

843  
SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



FROM: Community Health Agency/ Environmental Health      SUBMITTAL DATE: May 13, 2003  
SUBJECT: Report and Recommendations from Class A Biosolids Land Application Committee

**RECOMMENDED MOTION:**

- 1) Receive and file; and
- 2) Direct Staff to complete the internal review and processing of the draft Ordinance and submit for introduction and public hearing.

**BACKGROUND:**

Pursuant to the directive of the Riverside County Board of Supervisors on August 13, 2002, the Class A Biosolids Land Application Committee was established. The Committee brought identified stakeholders representing the Community, Wastewater Treatment Plant Operators, Processors, Farmers, Academics and Government, together in a process to identify or develop reasonable, protective standards for the land application of Class A Sewage Sludge. The intent was to implement a structured review and evaluation process resulting in recommended standards, incorporating industry best practices and a good neighbor policy, to the Board of Supervisors by the spring of 2003.

(Continued)

Gary M. Feldman, M.D.  
Health Officer, Community Health Agency  
Director

GF:GR:DM

**FINANCIAL DATA:**

CURRENT YEAR COST:	\$ 0	ANNUAL COST:	\$ 0
NET COUNTY COST:	\$ 0	IN CURRENT YEAR BUDGET:	\$ 0
		BUDGET ADJUSTMENT FY: 02/03	\$

SOURCE OF FUNDS: N/A

**C.E.O. RECOMMENDATION:**

**APPROVE.**

County Executive Officer Signature

Prev. Agn. ref.      3.6      2/11/2003      Dist.      All      AGENDA NO.

Policy  
 Policy

Consent  
 Consent

Department Recommendation:  
Per Executive Office:

## EXISTING REGULATIONS

Under existing Federal Standards, sewage sludge is categorized by the level of processing to eliminate harmful pathogens:

**Class B Biosolids** – (Roughly the Equivalent of PSRP<sup>1</sup> sludge as previously addressed in Riverside County Ordinance No. 696). This is a sludge product that was processed to reduce pathogenic loads to a specified level far below that of untreated sewage. Specified processing to reduce attractiveness to vectors is also required.

**Class A Biosolids** – This is a sludge product that has received additional processing, usually through composting, heat or chemical treatment, to eliminate 99.9% of the Pathogenic Bacteria remaining in Class B. There are seven general categories of processes identified in the Federal Standards for achieving Class A pathogen reduction, and numerous specific systems or methodologies being used or developed within the categories.

Riverside County Ordinance No. 696, codified as Section 8.128 et. seq. of the Riverside County Code, was enacted in 1991 to regulate the land application of sewage sludge equivalent to Class B Sludge. Due to public testimony regarding health and odor impacts as well as a recommendation by the Health Officer, the Board adopted Ordinance No. 812, which prohibited further applications of Class B Sludge effective November 25, 2001.

In July 2002, the National Research Council of the National Academy of Science completed an 18-month study of EPA regulations (Part 503) and issued a report entitled "Biosolids Applied to Land: Advancing Standards and Practices." The overarching findings of the report concluded that:

"There is no documented scientific evidence that the Part 503 Rule has failed to protect public health. However, additional scientific work is needed to reduce persistent uncertainty about the potential for adverse human health effects from exposure to biosolids."

The adoption of Ordinance No. 812 in 2001 banning Class B applications did not impact or address the land application of Class A Sludge, and currently there are no local standards for the regulation of this activity. Since that time, many sewerage agencies, which had previously shipped Class B Sludge to the County, have initiated activities to evaluate or implement conversions of their facilities to further process the sludge to Class A standards. There is some expectation that this material could be intended for land application, as was Class B. Therefore there is a potential for land application of Class A Sludge in the future in agricultural areas of the County.

## COMMITTEE

The main Committee first met on October 8, 2002, and held seven additional meetings through this process. At that initial meeting the members (Attachment 1) were provided an overview of the current state of Biosolids use in the County and advised of the goal of the Committee and Subcommittees (Attachment 2). In addition to the Committee members, Dr. Marylynn Yates, from the University of California at Riverside, and Jay Witherspoon, from CH2M Hill, were invited to give presentations in their areas of expertise at later meetings.

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<sup>1</sup> Process to Significantly Reduce Pathogens

Staff distributed a "Draft Ordinance to Regulate the Land Application of Class A Sewage Sludge" to serve as a beginning framework for discussion and consideration. This document represented staff efforts, since the prohibition of Class B applications in 2001, to address the enforcement deficiencies recognized in the Class B standards. Ordinance No. 427.3 (manure), approved by the Board in 2001, was also distributed as a possible model for a Class A Ordinance.

Three subcommittees were set up: Producers, Science, and Receivers (farmers), with each expected to provide analysis and data pertinent to the completion of the overall goal. Each of these subcommittees have met on numerous occasions and provided input to the product brought to the Board. While some of the Committee members retained personal positions that either no regulation is needed for Class A Sludge, or all future sludge applications should be banned completely, we did achieve near consensus with regard to the scope and structure of a regulatory process in which the Standards reflect reasonably safe practices, can be enforced and will be adhered to.

Clearly, neither this Agency nor the recently formed Committee was able to perform any of the experimental studies of the practice as recommended by the National Academy of Sciences<sup>2</sup> report that stimulated our current process. We do believe, by our evaluation of the existing standards (Federal, other jurisdiction and/or organizationally recommended) and review of existing research by the Science Subcommittee, that the land application of sewage sludge meeting Class A requirements does not pose a significant health risk. The draft Ordinance (Attachment 4) represents input by the Committee to the Ordinance "framework" initially distributed.

### **Committee Findings**

- The USEPA adopted standards for various processes and uses of sewage sludge which reduces levels of pathogens depending on the pathogen reduction process as part of 40 CFR Part 503 in 1993. Within those standards, sewage sludge that may be land applied is identified as either Class A or Class B by virtue of specified pathogen and vector attraction reduction standards or processes.
- Riverside County Ordinance 696, codified as Section 8.128 et. seq. of the Riverside County Code, was enacted to regulate the land application of sewage sludge equivalent Class B Sludge in Riverside County.
- The adoption of Riverside County Ordinance No. 812, codified as section 8.129 et. seq. of the Riverside County Code, prohibited further applications of Class B Sludge Effective November 25, 2002.
- Agricultural activities using nitrogen sources for fertilization are implicated in excessive and unsafe nitrate levels in groundwater in many areas, including sites within Riverside County.

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<sup>2</sup> Evaluated by this Agency in August 13, 2002 submittal to the Board "Report on July 2002 NAS Study of 40CFR 503 Standards and Implications Related to Land Application of Sewage Sludge in Riverside County."

- **Benefits of Organic Amendments:** Organic Amendments (including Class A Sewage Sludge) production and application to horticultural and agricultural lands provides benefits to the soil and the economy.
- While there is no verifiable evidence of clinical illness or disease related to the use of Class A Sewage Sludge, various forms of the material have, by their noxious nature (odor, dust generating capacity and vector attraction), the potential to impact comfort and well being in the vicinity of their use and warrant some level of regulation.

### **Regulatory Structure of Ordinance**

Unlike the earlier Ordinance regulating Class B Sludge, this Ordinance does not address the same issues as the Federal Regulatory Standards. It is designed to supplement them by addressing quality of life issues that do not appear to have been considered in that document.

As drafted, the Ordinance will not regulate any Sewage Sludge applications for, horticultural, industrial, commercial, residential property development, golf courses, orchards or vineyards, or agricultural activities associated with public schools with a recognized agricultural training program or curriculum.

The Ordinance will establish regulations governing the land application of bulk quantities of Class A Sewage Sludge on commercial farm land that will:

- Identify the role and responsibilities of each entity involved in the land application process:
  - Producer (Sewage plant and other processor)
  - Transporter/ Applicator
  - Receiver (Farmer/land-owner)
- Acknowledge the variability of nuisance potential for the products of different Class A processes, and establish a process to categorize each into a regulatory tier. Material placed in Tier 1 would be virtually innocuous, with material in Tiers 2-4 representing increasing impact potential.
- Establish ranges of criteria and regulatory oversight based on the regulatory Tier (Attachment 3), with Tier 1 having the least amount of regulatory oversight. (The farming representatives on the Committee have indicated that they will only use Tier 1 material due to the additional regulatory burden of the other Tiers and the desire to minimize the impacts to their neighbors.)

### **Task Remaining for Introduction, Adoption and Implementation**

Upon Board adoption of the recommended motion:

1. County Counsel will review the draft Ordinance for proper legal structure and language. We will also ask County Counsel to identify any and all avenues to maximize the available penalties to effectively discourage non-compliance.

2. The Planning Department will review the draft Ordinance for California Environmental Quality Assurance (CEQA) compliance. This process generally includes the preparation of an Environmental Assessment with circulation for public comment.
3. Initial standards for placement of varieties of regulatory tier placement will be developed and approved by the Health Officer. Staff intends to continue working with those members of the Committee and Subcommittees with expertise in this area.

### **Financial**

Continued processing of this Ordinance will entail a nominal fee to the Planning Department for CEQA review. As this is a deposit-based fee, the actual amount is directly dependant on the time required for review. The cost to enforce the provisions of this proposed Ordinance will be recovered through fees established in the Ordinance.

**COMMITTEE ROSTER**

Dr. Feldman, Chairman	Health Officer, Riverside County	
Liz Ostoich	Gresham & Savage	Processor (Synagro)
Kathy Kellogg Johnson	Compost Packager	Processor (Kellogg)
Andy Domenigoni	Farm Bureau	Farming
Richard DeVuyst	Dry Land Farmer	Farming
Rick Bishop	WRCOG	Government
Mike Luker	EMWD	Producer
Dan Parks	CVWD	Producer
Michelle Randall		Citizen
Marc Miller		Citizen
David Ledbetter		Citizen
Dr. Ian Pepper	Unv. Of Az & NAS Panel	Science
Dr. Al Page	UC Riverside	Science
Borre Winckel	Building Industry Association	Development

## COMMITTEE GOAL

Pursuant to a directive by the Riverside County Board of Supervisors on August 13, 2002, the Class A Biosolids Land Application Committee is established. The Committee brings identified stakeholders together in a process to identify or develop reasonable, protective standards for the continued land application of Sewage Sludge.

The Health Officer intends to implement a structured review and evaluation process to recommend standards to the Board of Supervisors by the spring of 2003.

The full Committee will meet monthly, with subcommittees representing generators, receivers, science, government & community established and provided tasks integral to the process. It is expected that each subcommittee will meet once, or hopefully twice, before the second meeting of the whole, and that meeting schedules for the duration of the process be established as soon as possible. Each subcommittee shall elect a Chairperson from its' membership and will be facilitated by Environmental Health staff.

Currently, there are no local standards for the regulation of the land application of Class A Sewage Sludge. Any standards developed must result in significant confidence levels that:

1. The Standards reflect reasonably safe practices, and
2. The Standards can be enforced and will be adhered to.

Given the nature of the issue before the Committee, the only potential for unanimous agreement lies in the establishment of such standards. Absent the identification of such acceptable standards the available recommendations to the Board of Supervisors are limited to either 1) adopt a prohibition or, 2) continue as non-regulated. Either option can be expected to negatively impact one or more of the identified stakeholder groups.

## CHARGE TO THE COMMITTEE

To develop an approach to the use/disposal of Class A Sewage Sludge by either the prohibition of land application for some or all of the products or other acceptable alternatives. Any alternatives shall include:

- 1) Set standards for the application of biosolids, reflecting logic and reasonable criteria to protect the community and the environment. Parameters should at least include:
  - Pathogen levels
  - Heavy metal limitations
  - Organics limitations, including
    - i) Amines,
    - ii) Dioxins,
    - iii) PCBs etc.
  - Agronomic rates
  - Effective criteria for sample collection
- 2) Establish "Good Neighbor" behaviors in the areas of:
  - Transportation
    - i) Leakage
    - ii) Odor
    - iii) Traffic
    - iv) Noise
  - Flies & other vector issues
  - Soil incorporation
  - Climatic conditions
  - Notification
- 3) Establish or identify:
  - Area restrictions, via zoning or land uses or other
  - Site restrictions, including Buffer Zones around application areas
  - Quantity limitations
- 4) Establish Enforcement/Compliance mechanisms that will assure all stakeholders of their protection under the standards.
  - Establish respective roles and responsibilities for all stakeholders involved in this process
  - Establish appropriate fees
- 5) Establish both medical and non- medical complaint processes
  - Collection and evaluation of medical impacts
  - Sludge specific Medical Form development

### Selected Criteria and Regulatory Oversight for Tiers

	Tier 1	Tier 2	Tier 3	Tier 4
Producer pre-registration	Yes	Yes	Yes	Yes
Transporter pre-registration	Yes	Yes	Yes	Yes
Site pre-registration	No	Yes	Yes	Yes
Notification prior to delivery to site	Yes	Yes	Yes	Yes
Distance (buffer) to:				
Potable water well	100 ft	100 ft	100 ft	100 ft
Residence, school business, place of worship or entertainment area	0 ft	500 ft	1000ft	½ mile
Public roads and property lines	50 ft	50 ft	50 ft	50 ft
Incorporation to soil				
Within 1/4 mile of school; before school is back in session	Yes	Yes	Yes	NA
Within 24 hours	No	Yes	Yes	Yes
At sites of less than 20 acres: within 48 hours of delivery	Yes	No	No	No
For sites of 20 acres or more, incorporation shall commence no less than seven (7) days after the first delivery of manure and shall be completed within seven (7) days of the final delivery to the site	Yes	No	No	No
Application amounts limited to Agronomic Rate	Yes	Yes	Yes	Yes
Road spillage clean up by transporter	Yes	Yes	Yes	Yes
Site remediation for substandard loads by generator	Yes	Yes	Yes	Yes

**Draft Ord**

*Draft Class A Sludge Ordinance for Riverside County*

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2 CLASS A SLUDGE  
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23 **8.1xx.010 Purpose and Intent**

24 1. It is the purpose and intent of this Chapter to regulate the land application of bulk  
25 Class A Sewage Sludge in a manner that is consistent with agronomic rates and  
26 protects public health, ground and surface water, soils, and agricultural markets.

27 2. This Chapter shall not regulate the distribution of Class A EQ products for uses  
28 such as horticultural, industrial, commercial or residential property development or  
29 golf courses. This Ordinance is only intended to apply to commercial farming  
30 applications.

31 **8.1xx.020 Definitions**

32 Whenever in this Chapter the following terms are used, they shall have the meanings  
33 respectively ascribed to them in this Section.

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1 A. "**Agronomic Rate**" shall mean Class A Material applications that, in  
2 conjunction with existing plant available nitrogen (PAN) levels, will not exceed  
3 nitrogen fertilizer rates for the crop to be grown as determined by the Riverside  
4 County Agricultural Commissioner and will not result in phytotoxicity  
5 (accumulation of heavy metals and/or nutrients adverse to normal vegetative  
6 growth).

7 B. "**Bulk Material**" shall mean Class A Material that is not sold or given away in a  
8 bag for application to commercial farmland.

9 C. "**Class A Sewage Sludge**" or "**Class A Material**" shall mean the accumulated  
10 matter produced in the treatment of wastewater that has been processed for pathogen  
11 reduction in accordance with Federal 40 CFR Part 503, Section 503.32 (a), one of the  
12 vector attraction reduction standards set forth in 40 CFR Section 503.33, and the  
13 ceiling concentration limits in 40 CFR Section 503.13 Table 1. Class A Material  
14 from each generator, or process and location if multiple processes or locations are  
15 used, shall be placed in a tier level based on its nuisance value as determined by a  
16 Product Review Panel established by the Health Officer for Riverside County.

17 1) "**Tier 1**" shall mean any Bulk Class A Material for which the generator  
18 has demonstrated minimal nuisance (fly attraction and odor) generating  
19 characteristics as determined by the Product Review Panel.

20 2) "**Tier 2**" shall mean any Bulk Class A Material for which the nuisance  
21 (fly attraction and odor) generating characteristics of the material, as  
22 determined by the Product Review Panel, warrant minimal buffer zones.

23 3) "**Tier 3**" shall mean any Bulk Class A Material for which the nuisance  
24 (fly attraction and odor) generating characteristics of the material, as  
25 determined by the Product Review Panel, warrant moderate buffer zones.

26 4) "**Tier 4**" shall mean any Bulk Class A Material for which the nuisance  
27 (fly attraction and odor) generating characteristics of the material, as  
28 determined by the Product Review Panel, warrant maximal buffer zones.  
29 All Class A Materials shall be considered to be Tier 4 Material until such  
30 time as the Product Review Panel may evaluate and slot such material  
31 into another tier.

32 D. "**Class A EQ Material**" shall mean Class A Material meeting the ceiling  
33 concentrations set forth in 40 CFR Section 503.13(b)(1), the pollutant concentration  
34 standards set forth in 40 CFR Section 503.13(b)(3), and one of vector attraction  
35 reduction options set forth in 40 CFR Section 503.33(b)(1)-(8).

36 E. "**Commissioner**" shall mean the Agricultural Commissioner for the County of  
37 Riverside and his or her designee.

38 F. "**County**" shall mean the County of Riverside, State of California.

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1 G. "**Department**" shall mean the Department of Environmental Health of the  
2 County of Riverside.

3 H. "**Director**" shall mean the Director of Environmental Health for the County of  
4 Riverside and his or her designee.

5 I. "**Generator**" shall mean Municipal Wastewater Treatment Facility or Sewage  
6 Sludge Treatment Facility.

7 J. "**Grower**" shall mean the person or entity primarily responsible for planting,  
8 maintaining, and harvesting or allowing the use of crops and/or rangeland for  
9 domestic animal or human use.

10 K. "**Independent Hearing Panel**" shall mean the panel established pursuant to  
11 California Public Resources Code Section 44307 for solid waste facility issues and  
12 consisting of a minimum of three persons.

13 L. "**Land Application**" shall mean the placement of Class A Material within three  
14 (3) feet of the surface of agricultural or marginal land intended to support growth of  
15 rangeland vegetation or crops.

16 M. "**Land Owner**" shall mean any person, firm, business, city, county, district,  
17 special district including a water district, sole proprietorship, partnership, joint  
18 venture, trust, association or corporation whether for profit or non profit that owns  
19 real property within the unincorporated areas of Riverside County.

20 N. "**Site**" shall mean a discrete parcel of land, greater than 2 acres, upon which  
21 Class A Material is to be applied.

22 O. "**Product Review Panel**" shall mean a panel appointed or reappointed by the  
23 County Health Officer on February 1 of each calendar year, composed of six  
24 individuals representing the following groups: 1) Citizen; 2) County Staff; 3) Product  
25 Generator; 4) Transporter or Farmer; 5) Academic, County Extension or Agricultural  
26 Commissioner representative, 6) Processor.

27 P. "**Processor**" shall mean any person, firm or business responsible for  
28 transforming biosolids received from a Generator into Class A Material.

29 Q. "**Transporter**" shall mean any person, company, organization, or other legal  
30 entity engaged, or about to become engaged with the transportation of Class A  
31 Material received from a Generator or Processor for the purpose of land application.

32 **8.1xx.030 Prohibitions**

33 A. No Generator, Processor, Transporter, Grower or Landowner shall engage in any  
34 land application activities that are inconsistent with the standards of this Ordinance,

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1 exceed agronomic rates or are otherwise prohibited by or in violation of any other  
2 Federal, State or Local standard.

3 B. No Generator, Processor, Transporter, Grower or Landowner shall engage in any  
4 land application activities without the prior, unexpired and unrevoked approval of  
5 the Director.

6 C. No person shall deliver bulk Class A Material to any site for the purposes of land  
7 application unless that site has a current and unrevoked registration with the  
8 Department as required by this Ordinance.

9 **8.1xx.040 Exemptions**

10 The following sites shall be exempted from the prohibitions:

11 A. Agricultural sites operated in conjunction with a public school with a recognized  
12 agricultural training program or curriculum.

13 B. A tree or vine farming operation considered active by the Commissioner.

14 **8.1xx.050 Generators, Processors and Transporters**

15 A. Registration: Each Generator, Processor and Transporter shall be registered with  
16 the Department prior to conducting activities regulated under this Ordinance, with  
17 said registration renewed every 5 years with an annual permit fee, using forms  
18 provided by the Department to include:

- 19 1) Name and address of the Generator, Processor or Transporter.
- 20 2) Type of organization such as sole proprietorship, partnership, agency,  
21 municipality, special district, joint venture, lease, corporation, business  
22 trust of company including names and home addresses.
- 23 3) Name of person submitting application, and relationship to generator or  
24 transporter.
- 25 4) Identification (name and phone number of the local contact person).
- 26 5) Additional application requirements for Generators and Processors:
  - 27 (a) List of Facilities from which Class A Material is generated.
  - 28 (b) Method or methods used to achieve Class A level.
  - 29 (c) Any and all documents related to the identification of incomplete  
30 or inadequate processes to achieve the designation class of Class  
31 A Material.
  - 32 (d) Remediation protocols to be used in the event that material not  
33 meeting Class A standards is delivered to a site.

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1           6)    Additional application requirements for Transporter:

- 2                   (a)    A written spill prevention and response program.

3    B. Tier Placement. Class A Material from each Generator and Processors, or process  
4    and location if multiple processes or locations are used, shall be placed in a tier level  
5    based on its nuisance value as determined by a Product Review Panel using protocols  
6    established by the Health Officer for Riverside County.

7    C. Standards of Operation

8           1)    Generator and Processor:

- 9                   (a)    Shall advise the Department within 1 business day of any event  
10                   that may impact the quality of the Class A Material being  
11                   provided for land application.
- 12                   (b)    Shall advise the Department within 1 business day of any notice  
13                   from the governing regional water quality control board or  
14                   USEPA of any violation that may impact the quality of the Class  
15                   A Material being provided for land application.
- 16                   (c)    Shall individually certify each load as meeting the Class A  
17                   standards.
- 18                   (d)    Shall implement the above identified remediation protocol upon  
19                   determination or notification that material not meeting Class A  
20                   Material standards is delivered to a site.
- 21                   (e)    Shall, at a minimum, perform monthly site visits and audit the  
22                   land application practices in use for their Tier 2, 3 and 4 Class A  
23                   Material. The results of the above audit shall be reported to the  
24                   Department biannually using forms provided by the Department  
25                   and shall include any actions taken by the Generator.
- 26                   (f)    Shall demonstrate pathogen destruction through process controls  
27                   including but not limited to alarming, shutdown procedures or  
28                   testing to preclude land application of substandard material.  
29                   Records demonstrating compliance shall be maintained for a  
30                   period of one year from the time of application.
- 31                   (g)    Failure to maintain processes to meet Class A Standards shall  
32                   result in the denial or rescission of the registration.

34           2)    Transporter

- 35                   (a)    Each vehicle shall have clearly visible, on the rear and on each  
36                   side, the identity and telephone number of the Transporter,  
37                   subcontractor or other responsible operator, in a size with letters  
38                   of not less than three (3) inches in height.

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- 1 (b) Vehicles shall be designed and maintained in such a manner as to  
2 prevent leakage of liquids or spilling, blowing or loss of material  
3 during transportation.
- 4 (c) Vehicles shall carry a shovel, broom, fire extinguisher, and first  
5 aid kit.
- 6 (d) The Transporter shall ensure that the Class A Material quality  
7 certification is available for review on the vehicle, and copies  
8 from each load are retained on site until all deliveries are  
9 complete.
- 10 (e) The Transporter shall create and maintain an accurate record for  
11 each load of Class A Material delivered and applied in Riverside  
12 County including, but not limited to, the information listed  
13 below. Such records shall be submitted to the Department within  
14 fifteen (15) days from the end of any reporting month in which  
15 activity occurs, and an annual report within 30 days of the end of  
16 the calendar year:
- 17 (i) Generator (by specific facility),
  - 18 (ii) Date and time picked up,
  - 19 (iii) Date and time delivered to site.
  - 20 (iv) Site identification:
  - 21 (v) Load size; and,
  - 22 (vi) Vehicle(s) and driver(s).
- 23 (f) Vehicle exteriors shall be free of sludge before entering public  
24 roads and in sound mechanical condition. All loads shall be fully  
25 and securely covered. Transporter shall immediately and  
26 completely clean any and all spillage.

27 **8.1xx.060 Tier 1 Standards**

28 **A. Site Notifications**

- 29 1) Sites shall be limited to land reclamation or bonafide agricultural sites.
- 30 2) The Transporter and Grower shall be jointly responsible for notification  
31 of the Department for Sites receiving Tier 1 Material. Such notification  
32 shall be made no later than the last business day prior to deliver of the  
33 material, using forms provided by the Department to include:
- 34 (a) Name, address and phone number of the grower or land owner  
35 with evidence of grower or land owner agreeing to Class A  
36 Material use, right of entry and any other conditions.
  - 37 (b) Riverside County Assessors Parcel Number (APN).
  - 38 (c) A map of the application site.
  - 39 (d) The Generator(s) or Processor(s) from which the Transporter  
40 receives the material.

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1 (e) Amount to be applied.

2 B. Standards of Operation: Grower and Transporter shall be jointly responsible for  
3 ensuring conformity to the following site conditions:

- 4 1) Delivery to land application sites adjacent to residential developments  
5 shall be limited to the hours between 6:00 AM and 8:00 PM unless the  
6 staging area is greater than 500 ft from the nearest dwelling.
- 7 2) Material not meeting Class A Tier 1 Standards shall not be delivered to  
8 the site. The Generator or Processor shall implement substandard load  
9 remediation activities upon notification or receipt of information that  
10 material delivered to the site does not meet all standards as identified  
11 herein.
- 12 3) The transporter shall ensure that the Class A Material quality  
13 certification is available for review on the vehicle.
- 14 4) No application of Tier 1 Material shall exceed the agronomic rate for the  
15 crop as determined by the Commissioner.
- 16 5) Tier 1 Material shall not be applied within 100 feet of a potable water  
17 well.
- 18 6) No Tier 1 Material shall be delivered to a site when climatic conditions  
19 such as wind (greater than 25 mph) or rain will preclude the  
20 incorporation identified above or result in the migration of dust, odors, or  
21 other nuisance factors related to the material to adjacent occupied  
22 buildings (does not apply to homes occupied by the land application site  
23 grower).
- 24 7) Both the Grower and the Transporter shall maintain an accurate record  
25 for each load of Tier 1 Material delivered and applied to each site under  
26 their control including, but not limited to, the information listed below:
- 27 (a) Data for determination of agronomic rate,  
28 (b) Generator(s) or Processor(s),  
29 (c) Dates and amount delivered to use site,  
30 (d) Crops planted and yield.
- 31 8) Upon application, Tier 1 Material shall be promptly incorporated into the  
32 soil by discing or other suitable tillage within the timelines set out below.  
33 Incorporation shall be continuous until completed. Incorporation shall  
34 be thorough to a depth of no less than 6 inches unless otherwise  
35 approved by the Commissioner, including residues in staging areas. Tier  
36 1 Material shall be incorporated when applied:
- 37 (a) Within 1/4 mile of school: before school is back in session.

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- 1 (b) At all other sites of less than 20 acres: within 48 hours of  
2 delivery.  
3 (c) For sites of 20 acres or more, incorporation shall commence no  
4 more than seven (7) days after the first delivery of manure and  
5 shall be completed within seven (7) days of the final delivery to  
6 the site unless otherwise authorized by the Commissioner.

7 **8.1xx.070 Tier 2 Standards**

8 A. Sites shall be limited to land reclamation or bonafide agricultural sites.

9 B. **Registration:** The Landowner, Grower and Transporter shall be jointly  
10 responsible for registration of Sites receiving Tier 2 Material. Sites shall be  
11 registered with the Department prior to conducting activities regulated under this  
12 Ordinance, with said registration renewed on an annual basis, using forms provided  
13 by the Department to include:

- 14 1) Name, address and phone number of both the grower and land owner  
15 with evidence of both grower and land owner agreeing to the application  
16 of the material, right of entry and any other conditions.  
17 2) Site identification to include Riverside County Assessors Parcel Number  
18 (APN).  
19 3) A map of the application site.  
20 4) A tabulation of site information to include:  
21 (a) Net acreage (to nearest 0.1 acre),  
22 (b) Annual application rate for the planned crop.  
23 (c) Proximity to occupied dwellings, property lines, roads and wells.  
24 5) Analysis of agronomic rate to including the accounting of existing soil  
25 nitrogen levels using the concentration of soil nitrate (in ppm) to a depth  
26 of 1 foot.  
27 6) The Generator(s) or Processor(s) from which the Transporter receives  
28 the material.

29 C. Standards of Operation: Transporter and Grower shall be jointly responsible for  
30 ensuring conformity to the following site conditions:

- 31 1) Delivery to land application sites shall be limited to the hours between  
32 6:00 AM and 8:00 PM.  
33 2) Material not meeting Class A Tier 2 Standards shall not be delivered to  
34 the site. The Generator or Processor shall implement substandard load  
35 remediation activities upon notification or receipt of information that

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1 material delivered to the site does not meet all standards as identified  
2 herein.

- 3 3) The Transporter shall ensure that the Class A Material quality  
4 certification is available for review on the vehicle, and copies from each  
5 load are retained on site until all applications are complete.
- 6 4) No application of Tier 2 Material shall exceed the agronomic rate for the  
7 crop as determined by the Commissioner.
- 8 5) Tier 2 Material shall not be applied within 100 feet of a well.
- 9 6) Tier 2 Material shall not be applied within:
- 10 (a) 500 feet from any residence, school, business, place of worship,  
11 entertainment area,
- 12 (b) 50 feet from public roads,
- 13 (c) 50 feet from property lines unless written permission is obtained  
14 from the adjacent landowner.
- 15 7) Upon application, Tier 2 Material shall be promptly incorporated into the  
16 soil by discing or other suitable tillage within the timelines set out below.  
17 Incorporation shall be continuous until completed. Incorporation shall  
18 be thorough to a depth of no less than 6 inches unless otherwise  
19 approved by the Commissioner, including residues in staging areas. Tier  
20 2 Material shall be incorporated when applied:
- 21 (a) Within 1/4 mile of school: before school is back in session.
- 22 (b) At all other sites within: 24 hours of delivery.
- 23 8) No Class A Tier 2 Material shall be delivered to a site when climatic  
24 conditions such as wind (greater than 25 mph) or rain will preclude the  
25 incorporation identified above or result in the migration of dust, odors, or  
26 other nuisance factors related to the material to adjacent occupied  
27 buildings (does not apply to homes occupied by the land application site  
28 grower).
- 29 9) Both the Grower and the Transporter shall maintain an accurate record  
30 for each load of Tier 2 Material delivered and applied to each site under  
31 their control including, but not limited to, the information listed below.
- 32 (a) Data for determination of agronomic rate,
- 33 (b) Generator(s) or Processor(s),
- 34 (c) Dates and amount delivered to use site,
- 35 (d) Crops planted and yield.

36 **8.1xx.080** Tier 3 Standards

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1 A. Sites shall be limited to land reclamation or bonafide agricultural sites.

2 B. Registration: The Transporter and Grower shall be jointly responsible for  
3 registration of sites receiving Tier 3 Material. Sites shall be registered with the  
4 Department prior to conducting activities regulated under this Ordinance, with said  
5 registration renewed every five years with an annual permit fee, using forms  
6 provided by the Department to include:

- 7 1) Name, address and phone number of both the grower and land owner  
8 with evidence of both grower and land owner agreeing to the application  
9 of the material, right of entry and any other conditions,
- 10 2) Site identification to include Riverside County Assessors Parcel Number  
11 (APN),
- 12 3) A map of the application site,
- 13 4) A tabulation of site information to include:
  - 14 (a) Net acreage (to nearest 0.1 acre),
  - 15 (b) Annual application rate for the planned crop.
  - 16 (c) Proximity to occupied dwellings, property lines, roads and wells.
- 17 5) Analysis of agronomic rate to including the accounting of existing soil  
18 nitrogen levels using the concentration of soil nitrate (in ppm) to a depth  
19 of 1 foot,
- 20 6) The generator(s) or processor(s) from which the transporter receives the  
21 material.

22 C. Standards of Operation: Transporter and Grower shall be jointly responsible for  
23 ensuring conformity to the following site conditions:

- 24 1) Delivery to land application sites shall be limited to the hours between  
25 6:00 AM and 8:00 PM.
- 26 2) Material not meeting Class A Tier 3 Standards shall not be delivered to  
27 the site. The Generator or Processor shall implement substandard load  
28 remediation activities upon notification or receipt of information that  
29 material delivered to the site does not meet all standards as identified  
30 herein.
- 31 3) The Transporter shall ensure that the Class A Material quality  
32 certification is available for review on the vehicle, and copies from each  
33 load are retained on site until all applications are complete.
- 34 4) No application of Class A Tier 3 Material shall exceed the agronomic  
35 rate for the crop as determined by the Commissioner.
- 36 5) Tier 3 Material shall not be applied within 100 feet of a well.

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- 1           6) Tier 3 Material shall not be applied within:
- 2           (a) 1000 feet from any residence, school, business, place of worship,
- 3           entertainment area,
- 4           (b) 50 feet from public roads,
- 5           (c) 50 feet from property lines unless written permission is obtained
- 6           from the adjacent landowner.
- 7           7) Upon application, Tier 3 Material shall be promptly incorporated into the
- 8           soil by discing or other suitable tillage within the timelines set out below.
- 9           Incorporation shall be continuous until completed. Incorporation shall
- 10          be thorough to a depth of no less than 6 inches unless otherwise
- 11          approved by the Commissioner, including residues in staging areas. Tier
- 12          3 Material shall be incorporated when applied:
- 13          (a) Within 1/4 mile of school: before school is back in session,
- 14          (b) At all other sites within: 24 hours of delivery.
- 15          8) No Tier 3 Material shall be delivered to a site when climatic conditions
- 16          such as wind (greater than 25 mph) or rain will preclude the
- 17          incorporation identified above or result in the migration of dust, odors, or
- 18          other nuisance factors related to the material to adjacent occupied
- 19          buildings (does not apply to homes occupied by the land application site
- 20          grower).
- 21          9) Both the Transporter and the Grower shall maintain an accurate record
- 22          for each load of Tier 3 Material delivered and applied to each site under
- 23          their control including, but not limited to, the information listed below.
- 24          (a) Data for determination of agronomic rate,
- 25          (b) Generator(s) or Processors,
- 26          (c) Dates and amount delivered to use site,
- 27          (d) Crops planted and yield.

28 **8.1xx.090 Tier 4 Standards**

29 A. Sites shall be limited to land reclamation or bonafide agricultural sites.

30 B. Registration: The Transporter and Grower shall be jointly responsible for

31 registration of sites receiving Tier 4 Material. Sites shall be registered with the

32 Department prior to conducting activities regulated under this Ordinance, with said

33 registration renewed on an annual basis, using forms provided by the Department to

34 include:

- 35 1) Name, address and phone number of both the grower and land owner
- 36 with evidence of grower and land owner agreeing to the application of
- 37 the material, right of entry and any other conditions.

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- 1) 2) Site identification to include Riverside County Assessors Parcel Number (APN),
- 2) 3) A map of the application site,
- 3) 4) A tabulation of site information to include:
  - 4) (a) Net acreage (to nearest 0.1 acre),
  - 5) (b) Annual application rate for the planned crop,
  - 6) (c) Proximity to occupied dwellings, property lines, roads and wells.
- 4) 5) Analysis of agronomic rate to including the accounting of existing soil nitrogen levels using the concentration of soil nitrate (in ppm) to a depth of 1 foot.
- 5) 6) The generator(s) or processor(s) from which the transporter receives the material.

6) C. Standards of Operation: Transporter and Grower shall be jointly responsible for ensuring conformity to the following site conditions.

- 1) 1) Delivery to land application sites shall be limited to the hours between 6:00 AM and 8:00 PM.
- 2) 2) Material not meeting Class A Tier 4 Material Standards shall not be delivered to the site. The Generator or Processor shall implement substandard load remediation activities upon notification or receipt of information that material delivered to the site does not meet all standards as identified herein
- 3) 3) The transporter shall ensure that the Class A Material quality certification is available for review on the vehicle, and copies from each load are retained on site until all applications are complete.
- 4) 4) No application of Tier 4 Material shall exceed the agronomic rate for the crop as determined by the Commissioner.
- 5) 5) Tier 4 Material shall not be applied within 100 feet of a well.
- 6) 6) Tier 4 Material shall not be applied within:
  - 7) (a) ½ mile from any residence, school, business, place of worship, entertainment area,
  - 8) (b) 50 feet from public roads,
  - 9) (c) 50 feet from property lines unless written permission is obtained from the adjacent landowner.
- 7) 7) Upon application, Tier 4 Material shall be incorporated into the soil by discing or other suitable tillage within 24 hours of delivery. Incorporation shall be continuous until completed. Incorporation shall

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1 be thorough to a depth of no less than 6 inches unless otherwise  
2 approved by the Commissioner, including residues in staging areas.

3 8) No Tier 4 Material shall be delivered to a site when climatic conditions  
4 such as wind (greater than 25 mph) or rain will preclude the  
5 incorporation identified above or result in the migration of dust, odors, or  
6 other nuisance factors related to the material to adjacent occupied  
7 buildings (does not apply to homes occupied by the land application site  
8 grower).

9 9) Both the Grower and the Landowner shall maintain an accurate record  
10 for each load of Tier 4 Material delivered and applied to each site under  
11 their control including, but not limited to, the information listed below:

- 12 (a) Data for determination of agronomic rate,  
13 (b) Generator(s) or Processors,  
14 (c) Dates and amount delivered to use site,  
15 (d) Crops planted and yield.

16 10) Action on Registrations

17 A. Applicants shall be notified of incomplete or inaccurate registrations within ten  
18 (10) business days after the date of the filing of the Registration. The applicant may  
19 make the proper corrections and resubmit the corrected Registration. The applicant  
20 may make the necessary corrections and/or additions and resubmit the Registration  
21 within 30 days of notification.

22 B. All complete and accurate Registrations shall be approved or denied, in whole or  
23 in part, within fifteen (15) business days after the date of filing or shall be deemed  
24 approved. If a Registration is denied, in whole or in part, the applicant may amend  
25 the Registration and resubmit the amended Registration or the Registration will be  
26 considered invalid.

27 C. Denial of Registration may be for one or more of the following causes, or for  
28 other reasons as specified by the Director:

- 29 1) Lack of responsibility as shown by past work.  
30 2) Inadequate, incomplete, or inaccurate Registration information  
31 submitted.  
32 3) The plan proposes an application that is not environmentally sound.

33 Written notice of the denial of a Registration shall be given by personal delivery  
34 or by mailing by certified mail to the applicant at the address on file with the  
35 Department.

36 D. Approved Registrations shall be valid for a period of 5 years, subject to annual  
37 renewal.

1 E. The Director may rescind a Registration whenever the registered individual has  
2 violated a provision of this Ordinance or State rules or regulations, discharge order  
3 of the Water Quality Control Board, or is in noncompliance with a resolution of the  
4 Board of Supervisors. In such instance, a written notice to this effect shall first be  
5 delivered in person or by certified mail to the business address of the person  
6 appearing on the Registration. The written notice shall state the grounds for the  
7 proposed rescission.

8 F. The applicant may appeal such proposed denial or rescission by the Director by  
9 filing a written request for a hearing before the Independent Hearing Panel not more  
10 than fifteen (15) calendar days after notice of the proposed rescission has been given.  
11 Upon receipt of a written request for a hearing, the Panel shall set the matter for  
12 public hearing on a date not more than sixty (60) calendar days following receipt of  
13 such written request, and shall give the applicant and the Panel at least thirty (30)  
14 calendar days written notice of the time, date, and place of the hearing. The hearing  
15 panel shall issue its written decision and findings on the appeal within thirty (30)  
16 calendar days after the close of the hearing. Such decision will be final. Where the  
17 approval is rescinded, the person shall terminate operations forthwith as determined  
18 by the Panel.

19 **8.1xx.0100 Fees**

20 A. A deposit in the amount listed below shall be made to the Department for the  
21 review of each Registration of a Generator, Processor, Transporter, or Site. Fees  
22 collected in excess of the actual cost of providing the review shall be refunded.  
23 Registrations whose review requires a cost to the Department beyond the initial  
24 deposit shall require an additional deposit.

- 25 1) Generator or Processor: \$500.00.  
26 2) Transporter: \$250.00  
27 3) Site: \$100.00  
28

29 B. Annual Renewal of Registration for Generator, Processor or Transporter: \$100.

30 C. The Annual Registration for each Tier 2, Tier 3 or Tier 4 application site shall  
31 also include an inspection fee of \$650 for pre-application, application and post-  
32 application site inspection.

33 D. A deposit (fee?) of \$\_\_\_\_\_ shall be paid to the Commissioner for the review and  
34 evaluation of the agronomic rate for each registration at each Tier 1, Tier 2, or Tier 3  
35 site.

36 E. These fees shall be incorporated into Riverside County Ordinance No. 640.  
37

1 **8.1xx.0110** Right of Entry

2 A. The Grower, or Land Owner shall agree, as a requirement of the approval, to  
3 authorize the Director at reasonable times and upon presentation of credentials to:

- 4 1) Have access to and copy any records required to be kept under the terms  
5 and conditions of this approval,
- 6 2) Inspect any monitoring equipment or observe any monitoring method  
7 required in the approval,
- 8 3) Inspect any collection, transport vehicles, treatment, pollution  
9 management, or control facilities required under the approval,
- 10 4) Enter any site where Class A Material is proposed to be used or has been  
11 used or stored and sample any ground or surface waters, soils,  
12 vegetation, Class A Material or other materials on the site; and,
- 13 5) Obtain any photographic documentation or evidence.

14 **8.1xx.0120** Enforcement

15  
16 It shall be the duty of the Director to enforce the provisions of this Ordinance.  
17

18 **8.1xx.0130** Responsibility

19 The Generator, Processor, Transporter, Grower, Land Owner and any person or persons  
20 leasing the site shall be jointly and severally responsible for compliance with this  
21 Ordinance.

22 **8.1xx.0140** Violations – Penalties

23 Violations by any person, firm, partnership, association, agency, municipality, special  
24 district or corporation, whether having obtained approval or not, of any of the provisions  
25 of this ordinance, constitutes an infraction or misdemeanor as hereinafter specified.  
26 Upon conviction thereof, the person or entity shall be subject to a fine of \$100.00 for the  
27 first offense; \$200.00 for the second violation within a one (1) year period; and \$300.00  
28 for each additional violation within the same one (1) year period. Fourth and additional  
29 violations within a one-year period shall each constitute a misdemeanor and shall be  
30 punishable by a fine not to exceed one thousand dollars (\$1,000.00), or six (6) months in  
31 jail, or both. Notwithstanding the above, a first or subsequent offense may be charged and  
32 prosecuted as a misdemeanor. Payment of any penalty provided herein shall not relieve a  
33 person, as defined, of the responsibility of correcting the conditions considered as a  
34 separate and distinctive offense.

35 **8.1xx.0150** Violations – Public Nuisance

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1 In addition, any violation of this Ordinance is hereby deemed to be a public nuisance,  
2 and may be abated, and/or enjoined by the Director, irrespective of any other remedy  
3 hereinabove provided.

4 **8.1xx.0160 Severability**

5 If any clause, provision, sentence, or paragraph of this Ordinance, or the application  
6 thereof, is deemed to be invalid as to any person, entity, establishment, or circumstance,  
7 such invalidity shall not effect the other provisions of this Ordinance that shall still  
8 remain in effect, and to its end, it is hereby declared that the provisions of this Ordinance  
9 are severable.

10 **8.1xx.0170 Effective Date**

11 This Ordinance shall take effect thirty (30) days after the date of adoption.  
12



# - MEMORANDUM

RIVERSIDE COUNTY EXECUTIVE OFFICE

Larry Parrish  
County Executive Officer

May 7, 2003

**TO:** Nancy Romero  
Clerk of the Board

**FROM:** Ken Mohr, Asst. CEO

**RE:** **CONTINUANCE**

---

Please continue the following item for one week:

Community Health Agency/Environmental Health: Report on National Academy of Science Study of Rel. to Land Application of Sewage Sludge – Riverside County (3.6 – 2/11/03).

03 MAY -8 AM 8:22

MINUTES OF THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



**3.6**

On motion of Supervisor Ashley, seconded by Supervisor Venable and duly carried by unanimous vote, IT WAS ORDERED that Community Health Agency's Report on July 2002 National Academy of Science Study of 40CFR 503 Standards and Implications Related to Land Application of Sewage in Riverside County, is continued to Tuesday, May 13, 2003.

\_\_\_\_\_

I hereby certify that the foregoing is a full true, and correct copy of an order made and entered on  
\_\_\_\_\_ February 11, 2003 \_\_\_\_\_ of Supervisors Minutes.

WITNESS my hand and the seal of the Board of Supervisors

Dated: February 11, 2003  
Nancy Romero, Clerk to the Board of Supervisors, in  
and for the County of Riverside, State of California.

(seal)

By *Nancy Romero* Deputy

AGENDA NO.

3.6

xc: ~~CHA, COB~~