

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0159

NPDES NO. CA0084875

WASTE DISCHARGE REQUIREMENTS  
FOR  
COUNTY OF PLUMAS AND  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
GOPHER HILL LANDFILL LEACHATE DISPOSAL SYSTEM  
PLUMAS COUNTY

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

1. The County of Plumas (Plumas County) submitted a Report of Waste Discharge (ROWD), dated 22 May 1997, and applied for a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from the Gopher Hill Landfill Leachate Disposal System. The land on which the landfill and surface impoundment are situated is owned by the U.S. Department of Agriculture, Forest Service (Forest Service). Additional chemical analyses reports to support the ROWD were submitted by Plumas County on 7 January 2002, 22 March 2002, and 15 April 2002. The Forest Service submitted an environmental document, *Gopher Hill Landfill Environmental Assessment*, dated July 2001 and issued a Special Use Permit (Use Permit No. 102201) dated 28 March 2002. Plumas County and the Forest Service are hereafter jointly referred to as the Discharger.
2. The Plumas County operates an unlined Class III Solid Waste Municipal Landfill and a Class II Surface Impoundment on Snake Lake Road approximately five miles west of Quincy in Section 12, T24N, R9E, MDB&M, as shown on Attachment A, which is attached hereto and made part of this Order.. The landfill site is in an area of historic hydraulic mining between Spanish and Wapaunsie Creeks. The landfill, surface impoundment and related facilities are governed by Waste discharge requirements Order No. 90-311 and General Order 93-200. The landfill is also governed by Order No. 97-03-DWQ (General Permit No. CAS000001) for discharge of storm water associated with industrial activities.
3. Landfill operations in the early 1990s resulted in the discharge of leachate contaminated by volatile organic compounds (VOCs), iron and manganese. In 1994, the Forest Service issued a separate use permit to Plumas County to construct a Class II surface impoundment to collect leachate and commingled groundwater. The

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Class II surface impoundment was constructed with a total volume of approximately 1.055 million gallons. Leachate and shallow groundwater are collected from the toe of the landfill and discharged to the surface impoundment. The capacity of the impoundment can be exceeded during times of heavy runoff and unless leachate can be removed from the impoundment it can overflow and enter Wapaunsie Creek. The Discharger is presently transferring the leachate from the impoundment to the Quincy Sewage Treatment Plant by tanker truck. The sewage treatment plant discharges to Spanish Creek, a tributary of North Fork Feather River approximately 6 miles downstream of the Gopher Hill Landfill.

4. The Discharger proposes to discharge treated leachate from the Class II Surface Impoundment to Spanish Creek via a proposed sub-surface four inch pipeline running along the east side of Snake Lake Road. Leachate would be discharged to Spanish Creek immediately downstream of the Snake Lake Road Bridge as shown on Attachment B, a part of this Order. The Discharge is at latitude 39° 57' 14'', longitude 121° 01' 46''. The Discharger proposes to discharge only during periods of high flows from 1 November through 30 April each year. The Discharger submitted data indicating that estimated flows in Spanish Creek in 1996, based on a rating curve ranged from 169 to 1176 cubic feet per second (cfs) during the proposed discharge period. The outfall structure will consist of facing class riprap in an oval pattern approximately four feet by five feet immediately adjacent to the bank of Spanish Creek. The four-inch PVC pipe conveying leachate from the Class II Impoundment will discharge to the upper end of the riprap. The flow from the pipe will be below the surface of the riprap and will not be visible.
  
5. The Report of Waste Discharge and supplementary reports characterize the discharge as follows:

Monthly Ave. Wet Weather Flow (1 Nov. – 30 April)	0.035 million gallons per day (mgd) (0.0542 cfs)
24-Hour Peak Flow	0.18 mgd (0.2785 cfs)

Analyses	Average (1996)	Min-Max (1996)	Average (1999)	Min-Max (1999)
pH	7.18	6.8 – 7.7	6.9	6.4 - 7.4
EC (µmhos/cm)	323.75	195 – 410	77.5	55 - 110
TDS (mg/L)	207.25	122 – 269	49	34 - 73
TSS (mg/L)	5.93	1.9 – 14.6	3	1 - 5.4

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Analyses	Average (1996)	Min-Max (1996)	Average (1999)	Min-Max (1999)
Turbidity (NTU)	3.85	0.35 – 13	0.9625	0.25 - 1.5
Temperature (C)	13.0	3 – 24	9.5	2 - 20
Hardness (mg/L)	98.25	70 – 119	31.5	24 - 45
Chloride (mg/L)	20.65	13.3 – 28.4	<0.5	<0.5
Nitrate (mg/L)	.58	< 0.5 – 0.8	<0.5	<0.5
Sulfate (mg/L)	.65	< 0.5 – 0.7	0.525	<0.5 - 0.6
Na (mg/L)	13.73	6.5 – 18.2	2.75	1.7 - 3.9
Mg (mg/L)	10.08	6.7 – 13.5	4.2	3.4 - 5.6
Ca (mg/L)	22.73	16.8 – 25.2	5.725	4 - 8.6
K (mg/L)	5.38	2.3 – 8.4	0.625	0.4 - 0.9
Carbonate (mg/L)	<1	<1	<1	<1
Bicarbonate (mg/L)	125.5	98 – 145	89.75	33 – 164
BOD (mg/L)	<5	<5	<5	<5
COD (mg/L)	11.25	<5 – 30	5.75	5 – 8
Aluminum (µg/L)	<50	<50	<50	<50
Antimony (µg/L)	<6	<6	<6	<6
Arsenic (µg/L)	<2	<2	<2	<2
Cadmium (µg/L)	<1	<1	<1	<1
Total Cr (µg/L)	<10	<10	<10	<10
Cr VI (µg/L)	<10	<10	<10	<10
Copper (µg/L)	<50	<50	<50	<50
Iron (µg/L)	805.25	100 – 2,703	259.25	100 - 338
Lead (µg/L)	<5	<5	<5	5
Manganese (µg/L)	883.25	117 – 2,037	30.25	30 - 31
Mercury (µg/L)	<1	<1	<1	<1
Nickel (µg/L)	<10	<10	<10	<10
Selenium (µg/L)	<5	<5	<5	<5
Silver (µg/L)	<10	<10	<10	<10
Thallium (µg/L)	<1	<1	<1	<1
Zinc (µg/L)	<50	<50	<50	<50

Between February and November 1996, the Discharger conducted four 96-hour acute toxicity bioassays using the undiluted leachate. Three of the bioassays resulted in 100% survival of rainbow trout; one test in May 1996 resulted in 95% survival.

- On 22 March 2002, Plumas County submitted the Annual Monitoring Summary 2001 Report

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for the Gopher Hill Landfill required by Monitoring and Reporting Program No. 90-311. This report presented the monitoring data for 2001 leachate pond samples and summarized the monitoring data for the leachate from 1997 through 2001. No volatile organics were detected in the leachate pond above the method detection limit (MDL). The minimum and maximum values for other constituents for year 2001 and over the 5-year period were as follows:

Analyses	Minumum-Maximum (2001)	Minumum-Maximum (1997 through 2001)
pH	7.8-9.3	5.1 – 9.3
EC (µmhos/cm)	100-300	30-400
TDS (mg/L)	60-202	50-251
Iron (µg/L)	120-150	<100-754
Manganese (µg/L)	19-320	19-1667

7. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. This includes plans and policies adopted by the SWRCB and incorporated by reference, such as Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. These requirements implement the Basin Plan.
8. 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. The State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy), which contains guidance on implementation of the NTR and the CTR.
9. Spanish Creek is a tributary to the North Fork of the Feather River. The beneficial uses of the North Fork of the Feather River as identified in Table II-1 of the Basin Plan are municipal and domestic supply (MUN); hydropower generation (PWR); water contact and non-contact recreation (REC-1) and (REC-2); fresh water habitat (COLD); cold water spawning (SPWN); wildlife habitat (WILD); aesthetic enjoyment; preservation and enhancement of fish, wildlife, and other aquatic resources. The beneficial uses of Spanish Creek are not identified in the Basin Plan, however the Basin Plan states, “The beneficial uses of any specifically identified water body generally apply to its tributary streams.” Upon review of the flow conditions, habitat values, and beneficial uses of Spanish Creek, the Regional Board finds that the beneficial uses identified in the Basin Plan for the North Fork of the Feather River are applicable to Spanish Creek.
10. The beneficial uses of the underlying ground water are municipal and domestic, industrial, and agricultural supply.

11. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.
12. Federal regulations contained in 40CFR 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. Based on current facility operations, information submitted as part of the application and as directed by monitoring and reporting programs, the Regional Board finds that the discharge does have a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective for pH and toxicity. Effluent limitations for these constituents are included in this Order. The manganese concentration of the leachate has ranged from, 117-2037 µg/L. The USEPA and California Department of Health Services secondary Maximum Contaminant Level, (MCL), for manganese is 50 µg/L. The iron concentration of the leachate has ranged from, 5- 2703 µg/L. The USEPA and California Department of Health Services secondary Maximum Contaminant Level, (MCL), for iron is 300 µg/L. Iron and manganese are not priority pollutants and therefore not regulated under the CTR and NTR. Based on information submitted, the Regional Board finds that manganese and iron may be present in the effluent at levels exceeding the applicable receiving water quality criterion. The concentration of these pollutants has decreased markedly since the installation of the Class II Surface Impoundment. The landfill will be capped and it is expected that over time the level of pollutants in the leachate will decrease still further. Based on the recent monitoring data and the required minimum 100:1 dilution for discharge, the MCL's for manganese and iron will be met in the receiving water and effluent limitations have not been established for manganese and iron. Effluent and receiving water monitoring are required for manganese and iron. This Order contains a provision that allows the Regional Board to reopen this Order and include effluent limitation for magnesium and iron.
13. On 7 November 2001, the Discharger was issued a letter under the authority of California Water Code Section 13267 requesting effluent and receiving water monitoring to meet the requirements of the State Implementation Policy (SIP). Federal regulations contained in 40CFR 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. The Discharger submitted analyses of the leachate, Spanish Creek upstream of Wapaunsie Creek, and Spanish Creek downstream of Wapaunsie Creek for priority pollutants. In addition to priority pollutants analyses the Discharger also submitted organo-phosphate pesticide analysis for leachate only. Since 1995, the Discharger has submitted a number of organic and inorganic analyses of leachate and Spanish Creek. While these analyses do not include

all of the Priority Pollutants they do allow reasonable potential analysis to be determined for a number of pollutants.

No volatile or semi volatile organic constituents or pesticides were detected above the method detection limit (MDL) in the leachate or Spanish Creek upstream and downstream of Wapaunsie Creek with the exception of nitrophenol, which was found in the downstream Spanish Creek sample at 0.4 µg/L, and bis 2 ethylhexylphthalate which was detected in the upstream sample at 0.4 µg/L. Asbestos fibers were not detected in either sample above the primary drinking water maximum contaminant level (MCL) of 7 MFL. Total chromium, copper, mercury, nickel, and zinc were detected above minimum levels and were comparable to receiving water concentrations. Based on the sampling results, this Order specifies additional monitoring for VOCs and priority pollutant metals. This Order contains a provision that:

- a. requires the Discharger to provide information as to whether the levels of these pollutants in the discharge cause or contribute to an in-stream excursion above a water quality standard;
  - b. if the discharge has a reasonable potential to cause or contributes to an in-stream excursion above a water quality standard; requires the Discharger to submit information to calculate effluent limitations for those constituents; and
  - c. allows the Regional Board to reopen this Order and include effluent limitation for those pollutants .
14. The SIP requires the Discharger to sample the effluent twice for the 17 dioxin congeners. The leachate sample collected on 25 February 2002 contained only one congener, OCDD at 12.3 ng/L. The priority pollutant 2,3,7,8-TCDD was not detected in the leachate or receiving water. This Order contains a provision requiring the Discharger to submit the second sample for the 17 dioxin congeners from the initial discharge of the **2002-2003** wet season.
  15. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Compliance with these requirements will result in the best practicable treatment or control of the discharge. The impact on surface water quality will be insignificant. Ground water monitoring for the landfill and Class II surface impoundment is included in Waste Discharge Requirements, Order No. 90-311.
  16. The Regional Board has considered the information in the attached Information Sheet in developing the findings in this Order. The Attached Information Sheet is part of this Order.

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17. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
18. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.
19. The Plumas National Forest, Mt. Hough Ranger District, issued a document entitled *Gopher Hill Landfill Environmental Assessment*, dated July 2001. The proposed action was issuance of a new Special Use Permit to Plumas County to close and manage the site, including the waste management unit, Class II surface impoundment, monitoring wells, sedimentation ponds, and pipelines. The Forest Service issued a Decision Notice and Finding of No Significant Impact on August 2001 in accordance with the National Environmental Protection Act, (NEPA), and the California Environmental Quality Act, (CEQA). Special Use Permit No. 102201 was issued to the Plumas County Department of Public Works on 28 March 2002 by the Forest Service, authorizing Plumas County to occupy the site of the landfill subject to conditions as outlined in the Use Permit. The Use Permit expires on 31 December 2022. Included in the Use Permit is a condition allowing the installation and operation of approximately 1/8 mile of four-inch buried pipeline along the Snake Lake Road from the existing leachate pond to Spanish Creek, to discharge excess effluent to Spanish Creek during times of high stream flow.
20. 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.
21. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
22. This Order shall serve as an NPDES permit pursuant to Section 402 of the Clean Water Act, and amendments thereto, and shall take effect upon the date of hearing, provided the USEPA has no objections.

**IT IS HEREBY ORDERED** that County of Plumas and U.S. Department of Agriculture, Forest Service, 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 Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. Discharge of wastewater at a location or in a manner different from that described in Finding No. 4 is prohibited.
2. The by-pass or overflow of leachate from the collection, transport, or disposal facilities to surface waters other than those designated for disposal purposes is prohibited, except as allowed by Standard Provision A.13. (See attached “Standard Provisions and reporting Requirements for Waste Discharge Requirements (NPDES).”)
3. Discharge to Spanish Creek from 15 May through 31 October is prohibited.
4. Discharge to Spanish Creek when flow in Spanish Creek provides less than 100:1 dilution is prohibited.
5. Discharge of waste classified as “hazardous” as defined in Sections 2521(a) of Title 23, CCR, Section 2510 et seq., is prohibited.

**B. Effluent Limitations**

1. Leachate shall not exceed the following limits at the discharge sampling point:

<u>Constituents</u>	<u>Unit</u>	<u>Daily Maximum</u>	<u>30-Day Average</u>
Total Suspended Solids	mg/L	100	--
Settleable Solids	ml/L	0.2	0.1
Volatile Organics	µg/L	ND <sup>1</sup>	--

<sup>1</sup> All volatile organic constituents listed in USEPA Method 8260B. The concentration shall not exceed the USEPA specified detection limit for each constituent.

2. The daily maximum discharge rate shall not exceed 0.18 mgd, (0.28 cfs).
3. The monthly average discharge rate shall not exceed 0.035 mgd, (0.054 cfs)
4. The pH of the discharge shall not be less than 6.0 or greater than 9.0.

5. Survival of aquatic organisms in 96-hour bioassays of undiluted wastes shall be no less than:

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

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

**C. Discharge Specifications**

1. Neither the Discharge nor its treatment shall create a nuisance or pollution as defined in Section 13050 of the California Water Code.
2. The discharge shall not cause degradation of any water supply.

**D. 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 Spanish Creek:

1. Concentrations of dissolved oxygen to fall below 7.0 mg/L.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scums), or suspended material to create a nuisance or adversely affect beneficial uses.
4. Aesthetically undesirable discoloration.
5. Fungi, slimes, or other objectionable growths.
6. The turbidity of receiving waters to increase over background levels by more than:
  - a. 1 NTU when background turbidity is between 0 and 5 NTUs;
  - b. 20 percent when background turbidity is between 5 and 50 NTUs;
  - c. 10 NTUs when background turbidity is between 50 and 100 NTUs; and

d. 10 percent when background turbidity is greater than 100 NTUs.

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

7. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units.
8. Deposition of material that causes nuisance or adversely affects beneficial uses.
9. Increase the normal ambient temperature of waters by more than 5°F (3°C).
10. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the CCR, 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. 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.
13. 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.
14. 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.

#### **E. Provisions**

1. Prior to the Discharge of leachate to Spanish Creek, the Discharger shall develop a means for the measurement of flow in Spanish Creek, as recommended by a Civil Engineer registered in the State of California. The Discharger shall additionally install a flow meter for measurement of leachate flow during discharge.

2. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)," dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provision(s)."
3. The Discharger shall comply with the attached Monitoring and Reporting Program No. R5-2002-0159, which is part of this Order, and any revisions thereto, as ordered by the Executive Officer.
4. The Discharger shall conduct monitoring as specified in Monitoring and Reporting Program No. R5-2002-0159 to determine if the discharge contains priority pollutant VOCs and metals identified in the CTR and NTR. Monitoring for magnesium and iron is also required. If after review of the monitoring results it is determined that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above water quality objectives, this Order will be reopened and a limitation based on that objective included.
5. The Discharger shall conduct monitoring as specified in Monitoring and Reporting Program No. R5-2002-0159 for the seventeen dioxin congeners from the initial discharge of the **2002-2003** wet season.
6. The Discharger shall conduct the chronic toxicity testing specified in Monitoring and Reporting Program No. R5-2002-0159. 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, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger shall submit a work plan to conduct a toxicity reduction evaluation (TRE), and upon approval conduct the TRE. This Order will be reopened to include a chronic toxicity limitation and/or a limitation for the specific toxicant identified in the TRE. Additionally, if a chronic toxicity water quality objective is adopted by the SWRCB, this Order may be reopened and a limitation based on that objective included.
7. The U.S. Department of Agriculture, Forest Service as the administrator of the real property at which the discharge will occur, is ultimately responsible for ensuring compliance with these requirements, Plumas County retains primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against the Forest Service only in the event that enforcement actions against Plumas County are ineffective or would be futile, or that enforcement is necessary to protect public health or the environment. As the Forest

Service is a public agency, enforcement actions will be taken against it only after it is given the opportunity to use its governmental powers to promptly remedy the discharge.

8. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
9. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
10. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
11. This Order expires on **1 September 2007** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **180 days** in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.
12. 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.

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 name, 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, Acting 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 6 September 2002.

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THOMAS R. PINKOS, Acting Executive Officer

Attachments

## INFORMATION SHEET

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### BACKGROUND INFORMATION

The County of Plumas (Plumas County) operates an unlined Class III Solid Waste Municipal Landfill and a Class II Surface Impoundment on Snake Lake Road approximately five miles west of Quincy in Section 12, T24N, R8E, MDB&M, as shown on Attachment A. The land on which the landfill and surface impoundments are situated is owned by the U.S. Department of Agriculture, Forest Service (Forest Service). The landfill site is in an area of historic hydraulic mining between Spanish and Wapaunsie Creeks. In 1976, the Forest Service issued a special use permit to Plumas County to operate Gopher Hill as a Class III Landfill for disposal of local domestic solid waste. A surface water collection system and five settling ponds were included in the use permit. Two abandoned, water-filled mine shafts are to the north and another unsealed mine shaft is believed to be under the landfill itself. A steep bluff rises immediately to the east, and over a small ridge to the south the land breaks away to Spanish Creek. Surface drainage from above the facility is routed around the landfill through sediment ponds, and discharged to the west to Wapaunsie Creek. The special use permit expired in 1988 and was not reissued. In 1994 a transfer facility was constructed and most of the local waste was collected and hauled to Lockwood, Nevada for disposal, however Plumas County continued to dispose of small amounts of waste in the landfill. The landfill, surface impoundment and related facilities are governed by Waste discharge requirements Order No. 90-311 and General Order 93-200. The Monitoring and Reporting Program for Order No. 90-311 was revised on 22 April 2002. The landfill is also governed by Order No. 97-03-DWQ (General Permit No. CAS000001) for discharge of storm water associated with industrial activities.

A spring surfaces along the western toe of the landfill and operations in the early 1990s resulted in the contamination of this spring with leachate. The leachate was contaminated by volatile organic compounds (VOCs), iron, and manganese. In 1994, the Forest Service issued a separate permit to Plumas County to construct a Class II surface impoundment to collect leachate and commingled groundwater. The Class II Surface Impoundment was constructed with a total volume of approximately 1.055 million gallons. Leachate and shallow groundwater are collected from the toe of the landfill and discharged to the surface impoundment. The capacity of the impoundment can be exceeded during times of heavy runoff and unless leachate can be removed from the impoundment it can overflow and enter Wapaunsie Creek.

The landfill is in the Quincy Hydrologic Subarea (No. 518.52), as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. The average annual precipitation in Quincy is approximately 39.3 inches, as summarized in the table below.

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<u>Month</u>	<u>Rainfall (in)</u>	<u>Month</u>	<u>Rainfall</u>
January	6.91	July	0.28
February	5.65	August	0.47
March	5.56	September	1.05
April	2.73	October	2.91
May	1.41	November	5.59
June	0.88	December	5.88
		Annual Rainfall	39.32

Source: United States Forest Service

The Discharger is presently transferring the leachate from the impoundment to the Quincy Sewage Treatment Plant by tanker truck. Trucking of the leachate amounts to over \$200,000 per year in cost to Plumas County. The sewage treatment plant discharges to Spanish Creek approximately 6 miles downstream of the Gopher Hill Landfill.

In an attempt to reduce costs, Plumas County submitted a Report of Waste Discharge, dated 3 July 1997, and applied for an NPDES permit to discharge leachate from the Class II Surface Impoundment to Spanish Creek in Section 13, T24N, R8E, MDB&M. The Discharger proposed construction of a four-inch pipeline from the leachate pond to Spanish Creek along Snake Lake Road. Simultaneously Plumas County requested a use permit for the pipeline from the Forest Service. The Regional Board reviewed the supporting data submitted for the chemical constituents in the leachate. The constituent concentrations in the leachate have decreased since construction of the Class II Surface Impoundment and the Board has determined that a direct discharge to Spanish Creek at the landfill site was an acceptable alternative to discharge to Spanish Creek at the Quincy Sewage Treatment Plant. A tentative NPDES permit was prepared and sent out for review in September 1997. The tentative permit prohibited discharge to Spanish Creek from 1 May to 31 October and required a minimum 100:1 dilution for discharge. Plumas County also initiated the environmental review process for the project in September 1997. However the Forest Service opposed the discharge via pipeline to Spanish Creek. Therefore, the permit process was suspended until the Forest Service and County could agree on an acceptable option, including a completed an Environmental Assessment and Special Use permit.

In November 1999 a proposed solution was agreed upon where the Forest Service would issue a Special Use permit for construction of the pipeline and discharge to Spanish Creek provided Plumas County permanently close the landfill. Plumas County Board of Supervisors committed to implement closure of the landfill site within five years pending approval of the pipeline Use Permit. The Plumas National Forest, Mt. Hough Ranger District, issued a document entitled *Gopher Hill Landfill Environmental Assessment*, dated July 2001. The proposed action was issuance of a new Special Use Permit to Plumas County to close and manage the site, including the waste management



unit, Class II Surface Impoundment, monitoring wells, sedimentation ponds, and pipelines. The Forest Service issued a Decision Notice and Finding of No Significant Impact on August 2001 in accordance with the National Environmental Protection Act, (NEPA), and the California Environmental Quality Act, (CEQA).

On 27 February 2002, Plumas County submitted the \$2000 filing fee to complete the application for the NPDES Permit. Special Use Permit No. 102201 was issued to the Plumas County Department of Public Works on 28 March 2002 by the Forest Service, authorizing Plumas County to occupy the site of the landfill subject to conditions as outlined in the Use Permit. The Use Permit expires on 31 December 2022. Included in the Use Permit is a condition allowing the installation and operation of approximately 1/8 mile of four-inch buried pipeline along the Snake Lake Road from the existing leachate pond to Spanish Creek to discharge excess effluent to Spanish Creek during times of high flow.

### LEACHATE CHARACTERISTICS

The Discharger submitted quarterly analyses for inorganic constituents in the leachate over the period from February 1996 through November 1996 to support the Report of Waste Discharge. The sampling was repeated for the period February through August 1999. The results are as follows:

Analyses	Average (1996)	Range (1996)	Average (1999)	Range (1999)
pH	7.18	6.8 – 7.7	6.9	6.4 - 7.4
EC (µmhos/cm)	323.75	195 – 410	77.5	55 - 110
TDS (mg/L)	207.25	122 – 269	49	34 - 73
TSS (mg/L)	5.93	1.9 – 14.6	3	1 - 5.4
Turbidity (NTU)	3.85	0.35 – 13	0.9625	0.25 - 1.5
Temperature (C)	13.0	3 – 24	9.5	2 - 20
Hardness (mg/L)	98.25	70 – 119	31.5	24 - 45
Chloride (mg/L)	20.65	13.3 – 28.4	<0.5	<0.5
Nitrate (mg/L)	.58	< 0.5 – 0.8	<0.5	<0.5
Sulfate (mg/L)	.65	< 0.5 – 0.7	0.525	<0.5 - 0.6
Na (mg/L)	13.73	6.5 – 18.2	2.75	1.7 - 3.9
Mg (mg/L)	10.08	6.7 – 13.5	4.2	3.4 - 5.6
Ca (mg/L)	22.73	16.8 – 25.2	5.725	4 - 8.6
K (mg/L)	5.38	2.3 – 8.4	0.625	0.4 - 0.9
Carbonate (mg/L)	<1	<1	<1	<1
Bicarbonate (mg/L)	125.5	98 – 145	89.75	33 – 164
BOD (mg/L)	<5	<5	<5	<5
COD (mg/L)	11.25	<5 – 30	5.75	5 – 8
DO (mg/L)	12.98	10 – 19	13.25	9.1 – 19.4

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Analyses	Average (1996)	Range (1996)	Average (1999)	Range (1999)
Aluminum (µg/L)	<50	<50	<50	<50
Antimony (µg/L)	<6	<6	<6	<6
Arsenic (µg/L)	<2	<2	<2	<2
Cadmium (µg/L)	<1	<1	<1	<1
Total Cr (µg/L)	<10	<10	<10	<10
Cr VI (µg/L)	<10	<10	<10	<10
Copper (µg/L)	<50	<50	<50	<50
Iron (µg/L)	805.25	100 – 2,703	259.25	100 - 338
Lead (µg/L)	<5	<5	<5	5
Manganese (µg/L)	883.25	117 – 2,037	30.25	30 - 31
Mercury (µg/L)	<1	<1	<1	<1
Nickel (µg/L)	<10	<10	<10	<10
Selenium (µg/L)	<5	<5	<5	<5
Silver(µg/L)	<10	<10	<10	<10
Thallium(µg/L)	<1	<1	<1	<1
Zinc(µg/L)	<50	<50	<50	<50

Between February and November 1996, the Discharger conducted four 96-hour acute toxicity bioassays using the undiluted leachate. Three of the bioassays resulted in 100% survival of rainbow trout; one test in May 1996 resulted in 95% survival.

On 22 March 2002, Plumas County submitted the Annual Monitoring Summary 2001 Report for the Gopher Hill Landfill required by Monitoring and Reporting Program No. 90-311. This report presented the monitoring data for 2001 and summarized the monitoring data for the leachate from 1997 through 2001. No volatile organics were detected in the leachate pond above the method detection limit (MDL). The minimum and maximum values for other constituents for 2001 and over the 5-year period were as follows:

Analyses	Minumum-Maximum (2001)	Minumum-Maximum (1997 through 2001)
pH	7.8-9.3	5.1 – 9.3
EC (µmhos/cm)	100-300	30-400
TDS (mg/L)	60-202	50-251
Iron (µg/L)	120-150	<100-754
Manganese (µg/L)	19-320	19-1667

The analyses indicate that the leachate is diluted by groundwater and precipitation. The concentration of pollutants has decreased since the installation of the Class II Surface Impoundment. The fact that Gopher Hill has not been accepting waste for the past several years may be partly responsible and it has now been decided to formally close the facility. The landfill will be capped and it is expected that over time the level of pollutants in the leachate will remain the same or continue to decrease.

### **BENEFICIAL USES**

Spanish Creek is a tributary to the North Fork of the Feather River. The beneficial uses of the North Fork of the Feather River as identified in Table II-1 of the Basin Plan are municipal and domestic supply (MUN); hydropower generation (PWR); water contact and non-contact recreation (REC-1) and (REC-2); fresh water habitat (COLD); cold water spawning (SPWN); wildlife habitat (WILD); aesthetic enjoyment; preservation and enhancement of fish, wildlife, and other aquatic resources. The beneficial uses of Spanish Creek are not identified in the Basin Plan, however the Basin Plan states, "The beneficial uses of any specifically identified water body generally apply to its tributary streams." Upon review of the flow conditions, habitat values, and beneficial uses of Spanish Creek, the Regional Board finds that the beneficial uses identified in the Basin Plan for the Sacramento River are applicable to the West Fork of Stillwater Creek.

The beneficial uses of the underlying ground water are municipal and domestic, industrial, and agricultural supply.

### **REASONABLE POTENTIAL ANALYSIS for PRIORITY POLLUTANTS**

Federal regulations contained in 40 CFR 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. 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 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. On 7 November 2001, the Discharger was issued a letter under the authority of California Water Code Section 13267 requesting effluent and receiving water monitoring to meet the requirements of the State Implementation Policy (SIP).

The Discharger has submitted one complete set of analysis of the Leachate, Spanish Creek upstream of Wapaunsie Creek, and Spanish Creek downstream of Wapaunsie Creek for priority pollutants

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including Dioxin and its congeners as requested for compliance with the CTR and NTR. In addition to Priority Pollutants analysis the Discharger also submitted organo-phosphate pesticide analysis for effluent only, as requested. The second set of Priority Pollutant is required prior to **1 January 2003**. Analytical results were submitted for volatile substances, semi-volatile substances, pesticide compounds, metals, asbestos, and dioxin.

Volatiles, Semi-Volatiles, and Pesticides

No volatile or semi volatile organic constituents or pesticides were detected above the method detection limit (MDL) in the leachate or Spanish Creek upstream and downstream of Wapaunsie Creek with the exception of nitrophenol, which was found in the downstream Spanish Creek sample at 0.4 µg/l, and bis 2 ethylhexylphthalate which was detected in the upstream sample at 0.4 µg/l.

Asbestos

Asbestos fibers were not detected in either sample above the primary drinking water maximum contaminant level (MCL) of 7 MFL. Based on the facility operations and the analytical data, it is reasonable to assume that asbestos will not be detected in the effluent at concentrations that will cause or contribute to a violation of the MCL.

2,3,7,8-TCDD and Dioxin Congeners

The priority pollutant 2,3,7,8-TCDD was not detected in the effluent at concentrations that will cause or contribute to a violation of applicable water quality standards described in the Basin Plan. Whether or not an effluent limitation is required for 2,3,7,8-TCDD, the SIP requires the Discharger to sample the effluent twice for the seventeen dioxin congeners. The Discharger's 25 February 2002 effluent sample contained only one congener, OCDD at 12.3 ng/L. To comply with the SIP, these requirements include one additional sample for the seventeen dioxin congeners. The SIP requires the Regional Board submit this information to the State Water Resources Control Board.

Priority Pollutant Metals

Results for priority pollutant metals and cyanide are as follows:

Constituent	Spanish Creek. Upstream	Spanish Creek. Downstream	Leachate
Antimony (µg/l)	0.2	0.3	<0.5
Arsenic (µg/l)	<0.5	<0.5	1.1
Beryllium (µg/l)	<0.2	<0.2	<0.2
Cadmium (µg/l)	<0.1	<0.1	<0.1
Chromium (µg/l)	<1	0.6	0.3
Cr VI (µg/l)	<10	<10	<10
Copper (µg/l)	0.6	0.3	0.4
Lead (µg/l)	0.05	0.02	0.24
Mercury (ng/l)	4.5	1.4	3.8

Constituent	Spanish Creek. Upstream	Spanish Creek. Downstream	Leachate
Nickel ( $\mu\text{g/l}$ )	10	3.6	2.0
Selenium ( $\mu\text{g/l}$ )	<1	<1	<1
Silver ( $\mu\text{g/l}$ )	<0.1	<0.1	<0.1
Thallium ( $\mu\text{g/l}$ )	<0.1	0.1	<0.1
Zinc ( $\mu\text{g/l}$ )	1	<1	8
Cyanide ( $\mu\text{g/l}$ )	<3	1.2	<3

Total chromium, copper, mercury, nickel, and zinc were detected above minimum levels but below water quality criteria.

#### **REASONABLE POTENTIAL ANALYSIS for OTHER CONSTITUENTS**

Federal regulations contained in 40 CFR 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.

Results of analyses for a sample collected on 25 February 2002 for pH, hardness, iron, manganese, chemical oxygen demand, (COD), total dissolved solids, and (TDS), are as follows:

Constituent	Spanish Creek. Upstream	Spanish Creek. Downstream	Leachate
pH	7.7	7.7	8.0
Hardness (mg/L)	50	52	94
COD (mg/L)	<5	--	<5
TDS(mg/L)	73	--	179
Iron ( $\mu\text{g/L}$ )	78	--	616
Manganese ( $\mu\text{g/L}$ )	5	--	234

The manganese concentration of the leachate has ranged from, 19-2037  $\mu\text{g/l}$ . The USEPA and California Department of Health Services secondary Maximum Contaminant Level, (MCL), for manganese is 50  $\mu\text{g/l}$ . Manganese is not a priority pollutant and therefore not regulated under the CTR and NTR. The 100:1 required dilution will result in manganese concentrations in the receiving water that are considerably less than the secondary MCL which is the applicable water quality criterion.

The iron concentration of the leachate has ranged from, 5- 2703  $\mu\text{g/l}$ . The USEPA and California Department of Health Services secondary Maximum Contaminant Level, (MCL), for iron is 300  $\mu\text{g/l}$ . Iron is not a priority pollutant and therefore not regulated under the CTR and NTR. The 100:1 required dilution rate will result in iron concentrations in the receiving water considerably less than the secondary MCL which is the applicable water quality criterion.

### **BASIS FOR PERMIT CONDITIONS**

#### Discharge Prohibitions

Discharge to Spanish Creek is prohibited from 15 May through 31 October and at other times when flow in Spanish Creek provides less than 100:1 dilution. The 15 May through 31 October prohibition is consistent with the prohibition adopted by the Regional Board for discharge from the Quincy Wastewater Treatment Plant. Plumas County estimated flows in Spanish Creek in 1996 from a rating curve based on Manning's formula. The flows ranged from 11 cfs in September to 1176 cfs in February. Based on a maximum discharge of 0.18 mgd, (0.28 cfs) and a minimum dilution of 100:1 in Spanish Creek, leachate could only be discharged when flows in Spanish Creek were greater than 28 cfs.

The Basin Plan provides that all waters shall be maintained free of toxic substances. The Order prohibits the discharge of hazardous substances to surface waters or drainage courses.

#### Effluent Limitations

**Suspended Solids.** The Basin Plan states that waters shall not contain suspended material in concentrations that cause nuisance or adversely affects beneficial uses. The Order contains a daily maximum suspended solids limit of 100 mg/L. The suspended solids limit in this permit is based on benchmark values established by the USEPA.

**Settleable Solids.** The Basin Plan states that waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. The Order contains monthly average and daily maximum settleable solids limits of 0.1 ml/L and 0.2 ml/L respectively. The settleable solids limits in this permit are based on what can reasonably be achieved in well-designed, constructed and operated settling ponds.

**Flow.** This Order limits the maximum daily discharge to 0.18 mgd, (0.28 cfs) and the monthly average discharge rate to 0.035 mgd, (0.054 cfs) as requested by Plumas County in the Report of Waste Discharge.

**pH Limits.** The Basin Plan provides that the pH of surface waters shall not be depressed below 6.5 nor raised above 8.5 nor shall the discharge alter pH of the receiving water more than 0.5 units. This Order requires the effluent pH to remain between 6.0 and 9.0 units.

**Toxicity Limits:** The Basin Plan requires that all waters be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This Order contains an acute toxicity effluent limit which states, "Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

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

This Order also requires monitoring for chronic toxicity once during the life of the permit.

### **RECEIVING WATER LIMITATIONS**

The receiving water limitations contained in this Order are based on water quality objectives contained in the Basin Plan for the Sacramento 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.

### **FOR FURTHER INFORMATION**

For further information or questions regarding the NPDES permit, contact Jim Rohrbach at the Regional Water Quality Control Board in Redding at (530) 224-4859.

6 September 2002



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### THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted once during the life of the permit to determine whether the effluent is contributing toxicity to Spanish Creek. The testing shall be conducted on undiluted effluent, as specified in EPA 600/4-91-002 or latest edition. If undiluted effluent exhibits toxicity, the Discharger shall sample during the next discharge event and conduct the test using the dilution series specified below. Chronic toxicity samples shall be collected at the discharge to Spanish Creek prior to dilution by any other streams. Grab samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Chronic toxicity monitoring shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum

Frequency: Once during the life of the Permit between 15 November and 15 December.

	Dilutions (%)					Controls	
	<u>100</u>	<u>75</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>Creek Water</u>	<u>Lab Water</u>
% Effluent	100	75	50	25	12.5	0	0
% Dilution Water <sup>1</sup>	0	25	50	75	87.5	100	0
<u>% Lab Water</u>	0	0	0	0	0	0	100

<sup>1</sup> Dilution water shall be receiving water from Spanish Creek taken upstream from the discharge point. If the receiving water exhibits toxicity the Discharge may be required to use lab water as dilution water.

### RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following:

<u>Station</u>	<u>Description</u>
R-1	30 feet upstream from the point of discharge and below Wapaunsie Creek
R-2	100 feet downstream from the point of discharge

<u>Constituents</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Visual	Daily
pH	pH Units	Grab	Weekly
Temperature	°F or °C	Grab	Weekly
Specific Conductance	µmhos/cm	Grab	Weekly
Manganese	µg/L	Grab	Monthly
Iron	µg/L	Grab	Monthly
Turbidity	NTU	Grab	Monthly

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Station R-1 and R-2. Attention shall be given to 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.

#### **DIOXIN CONGENER MONITORING REQUIRED BY THE STATE IMPLEMENTATION POLICY (SIP)**

The Discharger shall conduct monitoring required in the SIP to determine if the discharge contains dioxin toxic equivalents. The initial sample was collected on 25 February 2002. One additional sample shall be collected of the leachate during the first discharge of the **2002-2003 wet season** and analyzed for the 17 dioxin congeners, described in the SIP, using High Resolution Mass Spectrometry (Method 1613). The results shall be submitted by no later than **1 March 2003**.

#### **REPORTING**

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Monitoring results shall be submitted to the Regional Board by the **1<sup>st</sup> day of the second month** following sample collection. (i.e., the January report is due by 1 March).

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 whether the discharge complies 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.

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 Provisions D.6.

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

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Acting Executive Officer

\_\_\_\_\_ 6 September 2002

(Date)

JFR:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

NPDES NO. CA0084875

MONITORING AND REPORTING PROGRAM NO. R5-2002-0159  
FOR  
COUNTY OF PLUMAS AND  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
GOPHER HILL LANDFILL LEACHATE DISPOSAL SYSTEM  
PLUMAS COUNTY

**EFFLUENT MONITORING (Discharge 001)**

Effluent samples shall be collected of the treated leachate prior to dilution from any other sources. Effluent samples should be representative of the volume and nature of the discharge. Time of collection of a grab sample shall be recorded. The following shall constitute the effluent monitoring program:

<u>Constituents</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	gpd	Cumulative	Daily <sup>1</sup>
Temperature	°F or °C	Grab	Weekly <sup>1</sup>
pH	pH Units	Grab	Weekly <sup>1</sup>
Total Suspended Solids	mg/L	Grab	Weekly <sup>1</sup>
Settleable Solids	ml/L	Grab	Weekly <sup>1</sup>
Specific Conductance	µmhos/cm	Grab	Weekly <sup>1</sup>
Hardness	mg/L	Grab	Monthly <sup>1</sup>
Turbidity	NTU	Grab	Monthly <sup>1</sup>
Iron	µg/L	Grab	Monthly <sup>1</sup>
Manganese	µg/L	Grab	Monthly <sup>1</sup>
COD	mg/L	Grab	Monthly <sup>1</sup>
Total Dissolved Solids	mg/L	Grab	Monthly <sup>1</sup>
Acute Toxicity <sup>2</sup>	% Survival	Grab	Annually
VOCs, (Method 8260B)	µg/L	Grab	Annually
Priority Pollutant Metals <sup>3</sup>	µg/L	Grab	Annually

<sup>1</sup> Samples shall be collected during continuous discharge. If the discharge is intermittent rather than continuous, then the first day of each intermittent discharge shall be monitored, but no more than twice the frequency noted.

<sup>2</sup> 96-hour static bioassay using rainbow trout. To be taken during the initial discharge of the wet season.

<sup>3</sup> Antimony, Beryllium, Cadmium, Copper, Lead, Nickel, Selenium, Silver, Thallium, Total Chromium, Zinc (ICP/MS-EPA Method 1638), Mercury (CVAA-EPA Method 1631), Arsenic (HYDRIDE-EPA Method 206.3) Chromium VI (FAA-EPA Method 218.4)

### THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted once during the life of the permit to determine whether the effluent is contributing toxicity to Spanish Creek. The testing shall be conducted on undiluted effluent, as specified in EPA 600/4-91-002 or latest edition. If undiluted effluent exhibits toxicity, the Discharger shall sample during the next discharge event and conduct the test using the dilution series specified below. Chronic toxicity samples shall be collected at the discharge to Spanish Creek prior to dilution by any other streams. Grab samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Chronic toxicity monitoring shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum

Frequency: Once during the life of the Permit between 15 November and 15 December.

	Dilutions (%)					Controls	
	<u>100</u>	<u>75</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>Creek Water</u>	<u>Lab Water</u>
% Effluent	100	75	50	25	12.5	0	0
% Dilution Water <sup>1</sup>	0	25	50	75	87.5	100	0
<u>% Lab Water</u>	0	0	0	0	0	0	100

<sup>1</sup> Dilution water shall be receiving water from Spanish Creek taken upstream from the discharge point. If the receiving water exhibits toxicity the Discharge may be required to use lab water as dilution water.

### RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following:

<u>Station</u>	<u>Description</u>
R-1	30 feet upstream from the point of discharge and below Wapaunsie Creek

R-2 100 feet downstream from the point of discharge

<u>Constituents</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Visual	Daily
pH	pH Units	Grab	Weekly
Temperature	°F or °C	Grab	Weekly
Specific Conductance	µmhos/cm	Grab	Weekly
Manganese	µg/L	Grab	Monthly
Iron	µg/L	Grab	Monthly
Turbidity	NTU	Grab	Monthly

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Station R-1 and R-2. Attention shall be given to 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.

**DIOXIN CONGENER MONITORING REQUIRED BY THE STATE IMPLEMENTATION POLICY (SIP)**

The Discharger shall conduct monitoring required in the SIP to determine if the discharge contains dioxin toxic equivalents. The initial sample was collected on 25 February 2002. One additional sample shall be collected of the leachate during the first discharge of the **2002-2003 wet season** and analyzed for the 17 dioxin congeners, described in the SIP, using High Resolution Mass Spectrometry (Method 1613). The results shall be submitted by no later than **1 March 2003**.

## REPORTING

Monitoring results shall be submitted to the Regional Board by the **1<sup>st</sup> day of the second month** following sample collection. (i.e., the January report is due by 1 March).

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 whether the discharge complies 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.

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 Provisions D.6.

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

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Acting Executive Officer

\_\_\_\_\_  
6 September 2002

(Date)

JFR: