California Regional Water Quality Control Board
North Coast Region

POST-CLOSURE
WASTE DISCHARGE REQUIREMENTS
ORDER NO. R1-2005-0033

WDID NO. 1B04166RHUM

FOR

EDWARD TANFERANI

(FORMER) ALLAN MAKI
WOODWASTE DISPOSAL SITE

Class III Landfill
Humboldt County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter the Regional Water Board) finds that:

SITE DESCRIPTION, RESPONSIBLE PARTIES, AND PERMITTING CONTEXT

1. On April 5, 2005, Edward Tanferani (hereinafter Discharger) submitted a Report of Waste Discharge (ROWD), prepared by SHN Consulting Engineers and Geologists, Inc.(SHN) for post closure improvements, site development and monitoring plans for the former Allan Maki Woodwaste Disposal Site (Site) on Alamar Way in Fortuna, as shown in **Attachment "A"**, incorporated herein and made part of this Order. Mr. Tanferani is the current owner of the property. The project proposes to amend the landfill's Post-Closure Maintenance Plan, grade and improve the landfill cap, conduct groundwater and settlement monitoring and to develop the site as an auto dealership and parking lot. Supplemental information to the ROWD was submitted on September 14, 2004, February 24, 2005, April 18 and 24, 2005 and May 27, 2005.

2. The existing disposal site was constructed within a ~10 acre log pond and berm structure on a 25 acre parcel of a historic (Clay Brown) sawmill located along the Eel River on former South 12th Street in southwestern Fortuna. This area has since been subdivided and developed into the Kenmar Road, Riverwalk Drive and Alamar Drive light industrial area. The new Site address is 1800 and 1900 Alamar Way, Fortuna.

3. The Regional Board originally adopted landfill construction and operation Waste Discharge Requirements (WDRs), Order No. 79-48 on February 22, 1979, for this property as the Allan W. and Margaret D. Maki Solid Waste Disposal Site (Maki WWDS). The Pacific Lumber Company operated and maintained the disposal site, owned by the Maki's, for nearby sawmill and logdeck woodwaste cleanup operations. Landfill operations continued until site closure in 1989 when a low

permeability landfill cap was constructed and the site was stabilized as relatively flat grassland and open space.

4. Following stabilization and post-closure monitoring, on April 25, 1991, the Regional Board rescinded WDRs in Order No. 91-54, finding that the Maki WWDS, as constructed in accordance with approved Closure and Post-Closure Maintenance Plans and the solid waste regulations of the California Code of Regulations, presented no threat to surface and groundwater in the immediate vicinity.

5. However, the Post-Closure Maintenance Plans did not detail light industrial development for the Maki WWDS. Construction of the auto dealership has the potential to impair the structural integrity of the existing landfill cap which could cause leachate production and violation of water quality standards. Therefore, this Order is needed to address water quality protection requirements in accordance with Title 27, California Code of Regulations (CCR), as development plans proceed.

6. The ~10 acre log pond was filled to depths of 3 to 12 feet within a berm structure surrounding the old log-pond. Landfilled wastes consisted of logdeck cleanup, bark, wood debris, soil and gravel. WDR Order No. 79-48 indicates that drilling muds were permitted for disposal at the Site, but excavation and borings have not confirmed the presence of drilling muds within the unit.

7. APN 200-363-023 contained the ~10 acre Maki WWDS. The landfill portion was sold by the Maki's to Mr. Tanferani and partners in 1990 and subsequently lot-split into three parcels: APN 200-363-034 and 055 retained by the Tanferani partnership and APN 200-363-054, now owned by Peterson Tractor Company. The Peterson parcel, which had approximately 1/2 acre of the woodwaste disposal site on it, has undergone clean closure and removal activities and is not subject to this Order.

8. The Maki WWDS is located in Section 2, Township 2 North, Range 1 West, Humboldt Base and Meridian, as shown on **Attachment "A"**. The Site latitude and longitude are 40° 34' 45"N and 124° 09' 010" W, respectively.

9. The undeveloped Site Map documenting the Waste Management Unit (WMU) 'footprint" and ground, surface and receiving water locations is included as **Attachment "B"** incorporated herein and made part of this Order.

10. WDR Order No. 79-48, adopted by the Regional Water Board on February 22, 1979, designated the Site as a Class II-2 landfill. The landfill classification system was later modified and Class II-2 landfills became Class III landfills under the revised nomenclature.

11. The Maki WWDS is an unlined non-municipal Class III landfill, as defined in Title 27, California Code of Regulations (CCR). Landfilled wastes came from Pacific Lumber Company sawmill and logdeck woodwaste cleanup activities.

12. Effective July 18, 1997, the Water Quality Regulations for Class II and Class III disposal facilities formerly contained in Chapter 15, Title 23, CCR, and the Solid Waste Regulations formerly in Title 14 CCR, were re-codified into Chapters 1 through 7, Subdivision 1, Division 2, Title 27 CCR. Chapter 15 is therefore no longer applicable to this facility.

13. Along with the greater historic sawmill property adjacent to the Eel River, the Maki WWDS, formerly within unincorporated Humboldt County, has been annexed into the City of Fortuna. The greater property has been developed as the Riverwalk business park area.

14. The total area of the Allan Maki Woodwaste Disposal site is ~10 acres. Over 90,000 cubic yards of woodwaste logdeck materials were landfilled within the WMUs. Wastes were placed in ~1-acre cells proceeding toward the north end of logpond, to the area that has been recently removed and backfilled for development as the Peterson Tractor property.

15. Post closure land use for the Site will continue as light industrial business park.

16. The Site is bounded by Highway 101 to the east and Alamar Way to the west, Peterson Tractor Company to the north and a Best Western Hotel and RV park to the south.

17. The zoning and general plan designations for the Site are general industrial and land use within one mile of the Maki WWDS is primarily light industrial business park mixed with hotels, restaurants and service industries.

SURFACE WATER

18. The Site lies in a relatively flat area between Highway 101 to the east and Alamar Way to the west. Strongs Creek is located approximately 200 feet to the northeast, and the Eel River and its levee are located approximately 850 feet to the west. Site drainages are directed both east and west towards an existing Cal-Trans State Highway 101 storm ditch, and the City of Fortuna's Alamar Way storm drain system, respectively.

19. Existing elevations of the Site range from 45 to 49 feet above Mean Sea Level (MSL). Areas of the site that are 46 feet in elevation or less are located within the within the 100-year floodplain area of the Eel River (FEMA Floodplain Panel 060060 110B). Finish grading elevations and site development will increase the as-built elevations to 46-50 feet. The US Corps of Engineers flood control levee system between the Eel River and the Site was reconstructed to a height of 52 to 54 feet for flood protection from washout. A county maintained levee system protects the site from a 100-year frequency flood in Strongs Creek to the east and north of the site.

20. The Site is situated within the Eel River Hydrologic Unit. The Eel River discharges into the Pacific Ocean approximately 8-miles northwest of the Site.

21. Pursuant to the Water Quality Control Plan for the North Coast Region (Basin Plan), including State Water Resources Control Board (State Water Board) Resolution No. 88-63, the existing beneficial uses of the Eel River Hydrologic Unit are:

    a. Municipal and Domestic Supply (MUN)
    b. Agricultural Supply (AGR)
    c. Industrial Service Supply (IND)
    d. Groundwater Recharge (GWR)
    e. Navigation (NAV)
    f. Water Contact Recreation (REC-1)

g. Non-contact Water Recreation (REC-2)
h. Commercial and Sport Fishing (COMM)
i. Warm Freshwater Habitat (WARM)
j. Cold Freshwater Habitat (COLD)
k. Wildlife habitat (WILD)
l. Rare, Threatened, or Endangered Species (RARE)
m. Migration of Aquatic Organisms (MIGR)
n. Spawning, Reproduction, and/or Early Development (SPWN)
o. Estuarine Habitat (EST)
p. Aquaculture (AQUA)

STORM WATER

22. This Order does not replace the need for a National Pollutant Discharge Elimination System (NPDES) storm water permit as required by provisions of the Clean Water Act. The State Water Resources Control Board issued a Notice of Intent to comply with General Construction Storm Water permit for this Site on September 23, 2004 (WDID No. 112C330011).

23. Rainfall in the Fortuna area can vary significantly from one year to another, ranging from 40.63 in 2002 to18.99 in 2003. The mean annual precipitation for the Fortuna area is approximately 39 inches per year, and the maximum is 67.23 inches, based on the Eureka National Weather Station. Ninety percent of the precipitation falls between the months of October and April. The 100-year, 24-hour precipitation event intensity is 6.02 inches. The maximum expected 24-hour precipitation for100-year event is 9.16 inches per day.

SITE GEOLOGY

24. Soils within the vicinity are a mixture of sand, river gravel, silt and clay, and were used as typical landfill cell cover materials. The bottom of the former log pond contained a silt layer of ~ 1 foot in depth.

25. The Site is situated above the active channel of the Eel River on Quaternary alluvial terrace deposits. Alluvial deposits underlie the Site, including the area proposed for development. Sand and gravel deposits vary in thickness from a few inches to 20 feet. Near surface soils consist of native silt, sand, and gravel along with import fill materials to depths of 11 feet.

26. Humboldt County is a seismically active area, however there are no known Holocene faults at the Maki WWDS. The Site is not within an Alquist-Priolo Special Studies Zone.

27. The nearest known active fault is the Little Salmon thrust fault located approximately 3 miles northeast of the Site. Other active faults within the vicinity of the Site include the Mendocino Fault Zone, located approximately 30 miles southwest of Humboldt Bay off the California coast; and the San Andreas Fault System in the vicinity of Point Delgada, located approximately 40 miles from the site.

28. Due to the relatively flat profile of the Maki WWDS, no seismic stability analyses are required for the fill, however it is expected that in the event of moderate or large magnitude events occurring, cap damage assessment and repairs may be needed.

29. Seismic considerations for building design and construction will likely be required from other agencies in accordance with the California Uniform Building Code to ensure foundation strengths and structural features are suitable given the seismically active location and unsuitable structural nature of the woodwaste.

GROUNDWATER

30. Rescinded Order No. 79-48 indicates that underlying groundwater fluctuates with the level of the Eel River. During low flow periods groundwater is ~ 20 feet below the former log pond bottom. A minimum of 10 feet separation between the former log pond bottom and groundwater would be maintained during high flows of the Eel River.

31. No springs have been documented within close proximity of the Site.

32. The surrounding area relies upon water provided by the City of Fortuna Public Works Department, which is served by domestic wells located approximately one-mile southeast of the Site. Usage of the groundwater underlying the Site is believed to be minimal based on past surveys. Recent domestic well surveys have not found remaining groundwater wells within the Riverwalk business park area.

33. There are no currently used industrial supply wells located within one-mile downgradient of the Site.

34. In April 1988 Alan Maki and Pacific Lumber Company submitted a Solid Waste Assessment Test (SWAT) workplan describing a groundwater-monitoring network installed at the landfill in 1988. Three sawmill water wells (MW-A, MW-B and MW-C) and two groundwater monitoring wells (MW-D and MW-E) were utilized for groundwater investigations and gradient determinations ranging in depths from 23-34 feet below ground surface. Groundwater gradient directions were typically very flat and varied from north westerly to north easterly at the site, and may have been influenced by flows within the Eel River and/or pumping from old production sawmill wells. Former monitoring well MW-D, now MW-D/MW-1, remains at the southeast corner of the property, however all other historic monitoring wells and sawmill production wells are believed to have been removed as part of the Alamar Way development plan.

35. A Solid Waste Assessment Test (SWAT) Report was completed by SHN Consulting Engineers in July of 1989, and a SWAT Addendum was completed in 1990, indicating the Site was not significantly impacting surface or groundwater downgradient of the Site.

36. To investigate the site and potential impacts to groundwater from future development at this Site, the Discharger has proposed conducting a new groundwater investigation. Monitoring wells are planned for the perimeter of the Site and current groundwater gradients will be calculated at that time. It is anticipated that drilling will commence during the 2005 construction season and monitoring will be in accordance with the attached Monitoring and Reporting Program.

37. Beneficial uses of areal groundwaters include:

a. domestic water supply
b. agricultural water supply
c. industrial service supply
d. industrial process supply

CLOSURE, POST CLOSURE CONSTRUCTION AND FINANCIAL ASSURANCES

38. The Site is subject to the Post Closure requirements of Subchapter 5, Chapter 3, Title 27 CCR.

39. A Closure and Post Closure Maintenance Plan, submitted by SHN Consulting Engineers in December of 1989, was implemented at the site and approved by Regional Board staff.

40. Sections 20950(f) and 20380(b), Title 27 CCR, require that the Discharger establish a formal financial mechanism to fund Site closure and known or reasonably foreseeable releases from the facility. Section 22212, Title 27 CCR, requires that the Discharger establish a formal financial mechanism to fund the Site post closure maintenance fund.

41. The Discharger is required to update approved cost estimates annually to account for inflation, per Section 22221(a)(2) and 22236, Title 27 CCR.

42. Pacific Lumber Company conducted final closure activities on the Site in 1990.

43. The landfill cap consists of a one-foot compacted foundation layer (six-inches of river run gravel and six-inches of top soil), overlain by a two-foot minimum thickness barrier layer, overlain by a vegetation layer. The barrier layer was compacted to achieve low permeability requirements, as determined by laboratory permeability tests. The vegetation layer was graded, compacted, and seeded on top. The final landfill barrier cap was compacted over the entire landfill area following completion of the foundation layer, and drainage and erosion control measures were established in accordance with the submitted plans.

44. The final cap surface is sloped to promote drainage away from the waste footprint. Because the Site is relatively flat, Mr. Tanferani has conducted maintenance re-grading to retain drainage capabilities.

PROPOSED DEVELOPMENT AND ENGINEERING CONTROLS

45. SHN conducted geotechnical field investigations at the Site between August 2004 and November 2004, and completed a Geotechnical Report in December of 2004. The SHN geotechnical investigations evaluated subsurface soil conditions, and foundation design and site development criteria for the proposed development. The Geotechnical Report describes SHN's field investigations, subsurface soil and groundwater conditions that exist below the site, and conclusions and recommendations for building foundations and general site construction. SHN's field investigation also delineate the landfill footprint **(Attachment B**). Prior to construction of the proposed auto dealerships, site preparation and maintenance grading (City of Fortuna Grading Permit No. 04-253) were conducted to protect the existing low permeability cap, provide proper drainage over the landfill area, and to reduce erosion problems during the construction phase of the project. Site preparation and construction are to be completed in accordance with the

Construction Storm Water Pollution Prevention Plan (SWPPP) prepared for the Site (SHN, September 2004).

46. Upon completion of site preparation and maintenance grading activities, site utilities are to be installed. All utilities are planned for installation above the existing landfill cap, except for a small portion of the sanitary sewer system, which is to be installed below the existing landfill cap. This portion of the landfill is to be "cleaned closed" (remove woodwaste down to native soils), and the surface areas will be lined and sealed with a continuous sheet of 40-mil high density polyethylene (HDPE) liner material or equivalent, which is designed to prevent water from accumulating under the cap and generating leachate within the closed cells. The sewer piping is to be installed above the liner then backfilled and compacted to grade (**Attachments C and D**).

47. Proposed development consists of constructing a dealership/office building on each parcel. These buildings will be located over the former Maki WWDS and therefore over the existing low permeability cap. The buildings will need to be supported by a piling/pier system, which will extend down through the existing cap and WWDS cells into native soils. Cap surface areas that are disturbed will be sealed with 40-mil HDPE or equivalent. If the foundation or footings intersect the WWDS cap, those areas will also be sealed, thus preventing water from infiltrating into the woodwaste **(Attachments C and D**).

48. The majority of the remainder of the site will be paved with asphalt. This, in addition to the structures that cover portion of the site, will also serve as a low permeability cap for the closed WWDS. Site monitoring and reporting will be completed per the WDRs and SWPPP to address settling of the final cap and its integrity to prevent water from entering the waste cells and forming leachate.

49. Any areas that are landscaped will not be allowed to penetrate the former WWDS cap. Plant species specifications are confined to native, shallow rooted species. No deep rooted or invasive species will be planted or be allowed to establish over the existing WWDS. Trees will either be planted outside the WWDS boundary or will be set into planter boxes above the WWDS cap.

50. SHN's Geotechnical Report (December 2004) includes recommendations for site preparation and grading, foundations, slab on grades, and construction phase monitoring. Construction Quality Assurance (CQA) and reporting will be provided to document site development activities, and to ensure the integrity of the landfill low permeability caps. All work will be completed under the direct supervision of a licensed civil engineer.

PROCEDURAL REQUIREMENTS AND OTHER CONSIDERATIONS

51. The Humboldt County Planning Commission approved an original Negative Declaration on December 20, 1978, in conformance with CEQA. That analysis did not, however, include the current proposed landuse as it affects the post closure operations. At the time, the Regional Board found that no adverse water quality impacts would result if the disposal operations were conducted in conformance with the provisions of adopted Order 79-48, regarding the Project.

52. The City of Fortuna adopted an Initial Study, Mitigated Negative Declaration and Grading Permit for the site on December 20, 2004, to satisfy the requirements of CEQA, to consider any potential impacts arising from the current proposed post

closure land use. The Regional Water Board, acting as a responsible agency under CEQA, has considered this negative declaration and the adopted mitigations pursuant to Title 14, CCR, section 15096.

53. The following water quality and non-water quality related mitigation requirements were included in the project analyzed by the Mitigated Negative Declaration described in finding number 52 above:

1) Directional lighting to minimize off-site glare;
2) Complying with Air Quality Regulations such as covering open bodied trucks when transporting materials likely to give rise to airborne dust, and the use of water or chemicals for control of dust during construction activities;
3) If buried archeological or historical resources are encountered during the construction activities, the contractor shall call for work in the immediate area to halt temporarily, and a qualified archeologist will be contacted to evaluate the materials;
4) Mitigating the risk of damage to the Auto dealership's structural elements from strong seismic shaking to the extent feasible by incorporating sufficient design improvements, such that all structures shall be designed and constructed, at a minimum, to meet the standards of the most recently approved version of the Uniform Building Code for Seismic Zone 4;
5) To mitigate for potential instability impacts resulting from construction of buildings on a woodwaste disposal site, all recommendation contained within SHN's Geotechnical Investigation will be implemented to the satisfaction of the project's geotechnical engineer and regulatory agencies;
6) To mitigate for potential site settling due to woodwaste underlying the site, site settlement monitors will be installed into the built up cap and periodically monitored;
7) To mitigate impacts to less than significant from the routine transport, use, or disposal of hazardous materials, a Hazardous Materials Business Plan will be completed and submitted to the Humboldt County Division of Environmental Health;
8) In the case of a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, during both site construction and business operations, impacts will be mitigated to less than significant by implementing the HMBP and the Construction SWPPP;
9) To mitigate potential impacts to water quality and waste discharge requirements to less than significant, the WDR and M&RP will be implemented to the satisfaction of the Regional Board and the HCDEH;
10) The applicant will provide written notification to adjacent properties at least ten days prior to start of construction operations;
11) Hours of construction activities shall be limited to daylight hours, generally from 8:00 a.m. to 6:00 p.m. to the satisfaction of the City of Fortuna; and
12) The applicant shall assure that no construction materials, debris, or wastes be placed or stored where it may be subject to dispersion, including into the CalTrans or the City's storm drain systems. Any debris resulting from construction activities shall be appropriately contained; concrete trucks and tools shall be rinsed at specifically designed wash-out areas; and staging and storage of construction machinery and storage of debris shall not take place on any public street and/or right-of-ways, to the satisfaction of the City of Fortuna.

54. The Regional Water Board finds that all potentially adverse environmental impacts of this project have been identified, analyzed and mitigated to below a level of significance.

55. The Regional Water Board Water Quality Control Plan for the North Coast Region includes water quality objectives and receiving water limitations.

56. This order implements:

    a. *The Water Quality Control Plan for the North Coast Region (Basin Plan)*; and
    b. The prescriptive standards and performance goals of Chapters 1 through 6, Subdivision 1, Division 2, Title 27, of the CCR, effective July 18,1997, and subsequent revisions.

57. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit written comments and recommendations.

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

59. The permitted discharge is consistent with the provisions of State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California.* Implementation of the provisions and prohibitions contained in this order will prevent measurably significant degradation of waters of the State.

THEREFORE, IT IS HEREBY ORDERED that the Discharger, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Site activities, maintenance or landscaping plans, which could result in the breaching of the landfill cap are prohibited unless specifically addressed in these WDRs or the site post-closure maintenance plan.

2. The discharge of any waste not disclosed by the Discharger and of any waste disclosed by the Discharger but not reasonably anticipated to occur is prohibited.

3. The discharge of solid and liquid wastes at this landfill is prohibited. Water may be discharged in amounts reasonably necessary for dust control, compaction, and the establishment and maintenance of vegetation.

4. The Discharger shall not cause the concentration of any Constituents of Concern (COC) to exceed its respective concentration limit in any monitored medium. The concentration limit for each monitoring parameter shall be set at the

background concentration. Data analysis shall be performed in accordance with the approved Monitoring and Reporting Program.

5. The discharge of "hazardous wastes" and "designated wastes" at this facility as defined in Title 27 CCR is prohibited. The discharge of leachate from the landfill is prohibited. For the purposes of this Order, the terms "hazardous wastes" and "designated wastes" are as defined in Title 27 CCR.

6. The discharge of waste, including leachate, solid, or waste derived gas to surface waters, surface water drainage systems, or groundwater is prohibited.

7. The discharge of waste to surface waters or within 50 feet of surface waters is prohibited.

8. The discharge of wastes into ponded water from any source is prohibited.

9. Ponding of liquids, including rainfall runoff and leachate, over solid waste disposal cells is prohibited.

10. The discharge of any waste in any manner not specifically described or quantified in the findings and regulated by this Order is prohibited.

11. Creation of a pollution, contamination, or nuisance, as defined by section 13050 of the CWC, is prohibited.

B. GENERAL SPECIFICATIONS

1. The discharge of wastes shall not cause water quality degradation by allowing a statistically or non-statistically significant increase over background or baseline concentrations, as determined in accordance with the Monitoring and Reporting Program.

2. Any leachate generated and collected at the Site shall be handled and disposed of in a manner approved by the Executive Officer of the Regional Water Board (Executive Officer).

3. Surface drainage from tributary areas or internal site drainage from surface or subsurface sources shall not contact or percolate through wastes discharged at the Site.

4. Precipitation and drainage control systems for storm water shall be designed and constructed to limit, to the greatest extent possible, ponding, inundation, erosion, slope failure, washout and overtopping from precipitation conditions of a 100-year, 24-hour storm event.

5. Unlined drainage ditches shall be located, to the maximum extent practicable, so that they do not cross over the landfill. Site drainage over the landfill shall be contained in drainage conveyance structures such as corrugated metal or plastic

pipe or in drainage ditches which are lined with at least one foot of compacted soil having an in-place permeability of 1×10^{-6} cm/sec or less.

6. **By October 1, Annually**, and prior to the anticipated rainy season, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the facility and to prevent surface drainage from contacting or percolating through wastes**. By October 15, Annually**, the Discharger shall submit a letter report to the Executive Officer describing measures taken to comply with this specification.

C. POST CLOSURE SPECIFICATIONS

1. Waste Management Unit (WMU) containment structures shall be designed, constructed, and operated to prevent inundation or washout due to floods with a 100-year return period. WMU containment structures shall be constructed and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under 100-year, 24-hour precipitation conditions.

2. All WMU containment structures and erosion and drainage control systems shall be designed and constructed under the direct supervision of a California registered professional civil engineer, or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of Title 27 CCR. Designs shall include a Construction Quality Assurance Plan, which must:

   a. demonstrate that the structures have been constructed according to the specifications and plans approved by the Regional Water Board, and

   b. provide quality control specifications on the material and construction practices used to construct the structures and to prevent the use of inferior products and/or materials that do not meet the approved design plans and specifications.

3. Materials used to construct the improvements to the final cover or repair shall have appropriate physical and chemical properties to ensure containment of wastes over the post-closure maintenance period. The Construction Quality Assurance Plan shall be submitted by **July 15, 2005**. As-built drawings shall be submitted to the Regional Water Board within 60 days of final cover construction or repair.

4. Improvements to the final cover shall consist of at least one foot compacted base material, overlain by asphaltic paving materials and concrete curb and gutter. Permeability of the final cover shall be determined in the field and in the laboratory using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the improvements to the final cover meet the permeability and stability requirements. All final cover materials shall be designed and constructed to

function with a minimum of maintenance. Construction improvements shall be under the direct supervision of a California registered professional civil engineer or certified engineering geologist. Materials and construction techniques shall meet the specifications and requirements in the ROWD, approved foundation designs and final grading and paving plans to be submitted to the Regional Water Board staff.

5. Landscaping plans shall be completed for the Site such that no vegetation shall penetrate the completed cap areas overlying the waste footprint.

6. For the protection of the HDPE lined curtain-wall corridor along the north property line (delineated in **Attachment B** as the "5' Deed Restriction"), any proposed subsurface maintenance work or disturbance shall receive prior written approval by the Regional Board staff.

7. Closed landfill units shall be graded and maintained to prevent ponding and infiltration.

8. Improvements to the final cover shall conform to criteria specified in Construction Specifications contained in this Order. The Discharger shall install at least two permanent survey monuments near the landfill from which elevation of the cap and disposal cells can be determined. Such monuments shall be installed under the direct supervision of a California licensed surveyor or registered professional civil engineer. [Section 20950(d), Title 27 CCR]

9. Post-closure of each WMU shall be performed under the direct supervision of a California registered professional civil engineer or certified engineering geologist.

10. All containment structures shall meet the general criteria set forth in section 20320, Title 27 CCR.

11. All containment structures shall meet the requirements of sections 20310 through 20370, Title 27 CCR.

D. PROVISIONS

1. All Site derived wastes shall be adequately characterized and properly disposed of to a legal point of disposal or re-use in accordance with an approved plan.

2. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its contents.

3. The Discharger shall comply with these WDRs and the attached Monitoring and Reporting Program incorporated herein by this reference. This program requires preparation and submittal of technical and monitoring reports pursuant to CWC section 13267(b). A violation of the Monitoring and Reporting Program is a violation of these waste discharge requirements.

4. The Discharger shall comply with the attached General Monitoring and Reporting Provisions, which are hereby incorporated into this Order. A violation of any of the standard provisions and reporting requirements is a violation of these waste discharge requirements.

5. The Discharger may file a written request, including appropriate supporting documents, with the Executive Officer proposing modifications to the Monitoring and Reporting Program. The Discharger shall implement any changes in the revised Monitoring and Reporting Program upon receipt of a signed copy of the revised Monitoring and Reporting Program.

6. The Discharger shall comply with all applicable provisions of Title 27 not specifically referred to in this Order.

7. **By October 1 annually**, any necessary erosion control measures shall be implemented and any necessary construction, maintenance, or repairs of drainage control facilities shall be completed to minimize erosion and prevent ponding or flooding at the Site. Until Site construction is completed all disturbed areas shall be seeded with an appropriate vegetation mixture or overlain by mulching material to minimize the off-site release of sediment. Rainfall runoff from disturbed areas shall be controlled by appropriate structures to minimize sedimentation in surface drainage courses downgradient of the Site. All appropriate structures shall be cleaned out during the rainy season as necessary to maintain adequate capacity through the rainy season.

8. Prior to any construction, the Discharger shall obtain any and all permits required under federal, state, or local laws.

9. **By October 1, 2005, October 1, 2007**, and every five years thereafter, the Discharger shall produce and submit to the Regional Water Board an iso-settlement map accurately depicting the estimated total change in elevation of the final cover's low-hydraulic-conductivity layer. For each portion of the landfill, this map shall show the total lowering of the surface elevation of the final cover, relative to the baseline topographic map submitted in the Construction Quality Assurances Documentation, and shall indicate all areas where visually noticeable differential settlement may have been obscured by grading operations. The map shall be drawn to the same scale and contour interval as the topographic map included in the Construction Quality Assurances Documentation, but showing the current topography of the final cover and featuring overprinted isopleths indicating the total settlement to-date. The Executive Officer may suspend this requirement for any given WMU upon finding two successive versions of the iso-settlement map indicate that the WMU has stabilized. [Section 21090(e)(2), Title 27 CCR]

10. The Discharger shall note on a map of the landfill the approximate location and outline of any areas where differential settlement is visually obvious prior to conducting periodic grading operations on the closed landfill [Section 21090(e)(4), Title 27 CCR]. This information shall be included in the Annual Monitoring Report as well as each iteration of the iso-settlement map. The map shall show all areas where differential settlement has been noted since the previous map submittal, and shall highlight areas of repeated or severe differential settlement. Map notations and delineations made

pursuant to this paragraph need not be surveyed, so long as all areas where differential settlement was visually identifiable prior to re-grading can be relocated. Such notation and delineation shall be made by, or under the supervision of, a California registered professional civil engineer or registered geologist.

11. Throughout the post closure maintenance period, the Discharger shall [Section 21090 (c), Title 27 CCR]:

    a. maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement or other adverse factors;

    b. maintain monitoring systems and monitor the ground water, surface water, and the unsaturated zone in accordance with applicable requirements of Article 1, Chapter 3, Subchapter 3, Subdivision 1 (Section 20380 et seq.);

    c. prevent erosion and related damage of the final cover due to drainage; and

    d. protect and maintain surveyed monuments.

12. The Discharger shall provide proof to the Board within sixty days after completing final closure that the deed to the landfill facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:

    a. the parcel has been used as a solid waste landfill;

    b. land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the landfill; and

    c. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.

13. The Discharger shall obtain and maintain adequate assurances of financial responsibility for the post closure and corrective action for all known and reasonably foreseeable releases from a WMU at the facility, in accordance with sections 20380(b), 20950, 22212, and 22222 of Title 27 CCR.

14. The Discharger is required to update approved cost estimates annually to account for inflation, in accordance with section 22236, Title 27 CCR.

15. The Discharger shall by **October 1st, Annually** submit the following:

    a. Evidence that adequate financial assurance for corrective action and postclosure maintenance is still in effect.

    b. Adjustment to update approved cost estimates annually to account for inflation.

c. A statement that the amount of adequate financial assurance for corrective action and postclosure maintenance is still adequate or showing the amount of increase as necessary.

d. A statement that the postclosure maintenance plan is still adequate and in conformance with the existing regulations.

16. In the event the Regional Water Board determines that the Discharger has failed to pay or are failing to perform corrective action as required by law, the Discharger may be directed to pay such amounts as necessary to ensure sufficient corrective action. The Discharger shall be obligated to use such funds for corrective action, in accordance with the directive of the Regional Water Board.

17. The Discharger shall maintain waste containment facilities and precipitation and drainage control systems throughout the post-closure maintenance period. The Discharger shall immediately notify the Regional Water Board of any flooding, equipment failure, slope failure, or other change in Site conditions that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

18. The Discharger shall continue to monitor the WMU, surface drainage, and underlying media throughout the post-closure maintenance period as per the Monitoring and Reporting Program. Monitoring shall continue until the Regional Water Board determines that the Site no longer threatens water quality.

19. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with the Monitoring and Reporting Program, as required by sections 13750 through 13755 of the CWC.

20. Monitoring points, including those representing groundwater sampling for the Point of Compliance, shall be as listed in the Monitoring and Reporting Program for the Site.

21. If the Discharger determines that there is measurably significant evidence of a release from any Waste Management Units (WMUs), as defined in section 20164, Title 27 CCR, the Discharger:

a. shall immediately notify the Regional Water Board verbally and take all necessary corrective actions. Written notification by certified mail shall be provided within 7 days of occurrence. [Section 20420(j)(1), Title 27 CCR]

b. can immediately initiate the verification procedure pre-approved by the Regional Water Board to verify the release. [Section 20420(j)(2), Title 27 CCR]

22. Immediately following detection of a release, or after completion of the retest, the Discharger:

a. Shall immediately sample all Monitoring Points in the affected medium at the WMUs and determine the concentration of all Constituents of Concern (COCs.) [Section 20420(k)(1), Title 27 CCR]

b. Within 90 days of determining measurably significant evidence of a release, submit an amended ROWD to establish an evaluation monitoring program, in accordance with section 20420(k)(5), Title 27 CCR.

c. Within 180 days of verifying measurably significant evidence of a release from a WMU, submit an engineering feasibility study for a corrective action program. The corrective action program shall, at a minimum, meet the requirements of section 20430, Title 27 CCR. [Section 20420(k)(6), Title 27 CCR]

23. The Regional Water Board may make an independent finding that there is a measurably significant evidence of release. The Regional Water Board shall send written notification of such a determination to the Discharger by certified mail, return receipt requested. The Discharger shall comply with all provisions of section 20420, Title 27 CCR and Provisions in this Order that are required in response to a measurably significant evidence of release.

24. The Discharger shall report to the Regional Water Board by certified mail the results of both the initial statistical test and the results of the verification procedure, as well as all concentration data from samples collected for use in these tests within seven days of the last laboratory analysis of the samples collected for the verification procedure. [Section 20415(e)(8)(E)(6), Title 27 CCR]

25. If the Discharger verifies that there has been a measurably significant release from the WMUs, the Discharger may demonstrate that a source other than the WMUs caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis, or the data analysis protocol. [Section 20420(k)(7), Title 27 CCR] The Discharger may make this demonstration in addition to or in lieu of submitting an amended report of waste discharge and an engineering feasibility study pursuant to section 20420(k)(5), Title 27 CCR and section 20420(k)(6), Title 27 CCR. The Discharger is not relieved of the requirements specified in sections 20420(k)(5) and (k)(6), Title 27 CCR unless the demonstration report is accepted by the Executive Officer. In making a demonstration, the Discharger shall:

a. Within 7 days of determining measurably significant evidence of a release, submit a report to the Regional Water Board by certified mail stating that the Discharger intends to make a demonstration pursuant to Section 20420(k)(7)(A), Title 27 CCR.

b. Within 90 days of determining measurably significant evidence of a release, submit a report to the Regional Water Board that demonstrates that a source other than the WMU caused the apparent release. [Section 20420(k)(7)(B), Title 27 CCR]

c. Within 90 days of determining measurably significant evidence of a release, submit an amended report of waste discharge to make any appropriate changes to the detection monitoring program. [Section 20420(k)(7)(C), Title 27 CCR]

26. If the Discharger determines that there is significant physical evidence of a release, as described in Section 20385(a)(3), Title 27 CCR or that the detection monitoring program does not meet the requirements of section 20420, Title 27 CCR, the Discharger shall:

    a. notify the Regional Water Board by certified mail within 7 days of such a determination [Section 20420(l)(1), Title 27 CCR]; and

    b. within 90 days of such a determination, submit an amended ROWD to the Regional Water Board to make any appropriate changes to the program [Section 20420(1)(2), Title 27 CCR]

27. Any time that the Regional Water Board determines that the detection monitoring program does not satisfy the requirements of section 20420, Title 27 CCR, the Regional Water Board shall send written notification of such a determination to the Discharger by certified mail, return receipt requested. The Discharger shall, within 90 days after receipt of notification by the Regional Water Board, submit an amended ROWD to make any appropriate changes to the program. [Section 20420(m), Title 27 CCR]

COMPLIANCE TIME SCHEDULE

28. Pursuant to Section 13267(b) of the CWC, The Discharger shall complete the tasks outlined in these waste discharge requirements in accordance with the following time schedule:

Action	Compliance Date
The Discharger shall record a detailed description of the Site at the Humboldt County Recorder's Office in accordance with the Site's Post-Closure Plan. The description shall include the date of closure completion; the boundary of the closure Site; location of the closure Site; post-closure maintenance plans; deed restrictions regarding future use of the Site (per PROVISION D. 12); a map of the closed fill. Copies of the recorded documents shall be submitted to the Regional Water Board.	October 15, 2005
The Discharger shall install at least two permanent survey monuments near the landfill from which elevation of the disposal cells can be determined. Such monuments shall be installed under the direction of a California licensed surveyor or registered professional civil engineer. The Discharger shall submit a report, including drawings, documenting the installation and location of the monuments. The report shall be signed and stamped by a California licensed surveyor or registered professional civil engineer. [Section 20950(d), Title 27 CCR]	October 15, 2005

29. The Discharger shall notify the Regional Water Board in writing of any proposed change of ownership or responsibility for construction, operation, closure or post-closure maintenance of the WMUs. This notification shall be given prior to

the effective date of the change and shall include a statement by the new Discharger(s) that construction, operation, closure, and post-closure maintenance will be in compliance with any existing waste discharge requirements and any revisions thereof. Upon such notification, the Regional Water Board will amend the existing Waste Discharge Requirements to name the new Discharger(s).

30. The Regional Water Board considers the property owner at the time of waste placement to have continuing responsibility for correcting problems as a result of the waste discharge, which may arise in the future. This responsibility continues during subsequent use of the land including use by subsequent owners.

31. After notice of and opportunity for hearing, this Order may be terminated or modified for cause, including but not limited to:

    a. violation of any term or condition in this Order;

    b. obtaining this Order by misrepresentation, or failure to fully disclose all relevant facts; and

    c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

32. The Discharger shall remove and relocate any wastes discharged at this Site in violation of this Order.

33. Severability

    Provisions of these waste discharge requirements are severable. If any provision of these requirements is found to be invalid, the remainder of these requirements shall not be affected.

34. Operation and Maintenance

    The Discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the Discharger to achieve compliance with the waste discharge requirements.

35. Change in Discharge

    The Discharger shall promptly report to the Regional Water Board any material change in the character, location, or volume of the discharge.

36. Signatory Requirements

    a. All applications, reports, or information submitted to the Regional Water Board Executive Officer shall be signed by either a principal executive officer, ranking elected official, or a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:

i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. Reports required by this Order, other information requested by the Regional Water Board, and Permit applications submitted for Group II storm water discharges under 40 CFR 122.26(b)(3) may be signed by a duly authorized representative provided:

i. the authorization is made in writing by a person described in paragraph (a) of this provision;
ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
iii. the written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative. [40 CFR 122.22(b)(c)]

c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR 122.22(d)]

37. Change in Ownership

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 following items by letter, a copy of which shall be forwarded to the Regional Water Board:

a. existence of this Order, and
b. the status of the Discharger's annual fee account.

38. Vested Rights

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission

of any act causing injury to persons or property, nor protect the Discharger from liability under federal, state, or local laws, nor create a vested right for the Discharger to continue the waste discharge.

39. Inspections

In accordance with the provisions of Water Code section 13267(c), the Discharger shall permit authorized staff of the Regional Water Board:

a. entry upon premises in which a waste source is located or in which any required records are kept;
b. access to copy any records required to be kept under terms and conditions of this Order;
c. inspection of monitoring equipment or records; and
d. sampling of any discharge.

40. Noncompliance

In the event the Discharger is unable to comply with any of the conditions of this Order due to:

a. breakdown of waste treatment equipment;
b. accidents caused by human error or negligence; or
c. other causes such as acts of nature;

The Discharger shall notify the Executive Officer by telephone as soon as they or their agents have knowledge of the incident and shall confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

41. Accidental Spills, Incident Reporting and Monitoring

The Discharger shall comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2005-0033 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Order and incorporated herein. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.

a. Order No. 74-151 requires immediate incident reporting of unintentional or accidental spills (including Emergency Response actions) and diligent action to abate the effects of the discharge. Written confirmation of the incident is required within two weeks of notification.
b. General Monitoring and Reporting Provisions require sampling and analysis performance criteria in addition to compliance reporting criteria and timeframes.

42. Revision of Requirements

The Regional Water Board will review this Order periodically and may revise requirements when necessary.

43. This Regional Water Board requires the Discharger to file a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

Certification

I, Catherine E. Kuhlman, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on June 22, 2005.

_____

Catherine E. Kuhlman
Executive Officer

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