

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TENTATIVE

RESOLUTION NO.

REGARDING THE REUSE OF FOOD PROCESSING BY-PRODUCTS
WITHIN STANISLAUS COUNTY

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

1. In 1978, Stanislaus County established a voluntary Food Processing By-Products Use Program (hereafter "Program") to divert solid and semi-solid food processing by-products from county landfills. Under the Program, the County permits food processors (both within and outside the County) to transport food processing by-products for use in land application, direct animal feed, dehydration, and composting operations. Under current State landfill regulations, the majority of the diverted food processing by-products is too wet to be accepted at landfills.
2. The types of solid and semi-solid food processing by-products historically regulated under the Program include rejected fruit and vegetable products, solids screened from food processing wastewater, wastewater containing greater than one percent suspended and settleable solids, and nutrient- and organic-rich sediment generated from the recycling of water in food processing flume conveyance systems.
3. Stanislaus County and its permit holders (i.e., the entities accepting the ~~waste~~ by-products) state that solid and semi-solid food processing by-product is a valuable commodity which improves soil and nourishes animals; the diversion of such ~~waste~~ by-products from landfills is of public benefit; and the regulated operations are environmentally sound.
4. Stanislaus County Department of Environmental Resources' program criteria is set forth in the "*Stanislaus County Food Processing By-Products Use Program, ~~February 2005~~ May 2006*," (found as Attachment A, which is attached hereto and made part of this Resolution by reference). Any entity wishing authorization to accept solid or semi-solid food processing by-products must submit a permit application containing a detailed plan of operation and allow the County to make inspections and to take any necessary enforcement actions.
5. The County requires that its permit holders submit a performance bond for clean-up and remediation at the permitted site and reimburse the County for all costs incurred for permit administration, including, but not limited to, processing the permit application, enforcing the permit terms, and ~~some~~ frequent monitoring of the permitted activity at the permit location. Annual reports must be submitted at the end of each food processing season.
6. The Program allows food processing by-products to be ~~discharged~~ utilized at four types of sites, and contains specific conditions for each of these re-use operations; ~~as summarized below~~:
 - a. For *land application operations*: the land must be cropped; the by-products must be applied in a manner that precludes the potential for nuisance odors and vectors; the by-product must be applied at agronomic rates established by a Certified Professional Soil Scientist, a Certified Professional Agronomist, or a Certified Crop Advisor; and both the by-products and the soil in the land application areas must be analyzed for various constituents, and at varying depths in

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the case of soil sampling.

- b. For *direct (animal) feed operations*: the by-products must be delivered to a cement or asphalt pad; the by-products shall not be fed to animals on open ground; and the volume of by-products delivered shall not exceed that which will be ~~consumed by the animals~~ fed or processed within 24 hours of delivery to the site.
 - c. For *dehydration and composting operations*: the by-product shall be delivered to a cement, asphalt, or compacted soil pad and shall be processed within 24 hours.
7. The activities described in this Resolution result in the discharge of waste, as defined in California Water Code (CWC) section 13050. Pursuant to the CWC and implementing regulations, (a) liquid, solid, and gaseous waste substances from a food producing or processing operation are “waste,” (b) an element or compound reasonably expected to be in or derived from such waste is a “waste constituent,” and (c) a waste transformed under natural conditions through biological and chemical processes into waste constituents that will not impair groundwaters is “decomposable waste.”
 8. Pursuant to CWC Section 13050, substances from food producing or processing operations referred to in the Program as “food processing by-products” that are comprised of and yields decomposable waste and waste constituents are considered waste that is subject to regulation under the CWC. For purposes of this Resolution these wastes will be referred to as “food processing by-products”.
 9. Regional Board staff has reviewed the Program in relation to prevention of water quality impacts and nuisance conditions. In summary:
 - a. For *land application operations*, the Program is adequate as currently implemented to prevent creation of nuisance conditions and to prevent impacts to surface water. While staff has no concern regarding the rate of nitrogen loading to the soil, a literature review and analysis are needed, and additional studies and data ~~are~~ may be needed to determine the appropriate regulatory approach and best management practices (BMPS) requirements necessary to ensure so the Program is adequate ~~to control, protect and monitor the application of food processing by-products to land to ensure the protection of water quality and the environment.~~ Issues and concerns that need to be reviewed, studied and assessed addressed include: ~~(a) Develop site and by product characteristics and conditions to establish adequate monitoring of the by products, soil and groundwater. (b) Evaluate and determine the actual or potential impacts high strength food processing by-products may have in land application practices. Develop proper controls, management measures and prohibitions given site and waste characteristics and conditions to address high strength food processing by products applied to land. (c) Study and determine the percentage of total dissolved solids (TDS) in food processing by-products that is present as volatile dissolved solids (VDS) and how much VDS will degrade within the soil profile. (d) Evaluate and determine the actual or potential impacts low pH food by-products may have in land application practices. Develop proper controls, management measures and prohibitions given site and waste characteristics and conditions to address low pH food processing by-~~

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~~products applied to land. (e) Evaluate and determine the actual or potential impacts to groundwater of food processing by-products with high moisture content that are applied to land prior to the planting of crops. (f) Evaluate and determine the actual or potential impacts to groundwater caused by on-site storage of food processing by-products during rain events. Develop proper controls, management measures and prohibitions given site and waste characteristics to ensure storage of food processing by-products is done in a manner that is protective of groundwater quality. (g) Identify site and waste characteristics and conditions that would prohibit the application of food processing by-products to land, and (h) Establish requirements that prohibit the discharge of liquid wastes to land under the County's program.~~

- 1) By-product characterization/classifications. This may include such characteristics as:
 - a) amounts and nature of organic and inorganic dissolved solids.
 - b) pH.
 - c) Nutrient content.
- 2) Site factors which influence, limit or prohibit land application.
- 3) Evaluating the actual or potential impacts of:
 - a) low pH food processing by-products applied to land.
 - b) High strength (needs to be defined) food processing by-product applications.
 - c) Application of high-moisture food processing by-product prior to crop planting.
 - d) On-site storage of food processing by-products generally and during significant rain events.
- 4) Developing proper controls, BMPs and/or prohibitions where indicated and based on by-product and site characteristics to ensure that utilization and/or storage of food processing by-products is done in a manner that is protective of groundwater quality.

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- b. For *direct (animal) feed operations*, the Program is adequate as currently implemented to prevent nuisance conditions and adverse impacts to waters of the State.
 - c. For *dehydration and composting operations*, the Program is not adequate to prevent nuisance conditions and adverse impacts to waters of the State with respect to leachate and storm water impacts, and because such facilities have multiple water quality issues, they are more appropriately regulated under either individual or general WDRs. Stanislaus County has agreed that it is appropriate for the Regional Board to request RWDs from these two types of sites and to regulate the sem sites outside the scope of this resolution.
10. While the land application of food processing byproducts has great benefit in reducing the amount of material taken to landfills and in enhancing soil structure, there is a possibility that certain aspects may threaten groundwater quality. Stanislaus County has proposed that a literature review, and if necessary, studies be completed to recommend the proper safeguards to govern ~~to complete a study to determine the actual impacts to groundwater from~~ the land application of solid and semi-solid food processing by-products. It is appropriate to allow Stanislaus County to continue its Program while additional data is collected, subject to the conditions listed in this Resolution. The literature review and any needed study or studies will be designed to provide information with respect to the effects or ~~threatened~~ potential effects of food processing by-products on waters of the state and to help determine the appropriate regulatory mechanism for the ~~discharge~~ utilization of food processing by-products on a County-wide or possibly Region-wide basis. This Resolution does not waive WDRs nor delegate responsibility to the County. Instead, it postpones Regional Board action pending outcome of the literature review and needed study or studies.
 11. Pursuant to CWC section 13225, the Regional Board may require any state or local agency to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water. This Resolution requires Stanislaus County to undertake a literature review and any needed study or studies to determine best management practices for land application ~~the impacts of food processing by-products on~~ to protect groundwater quality. CWC section 13325 also authorizes the Regional Board to request enforcement by appropriate federal, state and local agencies of their respective water quality control laws. This Resolution requires Stanislaus County to adopt an Ordinance or other legal mechanism to fully implement and enforce the Program. This Resolution does not delegate the Regional Board's authority to Stanislaus County, as such delegation is not authorized by the Water Code. This Resolution sets forth tasks that should provide information to support adoption of a Regional Board regulatory program that could include waste discharge requirements (WDRs) or a waiver of WDRs.
 12. This Resolution does not limit the authority of the Regional Board to enforce CWC Division 7 or other applicable laws. This Resolution does not constitute WDRs or a waiver of WDRs. This Resolution does not authorize or approve the Program. This Resolution requires the County to oversee sponsor a literature review and any needed study or studies to address the issues described in Finding No. 9.a. The Regional Board retains its authority to issue WDRs, waive WDRs, and take enforcement action as appropriate. Pursuant to CWC Section 13263(g), discharge is a

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privilege, not a right, and adoption of this resolution does not create a vested right to continue any discharge that occurs under the Program.

13. Known operators and other interested parties and persons were notified of the intent to adopt a resolution regarding the Stanislaus County Program and were provided an opportunity to submit written comments and for a public meeting.
14. A public meeting was held on _____ in Rancho Cordova, California to consider comments concerning this matter.

THEREFORE, BE IT RESOLVED that Stanislaus County shall:

1. Continue to implement, inspect, monitor, and enforce its *Stanislaus County Food Processing By-Products Use Program*, ~~February 2005~~ May 2006 or subsequent revisions thereto;
2. Oversee a literature review and any needed study or studies to address ~~to determine the impacts of~~ food processing by-products on groundwater quality. The study shall be conducted according to the following time schedule:
 - a. By **1 August 2006**, Stanislaus County shall submit a ~~final~~ workplan to the Executive Officer describing in detail the work to be completed, any additional soil or ~~residue~~ by-product monitoring to be completed, the name of the principal investigators and researchers, and the preliminary ~~-~~ funding sources. The study team and researchers shall ~~include~~ regularly consult with staff of the Department of Food and Agriculture, California Integrated Waste Management Board and Regional Board. The literature review and any needed sStudy or studies shall ~~be designed at a minimum to~~ address issues listed in Finding No. 9a by:
 - Conducting a literature review;
 - Conducting a technical review of the Stanislaus County Program and existing locally generated data;
 - Assessing the current local legal authority of Stanislaus County to adequately implement and enforce its program; and
 - Developing a field-ready manual of best practices that include but are not limited to ~~alternate~~ management methods, waste prevention, and waste minimization actions that could further minimize potential water quality impacts at by-product land application sites ~~reduce the salinity and water content, and increase the pH, of the food processing by-products applied to land.~~
 - b. By **1 January 2007**, Stanislaus County shall submit the results of the literature review.
 - c. By **1 April 2007**, Stanislaus County shall submit a review of existing data, including that data collected at ~~Mapes and Dos Rios Ranches~~ County permitted land application sites from the years 2000 through 2006.

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- d. By **1 July 2007**, Stanislaus County shall submit a final report to the Executive Officer with proposed changes to the Stanislaus County Program, including the Best Practices Manual, to ~~fully~~ protect surface and groundwater quality.
- e. By **1 January 2008**, Stanislaus County shall adopt an Ordinance or other legal mechanism that provides for implementation and enforcement of the Program
- f. Stanislaus County shall submit quarterly progress reports suitable for inclusion in the Executive Officer's report section of the Regional Board agenda (due by 30 September 2006, 30 December 2006, and 30 March 2007).
- g. Stanislaus County shall schedule meetings as necessary to ~~appraise~~ apprise the Executive Officer and staff as to the progress and timeline of the literature review and any needed study or studies.

BE IT FURTHER RESOLVED that it is the intent of the Regional Board that the outcome of the literature review and any needed study or studies will support the adoption of an appropriate regulatory mechanism (i.e., a waiver of WDRs or similar instrument) for the land discharge of food processing by-products prior to the spring of 2008.

AND BE IT FURTHER RESOLVED that this Resolution does not create a vested right to discharge waste and the Regional Board may modify or terminate this Resolution at any time. Nothing in this Resolution limits the authority of the Regional Board to enforce CWC Division 7 or other applicable laws.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

PAMELA C. CREEDON, Executive Officer

Related Documents:

- Attachment A: Stanislaus County Food Processing By-Products Use Program, May 2006 ~~February 2005~~

WSW: 9 June 2006 ~~22 May 2006~~ ~~2 May 2006~~