in Big Grizzly Creek at the Facility outfall should never be less than 4.5 cfs for more than a 5 day period because of the requirement in the water rights decisions regarding Big Grizzly Creek. Therefore, the 1Q10 and 7Q10 flows in Big Grizzly Creek are assumed equal to this minimum flow of 4.5 cfs.

39. The SIP establishes expected minimum levels (MLs) for detection of each of the priority pollutants in the NTR and CTR. Water quality criteria have been established for forty-three of the volatile and semi-volatile organic priority pollutants, including pesticides, at concentrations less than current laboratory MLs. Based on proposed Facility operations and the nature of the waste treated, these compounds are not likely to be present in concentrations in the Facility effluent that cause or contribute to violations of water quality objectives. This Order requires

monitoring to assure that the basis of this finding remains unchanged. If and when method levels for these compounds become more sensitive, or additional data or information warrants, this permit may be reopened to establish effluent limitations for those compounds determined to have a reasonable potential in accordance with the Provisions of this Order.

40. Receiving water sampling of Big Grizzly Creek produced the following results for priority pollutants (because of the limited time the discharge had available prior to submittal of their report of waste discharge, one sample for the "receiving water," was obtained from Lake Davis, as it is the only source of flow in Big Grizzly Creek). Only those pollutants detected in the testing are shown in the table.

Pollutant	**Highest Measured Concentration, (ug/L)[1]**	**Most stringent water quality criterion, (ug/L)[2]**
Chromium(VI)	0.2	11
Copper	1.2	3.4
Lead	0.18	0.72
Nickel	0.5	19.4
Zinc	7	44
2-ethylchlorovinyl Ether	0.4	NA
1.2-Dichloroethane	0.2	0.38
Toluene	1.5	6800

[1] For metal pollutants, the value is measured by the laboratory as the total recoverable metal fraction.
[2] For metal pollutants, the CTR dissolved criterion has been converted to a total recoverable value for comparison to the laboratory results.

41. At a hardness of 31 mg/L in Big Grizzly Creek (water quality criteria for metals vary with water hardness; 31 mg/L was the lowest hardness detected, and results in the most conservative criteria), none of the above detected pollutant concentrations indicate a potential for exceedance of a water quality objective in accordance with the SIP. Whether concentrations of any priority pollutant in Facility effluent result in a finding of reasonable potential cannot be determined until the Facility begins operation. Many treatment plants in Plumas County, and other areas, have encountered elevated metal concentrations in their discharge, especially copper and lead. One potential source of copper and lead is household copper water piping with lead solder joints. However, these other plants do not produce an effluent with the low concentration of BOD and solids that will be required of the Discharger; lower effluent solids concentrations generally correlate with lower metals concentrations. In addition, plumbing for this development will consist of plastic or low-lead soldered copper. Therefore, there may be no finding of reasonable potential for any priority pollutant discharged in the Facility effluent. This Order includes a reopener to establish effluent limitations for priority pollutants if monitoring demonstrates that there is a reasonable potential for any priority pollutant.

42. These requirements prohibit the direct discharge of effluent to Big Grizzly Creek between the last Saturday in April and 15 November. Exceptions to this prohibition may be granted by the Executive Officer during emergency circumstances, if the Discharger has previously undertaken

a program of adequate maintenance, flow reduction, improved disinfection, and toxicity reduction (See General Provision I.8.).

43. This Order contains provisions and monitoring program requirements that require the Discharger to conduct additional sampling to provide information on all priority pollutants in the discharge.

44. Section 13263.6(a), CWC, requires that "the regional board shall prescribe effluent limitations as part of the waste discharge requirements of a POTW [Publicly Owned Treatment Works] for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. Sec. 11023) (EPCRKA) indicate as discharged into the POTW, for which the state board or the regional board has established numeric water quality objectives, and has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective." As this Order regulates a new facility with no previous discharge, the information relevant to comply with this finding is unavailable. This Order contains a reopener to establish effluent limitations for any compound that meets the criterion of EPCRKA.

COMPLIANCE WITH STATE AND FEDERAL POLICIES REGARDING WATER QUALITY DEGRADATION

45. The permitted discharge is consistent with the anti-degradation provisions of 40 CFR Part 131.12 and with SWRCB Resolution 68-16 (Policy with Respect to Maintaining High Quality Water of Waters in California). Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

SEWER SYSTEM OVERFLOW PREVENTION

46. The Discharger's sanitary sewer system collects wastewater using pressure piping, pumps, and/or other conveyance systems and directs this wastewater to the Facility. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of a wastewater treatment plant. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system; discharges to these facilities are not considered sanitary sewer overflows provided that the waste is fully contained within these temporary storage/conveyance facilities.

47. The potential causes of sanitary sewer overflows that may affect this sewer system include grease blockages, root blockages, debris blockages, air relief/vacuum valve failures, vandalism, storm or groundwater inflow/infiltration, snow melt infiltration, lift station pump failure or blockage, and lack of capacity, both hydraulic capacity of the sewer and pumping station capacity. Sanitary sewer overflows pose a threat to public health, may adversely affect aquatic life, and may impair the recreational use and aesthetic enjoyment of surface waters in the area.

48. Adequate steps must be taken to maintain and operate the sewer system and prevent sewer system overflows. This Order requires the Discharger to prepare and implement a Sewer System Operation, Maintenance, Overflow Prevention, and Overflow Response Plan, and an I/I Identification and Reduction Plan.

MANAGEMENT OF STORMWATER

49. The USEPA, on 16 November 1990, promulgated storm water regulations (40 CFR Parts 122, 123, and 124) that require specific categories of industrial facilities which discharge storm water to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.

50. On 17 April 1997, the SWRCB adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries covered under the permit. This municipal discharge is less than 1.0 MGD and the Discharger is not required to obtain a permit for storm water.

COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, PERMIT NOTIFICATION REQUIREMENTS, AND MISCELLANEOUS

51. Section 13267 of the California Water Code states, in part, "(a) A regional board, in establishing…waste discharge requirements… may investigate the quality of any waters of the state within its region" and "(b) (1) In conducting an investigation…, the regional board may require that any person who… discharges… waste…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 attached Monitoring and Reporting Program is issued pursuant to California Water Code Section 13267. The monitoring and reporting program required by this Order is necessary to assure compliance with these waste discharge requirements. The Discharger is responsible for the discharges of waste at the Facility subject to this Order.

52. The action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.), in accordance with Section 13389 of the CWC. However, the Discharger has submitted an Environmental Impact Report to Plumas County. The Environmental Impact Report was certified by Plumas County on 6 March 1990.

53. The Regional Board has considered the information in the attached Information Sheet in developing the findings of the Order. The attached Information Sheet, Monitoring and Reporting Program No. R5-2005-0170, and Attachments A through D are part of this Order.

54. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

55. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

56. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided the USEPA has no objections.

IT IS HEREBY ORDERED that the Grizzly Ranch Community Services District, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of effluent at a location or in a manner different from that described in the Findings is prohibited.

2. Discharge from the Facility to the golf course is prohibited prior to final approval of the Title 22 Engineering Report by the Department of Health Services Division of Drinking Water.

3. Discharge to Big Grizzly Creek is prohibited from **the last Saturday in April to 15 November** except as provided for in General Provision I.8.

4. Discharge to Big Grizzly Creek is prohibited when dilution of effluent is less than 100:1 based upon a running twenty four-hour average of both effluent discharge and flow in Big Grizzly Creek except as provided for in General Provision I.8.

5. The by-pass or overflow of wastes, except as allowed by Standard Provisions and Reporting Requirements for Waste Discharge Requirements item A.13 (NPDES, February 2004), is prohibited.

6. Discharge of backwash water exceeding 10 ug/L total arsenic to the Irrigation Pond is prohibited.

7. Discharge of materials, other than storm water, that are not otherwise permitted by this Order to surface waters or surface water drainage courses is prohibited.

8. Discharge of waste classified as "hazardous" as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., or "designated", as defined in Section 13173 of the California Water Code, is prohibited.

B. Effluent Limitations-Discharge to Big Grizzly Creek

1. The effluent discharge shall not exceed the following limitations during discharge to Big Grizzly Creek:

Constituent	Units	Monthly Average	Weekly Average	Seven Day Median	Daily Maximum	Hourly Average	4-day Average
BOD[1]	mg/L lbs/day[2]	15 10.1	30 20.3	-- --	45 30.4	--	--
Total Suspended Solids	mg/L lbs/day[2]	15 10.1	30 20.3	-- --	45 30.4	--	--
Chlorine Residual[3]	mg/L	--	--	--	--	0.02[3]	0.01[3]
Total Coliform Organisms[4]	MPN/ 100mL	--	--	2.2	240	--	--
Total Nitrogen	mg/L lbs/day[2]	10 6.8	--	--	30 20.3	--	--

[1] 5-day, 20°C biochemical oxygen demand
[2] Based upon a design treatment capacity of 0.081 mgd.
[3] Chlorine residual shall be measured at the chlorine contact chamber effluent prior to dechlorination and after dechlorination. The effluent chlorine limitations refer to the post dechlorination values to be achieved.
[4] Samples for total coliform analysis shall be obtained at the chlorine contact chamber effluent during the highest hourly effluent flow.

2. The arithmetic mean BOD in effluent samples collected over a monthly period shall not exceed 15 percent of the arithmetic mean of the values for influent samples (85 percent removal).

3. The discharge shall not have a pH less than 6.0 nor greater than 9.0.

4. The 30-day average daily dry weather discharge flow to Big Grizzly Creek shall not exceed 0.081 million gallons.

5. Survival of test fishes in 96-hour bioassays of undiluted effluent shall be no less than:

Minimum for any one bioassay - - - - - - - - - - - - - - - - - 70%

Median for any three or more bioassays - - - - - - - - - - - -90%

unless the Discharger submits a report demonstrating that the allowance of an acute toxicity mixing zone is appropriate. If such a demonstration is made, this permit will be reopened and new effluent acute toxicity limitations will be adopted.

C. Discharge Specifications (Recycled Water and Discharge to Big Grizzly Creek)

1. The Discharger shall cease wastewater pumping and hauling from the Facility, and begin operation of the Facility, no later than the date at which the monthly average dry weather flow to the Facility reaches 6,000 gallons per day.

2. Pumping and hauling of wastewater from the Facility shall be performed in a sanitary manner by a licensed hauler. Septage shall be delivered to a regulated facility, such as a septage pond or wastewater treatment plant under regulation by the Regional Board, or similar regulatory body of another state.

3. Objectionable odors originating at the Facility shall not be perceivable beyond the Facility property.

4. Ponds shall be managed to prevent breeding of mosquitoes. In particular,

   a. An erosion control program shall assure that small coves and irregularities are not created around the perimeter of the water surface;

   b. Weeds shall be minimized;

   c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

5. The Discharger shall maintain a minimum two feet of freeboard in the Emergency Pond at all times. Freeboard shall be measured vertically from the lowest elevation of the pond berm to the pond water surface.

6. The Emergency Pond shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and I/I. 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.

7. On or about **1 October** of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specification 5. **By 15 October of each year** the Discharger shall submit written confirmation that the ponds have adequate capacity.

8. Public contact with wastewater shall be precluded to the best practicable extent possible through such means as fences, signs, and other acceptable alternatives

9. The discharge to ponds shall not cause degradation of any water supply.

10. Neither the discharge nor its treatment shall create a nuisance as defined in Section 13050 of the California Water Code.

D. Recycled Water Specifications:

1. The recycled water discharge to the irrigation pumping wet well shall not exceed the following limitations:

Constituent	Units	Monthly Average	Weekly Average	Seven Day Median	Daily Maximum
BOD[1]	mg/L lbs/day[2]	15 10.1	30 20.3	-- --	45 30.4
Total Suspended Solids	mg/L lbs/day[2]	15 10.1	30 20.3	-- --	45 30.4
Total Coliform Organisms[3]	MPN/ 100mL	--	--	2.2	240

[1] 5-day, 20°C biochemical oxygen demand
[2] Based upon a design treatment capacity of 0.081 mgd.
[3] Coliform samples shall be obtained during the highest hourly effluent flow.

In addition to the specified daily maximum total coliform of 240 MPN/100 mL, no more than one sample per month shall exceed 23 MPN/100 mL.

2. Dechlorination is not required when wastewater is used for recycling, and there is no maximum chlorine residual requirement. To assure adequate disinfection, the chlorine residual shall be a minimum of 5.0 mg/L measured at the chlorine contact chamber effluent.

3. The discharge shall comply with all requirements of Title 22.

4. The multi-media filter influent flow shall not exceed an instantaneous application rate of 5 gallons per minute per square foot.

5. The storage, delivery, or use of recycled water shall not cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.

6. The discharge of recycled water shall not cause degradation of any water supply.

7. The recycled water shall remain within the golf course boundaries.

8. Quick couplers on the recycled water piping shall be used that differ from those used on the potable water system. No hose bibs shall be used on the recycled water piping**.**

9. No cross-connections shall exist between recycled water piping and any domestic water supply well, any irrigation well, or potable water lines. Supplementing recycled water with potable water shall not be allowed except through an air-gap separation, or if approved by DHS, a reduced pressure principle backflow device.

10. The following setbacks from areas irrigated with recycled water shall be maintained:

Area	**Setback Distance (feet)**
Property Line	25
Public Road	30
Drainage Course	50
Irrigation and Domestic Wells	150

11. All areas where recycled water is used that are accessible to the public shall be posted with conspicuous signs, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER- DO NOT DRINK." Each sign shall display the international symbol similar to that shown in Attachment D.

12. There shall be at least a 10-foot horizontal and 1-foot vertical separation at crossings between all pipelines transporting recycled water and those transporting domestic supply, with the domestic supply above the recycled water pipeline, unless approved by DHS.

13. If an outside laboratory is used for coliform analysis, the Discharger shall arrange to obtain results of coliform testing from the laboratory by telephone as soon as the confirmed test is completed.

E. **Sludge Disposal**

4. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.

5. Any proposed change in sludge use or disposal practice from a previously approved practice shall be reported to the Executive Officer and USEPA Regional Administrator at least **90 days** in advance of the change.

6. Use and disposal of sewage sludge shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards included in 40 CFR Part 503.

7. If the SWRCB and the Regional Boards are given the authority to implement regulations contained in 40 CFR Part 503, this Order may be reopened to incorporate appropriate

time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR Part 503 whether or not they have been incorporated into this Order.

8. By **30 January of each year**, the Discharger shall submit a sludge disposal plan describing the annual volume of sludge generated by the Facility and specifying their disposal practices (See Monitoring and Reporting Program No. R5-2005-0170).

F. **Receiving Water Limitations**

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit.

The discharge shall not cause the following in Big Grizzly Creek or the Middle Fork of the Feather River:

1. Electrical conductivity to exceed 150 umhos/cm (Limitation applicable to the Middle Fork of the Feather River only).
2. Concentration of dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not fall below 75 percent of saturation.
3. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
4. Oils, greases, waxes, floating material (liquids, solids, foams, and scums), or suspended material to create a nuisance or adversely affect beneficial uses.
5. Aesthetically undesirable discoloration.
6. Fungi, slimes, or other objectionable growths.
7. Turbidity to increase as follows:
   a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
   b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
   c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
   d. More than 10 percent where natural turbidity is greater than 100 NTUs.

   In determining compliance with the above turbidity limitations, appropriate averaging periods may be applied upon approval by the Executive Officer.

8. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units. In determining compliance with these limitations, appropriate averaging periods may be applied upon approval by the Executive Officer.

9. Deposition of material that causes nuisance or adversely affects beneficial uses.

10. The normal ambient temperature to be altered by more than 5° F.

11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

12. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

13. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or to cause nuisance or adversely affect beneficial uses.

14. The fecal coliform concentration in any 30-day period to exceed a geometric mean of 200 MPN/100 mL or cause more than 10 percent of total samples to exceed 400 MPN/100 mL.

15. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.

16. Violations of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB pursuant to the CWA and regulations adopted thereunder.

G. Groundwater Limitations

1. Release of waste constituents from any storage, treatment, or disposal component associated with the Facility shall not, in combination with other sources of waste constituents, cause the following in groundwater:

   a. Beneficial uses to be adversely impacted or water quality objectives to be exceeded.

   b. Any increase in total coliform organisms over background shall not exceed 2.2 MPN/100mL.

H. Pretreatment Program Provisions

1. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that the following incompatible wastes are not introduced to the treatment system where incompatible wastes are:

    a. Wastes which create a fire or explosion hazard in the treatment works;

    b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0, unless the works is specially designed to accommodate such wastes;

    c. Solid or viscous waste in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;

    d. Any waste, including oxygen demanding pollutants (BOD, etc.), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;

    e. Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40°C (104°F), unless the treatment works is designed to accommodate such heat;

    f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

    g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and

    h. Any trucked or hauled pollutants, except at points predesignated by the Discharger.

2. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the legal authorities, programs, and controls necessary to ensure that indirect discharges do not introduce pollutants into the sewage system that either alone or in conjunction with a discharge or discharges from other sources:

    a. Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order, or

    b. Inhibit or disrupt treatment processes, treatment system operations, or sludge processes, use, or disposal and either cause a violation of this Order or prevent sludge use or disposal in accordance with this Order.

3. The Discharger shall notify industrial users, subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, of their discharge effluent limitations. The limitations must be at least as stringent as the pretreatment standards contained in the applicable federal category. The Discharger may develop more stringent technically based local limitations if it can show cause. The Discharger shall notify the Regional Board if an industrial user violates its discharge effluent limitations to the collection system.

I. General Provisions

1. The treatment and disposal facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

2. The Discharger shall use the best practicable cost-effective control technique currently available to limit mineralization of Big Grizzly Creek to no more than a reasonable increment.

3. The Discharger shall not allow pollutant free wastewater to be discharged into the collection, treatment, or disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

4. The Discharger shall conduct the chronic toxicity testing specified in Monitoring and Reporting Program No. R5-2005-0170. If the testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for chronic toxicity, the Discharger shall submit a work plan to conduct a Toxicity Identification Evaluation (TIE) to identify the cause of toxicity. Upon completion of the TIE, the Discharger shall submit a workplan to conduct a Toxicity Reduction Evaluation (TRE) and, after Regional Board evaluation, conduct the TRE. This Order will be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic toxicity water quality objective is adopted by the State Water Resources Control Board, this Order may be reopened and a limitation based on that objective included.

5. When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports to that agency. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger Self-Monitoring Reports.

6. The Discharger shall provide certified wastewater treatment plant operators in accordance with regulations adopted by the SWRCB.

7. The Discharger shall comply with the attached Monitoring and Reporting Program No. R5-2005-0170, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.

8. Exceptions to Prohibitions A.3 and A.4 may be granted by the Executive Office provided all of the following conditions are satisfied:

   a. The discharge is necessary due to circumstances that could not have reasonably been foreseen, such as an extended drought. Lack of proper maintenance leading to process upsets is not a valid reason for a request to discharge;

   b. The Discharger demonstrates that the potential impacts of non-discharge would be greater than discharge, including any potential property damage, or interference with the wastewater treatment process. Impact of non-discharge to be analyzed must include as a minimum, damage to treatment processes or structures, and potential damage to nearby property, e.g. should a breach in any pond structure occur;

   c. The Discharger has previously taken all reasonable steps to prevent the discharge and all required maintenance has been performed in accordance with the manufacturer's recommendations and the Facility Operations and Maintenance Manual. Proof that all reasonable steps have been taken to prevent the discharge shall include a schedule for operation of the Irrigation and Emergency Ponds that has been accepted by Regional Board staff;

   d. The Discharger has established appropriate flow minimization programs and toxicity reduction programs. These programs shall include, as a minimum, a public education program for water conservation and a public education program regarding appropriate use and disposal of household, garden, and spa/pool chemicals;

   e. The discharge will not result in the exceedance of any water quality objective in Big Grizzly Creek;

   f. The Discharger agrees to post the outfall and downstream areas with appropriate signs warning against swimming, if the dilution of wastewater in Big Grizzly Creek is less than 50:1.

   All of the above programs, reports, and schedules shall be reviewed and accepted by Regional Board staff prior to consideration of discharge during the recreational season. Approval for discharge during the last Saturday in April to 15 November time frame, if allowed, must be obtained in writing from the Regional Board Executive Officer.

9. Within **60 days of the adoption of this Order**, the Discharger shall provide in writing:

   a. A copy of the agreement between the GRCSD and the golf course owner that allows for the use of the recycled water for irrigation of the golf course. One

year prior to the expiration date of the agreement, the Discharger shall report to the Regional Board on their plans for agreement renewal, or plans for alternative use of the recycle water during the discharge prohibition season (the last Saturday in April to 15 November).

b. A complete report, including biddable plans and specifications, to illustrate compliance with all requirements of Title 22, as well as certification that the DHS Division of Drinking Water is satisfied the Title 22 Engineering Report.

c. A notification plan for the recycled water user(s), the Regional Board, state and local health departments, and other agencies as appropriate, of any treatment failures that could result in the delivery of inadequately treated recycled water to the use area.

d. A discussion on methods of protection of the domestic water system from recycled water in accordance with the regulations relating to cross-connections and the California Waterworks Standards.

e. A proposed recycled water use area inspection program, including suggested tasks to be performed by Grizzly Creek Golf, LLC. Identify the locations at the use area where problems are most likely to occur, such as ponding, runoff, overspray, cross-connections, etc., and the personnel in charge of the monitoring and reporting of use area problems.

f. A description of a training program to educate GRCSD and Grizzly Creek Golf, LLC employees about the recycled water treatment process, and the procedures necessary to avoid violation of waste discharge requirements, as well as the frequency of the training and the entity that will provide it. Also describe the training to assure that GRCSD and Grizzly Creek Golf, LLC employees are aware of the safety precautions to be taken when working with recycled water.

g. An inspection schedule for the construction of the Facility, describing all stages of construction requiring inspection. The schedule shall include, but not be limited to the following items:

1) Preliminary grading for Facility

2) Pouring of concrete

3) Compaction (including compaction testing) of any fill near any structure;

4) Leak testing of all piping, including sewer piping;

5) Operation of all pumps, motors, blowers, and valves;

6) Placement of all trench bedding and backfill;

7) Testing of control panel and control system including pump on/off, float levels, float actuation, alarm activation, etc;

8) An installation and Quality Assurance/Quality Control Plan for pond liners, including liner sub base preparation requirements.

h. A report providing hydraulic calculations for the outfall diffuser that discusses the mixing that will be achieved in the creek at the diffuser.

10. **Ninety days prior to the discharge of wastewater to the Facility**, the Discharger shall submit:

a. An operation and maintenance (O&M) manual for the Facility, including the golf course recycled water system. Regional Board staff must accept the manual before this task is deemed complete. The O&M manual shall instruct personnel on the operation of the Facility, and the procedures to make field adjustments, as necessary, to preclude nuisance conditions or violations of the waste discharge requirements. The O&M manual shall include a site plan with description of the treatment components, including operating procedures for each component and a troubleshooting flowchart, and a description of alarm response and notification requirements. The O&M manual shall also include a discussion of maintenance and inspection procedures, with maintenance frequency of all equipment, and sample maintenance forms or checklists. The O&M manual shall include the following documents as report appendices:

1) Individual grinder pump and pump vault inspection plan which describes the procedures for testing to determine if the storage and pumping system is working properly. The plan shall include a description of the alarms for these systems. A separate Operations and Maintenance manual for this system shall be prepared and distributed to homeowners. This manual shall describe the pump vault system and procedures the homeowner must take during power outages to prevent overfilling of the sump and potential overflow or sewage backup into the home.

2) Catalog cuts of each piece of equipment.

3) A process and instrumentation diagram (PID).

4) A schematic process diagram (this may be combined with the PID).

5) Maintenance and calibration schedules for each component of the system.

6) A list of emergency contacts to be notified in the event of a treatment system failure.

7) A plan to assure that recycled water discharged to the irrigation wet well meets the requirements of Title 22 at all times. The Plan must address the requirement for by-pass of the effluent to Emergency Pond during the following conditions:

i. Any time the effluent turbidity exceeds 2 NTUs;

ii. Anytime the influent turbidity exceeds 10 NTUs.

iii. Automatic activation of coagulation if the wastewater turbidity to the filters exceeds 5 NTUs for more than 15 minutes.

iv. Anytime flow to the chlorination system or filters exceeds the maximum values allowed by Title 22.

v. Anytime the effluent chlorine residual drops below 5 mg/L.

This plan must also discuss the process for returning diverted wastewater back to the Facility to avoid violation of waste discharge requirements.

8) A plan to exercise the treatment plant equipment between the time the equipment is installed and its use when Facility flow reaches 6,000 gallons per day.

9) An inspection plan for the Emergency Pond liner.

b. An I/I investigation and management plan.

c. A S*anitary* S*ewer System Operation, Maintenance, Overflow Prevention, and Overflow Response Plan* (SSS Plan) that describes the actions designed to prevent or minimize the potential for sanitary sewer overflows. The Discharger shall amend the SSS Plan as necessary. The Discharger shall ensure that the up-to-date SSS Plan is readily available to maintenance personnel at all times and that personnel are familiar with the plan.

1) At a minimum, the Operation and Maintenance portion of the SSS Plan shall contain or describe the following:

i. Plans of the sewer system, identifying sewer mains, manholes, cleanouts, any air relief or vacuum valves, and any other specific critical equipment or infrastructure;

ii. A listing of equipment and elements to be inspected, a description of inspection procedures and inspection frequency, and sample inspection forms;

iii. A schedule for routine inspection and testing of manholes, sewer system piping, valves, and other key system components, and rehabilitation procedures to be followed in the case such rehabilitation is necessary;

iv. The contingency plan required by § 60323(c) of Title 22;

v. The operational and maintenance information required in the "Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water," (DHS, March 2001) in sections 4.1, 4.8, and 4.9.

2) At a minimum, the Overflow Prevention and Response portion of the SSS Plan shall contain or describe the following:

i. Response procedures for sanitary sewer overflows. Procedures shall minimize the volume of sewage that may enter surface waters, and minimize the adverse effects of sewer overflows on water quality and public health. Procedures shall also ensure that all overflows are properly identified, responded to and reported; and

ii. A plan to notify the Plumas County Environmental Health Department and a public notification plan, in which any posting of areas contaminated with sewage is performed at the direction of the Plumas County Environmental Health Department. All parties with a reasonable potential for exposure to an overflow event shall be notified. Any spill in excess of 1,000 (one thousand) gallons to a surface water must also be immediately reported to the State of California Office of Emergency Services. Failure to report such a spill in accordance with the above laws and regulations is a misdemeanor punishable by fine and imprisonment.

d. Engineer stamped as-built drawings.

e. An engineer's report documenting that the construction of the Facility, recycling areas, outfall, and all items auxiliary to the Facility have been constructed in substantial conformance with the plans and specifications. The report shall include:

1) All leak testing information, including testing on all piping and tanks,

2) An inspection log verifying an inspector was present for all critical phases of construction,

3) Logs of pump testing, filter testing, blower testing, and testing of any other mechanical and/or electrical equipment,

4) Certification that all construction complies with County Codes.

f. A Plan for testing and/or inspection of the liner of the Emergency Pond to assure that it is free of damage that could cause leakage.

g. A plan for Facility influent flow reduction and toxicity minimization if the Discharger desires to take advantage of the ability to discharge to Big Grizzly Creek during Facility emergencies occurring during a discharge prohibition period.

h. A coliform testing plan demonstrating that recycled water not complying with the effluent coliform criteria in this Order will not be used for spray irrigation of the

golf course or any area requiring recycled water meeting those same specifications.

i. A Plan for placement of signs at the golf course and any other areas used for irrigation by recycled water. The signs shall comply with Title 22, and the Discharger shall provide an approval letter for these signs from DHS.

j. With the aid of DWR, install a gauging station at the location of the effluent outfall for Big Grizzly Creek flow measurement.

k. A proposed management plan for application of fertilizer, pesticides, herbicides, and any other chemicals applied to the golf course to minimize toxicity in rainfall or recycled water runoff.

l. A tracer study, or other method of testing or analysis, demonstrating that the modal contact time of the chlorine contact chamber is a minimum of 90 minutes at the estimated peak hourly wastewater flow.

11. **30 days prior to any discharge of wastewater to the Facility**, the Discharger shall provide the name and grade of the primary wastewater treatment plant operator. **Fifteen days prior** to any change in the Operations and Maintenance Manual (O&M Manual) or primary Facility operator, the Discharger shall notify the Regional Board. The Discharger shall certify that the new operator is familiar with the O&M Manual and this Order **within fifteen days** of the change of primary Facility operator.

12. **Within one year of the initial discharge from the Facility**, the Discharger shall use the data collected in accordance with Monitoring and Reporting Program No. R5-2005-0170, and the dilution information required in Provision I.9.h to determine if the discharge of any priority pollutant has a reasonable potential to cause toxicity to aquatic organisms in the receiving water, or otherwise cause exceedance of any water quality objective. If reasonable potential is determined for ammonia or TDS, this Order will be reopened and effluent limitations adopted.

13. **Within 180 days of receipt** of the third effluent sample analyzed for priority pollutants (see Monitoring and Reporting Program No. R5-2005-0170), the Discharger shall submit a report detailing whether any priority pollutant has a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard, including Basin Plan numeric and narrative objectives or NTR and CTR criteria. If reasonable potential is determined for any additional pollutant, the Regional Board will reopen this Order and include effluent limitations for those pollutants.

14. If the minimum flow of 4.5 cfs at the point of effluent discharge to Big Grizzly Creek cannot be maintained, because of drought, policy or operational changes by DWR and DFG, or other reasons, the Discharger shall submit a plan for reducing the volume of

discharge to Big Grizzly Creek within **180 days of receipt of information regarding potential flow reduction**, and reducing the potential impact of such discharges. Avenues to be examined in fulfillment of this requirement shall include, as a minimum, water conservation, extended periods of discharge to the golf course, additional storage such as ponds, and examination of potential areas for on-site disposal.

15. The Discharger shall report to the Regional Board **within 15 days** any toxic chemical release data it reports to the State Emergency Response Commission pursuant to Section 313 of the "Emergency Planning and Community Right to Know Act of 1986."

16. In accordance with §60329(a) of Title 22, operating records of the water recycling facilities shall be maintained at the Facility or a central depository within the operating agency. These shall include: all analyses specified in the recycled water criteria; records of operational problems, Facility and equipment breakdowns, and diversions to emergency storage or disposal; and all corrective or preventive action taken.

17. In accordance with §60329(d) of Title 22, any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, shall be reported immediately by telephone to the regulatory agency, DHS, and the local health officer.

18. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)," dated February 2004, which are a part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provision(s)."

19. The Discharger may be required to submit technical reports as directed by the Executive Officer.

20. This Order expires on 1 **November 2010**, and the Discharger must file a ROWD in accordance with Title 23, CCR, not later than **180 days in advance of such date** as application for issuance of new waste discharge requirements.

21. Prior to making any change in the discharge point, place of use, or purpose of use of the effluent the Discharger shall obtain approval of, or clearance from, the SWRCB, Division of Water Rights.

22. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, 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.

23. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name; the state of incorporation, if a corporation; the address and telephone number of the persons responsible for contact with the Regional Board; and a statement. The statement shall comply with the signatory

paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

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 29 November 2005.

THOMAS R. PINKOS

Executive Officer

RSD: sae
12/20/05

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2005-0170

AND

NPDES NO. CA0085162

FOR
GRIZZLY RANCH COMMUNITY SERVICES DISTRICT
WASTEWATER COLLECTION, TREATMENT, AND RECYCLING FACILITY
PLUMAS COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code Sections 13267 and 13383 and describes requirements for monitoring domestic wastewater, treated effluent, and receiving water. The Discharger shall not implement any changes to this MRP unless and until the Regional Board or Executive Officer approves the changes.

All samples shall be representative of the volume and nature of the discharge or material sampled. The time, date, and location of each sample shall be recorded on a chain of custody form for the sample. Regional Board staff shall approve specific sample station locations prior to implementation of sampling activities.

All water quality sampling and analyses shall be performed in accordance with the Monitoring and Reporting Requirements as outlined in the Standard Provisions of this Order. Water quality sample collection, storage, and analyses shall be performed according to 40 CFR Part 136, or other methods approved and specified by the Executive Officer. Analyses shall be performed by a laboratory approved for analyses by the State Department of Health Services (DHS), except when a certified laboratory is not reasonably available to the Discharger, in which case a non-certified laboratory operating in compliance with a Quality Assurance-Quality Control program approved by the Executive Officer may be used.

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

1. The operator is trained in proper use and maintenance of the instruments;

2. The instruments are calibrated in accordance with the manufacturers recommendations and the method has been accepted by Regional Board staff;

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.

PUMP VAULT AND GRINDER PUMP SYSTEM MONITORING

The grinder pump and storage vault at each individual home or business shall be accessible to the Discharger for the purpose of conducting inspections, recording pump run times, and making any necessary repairs. The Discharger is responsible for the operation and maintenance of the pumping vault and grinder pump, including alarm response. The Discharger shall annually report grinder pump run times for each home and estimate the annual wastewater flow from each home based upon the pump curve for the grinder pump. The Discharger shall annually report all maintenance and repairs performed on all vaults and grinder pumps.

INTERIM PLANT MAINTENANCE

Prior to the date the wastewater treatment plant is placed into service, the Discharger shall submit quarterly reports, detailing all maintenance that has been performed in accordance with Provision **10.a.8** of the Order.

INFLUENT MONITORING

Samples shall be representative of the influent for the period sampled. The following shall constitute the influent monitoring program:

Constituent	Unit	Type of Sample	Sampling Frequency
Flow	Mgd	Meter	Continuous
BOD	mg/L, lbs/day	24-Hr. Composite	Weekly
Total Suspended Solids	mg/L, lbs/day	24-Hr. Composite	Weekly
Total Kjehldahl Nitrogen	mg/L, lbs/day	24-Hr. Composite	Quarterly
Nitrate	mg/L, lbs/day	24-Hr. Composite	Quarterly

WASTEWATER PUMPING AND HAULING MONITORING

The Discharger shall record the daily amount of wastewater pumped and hauled from the Plant headworks, and report this information monthly. Annually, the Discharger shall provide certification from the wastewater receiving facility or facilities of the amount of hauled wastewater. The Discharger shall notify the Regional Board when flow to the wastewater plant reaches 6,000 gallons per day, at which time, at the latest, the pumping and hauling of wastewater must cease and operation of the wastewater treatment plant must begin.

POND MONITORING

The Discharger shall record the following regarding the Irrigation Pond and the Emergency Pond:

Constituent	Unit	Type of Sample	Sampling Frequency
Liquid Depth and Freeboard	Feet	Visual	Monthly
Seepage through pond dikes	Presence/Absence	Visual	Monthly
Excessive odors or other nuisances	Presence/Absence	Observation	Monthly
Excessive weed growth in pond	Presence/Absence	Visual	Monthly

By **30 January of each year**, the Discharger shall submit the results of Emergency Pond liner testing.

By 15 October of each year the Discharger shall submit confirmation that the ponds have adequate capacity necessary to comply with Discharge Specification C.7.

EFFLUENT MONITORING

Effluent shall be analyzed as indicated below. The time of collection of grab samples shall be recorded.

Constituent	Unit	Type of Sample	Sampling Frequency
Chlorine (pre-dechlorination)	mg/L	Flow through	Continuous
Chlorine (post-dechlorination)	mg/L	Flow through	Continuous
pH	pH Units	Grab	Daily
Flow	mgd	Cumulative	Continuous
BOD	mg/L, lbs/day	24-hr. composite	Weekly
Total Suspended Solids	mg/L, lbs/day	24-hr. composite	Weekly
Temperature	°F	Grab	Weekly
Total Coliform[1]	MPN/100 mL	Grab	Daily (3 per week if there is no irrigation occurring)
Ammonia Nitrogen[2,3]	mg/L, lbs/day	24-hr. composite	Monthly
Nitrate Nitrogen	mg/L, lbs/day	24-hr. composite	Monthly
TKN	mg/L, lbs/day	24-hr. composite	Monthly
Electrical Conductivity	μmho/cm	24-hr. composite	Monthly[4]
Total Copper	mg/L	24-hr. composite	Monthly[4]
Total Lead	mg/L	24-hr. composite	Monthly[4]
Total Silver	mg/L	24-hr. composite	Monthly[4]
Dissolved Oxygen	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	24-hr. composite	Monthly[4]
Acute Bioassay[5]	% Survival	24-hr. composite	Twice per year[5]

Constituent	Unit	Type of Sample	Sampling Frequency
Total Phosphorus	mg/L	24-hr. composite	Annually
Oil and Grease	mg/L	24-hr. composite	Annually

[1]Samples for total coliform shall be obtained during the peak hourly flow for the day. If the coliform sample cannot be obtained during this time, the reason(s) for this inability shall be noted on the monthly monitoring report

[2]Concurrent with biotoxicity monitoring.

[3]Report as both total and un-ionized ammonia.

[4]Sampling frequency for these constituents may be decreased to twice per year after the first year of sampling if sampling indicates there is no reasonable potential to cause an exceedance of applicable water quality objectives. If the Discharger wishes to reduce the sampling frequency in accordance with this Monitoring and Reporting Program, they must submit a report to the Regional Board presenting their rationale regarding reasonable potential for these constituents.

[5]The acute bioassay samples shall be analyzed using EPA/821-R-02-12, Fifth Edition, or later amendment with Regional Board approval. Temperature and pH shall be recorded at the time of bioassay sample collection. Test species shall be salmonids, with no pH adjustment unless approved by the Executive Officer. Sample shall be taken concurrent with ammonia sampling. Acute bioassay samples shall be collected on the first day of discharge to Big Grizzly Creek and 90 days thereafter.

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. Except in instances of noncompliance, the Discharger shall not be required to monitor and record data more often than twice the frequencies listed in this schedule. If the results of the acute bioassay show less than 70 percent survival, or the results of the three previous samples indicate a median survival of less than 90 percent, the Discharger shall immediately initiate an additional bioassay. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in this schedule.

RECYCLED WATER APPLICATION AREA MONITORING

Monthly, the Discharger shall report:

- The amount of recycled water pumped each day;
- Records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; and all corrective or preventive action taken.
- Any employee training accomplished in accordance with the "Employee Training" program report required by Section 4.9 of the Guidelines of Title 22, and **Provision 9.f** of the Order.

If there is no irrigation of the golf course during the month, that fact shall be noted on the Monitoring Report.

Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file at the wastewater treatment plant. The recorded information shall include the time and cause of failure and corrective action taken. It is not necessary to submit this information to the Regional Board, but it must be kept at the treatment plant for at least five years.

SLUDGE MONITORING

A composite sample of sludge shall be collected annually in accordance with USEPA's *POTW Sludge Sampling and Analysis Guidance Document, August 1989*, and tested for the following metals:

Cadmium	Lead
Chromium	Nickel
Copper	Zinc

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated, and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.
The Discharger shall submit annually by **30 January**:

1. Annual sludge production in dry tons and percent solids.

2. A schematic diagram showing sludge-handling facilities and a solids flow diagram.

3. A description of disposal methods, including the following information related to the disposal methods used at the facility. If more than one method is used, include the percentage of annual sludge production disposed by each method.

    a. For **landfill disposal**, include: (1) the Board's waste discharge requirement Order numbers that regulate the landfill(s) used; (2) the present classifications of the landfill(s) used; and (3) the names and locations of the facilities receiving sludge.

    b. For **land application**, include: (1) the location of the site(s); (2) the Board's waste discharge requirement numbers that regulate the site(s); (3) the application rate in lbs/acre/year (specify wet or dry); and (4) subsequent uses of the land.

    c. For **other disposal methods**, include: (1) the location of the site(s); and (2) the Board's waste discharge requirement numbers that regulate the site(s).

WATER TREATMENT SYSTEM BACKWASH WATER MONITORING

During each backwash of the water treatment system, a grab sample of the backwash water initially discharged to the Irrigation Pond shall be obtained and analyzed for total arsenic.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to Big Grizzly Creek. The testing shall be conducted as specified in USEPA 821-R-02-013 or its most recent edition. Chronic toxicity samples shall be collected at the discharge of the chlorine contact basin

following dechlorination. Samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. The effluent tests must be conducted with concurrent reference toxicant tests. Monthly laboratory reference toxicant tests may be substituted upon approval. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the USEPA chronic manual. If the test acceptability criteria are not achieved, then the Discharger must resample and retest within 14 days. If undiluted effluent exhibits toxicity, the Discharger shall sample during the next available discharge event and conduct the test using a dilution series bracketing the concentration of effluent in the receiving water. Dilution water shall be receiving water from Big Grizzly Creek taken upstream from the discharge point. Laboratory water may be used for dilution water if upstream water exhibits toxicity. Chronic toxicity monitoring shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum

Frequency: Once within 180 days of adoption of this permit and once 365 days prior to the permit expiration.

RECEIVING WATER MONITORING

Receiving water monitoring shall be conducted when discharge to Big Grizzly Creek is occurring. All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following:

Station	Description
R-1	30 feet upstream of the discharge
R-2	100 feet downstream of the discharge

Constituent	Unit	Station	Sampling Frequency
Receiving Water Flow	cfs	R-1	Daily
Dissolved Oxygen	mg/L	R-2	Weekly
Total and Fecal Coliform	MPN/100 mL	R-1, R-2	Weekly
PH	pH Units	R-1, R-2	Weekly
Turbidity	NTU	R-1, R-2	Weekly
Total Copper	mg/L	R-1, R-2	Quarterly[1]
Total Lead	mg/L	R-1, R-2	Quarterly[1]
Total Silver	mg/L	R-1, R-2	Quarterly[1]
Hardness	mg/L	R-1, R-2	Quarterly[1]
Temperature	°F	R-1, R-2	Quarterly[1]
Electrical Conductivity	µmho/cm	R-1, R-2	Quarterly[1]

[1] Sampling frequency for these constituents shall be reduced to annually if the first year of sampling shows no exceedances of water quality objectives.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions at the monitoring stations. Receiving water shall be inspected for the presence or absence of:

a. Floating or suspended matter
b. Discoloration
c. Bottom deposits
d. Aquatic life

Notes on receiving water conditions shall be summarized in the monitoring report.

PRIORITY POLLUTANT MONITORING

The State Implementation Policy (SIP) requires periodic testing for the toxic priority pollutants established by the CTR in 40 CFR 131.48.

The Discharger shall conduct three sampling events for treatment plant effluent and one event for receiving water during the first year of effluent discharge to provide additional information on effluent priority pollutants and whether the discharge represents a reasonable potential for exceedance of water quality objectives.

The first sampling event shall be conducted **within 90 days of the initiation of discharge**. During this first sampling event, a 24 hour composite sample shall be collected from the effluent discharge and a grab sample upstream at Receiving Water Station R-1. The samples shall be analyzed for the pollutants identified in Attachment C. The second and third sampling events shall consist of 24-hour composite samples of effluent only. A fourth sampling event, including effluent and Big Grizzly Creek sampling, shall be conducted no later than 365 days prior to permit expiration. Analytical results shall be reported within **90 days of sample collection.**

Receiving water and effluent samples shall be collected simultaneously, and analyzed for the CTR pollutants (identified in Attachment C) plus pH and hardness. The Discharger is not required to perform asbestos monitoring. All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each of the analytes. Laboratory methods and limits shall be as described in the SIP, unless a variance has been approved by the Executive Officer. If, after a review of the monitoring results, it is determined that the discharge causes, has the reasonable potential to cause, or contributes to in-stream excursions above water quality objectives, this Order will be reopened and limitations based on those objectives will be included. Additionally, if pollutants are detected, but insufficient information exists to establish an effluent limit or determine if an effluent limit is necessary, then additional monitoring will be required to provide sufficient information. Results shall be reported within **90 days of sample collection.**

All organic analyses shall be by Gas Chromatography/Mass Spectrometry (GCMS), Method 8260B for volatiles and Method 8270C for semi-volatiles. Pesticides shall be analyzed by Method 8081A. Dioxins shall be analyzed by Method 1613/8290. If organic analyses are run by Gas Chromatography (GC) methods, any detectables are to be confirmed by GCMS.

Metals shall be analyzed by the USEPA methods listed below. Alternative analytical procedures may be used with approval by the Regional Board if the alternative method has the same or better detection level than the method listed.

{PRIVATE } **Method Description**	**EPA Method**	**Constituents**
Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)	1638	Antimony, Beryllium, Cadmium, Copper, Lead, Nickel, Selenium, Silver, Thallium, Total Chromium, Zinc
Cold Vapor Atomic Absorption (CVAA)	1631	Mercury
Gaseous Hydride Atomic Absorption (HYDRIDE)	206.3	Arsenic
Flame Atomic Absorption (FAA)	218.4	Chromium VI
Colorimetric	335. 2 or 3	Cyanide

Analysis for the dioxin congeners shall be performed as described in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* using High Resolution Mass Spectrometry.

The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each constituent. The MDL should be as close as practicable to the U.S. EPA MDL determined by the procedure found in 40 CFR Part 136. The results of analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory.

b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration." Numerical estimates of data quality may be by percent accuracy (+ or – a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

d. Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

WATER SUPPLY MONITORING

The Discharger shall forward all testing (excluding bacteriological testing), performed on water supply wells that is required by the Department of Health Services.

REPORTING

Monitoring results shall be submitted to the Regional Board by the **1st day of the second month** following sample collection (e.g., the January report is due by 1 March). Quarterly and annual monitoring results shall be submitted by the **1st day of the second month** following each calendar quarter and year, respectively**. In accordance with Section 13385.1 of the Water Code, a failure to file a discharge monitoring report is subject to a $3,000 mandatory minimum penalty for each day subsequent to a period of 30 days following the deadline for submitting the report.**

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **30 January** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:

1. The names, certificate grades, and general responsibilities of all persons employed at the Plant (Standard Provision A.5).
2. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
3. A statement certifying when flow meters and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
4. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

The Discharger may also be requested to submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

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

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 Board.

Ordered By: _____

THOMAS R. PINKOS
Executive Officer

29 November 2005
(Date)

RSD/sae
12/20/05

INFORMATION SHEET

ORDER NO. R5-2005-0170
GRIZZLY RANCH COMMUNITY SERVICES DISTRICT
WASTEWATER COLLECTION, TREATMENT, AND RECYCLING FACILITY
PLUMAS COUNTY

GENERAL INFORMATION

The Grizzly Ranch Community Services District (GRCSD or Discharger) is located in Plumas County, on Grizzly Road, approximately 2 miles north of Highway 70. The intersection of Grizzly Road and Highway 70 is approximately 2 miles east of the Town of Portola. The Discharger's service area is almost entirely above 5,000 feet elevation.

The Discharger owns and operates a wastewater collection system (sewer system) and wastewater treatment plant (Facility), and provides sewer service to domestic and commercial users within the GRCSD. As part of the wastewater treatment and disposal process, the Discharger will also produce recycled water that can be used for golf course irrigation. The project area will consist of 380 single-family homes, an 18-hole golf course, golf clubhouse, and some commercial facilities. The golf course will be owned by Grizzly Creek Golf, LLC. Grizzly Creek Golf LLC will be issued separate water recycling requirements for their use of the recycled water.

The Facility will be located near the southwest boundary of the property in the GRSCD. The Facility will consist of:

- A headworks with flow metering and a rotary drum screen for grit and large solids removal. Influent flow will be measured by a magnetic flow meter. The wastewater collection system will consist entirely of low pressure force mains.

- A Sequencing Batch Reactor (SBR) for removal of BOD, TSS, and nitrogen. The California Department of Health Services (DHS), Division of Drinking Water, has reviewed specifications for the SBR, as well as other items critical to compliance with recycling requirements as required in the California Code of Regulations, Title 22 (Title 22).

- Multimedia filters for additional removal of BOD, TSS, and turbidity, in preparation for disinfection to meet the recycled water requirements of Title 22 for tertiary quality recycled wastewater;

- An Emergency Storage Pond (Emergency Pond). The Emergency Pond will be lined with a synthetic liner. This pond is intended to contain wastewater only infrequently and will be utilized only when there is a problem with the treatment process that could cause a violation of waste discharge requirements or the water recycling permit.

- An Irrigation Storage Pond (Irrigation Pond). This pond will be constructed with a synthetic liner and will be used for the storage of wastewater in minor amounts compared to the total pond volume. The remaining pond volume will be made up by potable water from onsite wells.

- During irrigation, water from the Irrigation Pond will discharge to a wet well prior for pumping to the golf course. Treated wastewater will also be discharged to the wet well, where the two irrigation water sources will mix. At the end of a daily irrigation cycle the wet well can be drawn down by discontinuing the supply of pond water, while continuing irrigation solely with recycled water. After cessation of irrigation, recycled water can be discharged to the partially empty wet well until the subsequent irrigation cycle begins. In this manner, little treated wastewater will be discharged to the Irrigation Pond, and questions of irrigation pond liner integrity—potentially necessary to prevent groundwater contamination—are not a significant concern.

- An outfall diffuser for discharge into Big Grizzly Creek. The diffuser will be designed such that effluent mixing with Big Grizzly Creek occurs rapidly and within a very short distance of the point of discharge.

- Redundancy features. Title 22 requires minimum redundancy features to avoid irrigation with wastewater that does not meet all applicable criteria. Redundancy features for this system include:

    1. Multiple units of SBR system equipment if the original equipment malfunctions.

    2. Sludge storage for approximately 14 days. Although 14 days of sludge storage does not fulfill the Title 22 requirement (20 days of storage is required by Title 22), the SBR system can be operated at increased mixed liquor solids concentrations for additional solids storage within the wastewater.

    3. For the coagulation system, availability of stand-by feeders;

    4. Adequacy of chemical storage and reserve chemical supply; automatic dosage control; and the availability of an alarm and stand-by replacement equipment or standby coagulation process.

WATER RECYCLING REQUIREMENTS

The GRCSD will treat the wastewater to the standards required in Title 22 for unrestricted golf course irrigation. During the irrigation season, the last Saturday in April to 15 November, the recycled water will be used on the golf course.

SUMMARY OF DRAFT PERMIT

Permitted discharge flow is limited to a monthly average value of 0.081 million gallons per day. Monthly average effluent BOD, total suspended solids, and total nitrogen effluent limitations are 10 mg/L, 10 mg/L, and 10 mg/L respectively. The hourly average chlorine effluent concentration is limited to 0.02 mg/L. The seven day median value of total coliform is not to exceed 2.2 MPN/100 mL, only one coliform value per month may exceed 23 MPN/100 mL, and no value may exceed 240 MPN/100 mL. The Order requires the Discharger to develop and submit: 1) a Sanitary Sewer

System Operation, Maintenance, and Overflow Prevention and Response Plan; 2) an annual sludge disposal plan; and 3) a Title 22 Engineering Report regarding the recycled water irrigation of the golf course at the development. The Order may be reopened to promulgate revised water quality based effluent limitations if supplemental data indicates any pollutants have a reasonable potential to cause an exceedance of a water quality objective.

Monitoring and Reporting Program No. R5-2005-0170 requires that an additional acute toxicity test be initiated immediately in case of any test indicating mortality in excess of 70 percent, or at any time the median survival of the previous three tests is less than 90 percent.

RECEIVING WATER BENEFICAL USES

The Board adopted a Water Quality Control Plan; Fourth Edition, for the Sacramento River and San Joaquin River Basins (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. The requirements in this Order implement the Basin Plan.

The Basin Plan on page II-2.00 states: "The beneficial uses of any specifically identified water body generally apply to its tributary streams." This statement is sometimes referred to as the "Tributary Rule."

The Basin Plan does not specifically identify any beneficial uses for Big Grizzly Creek and its tributaries. However, the Basin Plan does identify present and potential beneficial uses for the Middle Fork of the Feather River, to which Big Grizzly Creek is directly tributary, which include; municipal and domestic supply (MUN); water contact recreation and canoeing and rafting (REC-1); non-contact recreation (REC-2); cold freshwater habitat (COLD); warm fresh water habitat (WARM) cold water spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD).

The Regional Board finds that, based on hydraulic continuity, aquatic life migration, existing and potential water rights, and the presence of contact recreational activities, the beneficial uses of the Middle Fork of the Feather River apply to Big Grizzly Creek and its tributaries.

a. Municipal and Domestic Supply

The Regional Board is required to apply the beneficial uses for municipal and domestic supply to Big Grizzly Creek and its tributaries based on SWRCB Resolution No. 88-63 which, in turn, was incorporated into the Basin Plan pursuant to Regional Board Resolution No. 89-059. The State Water Resources Control Board (SWRCB) has issued water rights to water users along Big Grizzly Creek and at Lake Davis primarily for agricultural and domestic supply. Domestic supply in Portola area is provided exclusively by groundwater. However, prior to 1998, Lake Davis was Portola's primary drinking water source. Plumas County plans to reactivate the water treatment plant using Lake Davis water; however, prior to reactivation, approximately $5.5 million of improvements must be made to the water treatment plant. Although the use of Big Grizzly Creek and its tributaries as domestic supply is limited at present, the potential for expanded use exists.

b. Water Contact and Noncontact Recreation

Big Grizzly Creek and its tributaries flow through rural and residential areas and there is ready public access. Contact and noncontact recreational activities, including rafting, fishing, ice-skating during the winter, and others, exist and are likely to increase as the population in the area increases. These uses were confirmed by a recreation study performed by the Department of Fish and Game in 1998. The Middle Fork of the Feather River also offers recreational opportunities.

c. Cold and Warm Freshwater Habitat, Migration of Aquatic Organisms, Spawning, Reproduction, and/or Early Development, and Wildlife Habitat

Big Grizzly Creek flows to the Middle Fork of the Feather River. Fish species present in Big Grizzly Creek and its tributaries are consistent with cold-water and warm-water fisheries. The California State Department of Fish and Game has noted trout in Big Grizzly Creek, as well as potential spawning areas. The Basin Plan (Table II-1) designates the Middle Fork of the Feather River as having a cold habitat. The outflow from Lake Davis into Big Grizzly Creek is controlled to maintain the trout fishery. Therefore, pursuant to the Basin Plan (Table II-1, Footnote (2)), the COLD and WARM designations and Spawning, Reproduction, and/or Early Development, and Wildlife Habitat (SPWN) designation applies to Big Grizzly Creek and its tributaries. The cold-water habitat designation necessitates that the in-stream dissolved oxygen concentration be maintained at, or above, 7.0 mg/L.

The riparian areas along Big Grizzly Creek and its tributaries support wildlife habitat. Therefore, the wildlife habitat designation (WILD) applies to Big Grizzly Creek.

The beneficial uses of groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

WATER QUALITY OBJECTIVES AND BASIS FOR PERMIT EFFLUENT LIMITATIONS

The Porter Cologne Water Quality Control Act defines water quality objectives as "…the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area." Water quality objectives designed to protect beneficial uses and prevent nuisances are found in the Basin Plan, and may be stated in either numerical or narrative form.

Federal Regulations require that, in setting effluent limitations, the Regional Board assure that the Discharger meets the more stringent of the: 1) technology based effluent limitations found in 40 CFR Part 133; or 2) limitations developed to assure that water quality objectives are not exceeded when it is shown that there is a reasonable potential for the pollutant to cause or contribute to such an exceedance. The latter requirement applies to both numeric and narrative water quality objectives.

The following sections discuss non-priority pollutants for which there are numeric water quality objectives, as well as pollutants that could cause exceedance of the Basin Plan's narrative toxicity objectives. If a technology based effluent limitation is required for the pollutant, this requirement is noted. The basis for the decision whether or not to set an effluent limitation is given, as well as the rationale for the numerical value of the effluent limitation, if one is established.

1. Coliform (Total and Fecal)

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states "The fecal coliform concentration [in surface waters] based on a minimum of not less that five samples for any 30-day period shall not exceed a geometric mean of 200 MPN/100 mL nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400 MPN/100 mL." In a letter to the Regional Board dated 8 April 1999, DHS indicated that they would consider wastewater discharged to water bodies with identified beneficial uses of irrigation, contact recreation, or a drinking water source to be adequately disinfected if: 1) the wastewater receives dilution of more than 20:1; 2) the effluent coliform concentration does not exceed 23 MPN/100 m*l* as a 7-day median; and 3) the effluent coliform concentration does not exceed 240 MPN/100 mL more than once in any 30 day period.

Order Effluent Limitation: Because the effluent dilution in Big Grizzly Creek will be maintained at a minimum of 100:1, an effluent limitation of 23 MPN/100 mL is appropriate. However, wastewater will be disinfected to 2.2 MPN/100 mL for application to the golf course; therefore this limitation is also specified for discharge to Big Grizzly Creek. Additional reasons for requiring this effluent limitation for Big Grizzly Creek discharge are the pristine nature of the stream and the existence of a youth summer camp for disadvantaged and disabled children to the southwest and downstream of the development, which could result in additional public exposure to the wastewater--although effluent discharge will not generally occur during the recreational season. In accordance with Title 22 regulations, monitoring of reclaimed wastewater used for unrestricted irrigation of golf courses, the Discharger will be required to monitor for effluent coliform at least daily during irrigation.

As the fecal coliform concentration of any sample is less than or equal to the total coliform concentration in accordance with the bacteriological definition and analytical detection procedures for these bacteria, this effluent limitation will implement the Basin Plan water quality objective for fecal coliform.

2. Biostimulatory substances

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states, "Water shall not contain biostimulatory substances which promote aquatic growth or in concentrations that cause nuisance or adversely affect beneficial uses." The primary constituents of concern for this objective are nitrogen and phosphorus.

Order Effluent Limitation: Although nutrients and other biostimulatory substances may be present in the discharge, as the minimum dilution of effluent in Big Grizzly Creek will be 100:1 after complete mixing (1Q10 in Big Grizzly Creek is 4.5 cfs). Therefore no effluent limitation for biostimulatory substances is established in this permit, except for total nitrogen. Because nitrogen may cause unacceptable eutrophication of surface waters, especially when the flow in the Middle Fork of the Feather River is very low, effluent total nitrogen in the effluent has been limited to 10 mg/L. In addition, receiving water quality limitations prohibit the discharge from causing fungi, slimes, or other objectionable growths.

3. Chemical Constituents

Technology based effluent limitation: None

Receiving water objective: At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limitations) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain lead in excess of 0.015 mg/L. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To protect all beneficial uses the Regional Board may apply limitations more stringent than MCLs.

Order Effluent Limitation: Examination of the results of priority pollutant testing required by the CTR, as well as general information on water quality illustrates that there should be no exceedance of primary or secondary MCLs in Big Grizzly Creek if effluent limitations in the Order are complied with. Therefore there are no effluent limitations for any of these chemical constituents.

4. Color

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states that "Water shall be free of discoloration that causes nuisance or adversely affects beneficial uses."

Order Effluent Limitation: There should be no significant coloration to the discharge; therefore no effluent limitations for color have been included in the Order.

5. Dissolved Oxygen (DO)

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states; "For surface water bodies outside the legal boundaries of the Delta, the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not fall below 75 percent of saturation. The DO concentration shall not be reduced below the following minimum levels at any time:

Waters designated WARM 5.0 mg/L
Waters designated COLD 7.0 mg/L
Waters designated SPWN 7.0 mg/L"

The Order prohibits discharge to Big Grizzly Creek from the last Saturday in April to 15 November, with certain exceptions. During discharge periods the flow in Big Grizzly Creek consists of storm water run-off and flow gained from groundwater recharge, which generally are high in dissolved oxygen. In addition, the dilution of effluent in Big Grizzly Creek will be at least 100:1. The effluent discharge, therefore, should not contribute to a decrease in DO in Big Grizzly Creek.

Order Effluent Limitation: No effluent limitation has been included in this Order due to the lack of reasonable potential for failure to achieve water quality objectives and the lack of a technology based effluent limitation.

6. Biochemical Oxygen Demand (BOD)

Technology based effluent limitation: Federal regulations, 40 CFR, Part 133, provide technology based effluent limitations for BOD. Pursuant to the regulations at 40 CFR Parts 133.105(a), (b), and 133.103, the BOD 30-day average discharge limitation for a secondary treatment system shall not exceed 30 mg/L, the 7-day average shall not exceed 45 mg/L, and the 30-day BOD percent removal shall not be less than 85%.

Receiving water objective: As indicated in Item 5. above, the discharge will not cause a decrease in the dissolved oxygen in the receiving water, which is the most likely effect of discharge of BOD. Therefore, the technology based effluent limitation is the relevant criterion to consider for setting an effluent limitation.

Order Effluent Limitation: The BOD effluent limitation for this permit has been set at 15 mg/L because the treatment technology can accomplish this BOD removal, and the effluent limitation is necessary to assure consistent disinfection to the required coliform effluent limitation of 2.2 MPN/100mL.

7. **Floating Material**:

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states, "Water shall not contain floating material in amounts that cause nuisance or adversely affect beneficial uses." The Receiving Water Limitations in this permit prohibit floating material in amounts that exceed this Basin Plan Water Quality objective.

Order Effluent Limitation: With the wastewater treatment processes, particularly effluent filtration, there is little chance of any substantial amount of floating material being discharged by this Plant. Therefore no effluent limitation for floating material is established. However, receiving water quality limitations prohibit the Discharger from causing a nuisance or adversely affecting beneficial uses due to floating material.

8. Oil and Grease

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states "Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses."

The current wastewater treatment activity is not anticipated to generate any oils, greases, waxes, or other materials that can cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.

Order Effluent Limitation: No effluent limitation has been included in this Order due to the lack of reasonable potential for failure to achieve water quality objectives, and the lack of a technology based effluent limitation.

9. pH

Technology based effluent limitation: From 6.0 to 9.0

Receiving water objective: The Basin Plan provides that the pH (of surface waters) shall not be depressed below 6.5 nor raised above 8.5 pH Units. The Basin Plan further provides that changes in normal ambient pH levels shall not exceed 0.5 pH Units in fresh waters with designated COLD or WARM beneficial uses.

Order Effluent Limitation: Wastewater treatment plants in general produce wastewater with variable pH. Therefore, this Plant has a reasonable potential to generate effluent with a pH value that could adversely affect beneficial uses. Hence, an effluent limitation for this criterion is set at 6.0 (daily minimum) and 9.0 (daily maximum), which is protective of receiving waters.

10. Pesticides

Technology based effluent limitation: None

Receiving water objective: The Basin Plan States: "1) No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses; 2) Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses; 3) Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the USEPA or the Executive Officer; 4) Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies (see SWRCB Resolution 68-16 and 40 CFR Section 131.12.); 5) Pesticide concentrations shall not exceed the lowest levels

technically and economically achievable; 6) Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15; and 7) Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of thiobencarb in excess of 1.0 µg/l."

Order effluent limitation: Due to the nature of the development, primarily residential, pesticides are not expected to be present in significant amounts. Therefore there are no effluent limitations for pesticides in this Order. However, a requirement for the Discharger to provide a chemical management plan for the golf course is included in the Order.

11. Radioactivity

Technology based effluent limitation: None

Receiving water objective: The Basin Plan States; "Radionuclides shall not be present in concentrations that are harmful to human, plant, animal or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life. At a minimum, waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect."

Order effluent limitation: No unacceptable levels of radionuclides are expected the in Big Grizzly Creek or in the GRCSD's effluent. Therefore, no effluent limitations for radionuclides are contained in this Order.

12. Salinity

Technology based effluent limitation: None

Receiving water objective: The Basin Plan objective for electrical conductivity in the Middle Fork of the Feather River is 150 umhos/cm (as a 90^{th} percentile).

Order Effluent Limitation: Data obtained from the Middle Fork of Feather River by the Discharger and by the town of Portola indicate that the river's electrical conductivity ranges from 139 umhos/cm to 150 umhos/cm. Because of the high dilution of effluent in Big Grizzly Creek (minimum of 100:1), it is unlikely that the discharge will cause exceedance of this objective. The Discharger is required to obtain data on effluent and receiving water electrical conductivity to confirm that the water quality objective is not exceeded. In addition, receiving water limitations prohibit an increase in electrical conductivity above the water quality objective of 150 umhos/cm in the Middle Fork of the Feather River.

13. Total Suspended Matter

Technology based effluent limitation: Federal regulations, 40 CFR, Part 133, provides technology based effluent limitations for total suspended solids (TSS). Pursuant to the regulations at 40 CFR Parts 133.105(a), (b), and 133.103, the TSS 30-day average discharge limitation for secondary systems shall not exceed 30 mg/L, the 7-day average shall not exceed 45 mg/L, and the 30-day TSS percent removal shall not be less than 85%.

Receiving water objective: Regarding suspended material, the Basin Plan states: "Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses."

The current wastewater treatment process has a reasonable potential to generate suspended matter in quantities that would cause exceedance of the above narrative standard. Municipal wastewater contains suspended matter, some of which will escape the treatment and/or removal process, in this case potentially from the malfunction of a filter.

Order Effluent Limitation: The TSS effluent limitation for this permit has been set at 15 mg/L because the treatment technology can accomplish the necessary TSS removal, and the effluent limitation is necessary to achieve adequate disinfection.

14. Temperature

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states; "The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5º F above natural receiving water temperature. In determining compliance with the water quality objectives for temperature, appropriate averaging periods may be applied provided that beneficial uses will be fully protected."

Order Effluent Limitation: The current practice of effluent discharge is not expected to cause variation in receiving water temperature by more than 1^{o} F. Dilution of the wastewater will also reduce any temperature increases. Consequently, no effluent limitation has been included in this Order.

15. Toxicity

Technology based effluent limitation: None

Receiving water objective: The Basin Plan provides that relative to toxicity: "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances."

This Order contains provisions that require characterization of the discharge for chronic and acute toxicity. Effluent must result in survival of test fishes in 96-hour bioassays of undiluted effluent be no less than:

Minimum for any one bioassay - - - - - - - - - - - - - - - - - 70%
Median for any three or more bioassays - - - - - - - - - - - -90%

Order Effluent Limitation: The Discharger is required to conduct the chronic toxicity testing as specified in the Monitoring and Reporting Program. If the testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, this Order requires the Discharger to initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger will submit a work plan to conduct a Toxicity Reduction Evaluation (TRE) and, after Board evaluation, conduct the TRE. This Order will be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if the SWRCB adopts a chronic toxicity water quality objective, this Order may be reopened and a limitation based on that objective included.

16. Turbidity

Technology based effluent limitation: None

Receiving water objective: The Basin Plan states: "Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limitations:

Where natural turbidity is between 0 and 5 (NTUs), increases shall not exceed 1 NTU.

Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.

Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs.

Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent."

Order Effluent Limitation: There may be a reasonable potential to exceed the receiving water turbidity criteria due to discharges from the ponds. Although discharges occur during the period when a significant dilution in Big Grizzly Creek is available, small amounts of turbidity-laden water can cause significant turbidity increases, even with large dilutions. Therefore, receiving water limitations have been incorporated into this Order in conformance with Basin Plan objectives. In addition, averaging periods for compliance calculations are allowed if approved by the Executive Officer.

17. Chlorine

Technology based effluent limitation: None

Receiving water objective: See the Basin Plan objective above under Toxicity.

Aquatic habitat based upon the COLD designation is a beneficial use of Big Grizzly Creek and its tributaries. The Basin Plan narrative toxicity standard requires that "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." The Discharger disinfects treated effluent with chlorine, which is toxic to some aquatic life. The USEPA has developed recommended chlorine ambient water quality criteria to protect freshwater aquatic organisms. Their criteria are used in this Order to implement the narrative toxicity objective of the Basin Plan. The USEPA's ambient water quality criteria for total residual chlorine for protection of aquatic life are 11 ug/L as a 4-day average (chronic) concentration, and 19 ug/L as a one-hour average (acute) concentration.

Order Effluent Limitation:

This permit contains effluent discharge limitations for total residual chlorine of 0.01 mg/L as a four-day average, and 0.02 mg/L as a maximum 1-hour average, based on the USEPA ambient criteria to protect aquatic life. The one-hour average limitation, rather than an instantaneous or daily maximum, will be applied for compliance determinations. A one-hour average limitation allows for continuous monitoring anomalies while protecting aquatic organisms against toxicity. EPA guidelines and the Basin Plan allow for mixing zones where water quality objectives may be exceeded.

18. Ammonia

Technology based effluent limitation: None

Receiving water objective: See the Basin Plan objective above under Toxicity.

Order Effluent Limitation: Ammonia concentrations in the effluent from domestic wastewater treatment plants without nitrification capabilities (conversion of ammonia to nitrate), in general, are higher than USEPA recommended freshwater criteria. This Facility is designed to denitrify, which requires that a substantial portion of influent nitrogen be converted from ammonia to nitrate. An effluent limitation for ammonia nitrate is therefore not included in this Order.

REASONABLE POTENTIAL ANALYSIS FOR CTR AND NTR POLLUTANTS

Federal regulations contained in 40 CFR Part 122.4 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to, an in-stream excursion above a narrative or numerical water quality standard. The USEPA adopted the National Toxics Rule (NTR) on 5 February 1993 and the California Toxics Rule (CTR) on 18 May 2000. The NTR and CTR contain water quality standards applicable to this discharge. The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan or SIP), which contains guidance on implementation for the NTR and CTR.

As part of the report of waste discharge for this facility, the Discharger has sampled receiving water on two occasions to determine if the priority pollutants established in the CTR and NTR are present in receiving water. In Attachment C, the priority pollutants regulated by the NTR and CTR are listed, as well as the most stringent receiving water quality objective for the given beneficial uses. The results of receiving water quality testing are also presented.

The beneficial uses pertinent to Big Grizzly Creek in terms of a reasonable potential analysis for the NTR and CTR priority pollutants include freshwater aquatic habitat, municipal water supply, and human consumption of fish and other food from the Creek. In addition to the water quality standards given in the NTR and CTR, the Basin Plan objectives were also considered. The most stringent of those applicable water quality objectives or standards is given in Finding No. 40. Water quality objectives for metals based upon the NTR and CTR have been adjusted for water hardness and metals translators as described in the SIP and Basin Plan. The hardness used for these adjustments was the lowest hardness detected in Big Grizzly Creek (31 ppm). Use of the lowest hardness in Big Grizzly Creek provides the most conservative estimate of the potential for exceedance of a water quality objective.

The SIP establishes expected minimum levels for laboratory analysis for each of the priority pollutants in the NTR and CTR. These minimum levels were achieved for the required priority pollutant testing.

Asbestos, dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin) and all other organic pollutants were undetected in the receiving water.

Water quality criteria have been established for forty-three of the volatile and semi-volatile organic compounds, as well as pesticides, at concentrations less than current laboratory minimum levels. For compounds that have minimum levels established at concentrations below their water quality objectives, there is no reasonable potential, based upon current analytical data and proposed plant operating procedures, for an exceedance of water quality objectives in Big Grizzly Creek. Further monitoring is required in the Monitoring and Reporting Program to confirm this finding. Many treatment plants have had difficulty assuring that discharge of some metals such as copper does not cause potential exceedance of water quality objectives. However the treatment train proposed for this discharge will result in removal of much higher percentages of BOD, total suspended solids, and settleable solids than these other Plants. Removal of additional solids generally corresponds to additional removal of metals. In addition, copper piping often contributes to lead and copper contamination of municipal wastewater. Plumas County allows plastic plumbing, and modern copper solders contain very little lead, which should reduce the amount of these metals being discharged to the treatment plant.

The forty-three compounds that have minimum levels established at concentrations higher than their water quality objectives will not be present in concentrations in the Facility effluent that cause or contribute to violations of water quality objectives based on proposed Facility operations and the nature of the waste treated. Further monitoring is required, as described below, and in the Monitoring and Reporting Program to support this finding. If and when minimum levels for these compounds are lowered, or additional data warrants, this permit may be reopened to establish effluent limitations for those compounds determined to have reasonable potential to exceed water quality objectives.

Discharge to Big Grizzly Creek is prohibited between the last Saturday in April and 15 November. At the minimum creek flow, dilution of effluent in Big Grizzly Creek, after complete mixing, should be in excess of 100:1. The outfall diffuser for the Facility is designed to produce rapid and complete mixing.

FLOW LIMITATIONS:

The monthly average daily dry weather flow limitation of 0.081 MGD is based on the design capacity of the treatment facility.

SLUDGE DISPOSAL

The Order contains provisions requiring the Discharger to comply with current federal and state laws and regulations for disposal of sewage sludge. The facility intends to remove sludge from the treatment works on an unscheduled basis. The Discharger is required to report any proposed change in sludge use or disposal practice 90 days in advance of change.

RECEIVING WATER LIMITATIONS

The receiving water limitations contained in the draft Order are based on water quality objectives contained in the Basin Plan for the Middle Fork of the Feather River.

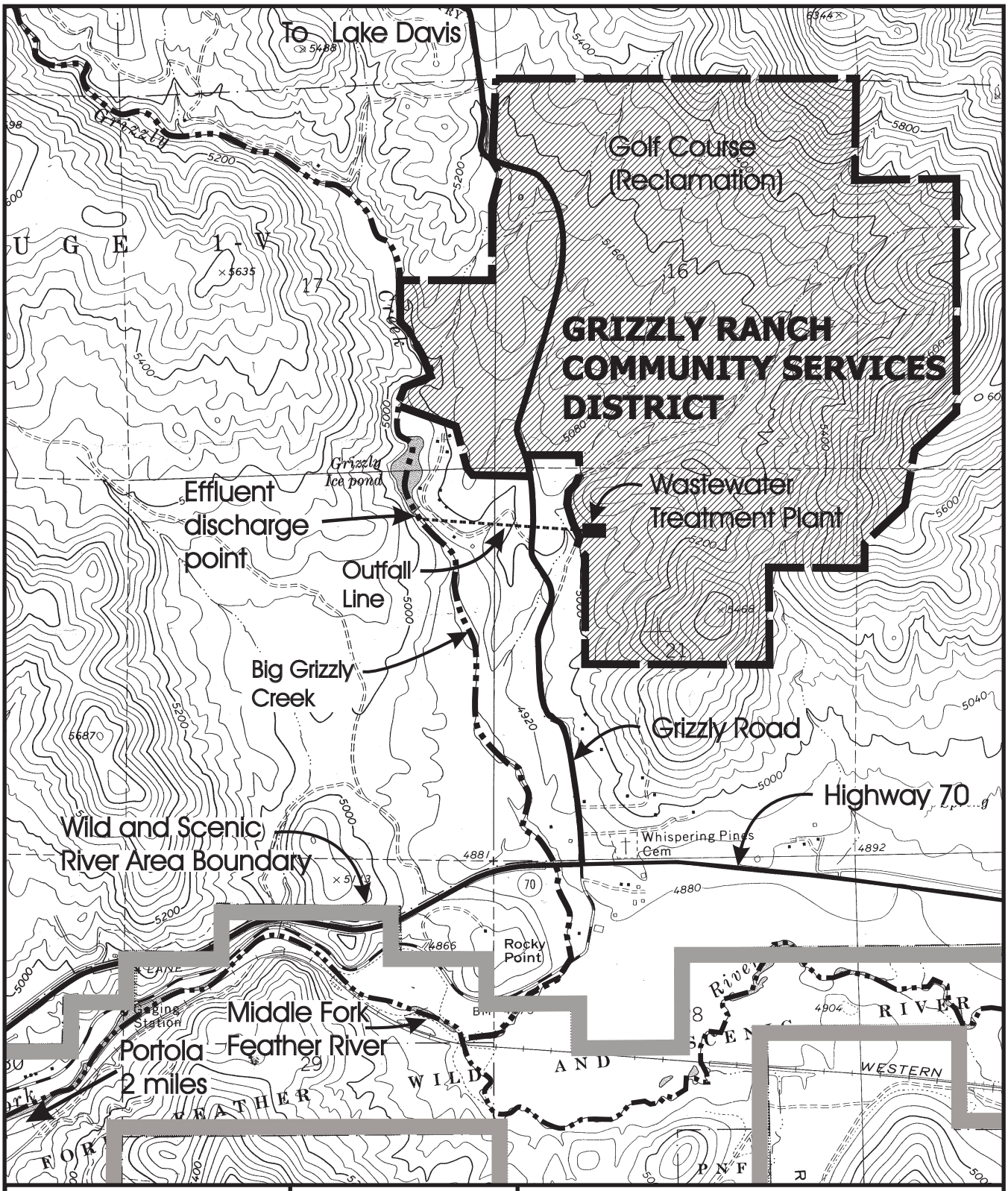
PROCEDURES ON REACHING FINAL DECISION ON DRAFT PERMIT

The tentative waste discharge requirements have been sent to the Discharger and interested parties for review (at least 30 days) prior to formal presentation to the Regional Board. Any contested items on the permit will be heard and considered for change prior to formal adoption at the Board Meeting.

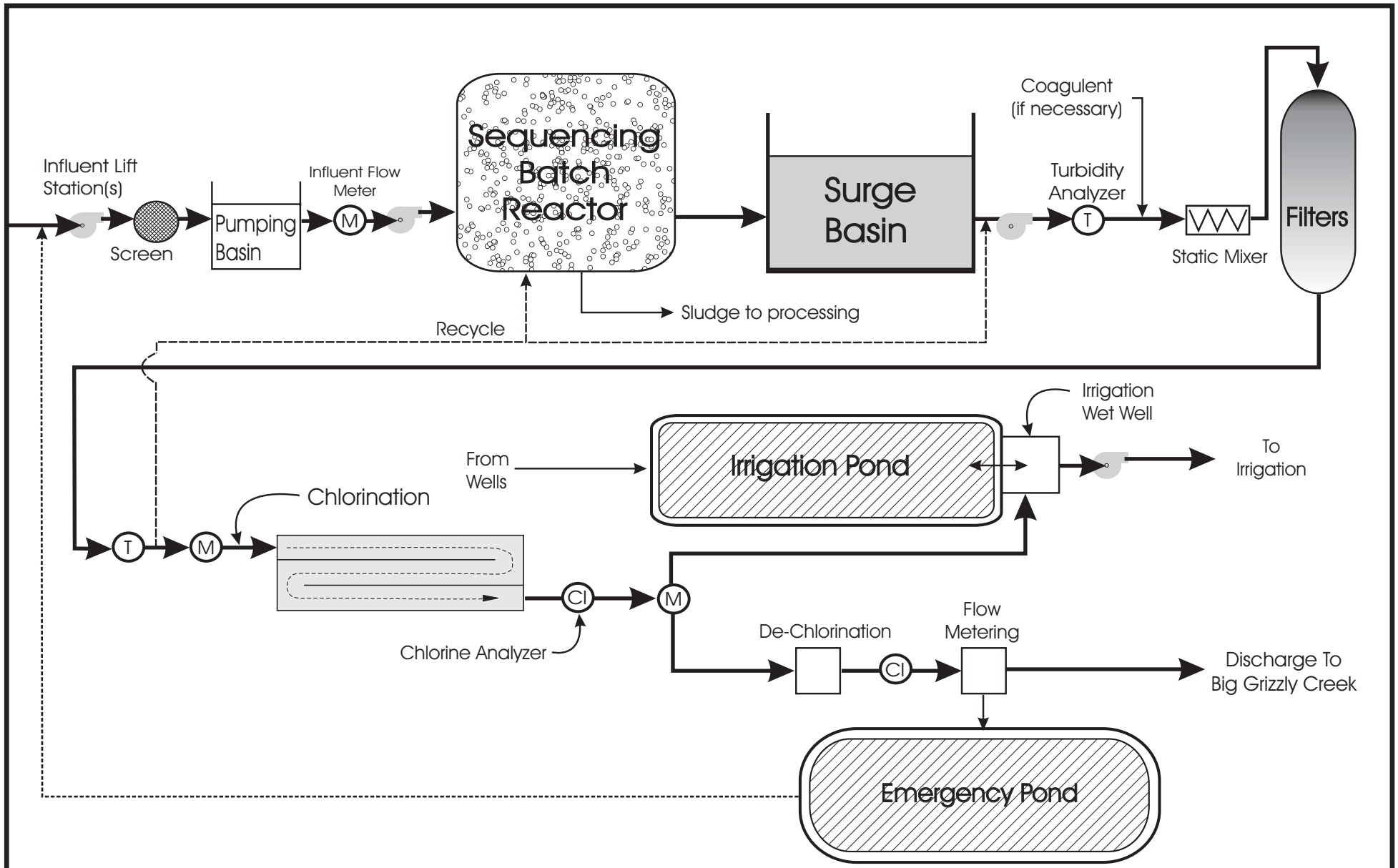
FOR FURTHER INFORMATION

For further information or questions regarding the NPDES permit, contact Ronald S. Dykstra at the Regional Water Quality Control Board in Redding at (530) 224-4858.

RSD: sae
12/20/05



	Order Number R5-2005-0170	**GRIZZLY RANCH COMMUNITY SERVICES DISTRICT WASTEWATER COLLECTION, TREATMENT AND RECYCLING FACILITY** Sections 15-17 and 20-22, T23N, R14E, MDB&M-USGS Portola 7.5' QUAD
	Attachment A	



FLOW SCHEMATIC
Wastewater Treatment Facility, Grizzly Ranch
Community Services District-Plumas County

Order Number R5-2005-0170

Attachment B

PRIORITY POLLUTANTS

No.	Compound	*No.*	Compound	*No.*	Compound
INORGANICS		***ORGANICS***		***ORGANICS***	
1	Antimony	*45*	2-Chlorophenol	*96*	N-Nitrosodimethylamine
2	Arsenic	*46*	2,4-Dichlorophenol	*97*	N-Nitrosodi-n-Propylamine
3	Beryllium	*47*	2,4-Dimethylphenol	*98*	N-Nitrosodiphenylamine
4	Cadmium	*48*	2-Methyl-4,6-Dinitrophenol	*99*	Phenanthrene
5a	Chromium (III)	*49*	2,4-Dinitrophenol	*100*	Pyrene
5b	Chromium (VI)	*50*	2-Nitrophenol	*101*	1,2,4-Trichlorobenzene
6	Copper	*51*	4-Nitrophenol	*102*	Aldrin
7	Lead	*52*	3-Methyl-4-Chlorophenol	*103*	alpha-BHC
8	Mercury	*53*	Pentachlorophenol	*104*	beta-BHC
9	Nickel	*54*	Phenol	*105*	gamma-BHC (Lindane)
10	Selenium	*55*	2,4,6-Trichlorophenol	*106*	delta-BHC
11	Silver	*56*	Acenaphthene	*107*	Chlordane
12	Thallium	*57*	Acenaphthylene	*108*	4,4'-DDT
13	Zinc	*58*	Anthracene	*109*	4,4'-DDE
14	Cyanide	*59*	Benzidine	*110*	4,4'-DDD
		60	Benzo(a)Anthracene	*111*	Dieldrin
ASBESTOS		*61*	Benzo(a)pyrene	*112*	alpha-Endosulfan
15	Asbestos	*62*	Benzo(b)fluoranthene	*113*	beta-Endosulfan
		63	Benzo(g,h,i)perylene	*114*	Endosulfan Sulfate
DIOXIN		*64*	Benzo(k)fluoranthene	*115*	Endrin
16	2,3,7,8-TCDD (Dioxin)	*65*	Bis(2-chloroethoxy) methane	*116*	Endrin Aldehyde
		66	Bis(2-chloroethyl) ether	*117*	Heptachlor
ORGANICS		*67*	Bis(2-chloroisopropyl) ether	*118*	Heptachlor epoxide
17	Acrolein	*68*	Bis(2-Ethylhexyl)phthalate	*119-125*	Polychlorinated biphenyls (PCBs)
18	Acrylonitrile	*69*	4-Bromophenyl phenyl ether	*126*	Toxaphene
19	Benzene	*70*	Butylbenzyl Phthalate		
20	Bromoform	*71*	2-Chloronaphthalene		
21	Carbon tetrachloride	*72*	4-Chlorophenyl Phenyl Ether		
22	Chlorobenzene	*73*	Chrysene		
23	Chlorodibromomethane	*74*	Dibenzo(a,h)Anthracene		
24	Chloroethane	*75*	1,2-Dichlorobenzene		
25	2-Chloroethylvinyl Ether	*76*	1,3-Dichlorobenzene		
26	Chloroform	*77*	1,4-Dichlorobenzene		
27	Dichlorobromomethane	*78*	3,3'-Dichlorobenzidine		
28	1,1-Dichloroethane	*79*	Diethyl phthalate		
29	1,2-Dichloroethane	*80*	Dimethyl phthalate		
30	1,1-Dichloroethylene	*81*	Di-n-Butyl Phthalate		
31	1,2-Dichloropropane	*82*	2,4-Dinitrotoluene		
32	1,3-Dichloropropylene	*83*	2,6-Dinitrotoluene		
33	Ethylbenzene	*84*	Di-n-Octyl Phthalate		
34	Methyl Bromide	*85*	1,2-Diphenylhydrazine		
35	Methyl Chloride	*86*	Fluoranthene		
36	Methylene Chloride	*87*	Fluorene		
37	1,1,2,2-Tetrachloroethane	*88*	Hexachlorobenzene		
38	Tetrachloroethylene (PCE)	*89*	Hexachlorobutadiene		
39	Toluene	*90*	Hexachlorocyclopentadiene		
40	1,2-Trans-Dichloroethylene	*91*	Hexachloroethane		
41	1,1,1-Trichloroethane	*92*	Indeno(1,2,3-c,d)pyrene		
42	1,1,2-Trichloroethane	*93*	Isophorone		
43	Trichloroethylene (TCE)	*94*	Naphthalene		
44	Vinyl chloride	*95*	Nitrobenzene