

California Regional Water Quality Control Board  
North Coast Region

Order No. R1-2011-0032  
WDID NO. 1B09124RHUM

Conditional Waiver of Waste Discharge Requirements

For

City of Fortuna Municipal Wastewater Treatment Facility (WWTF)  
Humboldt County

For

The Land Application of Exceptional Quality (EQ) Classified Biosolids  
Derived Compost Material as a Soil Amendment

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

1. On October 7, 2009, the City of Fortuna (Applicant) submitted a wastewater Biosolids Management Plan (Management Plan). A revised copy of the Management Plan was submitted on February 1, 2010 and an addendum to the February 1<sup>st</sup> Management Plan was submitted on August 5, 2010 (hereinafter collectively Management Plan). The Management Plan serves as the technical report portion of the report of waste discharge (ROWD) for this project. An application for waste discharge (Form 200) along with the filing fee of \$1,226.40 was submitted by the Applicant on October 7, 2009 completing the ROWD.
2. The Project as described in the Management Plan consists of the use of Exceptional Quality (EQ) classified biosolids derived compost material as a soil amendment in one of the following methods:
  - a. Bulk soil amendment applied by the Applicant to privately owned agricultural lands,
  - b. Bulk or bagged soil amendment received and applied by ratepayers served by the City of Fortuna WWTF to their private yards, or
  - c. Bulk or bagged soil amendment to be marketed by a commercial fertilizer enterprise.
3. The use of EQ classified biosolids derived compost material as a soil amendment is considered a discharge of waste to land and as such has the potential to affect the quality of the waters of the state, including surface and ground waters.
4. Title 27 of the California Code of Regulations (CCR) contains regulations to address certain discharges to land. Title 27 establishes waste and site classifications and waste management requirements for solid waste treatment,

storage, or disposal in landfills, surface impoundments, waste piles, and land treatment units.

Section 20090 of Title 27 identifies several conditional exemptions to meeting the prescriptive standards of Title 27. Section 20090(f) allows conditional exemptions for discharges of nonhazardous decomposable waste as a soil amendment pursuant to best management practices, provided that the applicable Regional Water Board may issue waste discharge or reclamation requirements for such use.

5. The proposed use of EQ classified biosolids derived compost material as a soil amendment will be conducted pursuant to the Conditions of this Waiver in addition to the best management practices cited in the Management Plan. The EQ classified biosolids derived compost material is a nonhazardous and decomposable waste.
6. The purpose of the Project is to reuse the biosolids generated during routine municipal WWTF operations as an agricultural soil amendment. Biosolids are defined as treated municipal sewage sludge that has been tested and shown to be capable of being beneficially and legally used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities as specified under the Code of Federal Regulations title 40 Part 503<sup>1</sup>, *Standards for the Use or Disposal of Sewage Sludge* (40 CFR Part 503). EQ classified biosolids meet the metals standards, Class A pathogen reduction standards, and vector attraction reduction standards contained in 40 CFR Subpart 503.13 (Table 3), 40 CFR Subpart 503.32, and 40 CFR Subpart 503.33, respectively. EQ biosolids and EQ biosolids derived materials may be applied to land in bulk or sold or given away in bags or containers as a soil amendment and are not required to meet the Subpart 503.12 general requirements or Subpart 503.14 management practices within 40 CFR Part 503. According to the US EPA Guide for 40 CFR Part 503, once biosolids have been established as meeting EQ requirements they may generally be applied to land as freely as any other fertilizer or soil amendment.
7. The City of Fortuna WWTF is currently operating pursuant to Order No. R1-2011-0004 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0022730, *Waste Discharge Requirements for the City of Fortuna Municipal Wastewater Treatment Plant*. The processing of sewage sludge into EQ classified biosolids derived compost material is overseen by Humboldt County, the Local Enforcement Agency (LEA). The City of Fortuna WWTF is currently registered as an official compost facility and is subject to routine quarterly inspections by the LEA for biosolids composting activities. The purpose of this Waiver is to regulate

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<sup>1</sup> All further statutory references are to title 40 Part 503 of the Code of Federal Regulations unless otherwise indicated.

the land application of Exceptional Quality (EQ) classified biosolids derived compost material for use as a soil amendment.

8. The solids handling portion of the treatment facility is designed to accommodate up to 1.9 million gallons per day (MGD) of sewage sludge generated during the treatment of wastewater. The sludge is thickened, anaerobically digested, dewatered and composted to produce approximately 1,050 cubic yards of EQ classified biosolids derived compost material every year.
9. The reuse of EQ biosolids derived compost material as a bulk soil amendment to agriculture lands will be conducted by the Applicant in accordance with the Management Plan. EQ biosolids derived compost material will be applied to agriculture land located outside the City of Fortuna's boundary. The number of acres required will be dependent on the volume of biosolids to be applied, the nutrient content of the biosolids material, and the nutrient uptake rate of the crop being grown. Twelve parcels, totaling 278.24 acres of usable application area, have been identified as potential land application sites. A map showing the boundary of the City of Fortuna and the twelve application sites is included in Attachment A.
10. Management Plan provisions that are important for water quality protection are identified specifically and made enforceable conditions of this Waiver. To avoid potential impacts to water quality from the use of EQ biosolids derived compost material on agriculture lands the following measures will be taken:
  - a. The application rate will be equal to or less than the nitrogen uptake rate of the intended cover crop;
  - b. Land application activities will be conducted during dry weather when wind speeds are less than 25 miles per hour;
  - c. Land application will not occur more frequently than once every two years on any one application site;
  - d. Application areas will meet set back requirements to water supply wells, agricultural drainage ways, and surface waters including wetlands, creeks, ponds, lakes, underground aqueducts and marshes, as cited in the Management Plan and Specific Conditions portion of this Waiver;
  - e. The storage of EQ biosolids derived compost materials at an application site is prohibited except in the event of an unforeseen emergency event such as equipment failure or operator injury. In such instances when a forecast of rain is being predicted City staff will cover the compost material with 10ml visqueen and sandbags to prevent possible runoff and leaching;
  - f. Spills of EQ biosolids derived compost material during transportation activities will be contained and cleaned up in accordance with the Management Plan.

11. The release of EQ classified biosolids derived compost material to City of Fortuna WWTF ratepayers for use as a bulk or bagged soil amendment for their yards will be conducted in accordance with the Management Plan. Ratepayers will be limited in the amount of compost material they may receive. The Management Plan Yard Application Table will be utilized by the Applicant to determine the maximum cubic yards of EQ biosolids derived compost material available to each ratepayer. The Yard Application Table calculates the cubic yards of compost material allowed based on the nutrient content, % solids and bulk density of the EQ classified biosolids derived compost material, and the nitrogen uptake rate of a standard lawn cover crop. The use of the Yard Application Table will restrict the application rate of EQ classified biosolids derived compost material to agronomic rates. The purpose of this application method is to encourage the complete uptake of nutrients by the lawn or other landscape vegetation and to minimize the migration of nutrients beyond the root zone thus minimizing the potential impact to groundwater
12. The release by the Applicant of EQ classified biosolids derived compost material as a bulk or bagged soil amendment to a commercial fertilizer enterprise for resale as compost or a soil amendment may occur in the future as per the Management Plan. The use of commercial fertilizers as a soil amendment currently does not require the issuance of Waste Discharge requirements or a waiver of waste discharge requirements by a Regional Water Board
13. The City of Fortuna WWTF is registered as a composting, solid waste facility with biosolids processing and disposal activities being overseen by Humboldt County Division of Environmental Health, the Local Enforcement Agency (LEA) designated by the California Division of Resources Recycling and Recovery (CalRecycle) to regulate solid waste facilities in Humboldt County.
14. The Applicant is required as generator, processor and land application entity to maintain records demonstrating compliance with federal and state biosolids requirements. Monitoring and sampling records will be retained for a period of no less than 5 years and will include all information cited in the Recordkeeping and Reporting Procedures section of the Management Plan including but not limited to the following:
  - a. The number of dry metric tons of EQ biosolids derived compost material used as a bulk soil amendment to agriculture lands;
  - b. The number of dry metric tons of EQ biosolids derived compost material released for use by ratepayers;
  - c. The number dry metric tons of EQ biosolids derived compost material for sale through commercial fertilizer enterprises;
  - d. Land owner Agreements for the land application of EQ biosolids derived compost material; and

- e. Documentation of the attainment of EQ biosolids metals standards, Class A pathogen reduction standards, and vector attraction reduction standards contained in 40 CFR Part 503.
15. The Applicant will provide an Annual Report as per Monitoring and Reporting Program Order No. R1-2011-0033. The Report will include information on biosolids handling, monitoring and reuse activities taking place during the previous calendar year.
16. Pursuant to California Water Code Section 13269 the California Regional Water Quality Control Board, North Coast Region, (Regional Water Board) may waive criteria for individual cases where it can be satisfactorily demonstrated that water quality will not be impaired and public health will not be threatened as a result of such waivers. The Regional Water Board has reviewed the ROWD and other information related to the proposed discharge and determined that issuance of a conditional waiver of waste discharge requirements is consistent with the Basin Plan and is in the public interest because the EQ classified biosolids derived compost material is being applied to land at agronomic rates and will meet the setback requirements and other conditions cited in this Waiver.
17. As part of our efforts to control sediment waste discharges and restore sediment impaired water bodies, the Regional Water Board adopted the Total Maximum Daily Load Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region, which is also known as the Sediment TMDL Implementation Policy, on November 29, 2004. This Policy was adopted through Resolution R1-2004-0087. The application of EQ biosolids-derived mixture to agriculture lands may destabilize soil surfaces resulting in unpermitted discharges of sediment in the Lower Eel River watershed. If sites are left in a disturbed state during the winter period, it is likely that runoff-generated erosion will occur. Conditions of this waiver require that all land application activities will take place during periods of dry, calm weather and that the re-seeding of the cover crop following land application activities will occur. These steps will allow stabilization of site soils through the growth of a crop and the crop's roots. Land application areas will be located on stable geologic formations with slopes of less than 10% that are not typically subject to flooding or excessive run-off from adjacent parcels. In addition, this Waiver includes required setbacks to property lines, agricultural drainage ways, and surface water which will act as buffer zones for potential soil erosion pathways. In accordance with this Waiver, no discharge to surface waters of sediment from biosolids land application activities is authorized.
18. The California State Water Resources Control Board (SWRCB) adopted Water Quality Order No. 2000-10-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural,

Silviculture, Horticultural, and Land Reclamation Activities,” (Order 2000-10-DWQ) in August of 2000. Enrollment of the Management Plan Project under Order 2000-10-DWQ is not required because the proposed land application rate of EQ biosolids derived-mixture is below that specified in Order 2000-10-DWQ.

19. The Regional Water Board is the lead agency for this project under the California Environmental Quality Act (Pub. Resources Code, section 21000 et seq.) (CEQA) and has prepared an Initial Study/Checklist in accordance with title 14, California Code of Regulations, section 15063. On February 17, 2011, the Regional Water Board provided notice of intent to adopt a negative declaration (**SCH No. XXXXXXXX**) for the project. (Cal. Code Regs., tit. 14, § 15072.) The negative declaration reflects the Regional Water Board’s independent judgment and analysis. After considering the initial study/checklist and other documents and comments received during the public review process, the Regional Water Board hereby determines that the proposed project will not have a significant effect on the environment. The negative declaration is hereby adopted. The documents or other material, which constitute the record, are located at the Regional Water Board offices located at 5550 Skylane Blvd, Santa Rosa, California. The Regional Water Board will file a Notice of Determination within five days from the issuance of this Order.
20. The Applicant has demonstrated to the satisfaction of the Regional Water Board that the Management Plan meets the minimum standards set in Order 2000-10-DWQ and baseline requirements of 40 CFR Part 503 and is suitable for regulation under a conditional waiver of WDRs.
21. Biosolids applied to land in accordance with the conditions of this waiver are non-hazardous decomposable wastes applied as soil amendment pursuant to best management practices, and, as such, are exempt from the requirements of title 23, section 2510, et seq. of the California Code of Regulations, in accordance with section 2511(f).
22. The Regional Water Board conducted a public hearing on May 5, 2011, in Eureka, California and considered all evidence concerning this matter.

THEREFORE BE IT ORDERED, that pursuant to California Water Code Section 13263, subdivision (a), 13267, and 13269, the Regional Water Board waives the requirement to establish waste discharge requirements for discharges associated with the land application of Exceptional Quality (EQ) classified biosolids derived compost material as a soil amendment from the City of Fortuna WWTF. The following conditions shall apply:

Specific Conditions:

- a. The permitted land application activities will pertain only to those biosolids meeting 40 CFR Part 503 ceiling concentrations cited in Table 1 of section 503.13, pollutant concentrations cited in Table 3 of section 503.13, Class A pathogen requirements cited in section 503.32(a) and one of the vector attraction reduction requirements cited in section 503.33(b)(1) through (b)(8), referenced as EQ biosolids,
- b. The Applicant will apply EQ biosolids derived compost material to agriculture land application sites identified in Attachment A.
- c. Land application will take place on areas of stable geologic formations not typically subject to flooding or excessive run-off from adjacent parcels. Land application will not take place on slopes exceeding 10%.
- d. The application of EQ biosolids derived compost material to agricultural lands will not occur more frequently than once every two years on any one application site;
- e. The rate of application of EQ biosolids derived compost material to agricultural lands will not exceed the nitrogen uptake rate (agronomic rate) of the cover crop being grown.
- f. The application of EQ biosolids derived compost material to agricultural lands will not take place in areas where groundwater is 4 feet or less below ground surface.
- g. The application of EQ biosolids derived compost material to agricultural lands will be conducted during dry weather.
- h. The application of EQ biosolids derived compost material to agricultural lands will meet the following setbacks from staging and application areas:
  1. Five (5) feet from property lines (requirement may be waived when property lines are adjacent to other application sites);
  2. Two hundred (200) feet from domestic water supply wells;
  3. One hundred (100) feet from non-domestic water supply wells;
  4. Fifty (50) feet from occupied onsite residences;
  5. Twenty (20) feet from the centerline of public roads where fields are fenced and fifty (50) feet from the centerline of public roads where fields are not fenced;

6. One hundred (100) feet from surface waters, including wetlands, creeks, ponds, lakes, underground aqueducts, and marshes.;
  7. Thirty three (33) feet from primary agricultural drainage ways;
  8. One hundred (100) feet from occupied non-agricultural buildings and off-site residences;
  9. Four hundred (400) feet from a domestic water supply reservoir;
  10. Two hundred (200) feet from a primary tributary to a domestic water supply;
  11. Two thousand, five hundred (2,500) feet from any domestic surface water supply intake.
- i. The application of EQ biosolids derived compost to agricultural lands will not take place when wind speed exceeds 25 miles per hour at the application site.
  - j. EQ classified biosolids derived compost material will be disked in to agricultural land application site soils within 24 hours of completion of land application activities.
  - k. Following the disking in of EQ classified biosolids derived compost materials to agricultural land application sites the field shall be re-seeded with the appropriate crop.
  - l. The storage of EQ biosolids derived compost materials at an application site is prohibited except in the event of an unforeseen emergency event such as equipment failure or operator injury. In such instances when a forecast of rain is being predicted City staff will cover the compost material with 10ml visqueen and sandbags to prevent possible runoff and leaching;
  - m. The Applicant will notify the public 2 weeks prior to any land application event. A letter will be delivered to persons owning or renting property adjacent to the agricultural land where EQ biosolids derived compost materials are to be applied. The letter will contain contact information for responsible City staff members and provide a link to the City's website where a summary of the Management Plan will be posted.
  - n. Erosion control Best Management Practices shall be implemented no later than October 1<sup>st</sup> each year in areas where agricultural land application activities have taken place;
  - o. The maximum cubic yards of EQ biosolids derived compost material released to a City of Fortuna WWTF ratepayer for use as a bulk or bagged soil amendment will be determined by the size of the application area of the yard.

The application rate will not exceed the nitrogen uptake rate (agronomic rate) of a standard lawn cover crop.

- p. The release of EQ biosolids derived compost material as a bulk or bagged soil amendment to a commercial fertilizer enterprise for resale as compost or a soil amendment shall be done in accordance with 40 CFR Part 503.
- q. Applicant shall comply with all mitigation measures identified in the accompanying mitigated negative declaration. CEQA mitigation measures shall constitute enforceable conditions under this Order.
- r. The Applicant shall implement Monitoring and Reporting Program Order No. R1-2011- 0033;

General Conditions:

- s. The Project shall not create a condition of pollution, contamination, or nuisance, as defined by California Water Code Section 13050.
- t. The Applicant shall allow Regional Water Board staff reasonable access onto the affected properties for the purpose of performing an inspection to determine compliance with waiver conditions.
- u. Failure to implement the Project according to the Project descriptions and other information submitted in the Application, or violation of any of the terms contained in the Waiver, may result in the revocation of coverage under the Waiver and the initiation of formal enforcement proceedings as authorized by provisions of the California Water Code including section 13350, which indicates that discharging in violation of waste discharge requirements including discharging without required permits is subject to up to \$10 for each gallon of waste discharged or \$5,000 for each day the violation occurs.
- v. If the Discharger plans to continue the activity regulated by this Order after the expiration date of the Order, the Discharger must apply for and obtain regulatory coverage.
- w. The discharge of any waste not specifically regulated by the Waiver described herein is not authorized by this Waiver. Any change to the operation of the Project that would have a significant or material effect on the findings, conclusions, or conditions of this Waiver must be submitted to the Executive Officer of the Regional Water Board for prior review and written approval.

- x. This Waiver of Waste Discharge Requirements shall expire on May 4, 2016, in accordance with Section 13269 of the Water Code

This Waiver, for the land application of Exceptional Quality (EQ) classified biosolids derived compost material as a soil amendment; (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits which may be required by other local or governmental agencies, and (e) does not preclude the Regional Water Board from administering enforcement remedies (including civil penalties) pursuant to the Water Code.

**CERTIFICATION:**

I, Catherine 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 May 5, 2011.

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Catherine Kuhlman  
Executive Officer