



# Tri-TAC

# SCAP

SOUTHERN CALIFORNIA ALLIANCE OF  
PUBLICLY OWNED TREATMENT WORKS

Todd Thompson  
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September 10, 1999

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Todd Thompson  
State Water Resources Control Board  
901 P Street  
Sacramento, CA 95814

**SUBJECT:** Comments on the Draft Statewide General Waste Discharge Requirements and the Draft Environmental Impact Report

Dear Mr. Thompson,

The California Association of Sanitation Agencies (CASA), Tri-TAC, and the Southern California Alliance of Publicly Owned Treatment Works (SCAP), (collectively, the Associations) are California-based associations of public wastewater collection and treatment agencies. CASA represents 87 member agencies, both large and small, that collectively serve some 15 million Californians. Tri-TAC is a technical advisory committee representing California municipal wastewater management agencies that together treat and reclaim more than two billion gallons of wastewater each day. Tri-TAC is sponsored by the League of Cities, CASA, and the California Water Environment Association. SCAP is a non-profit professional organization representing 52 member agencies in southern California. The Associations' mission is to work with regional, state, and federal regulatory agencies on matters relating to publicly-owned treatment works (POTWs). Their goal is to improve the overall effectiveness of environmental programs and ensure that regulations affecting POTWs in California are reasonable and in the public's best interest.

The Associations appreciate this opportunity to review and comment on the Statewide Biosolids General Order and its associated Draft Environmental Impact Report (EIR). This letter is being sent to demonstrate the Associations' support for the State Water Resources Control Board's (SWRCB) effort to develop a reasonable, science-based General Order that will allow for the continued land application of biosolids in an environmentally safe manner without overly burdensome regulatory requirements.

Biosolids reuse has been shown to be a positive environmental force that is strongly encouraged by the USEPA and environmental groups that look at the whole environmental picture. It is the only fertilizer/soil amendment application process that requires agronomic rates of nitrogen application to prevent groundwater nitrate contamination - one of the major water quality issues in California. Biosolids reuse reduces the waste of organic matter and rapid filling of our landfills. The SWRCB should continue to support responsible biosolids reuse with science-based efforts such as the General Order and EIR.

49-1  
(cont)

The Associations agree strongly with the California Environmental Quality Act (CEQA), which states that "[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The Associations strongly believe that there is no substantial evidence, in light of the whole record, that biosolids land application will have a significant adverse effect on the environment. The Associations believe that the Final EIR should conclude that the opponent's concerns related to biosolids land application are based on distorted/inaccurate public perception and not scientific facts.

49-2

According to CEQA, the SWRCB's regulatory requirements in the General Order must be based on substantial evidence and not on negative public perception of biosolids recycling. Thus, all references to public perception concerns should be deleted from the Draft General Order. The SWRCB should refrain from imposing requirements without a scientific basis except where science may not apply and best professional judgment would be appropriate. For instance, best professional judgment may be appropriate for establishing requirements related to nuisance prevention, such as buffer zones and housekeeping requirements. Any subjective requirements should also be avoided.

49-3

The Associations continue to recommend that the SWRCB limit the applicability of the General Order to only Class A and Class B biosolids, and adopt a waiver process for Exceptional Quality (EQ) biosolids similar to that adopted by the Central Valley Regional Water Quality Control Board. As currently written, the Draft General Order will subject the use of biosolids compost and other EQ biosolids "products" to this permit, potentially resulting in a marketing disadvantage for those high quality products. Such an economic disadvantage may ultimately thwart efforts to create and reuse higher quality biosolids. If the SWRCB intends to maintain this overly inclusive approach, the potential environmental impact of increased regulation of EQ biosolids needs to be studied as a part of the EIR scoping process.

49-4

49-1

Associations' Comments on the 6/99

STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER  
NO. XX-XXX-DWQ

The Associations, on behalf of their member agencies, respectfully submit the attached comments on the Draft General Order and the Draft EIR for your consideration during the development of the General Order and Final EIR. Should you have any questions, please contact Layne Baroldi at (714) 593-7456.

GENERAL WASTE DISCHARGE REQUIREMENTS FOR THE DISCHARGE  
OF BIOSOLIDS TO LAND FOR USE AS A SOIL AMENDMENT IN  
AGRICULTURAL, SILVICULTURAL, HORTICULTURAL, AND LAND  
RECLAMATION ACTIVITIES (GENERAL ORDER)

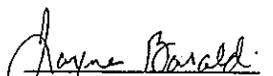
General Comments on the SWRCB General Order (Appendix A)

The 6/99 version of the State Water Resources Control Board (SWRCB) GO for land application of biosolids has been developed as a basis for a statewide EIR. The EIR is required because of a SWRCB finding that the negative declarations prepared by the Central Valley and Lahontan RWQCBs for their General Orders and Exceptional Quality (EQ) Waiver were not adequate. A court upheld this finding. The whole EIR process will be subject to close public scrutiny. Therefore, the SWRCB should refrain from using requirements without a scientific basis (e.g., regulation of EQ biosolids because of adverse public perception) except where science may not apply and best professional judgement would, such as nuisance prevention (e.g., buffers, housekeeping, etc. for odor control).

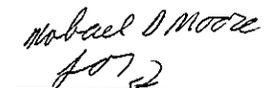
The SWRCB draft GO regulates Class B biosolids and Class A biosolids which are not EQ, and certain EQ biosolids because "... public acceptance to large scale uses has indicated the need for oversight at this time, regardless of the actual threat to water quality...". The criteria used to determine which EQ biosolids applications would be permitted and which would not be permitted appears arbitrarily based on biosolids content of the material, loading rate, and area of application.

Application of biosolids should not be based on perception. Further, it seems appropriate that the SWRCB should develop regulatory guidelines that parallel the baseline that was initially posed to the court (i.e., a GO for non-EQ biosolids and an EQ Waiver) and allow the CEQA process to determine whether EQ biosolids require additional regulation. The Associations recommend that the GO be restricted only to non-EQ biosolids. Otherwise, all use of compost and other "products" will be subject to this permit, which will result in a marketing disadvantage for these products and may ultimately thwart efforts to reuse higher quality biosolids.

The Associations believe that the implementation of any or all of the following comments and recommendations would not change the GO sufficiently to require a recirculation of a Draft EIR.

  
Layne T. Baroldi  
CASA Land Subcommittee  
Chair

  
Michael D. Moore  
Tri-TAC Land Committee  
Co-Chair

  
Ann Briggs  
SCAP Biosolids Committee  
Co-Chair

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- c: James M. Stubchaer, SWRCB Board Chair
- Mary Jane Forster, SWRCB Board Member
- John W. Brown, SWRCB Board Member
- Arthur G. Baggett, Jr., SWRCB Board Member
- Michael D. Rushton, Jones and Stokes
- Michael F. Dillon, CASA Executive Director
- Steven Majoewsky, CASA President
- Phil Bobel, Tri-TAC Chair
- Michael D. Moore, Tri-TAC Land Committee Co-Chair
- Robert Gillette, Tri-TAC Land Committee Co-Chair
- Layne T. Baroldi, CASA Land Committee Chair
- Ann Briggs, SCAP Biosolids Committee Co-Chair
- Mike Sullivan, SCAP Biosolids Committee Co-Chair

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Specific Comments on the SWRCB General Order (Appendix A)

Page 1, Item 1. b.:

"All Exceptional Quality (EQ) biosolids-derived mixtures consisting of more than or equal to 50 percent biosolids (dry weight) applied at more than 10 dry tons per acre per year *for use as a soil amendment* to continuous fields...." This phrase is missing from 1b and included in 1c. Exceptional Quality (EQ) biosolids-derived mixtures consisting of more than or equal to 50 percent biosolids (dry weight) applied at more than 10 dry tons per acre per year is also used as a soil amendment.

49-7

Page 2, Item 3. a. reads:

"Agriculture: The practice, science, or art of using the soil for the production of crops or raising livestock for man's use."

The Associations recommend the following revision: "Agriculture: The practice, science, or art of using the soil for the production of crops and/or raising livestock for man's human use." Agriculture is not limited to just crop production or livestock. "Man's" use may be intended to be all-inclusive, but "human" is all-inclusive.

49-8

Page 2, Item 3. h. reads:

"Class B Biosolids: Biosolids meeting the pathogen reduction standards specified in 40 CFR 503.32(b)."

The Associations recommend the following revision: "Class B Biosolids: Biosolids meeting the pathogen and vector reduction standards and meeting pollution concentration limits as specified in 40 CFR 503.

49-9

Class B biosolids are defined by compliance with three requirements, pathogen and vector reduction standards and pollution concentrations. Without compliance with all three requirements, the material does not achieve Class B biosolids status.

Page 3, Items 3. n. and q. reads:

"High Potential for Public Exposure Areas: Land located within one half mile of a developed border of a populated area." *and* "Low Potential for Public Exposure Areas: Land not located within one half mile of a developed border of a populated area."

49-10

The terms "developed border" and "populated area" are vague and need further definition. "High Potential for Public Exposure Areas" is used in the following site restriction requirement found in the General Order, on page 16, B, Discharge Specifications 7. b.:

"After an application of biosolids in any field, the discharger shall ensure the following:

(2) For at least 12 months:

a. Public access to the site is restricted for sites with a high potential for public exposure;"

This use of the definition either confuses a high exposure area with a buffer area or fails to realize that areas with potential to be frequented by the public can be more than one half mile from a populated area and, conversely, areas within one half mile of populated areas may not be frequented by the public. Recommend revising the definition as follows:

49-11

"High Potential for Public Exposure Areas: ~~Land located within one half mile of a developed border of a populated area.~~ Land and/or facilities that are expected to be frequented by public such as a park, school, etc."

Page 5, Findings, Item 3. ag.:

Short-term storage: Biosolids storage sites used a temporary holding facility for less than *or equal* to 7 days. The definition of longer-term storage states for more than 7 days so short-term storage should include 7 days.

49-12

Page 5, Item 3. ak. reads:

"Tailwater: Excess water discharged to surface water bodies resulting from crop irrigation."

The Associations recommend the following revision: "Tailwater: Excess water ~~discharged to surface water bodies~~ resulting from crop irrigation."

49-13

Some farms have tailwater systems that return the water to the field; thus no water is discharged to surface water bodies.

Page 8, Item 10.:

"The National Research Council established a committee to review the methods and procedures used by the USEPA while forming the basis of the 40 CFR 503. The National Research Council's members are drawn from the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine. Committee members included university professors from the schools of law, science, and agriculture; a state health official; a food industry professional; a professional from a sanitation agency; and a professional consultant. After a three-year study (starting in 1993), the committee made some recommendations for improvement but also stated: 'Established numerical limits on concentration levels of pollutants added to cropland by sludge are adequate to assure the safety of crops produced for human consumption.'

49-14

As a result of the peer review, monitoring for organic chemicals and using fecal coliform testing [excluding salmonella testing] as a parameter for determining Class A pathogen reductions is included in this General Order."

First, there is no National Research Council (NRC) committee recommendation to monitor biosolids for organic chemicals. The recommendation is that EPA, when it conducts the second National Sewage Sludge Study, should strive to improve the integrity of the data by using more consistent sampling and data-reporting methods in order to show whether or not toxic organic compounds are present in biosolids at concentrations too low to pose human/animal health and environmental risks.

Next, the NRC recommended the use of the fecal coliform test in place of the Salmonella test, to deal with acceptable product quality. While the SWRCB may impose this restriction on non-compost Class A biosolids, it is outside the SWRCB's jurisdiction with respect to compost quality. Compost quality is regulated under the authority of the California Integrated Water Management Board (CIWMB) through the composting regulations in Title 14, Chapter 3.1. The Associations recommend that changes to product quality be uniformly instituted there.

**Page 9, Item 15. reads:**

"This General Order shall primarily apply to the land owner of sites using biosolids, but may also include, as determined by those involved in the operations, the individuals, companies, or municipalities transporting and placing the biosolids (Class A or Class B) and the land lessee in conjunction with the landowner. ..."

It is not clear why the GO will "primarily apply to the landowner" since, in many instances, the landowner does not directly manage the land application activities. The landowner that is not the applier has chosen to receive an agricultural product and has contracted with the applier to provide the product. It is recommended that the GO apply primarily to the applier and that the GO contain requirements for the land owner and lessee to certify that they agree to use the material and that they understand and agree to comply with all site restrictions required by regulation. The *Notification of Site Restrictions* form will accomplish this. Also, it is not clear what is meant by the language "as determined by those involved in the operations".

The Associations recommends to revise, as follows: "This General Order shall primarily apply to the land owner of sites using biosolids, but may also include, as determined by those involved in the operations, the individuals, companies, or municipalities transporting and engaged in the

49-14  
(cont)

49-15

placement of placing the biosolids (Class A or Class B) on land for use as a soil amendment (Applier). Such Applier is required to inform and obtain certifications as appropriate from other parties including generators, transporters, landowners and land lessees to satisfy all requirements of this Order and the land lessee in conjunction with the landowner. ..."

49-15  
(cont)

**Page 13, Prohibitions, Item A. 4.:**

Please state definitively whether municipalities are exempt from the Safe Water Drinking Water and Toxic Enforcement Act. Explain how this Act applies to municipalities who generate biosolids.

49-16

**Page 14, Item 7. reads:**

"Surface water runoff the permitted site resulting from irrigation of sites to which biosolids has been applied is prohibited for 30 days after application of biosolids if vegetation in the application area and along the path of runoff does not provide 33 feet of unmowed grass or similar vegetation in the application area and along the path of runoff to prevent the movement of biosolids from the application site."

49-17

The Associations recommend the following revision: "From the permitted site, irrigation water runoff shall be prohibited for 30 days after application of biosolids ~~if vegetation in the application~~ the applied area does not provide a setback of 33 feet of unmowed grass or similar vegetation to prevent the movement of biosolids from the application site."

The wording on the first statement was difficult to follow, and the suggestion makes the statement more concise.

**Page 14, Item 9. reads:**

"Application of biosolids at rates in excess of the nitrogen requirements of the vegetation may be allowed for soil reclamation projects... A report prepared by a Certified Agronomist, Registered Agricultural Engineer or Registered Civil Engineer providing this demonstration..."

49-18

The Associations recommend the following revision: "Application of biosolids at rates in excess of the nitrogen requirements of the vegetation may be allowed for soil reclamation projects... A report prepared by a Certified Soil Scientist, Certified Agronomist, Registered Agricultural Engineer or Registered Civil Engineer providing this demonstration..." Again, ARCPACS sets the standards for professional certifications for agronomists and soil scientists alike. Soil scientists are qualified to determine the ecological implications of a recommended agronomic rate.

Page 14, Item 12. table:

Ceiling concentration (mg/kg dry weight) levels are such that the Copper ceiling is 2,500 mg/kg and the lead ceiling is 350 mg/kg. The Associations recommend adjusting the copper and lead ceiling rates to the scientifically based limits set forth within 40 CFR 503. Copper should then be 4,300 mg/kg and lead 840 mg/kg on a dry-weight basis.

49-19

of either a *Salmonella* or fecal coliform limit. It is recommended that the SWRCB exempts compost from this regulation or petition the CIWMB to change the limit for all composts. If the SWRCB chooses to pursue the regulation of pathogens in biosolids, the Associations recommend including provisions in the GO that will allow for the inclusion/substitution of acceptable Class A pathogen testing methods and standards (e.g., a revised *Salmonella* test method upon adoption by the U.S. EPA, and approval of the SWRCB).

49-22 (cont)

Page 15, Item A. 14.:

"Any visible airborne particulates leaving the application site during biosolids applications or during incorporation at the permitted site is prohibited."

Such a requirement is an unreasonable burden on sites using biosolids as a part of the normal farming practices. Dust migration off-site is normal in any farming practice. The act of land applying biosolids and tilling fields creates dust that may migrate off site. No such requirement is placed upon sites using other nutrient sources, such as manures. Biosolids particulates are extremely unlikely to leave the site with normal dust generated during agricultural practices due to the moisture content in biosolids (typically between 70% to 80% water when applied and tilled shortly thereafter). The SWRCB's mission "to preserve and enhance the quality of California's water resources and ensure their proper allocation and efficient use for the benefit of present and future generations" is not furthered by this requirement. Nuisance laws and Air Pollution Control District rules provide adequate regulation.

49-20

Page 15, Item B. 4.:

USEPA's 40 CFR 503 requirement for the tracking of metals based on cumulative loading limits (Table 2) is misapplied here. Part 503 does not require metals to be tracked for high quality biosolids (i.e., biosolids with metals concentrations less than Part 503 Table 3 concentrations). A scientifically derived risk-based rule should not be applied in a subjective manner. For example, including background metals when USEPA took into consideration existing background soils metals when developing the cumulative loading limits. USEPA's scientific basis for the cumulative loadings were to be attributed solely to biosolids additions, not background soils. Such inclusion of background soil metals by the SWRCB adds excessive regulation. Also, the molybdenum cumulative loading limit should be removed from the General Order due to the court ruling deleting this limit from the federal regulation.

49-23

The Associations recommend that the SWRCB use Tables 2 and 3 in the establishment of pollutant limits, per Part 503, and let the Final Environmental Impact Report determine whether a need exists for this General Order to become more stringent. What scientific data does the SWRCB have to support this requirement of including background metals in the cumulative loading calculations?

Page 15, Item A. 15.:

"The application of biosolids in areas where biosolids are subject to erosion or washout offsite is prohibited."

Please define the criteria for determining whether a site is subject to erosion or washout. Specify which government agency establishes such criteria. Specify provisions for flood mitigation measures allowed. Sites with adequate mitigation measures should be allowed to receive biosolids. To clarify, the Associations suggest changing this to: "The erosion of sites receiving biosolids, or biosolids being washed offsite is prohibited."

49-21

Page 15, Item B. 4. Table:

Cumulative loadings (kg/ha) levels are such that the molybdenum level is 18 kg/ha. The Associations recommend adjusting the molybdenum cumulative loading rates to the scientifically based limits within 40 CFR Part 503. Molybdenum should be eliminated from the table.

49-24

Page 15, Item B. 1.:

"All biosolids subject to this General Order shall comply with the applicable pathogen reduction standards listed in 40 CFR 503.32. In addition to those standards, all biosolids meeting Class A standards shall not have a maximum fecal coliform concentration greater than 1,000 MPN per gram of biosolids."

49-22

Page 15, Item 6. reads:

"If biosolids are applied to ground surfaces having a slope greater than ten percent, a report, including an erosion control plan, shall be prepared by a Certified Agronomist, Registered Agricultural Engineer..."

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The Associations recommend the following revision: "If biosolids are applied to ground surfaces having a slope greater than ten percent, a report, including an erosion control plan, shall be prepared by a Certified Agronomist, *Certified Soil Scientist*, Registered Agricultural Engineer..."

<p>Again, ARCPACS sets the standards for professional certifications for agronomists and soil scientists alike. Soil scientists are qualified to determine the ecological implications of a recommended agronomic rate in any environment. Erosion control is a critical part of the soil science curriculum.</p>	<p>↑ 49-25</p>	<p>The Associations recommend that this requirement be eliminated. The GO requires a minimum setback distance from adjacent property owners. The requirements of the GO are such that activities on the biosolids applied site will not impact the adjacent properties.</p>	<p>↑ 49-29 (cont)</p>
<p><b>Page 16, Item 7. b. (1)(c):</b> Animals are not grazed for at least 30 days after application. Based upon the mitigation measures 4-2 and 5-2, this time frame will be changed to 90 days with some conditions for 60 days if temperature requirements are met. Provide the scientific basis for changing the grazing times. Comments in Chapter 4 and 5 support the risk assessment provided in 40 CFR 503 that indicates little potential for pathogens to be transmitted to animals if grazed on sites applied with biosolids.</p>	<p>49-26</p>	<p><b>Page 20, Item 7.:</b> The discharger shall be responsible for informing all biosolids transporters and growers using the site of the conditions contained in this GO. Specify who "grower" in this statement refers to. A definition for grower should be included in the Finding section.</p>	<p>49-30</p>
<p><b>Page 17, Item 8. reads:</b> (b) 500 feet from domestic supply wells, (f) 10 feet from agricultural buildings</p> <p>The Associations recommend: (b) 200 feet from domestic supply wells, (f) Omit</p>	<p>49-27</p>	<p><b>Page 22, Item 17.:</b> The statement that the discharger should notify the Office of Emergency Services if there is any noncompliance which may endanger human health or the environment should not be the responsibility of the discharger. The discharger is not qualified to make that type of assessment. The Regional Board should advise the discharger that human health or the environment may be endangered and inform the discharger to notify the Office of Emergency Services or the Regional Board makes the notifications.</p>	<p>49-31</p>
<p>Most septic systems (untreated effluent) are permitted to be installed within 200 feet from the house and well. As required by the GO, biosolids must meet strict quality standards to be eligible for land application, and are applied at agronomic rates so as to minimize threats to water quality. The setbacks determined in this section should be consistent with other regulatory limits and the <u>CWEA Manual of Good Practice for the Agriculture Land Application of Biosolids</u>.</p>	<p>49-27</p>	<p><b><u>Comments Pre-Application Report Monitoring &amp; Reporting Program</u></b> Report review can easily become a time burden for the regulatory review agency rather than an information resource unless clear and concise records of pertinent information are kept. The <i>CWEA Manual of Good Practice</i> spent a good deal of time drawing from the expertise of land application practitioners in developing standardized forms and methods of reporting for land application activities. The Associations recommend that the Reporting Program be revised to reflect the methods and forms contained in the <i>CWEA Manual of Good Practice</i>.</p>	<p>49-32</p>
<p><b>Page 18, Item 6. reads:</b> "Biosolids' storage facilities that contain biosolids between October 1 and April 30 shall be covered during periods of runoff inducing periods."</p> <p>The Associations recommend the following revision: "<u>Biosolids storage facilities will be evaluated for storm water retention adequacy on an individual basis.</u>"</p>	<p>49-28</p>	<p>The Associations also recommend that Pre-Application Reports only include information specific to the upcoming biosolids application in that field. The overall site information, storage plan, erosion control plan, and spill response plan should be supplied in the NOI since this information will remain constant, or will be updated as required.</p>	<p>49-33</p>
<p>Each site is unique in terms of local climate, soils, amount of biosolids to be stored, runoff controls, etc.</p>	<p>49-28</p>	<p>The requirement for filing a separate and complete Pre-Application Report for each source of biosolids just serves to confuse overall site operations multiple Pre-Application reports may be needed to determine exactly how the program is being conducted.</p>	<p>49-34</p>
<p><b>Page 20, Item 3. reads:</b> "Also, the discharger shall notify adjacent property owners with parcels abutting the subject land application site..."</p>	<p>↓ 49-29</p>	<p>The Associations suggest that clarification be made in the first paragraph as to the frequency of the required pre-application report (initial application, annually, or ever?), specify whether the entire report must be submitted for each application of biosolids to be applied to the site.</p>	<p>49-35</p>

**Page 1, Site Location/Applier Discharger:**

This section should be changed to be consistent with the GO terminology or the GO should be changed to use "Applier" as defined in the Finding section. The word "Applier" should be used throughout the GO.

49-36

**Page 1, Item 1. c. reads:**

b. Storage or staging areas

The Associations recommend revising as follows:

b. Storage or staging areas. Omit staging areas because staging areas move within the applicable boundaries of the field, in order to avoid compacting one specific area.

49-37

**Page 2, Biosolids Source(s):**

The Associations suggest revising as follows: A separate Pre-Application Report. The section below must be filled out for each different biosolids source: If additional space is required, copy section and attach.

49-38

**Page 2, Item 2. reads:**

"Description of treatment and how vector attraction reduction was achieved: \_\_\_\_\_"

The Associations suggest: "Description of vector attraction reduction achievement: \_\_\_\_\_"

49-39

Vector attraction reduction may be achieved in the field by 6-hour incorporation as per 40 CFR 503 and GO options.

**Page 2, Item 3.:**

The Constituent Concentration Table in the Pre-Application Report is confusing. Clarify whether soil sampling is required per the table. Provide the basis for requiring pH, fecal coliforms, PCBs, aldrin/dieldrin, semi-volatile organics analyses. State how this data will be used and what standards the data will be evaluated against. The table requires the background soil concentrations for metals, nutrients, PCBs, and SOCs. The Associations recommend that the PCB and SOC background levels for soils be omitted from the requirement. These tests are very expensive and no limits on PCBs and SOCs have been established, thus the data will be inconclusive. In addition, each EPA NPDES permit requirement evaluates the required testing program.

49-40

**Page 3, Item 4. Table contains:**

Land Use Zone and Site Zoning, Public Access Controls, Runoff Controls, Distance to nearest water body.

49-41

The Associations recommend that either Land Use Zone or Site Zoning be used, and the others listed above be eliminated. Public controls are often not necessary on remote farm fields. Runoff controls, again, are inherent on the project by applying quality biosolids at agronomic rates, incorporation, and buffer zones. The distance to nearest water bodies should be included on the map if within buffer zone distance. If a creek runs through the property, then the buffer zones must be marked on the map, as per the GO.

49-41  
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**Page 4, Ground Water Monitoring:**

"For biosolids' application operations where minimum depth to ground water is less than 25 feet, a ground water monitoring program consisting of a minimum of three monitoring wells (one upgradient, two downgradient) for each application area is required and shall be in place prior to any application of biosolids if the discharger intends to apply biosolids more than three times within a ten-year period at any particular location. A report specifying location, construction, and development details of ground water monitoring wells shall be submitted to the RWQCB prior to the installation. In addition, a mean sea level (MSL) reference elevation shall be established for each well in order to determine water elevations."

49-42

The Associations recommend the deletion of the groundwater-monitoring program. The basis for requiring agronomic application rates in the first place is to protect against groundwater degradation. It makes better sense to emphasize the groundwater contamination prevention aspect of any program by focusing on appropriate application rates. Additional monitoring is unnecessary and will almost surely make beneficial use of biosolids prohibitively expensive for many sites, and force the use of chemical fertilizers which can be more susceptible to causing groundwater contamination, but for which no such monitoring requirements are imposed.

**Page 5, Biosolids Storage Plan:**

"A biosolids' storage plan must be attached. (Even if no on-site biosolids storage will be provided). ...." Explain why a plan must be provided if no storage will occur. Possibly a contingency plan for inclement weather operation is more appropriate that could be submitted in the NOI. Revise as follows:

49-43

A biosolids' storage plan must be attached (Even if no on-site biosolids storage will be provided. a contingency plan for inclement weather operation must be attached).

Storage information, the erosion control plan, and the spill response plan should be submitted with the NOI, otherwise, redundant material would be submitted with each Pre-Application Report.

49-43  
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Page 5, Item 8. b. 3. reads:

"Identify all load restrictions for each traveled roadway"

The Associations recommend eliminating this requirement, as the time required to evaluate every road that the trucks may travel on in any given area may not be feasible. The proposed traffic route required in 8.b.1 is most descriptive.

49-44

Page 7, General Reporting:

The Associations recommend that the annual report information be determined *for each field applied*. Also, if the annual reporting is for the period Jan-Dec, the required submittal date of January 15 does not allow sufficient time for preparation. One month would be more appropriate. The Associations recommend the following amendments:

"... Annual reporting shall be submitted by February 19 of every year and include the required information for each field to which biosolids were applied."

49-45

The SWRCB should require discharger to use forms as developed for the GO to facilitate review for RWQCB staff. Otherwise, each discharger will use a different format which may comply with the requirement but not be the most efficient for determining compliance.

"The discharger shall submit all required reports on the forms developed in this General Order for such purposes. Additional data shall be arranged the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements."

Associations' Comments on the June 28, 1999

Draft Environmental Impact Report Covering the General Waste Discharge Requirements for Biosolids Land Application

Executive Summary

Page ES-3, Quantity of Biosolids Generated in California:

Change "Sanitary" to "Sanitation" when referring to the California Association of Sanitation Agencies (CASA).

49-46

Page ES-6, Overview:

Within this paragraph, please provide clarification as to the status of individual Waste Discharge Requirements (WDR) regulating current biosolids land application, and whether such WDRs will be impacted by the adoption of the General Order per the SWRCB mandate found in the California Water Code section 13274. The Associations believe that sites that have been permitted under the CEQA rigor of an individual WDR basis should be allowed to continue receiving biosolids under the individual WDR requirements and not be subjected to the General Order. The Associations recommend adding a statement defining that if the General Order (GO) is not applicable for a proposed site that individual WDRs can be obtained. (See Draft EIR (DEIR) comments for page 2-8, Comply with California Water Code)

49-47

Page ES-9, 7th bullet, reads as follows:

"...for land reclamation sites if a certified agronomist, registered agricultural engineer, or registered civil engineer..."

The Associations recommend the addition of a *certified soil scientist* to those qualified to demonstrate that the application of biosolids would not degrade the quality of underlying groundwater at land reclamation sites. The American Society of Agronomy has implemented the ARCPACS certification program to bring rigorous industry standards for agronomists and soil scientists alike.

49-48

Page ES-9, 8th bullet, reads as follows:

"...30 days of application unless a sufficient buffer of grass (more than 33 feet) ..."

The Associations recommend changing to: "... 30 days of application unless a sufficient buffer of *vegetation* (more than 30 feet) ..." The suggested term "vegetation" is more inclusive than grass, and may account for crop residues, etc. (See GO comment for page 14, Item 7.)

49-49

Page ES-9, 10th bullet, reads as follows:

"No application or incorporation into the soil is permitted when wind may reasonably be expected to cause airborne particulates to drift from the site."

The Associations recommend deleting this requirement. The word "reasonably" is subjective. A specific requirement for a set wind velocity would be more appropriate (e.g., 25 miles per hour). Existing buffer setbacks also address maintaining biosolids on the application site. (See GO comments, page 15, Item A. 14.)

49-50

Page ES-9, 11th bullet, reads as follows:

"No application is permitted in areas subject to erosion or washout offsite."

The Associations recommend deleting this requirement. Every farm field is subject to some form of erosion, and the potential increases with the required tillage practices. Erosion can be subtle in the form of sheets, or visible in rills and gullies. (See GO comments for page 15, Item A. 15.)

49-51

Page ES-10, 5th bullet, reads as follows:

"If the slope of the application site is greater than 10%, an erosion control plan must be prepared by a qualified erosion control specialist."

The Associations recommend that if the slope of the application site is greater than 10%, an erosion control plan must be prepared by a qualified erosion control specialist or certified soil scientist.

49-52

Page ES-11, 1st bullet, reads as follows:

"An NOI must be submitted for each biosolids source and discharge site. Specific agencies, adjacent residents, adjacent landowners identified in the GO, and any local agency with jurisdiction over the application site must be notified. The RWQCB must be notified of project completion through submittal of a Notice of Termination and a Final Discharge and Monitoring Report."

The Associations recommend the following changes to clarify the frequency of reporting requirements: An initial NOI must be submitted for each discharge site including all of the biosolids sources. Specific agencies and adjacent residents adjacent landowners identified in the GO and any local agency with jurisdiction over the application site must be notified. The RWQCB must be notified of project final (not annual) completion through submittal of a Notice of Termination and a Final Discharge and Monitoring Report. (See comments on the GO Pre-Application Report)

49-53

Page ES-11, 3rd bullet, reads as follows:

"Groundwater monitoring would generally be required if the depth to groundwater at the disposal site is less than 25 feet and biosolids would be applied to the site more than twice in a 5-year period."

The Associations recommend removing this requirement. Research has continuously demonstrated that metals, and pathogen movement is a minimal threat to groundwater. (See comments on the GO Pre-Application Report, page 4)

49-54

Page ES-12, General Order Exclusion Areas:

The Associations recommend modifying the first sentence to read: "...projects for which the GO is not applicable." The statement "cannot be permitted", is not correct wording from the GO. The fifth bullet defining the exclusion area for the Delta should be modified to read, "the area defined as the Primary Zone of the Delta Protection Act of 1992 (SB 1866)."

49-55

Table ES-1, page 2 Mitigation Measure: 4-2 Extended grazing restriction period to allow for SOC biodegradation & Table ES-1, page 3 Mitigation Measure 5-2: Extended grazing restriction period to allow for pathogen reduction:

The Associations recommend eliminating these mitigation measures. The potential for pathogens to survive diminishes over time with exposure to the harsh soil environment and sunlight. SOC's at minute levels found in biosolids have not been found to adversely impact grazing animals. The EPA conducted extensive research in developing 40 CFR Part 503, including a risk assessment based on 14 different pathways, and determined that 30 days after biosolids application is a safe and protective time period until grazing and livestock activity may resume. (See DEIR comments for pages 4-12 & 5-29)

49-56

Table ES-1, page 5 Mitigation Measure 10-2: Control fugitive dust from unpaved roads:

The Associations recommend mitigating fugitive dust from unpaved roads with a mandatory speed limit of 15 mph. Most farms receiving biosolids throughout the state are in rural areas with few sensitive PM10 and PM2.5 receptors. Also, because of the rural sites, the roads are typically not paved, imposing a limit on truck travel miles per day is not feasible for many sites. (See DEIR comments Pages 10-7 & 10-8)

49-57

Table ES-1, page 6 reads:

"Mitigation Measure 10-1: Properly maintain vehicles in good operating condition and limit truck travel on paved roads to 4,800 VMT."

49-58

Clarify whether the 4,800 VMT are per APCD or are they a total value independent of where the VMT occur. The VMT are in multiple APCDs and should not be a total restriction, just a restriction on the amount of VMT per APCD.

The Associations recommend a revised Mitigation Measure 10-1: "Properly maintain vehicles in good operating condition and minimize truck travel on paved roads to 4,900 VMT. Utilize alternative fuel for hauling biosolids and/or employ supplemental vehicle emission control."

Most biosolids sources are situated among urban areas. Most farms receiving biosolids are in rural farm areas. Because of urban sprawl, the distance between the biosolids source and farms are often quite considerable. The 4,800 VMT and would make the program unworkable, with the undesired result of having trucks travel much farther on paved roads to landfills as an alternative management method. Such VMT restrictions are not found on other items of commerce. (See DEIR comments for page 10-7)

Table ES-I, page 6 reads:

"Mitigation Measure 10-2: Control fugitive dust from unpaved roads"

The Associations recommend minimizing fugitive dust from unpaved roads with a mandatory speed limit of 15 mph. Most farms receiving biosolids throughout the state are in rural areas with few sensitive PM10 and PM2.5 receptors. Also, because of the rural sites the roads are typically not paved. Imposing a limit on truck travel miles per day is not feasible for many sites. (See DEIR comments for pages 10-7 & 10-8)

CHAPTER 2. Program Description

Page 2-8, Comply with California Water Code:

The GO is based on compliance with section 13274 of the California Water Code, which requires the issuance of WDRs for projects that may affect the waters of the state. Specifically, section 13274. (a) (1) states:

*"The state board or a regional board, upon receipt of applications for waste discharge requirements for discharges of dewatered, treated, or chemically fixed sewage sludge and other biological solids, shall prescribe general waste discharge requirements for that sludge and those other solids. General waste discharge requirements shall replace individual waste discharge requirements for sewage sludge and other biological solids, and their prescription shall be considered to be a ministerial action."*

49-58  
(cont)

49-59

49-60

Clarify how this section of the Water Code affects the renewal of existing biosolids sites permitted under existing site specific WDRs. Explain whether these existing sites would be unaffected by the GO, or whether these sites will have to comply with the GO. If compliance is required, clarify the applicable time.

49-60  
(cont)

Page 2-9, Provide Regulatory Framework for RWQCB Permit Process:

Add a statement, as noted in comment ES-6, which allows for individual WDR for sites where the GO is not applicable. Explain whether RWQCBs are required to process GO permit applications and use the GO as a basis for the permitting process.

49-61

Page 2-10, Applicability, 2nd paragraph:

The terms "applier" and "discharger" appear to be interchangeable. The word "discharger" is used throughout the GO but not defined in the Finding section of the GO. In the Finding section, the word "applier" is defined. In the Pre-Application Report, the term "applier" is used. Please define "discharger" in the GO as it is used throughout the document and remove "applier" from the Finding section. Alternatively, use "applier" throughout the document.

49-62

Page 2-10, Applicability, 3rd paragraph:

A permitted site under a single NOI cannot be more than 2,000 acres and the sites must be within a 20-mile radius.

Clarify the basis for limiting the acreage to 2,000 for a single site. Some landowners may have a site larger than 2,000 acres. Explain how this would affect existing sites with site specific WDRs that may be impacted by California Water Code section 13274. Clarify how the site would be divided and what guidelines the landowner would use to determine and develop an NOI for the sites larger than 2,000 acres but in the same location.

49-63

Page 2-10, Applicability, 3rd paragraph:

The goal of the GO is to provide a uniform, statewide regulation for biosolids land application in California.

The statement that the GO does not preempt or supersede the authority of local agencies should be removed from the GO and the Draft EIR. The GO, and the scientifically based EIR review, should serve as the basis for a future statewide regulation for biosolids land application. The GO should provide language that requires the local authorities to provide scientific evidence and data that allows them to prohibit, restrict, or control biosolids reuse beyond the provisions of the GO only where health and safety concerns related to specific conditions within the local jurisdiction can be proven.

49-64

<p><b>Page 2-11, 2nd paragraph:</b> Clarify whether the NOI is required each year of intended biosolids application or is a one-time requirement. The Associations believe this should be a one-time requirement.</p>	49-65	<p><b>Page 2-15, Provisions, 3rd bullet:</b> Please substitute, "land application", with "disposal".</p>	49-72
<p><b>Page 2-11, 3rd paragraph:</b> The "threat to water quality" complexity ratings brings about negative connotations related to the biosolids application. The majority of problems associated with land application of biosolids are inaccurate public perception, and this rating system implies that no matter how big the farm a threat to water quality will occur if biosolids are applied.</p>	49-66	<p><b>Page 2-16, GO Exclusion Areas:</b> Please change, "cannot be permitted", to "GO is not applicable".</p>	49-73
<b>CHAPTER 3. Soils, Hydrology, and Water Quality</b>			
<p><b>Page 2-12, Relationship of the GO to Part 503 Regulations, 3rd paragraph:</b> Explain the scientific basis for regulating ten metals when the USEPA only regulates nine metals under 40 CFR 503. Since Chromium is being proposed to be regulated, please provide the explicit scientific basis for the limit as set forth in the GO.</p>	49-67	<p><b>Page 3-1, 3rd paragraph titled Texture, reads:</b> "The pH (discussed below) of fine textured soils ranges from near neutral to alkaline."  The Associations suggest amending this sentence because it is not accurate. Soils vary in pH depending on other factors than just texture, such as climate, parent material, biological activity, etc.</p>	49-74
<p><b>Page 2-14, Storage and Transportation, 1st paragraph:</b> The definition of "storage" in this particular section is different from the definition in the GO. This section states a storage requirement for more than 7 consecutive days. The GO defines storage as more than 48 hours. These definitions should be clarified.</p>	49-68	<p><b>Page 3-2, 1st paragraph, reads:</b> "The pH of coarse textured soils ranges from near neutral to acidic."  The Associations suggest amending this sentence because it is not accurate. Soils vary in pH depending on other factors than just texture, such as climate, parent material, biological activity, etc.</p>	49-75
<p><b>Table 2-4:</b> Delete Chromium from the table. Chromium is not regulated under 40 CFR 503 regulations. Since Chromium is being proposed to be regulated, please provide the explicit scientific basis for the limit as set forth in the GO.</p>	49-69	<p><b>Page 3-2, Cation Exchange Capacity, 2nd sentence reads:</b> "Cations (calcium and ammonium) are often essential for plant growth..."  The Associations recommend: "Cations (calcium and nitrogen) are often essential for plant growth..." There are a minimum of sixteen (some need twenty) essential elements for plant growth, and they are: C, H, O, P, K, N, S, Ca, Fe, Mg, B, Mn, Cu, Zn, Cl, Mo.</p>	49-76
<p><b>Table 2-5:</b> The Associations suggest removing the Molybdenum cumulative loading limits, in accordance with the 40 CFR 503. The limits for Molybdenum were removed from 40 CFR 503 in February 1994 pending EPA consideration. If Molybdenum is proposed to be regulated, please provide the explicit scientific basis for including the cumulative limit for Molybdenum as set forth in the GO.</p>	49-70	<p><b>Page 3-2, Organic Matter, reads:</b> "Organic matter, another important property of soil, enhances the physical condition of surface soil by binding individual soil..."  The Associations recommend: "Organic matter, another important property of soil, enhances the physical condition of surface soil, <u>biological, and chemical soil properties</u> by binding individual soil..." Soils are complex in nature, and the organic matter element impacts all three components of soils: physical, chemical, and biological.</p>	49-77
<p><b>Page 2-15, Storage and Transportation, 1st paragraph:</b> Clarify why the GO is requiring storage sites to be covered between October 1 and April 30 during periods of runoff-producing precipitation. The ability to contain and manage such storm water should be allowed in lieu of covering. Containment of the water will prevent runoff and agronomic rates will not be exceeded as a result of the rain event(s).</p>	49-71	<p><b>Page 3-11, Trace elements and heavy metals, reads:</b> "These occur in biosolids primarily in small quantities and, when released, often form sparingly soluble reaction products. Some trace elements are required for plant growth, whereas other heavy metals may be toxic to plants."</p>	49-78

The Associations recommend adding: "Biosolids contain both trace elements and trace heavy metals, most of which can be utilized by the plant. Plants require sixteen essential elements for growth and development. Due to the nature of soils, those metals that cannot be utilized by the plant will most likely be bound within the soil and not be plant-available."

49-78  
(cont)

Page 3-13, Transport Mechanisms of Plant Nutrients to Surface Water and Groundwater, 2nd paragraph reads:

"The application of dewatered biosolids would probably have no significant impact on the quality of water emanating from watersheds in which dewatered biosolids are applied."

49-79

The Associations recommend revising as follows: "The application of dewatered biosolids would probably have no minimal, if any, impact on the quality of water emanating from watersheds in which dewatered biosolids are applied." Ample evidence exists to support that properly managed biosolids do not impact the groundwater and surface water, so the language should be amended to state that the impact potential is minimal.

Page 3-17, Synthetic Organic Compounds, paragraph 2 reads:

"The Part 503 regulations do not require that biosolids be tested for SOCs; however the proposed GO monitoring program would require testing of biosolids for PCBs and SVOCs."

49-80

In the Risk Assessment used to establish the Part 503 Rule, the United States National Sewage Sludge Survey (NSSS) demonstrated that organic pollutants in biosolids occur at low levels that do not pose significant risk to the environment or public health. Additionally, many of these pollutants are no longer in use, or have been banned or restricted for use in the United States (e.g., DDT). Thus, based on the science from the NSSS findings, SOCs testing should be deleted as SOCs will continue to be measured by the wastewater treatment plants as required under its NPDES permit.

Page 3-23:

The Associations recommend adding the following after the 3rd paragraph:

"The ASA has also adopted the ARCPACS certification program that identifies individuals qualified in the specialties of soil and plant sciences. ARCPACS maintains a registry of certified professionals in the following areas: soils, agronomy, crops, weed science, plant pathology, and horticulture."

49-81

Page 3-29, Impact: Potential Degradation of Groundwater Nutrients, reads:

"The GO defines the agronomic rates as 'the nitrogen requirements of the plant needed for optimal growth and production, as cited in professional publications for California, the County Agricultural Commissioner, or recommended by a Certified Agronomist'."

49-82

The Associations recommend revising as follows: "The GO defines the agronomic rates as 'the nitrogen requirements of the plant needed for optimal growth and production, as cited in professional publications for California, the County Agricultural Commissioner, or recommended by a Certified Agronomist or Soil Scientist'."

Again, ARCPACS sets the standards for professional certifications for agronomists and soil scientists alike. Soil scientists are qualified to determine the ecological implications of a recommended agronomic rate.

Page 3-31, 3rd paragraph, and throughout the document:

The Associations recommend changing references to the RWQCB engineer to RWQCB staff. Not all RWQCB staff working on biosolids related projects are engineers.

49-83

Page 3-32, 2nd paragraph reads:

"The calculation of agronomic nitrogen uptake rates...agricultural engineers, agronomists..."

The Associations recommend revising as follows: "The calculation of agronomic nitrogen uptake rates...agricultural engineers, agronomists, soil scientists..."

49-84

Again, ARCPACS sets the standards for professional certifications for agronomists and soil scientists alike. Soil scientists are qualified to determine the ecological implications of a recommended agronomic rate.

Page 3-34, 4th bullet reads:

"The proposed GO includes concentration limits and cumulative loading rates for chromium and molybdenum. The proposed GO is therefore more restrictive than the existing Part 503 regulations that do not include limits for these trace metals."

49-85

The Associations recommend deleting this bullet because EPA used scientific findings to eliminate the cumulative loading rates for both molybdenum and chromium. Therefore, the proposed GO is not based on science, and is unnecessarily more restrictive than the existing Part 503. (See General Order comment page 15, Item 4)

Page 3-37, 1st bullet reads:

"If it is found that in the future that the land application of biosolids is responsible for unlawful disposal of hazardous waste, cleanup actions (if required) would be taken by the responsible parties."

The Associations recommend omitting that statement. If biosolids are applied in accordance with the GO, then they are applied in a lawful manner. The Draft EIR is a scientific review of the project (the General Order), not a document to determine legal remedies. The statement only breeds fear and exacerbates inaccurate public perception.

49-86

**CHAPTER 4. Land Productivity**

Page 4-1, at the end of the 3rd paragraph:

The Associations recommend adding the following statement: "At this time, the application of most fertilizers is unregulated."

49-87

Page 4-2 reads:

"...both the physical and chemical conditions of the soil determine the inherent productivity..."

The Associations recommend the following revision: "...both the physical, biological, and chemical conditions of the soil determine the inherent productivity..."

49-88

Soils are complex in nature, and all three components of soils - physical, chemical, and biological impact its inherent productivity.

Page 4-4, 1st paragraph reads:

"Elements that would be added to the soil include nitrogen, phosphorus, potassium, calcium, magnesium, sodium, and chloride. All of these elements except phosphorus are water soluble and can be leached from upper soil layers."

The Associations recommend the following revision: "The major elements that would be added to the soil include nitrogen, phosphorus, potassium, calcium, magnesium, sodium, and chloride. All of these elements, except phosphorus, which is not water soluble and can be leached from upper soil layers, will bond to the soil's cation exchange sites, and are not likely to be leached from upper soil layers. The nitrate form of nitrogen is water soluble and may be leached if the biosolids are not applied at agronomic rates."

49-89

The suggested change reflects basic soil science, and better explains the typical soil environment.

Page 4-8, 1st bullet reads:

"A relatively narrow range of soils and crops were considered by the EPA in evaluating potential impacts on crop yields and productivity. This range did not adequately reflect the range of soil and crop conditions found in California."

The Associations recommend revising as follows: "A relatively narrow range of soils and crops were considered by the EPA in evaluating potential impacts on crop yields and productivity based on worst case scenarios of areas with higher rainfall and lower soil pH's. This range did not adequately reflect the specific range of soil and ~~crop~~ climate conditions found in California."

49-90

The suggested changes reflect the research that was done for 40 CFR 503 in harsher climates with more susceptibility for nitrogen to move through the soil profile to groundwater.

Page 4-12, Mitigation Measure 4-2 Extended Grazing Restriction Period to Allow for SOC Biodegradation:

These resting periods are stated to "promote maximum degradation of SOC's and pathogens before grazing animals are exposed to the soil."

The Associations recommend omitting the extended criteria beyond the 30 days. The 30 days restriction found in 40 CFR 503 was based on scientific research and data, and has been found to be adequate to protect animal health. Each wastewater treatment plant is required to do appropriate testing via their NPDES permits with the EPA. These reports show that the SOC's are de minimus or nondetectable.

49-91

**CHAPTER 5. Public Health**

Tables 5-1 & 5-4:

Survival time needs a duration period specified.

49-92

Page 5-5, Incidence of Biosolids-Related illness:

Numerous scientific studies exist that document the incidences of manure-related illnesses. If the use of biosolids is limited, or eliminated due to GO requirements, or as a result of the adoption by the SWRCB of DEIR recommended mitigation measures (e.g., dust limitations, VMT reductions, EQ-biosolids regulation, etc.) it is foreseeable that the unregulated use of manures will replace biosolids land application. Unlike the use of manures, the DEIR states: "To date, there have been no reported incidence of human disease that is directly related to biosolids land application operations (National Academy of Sciences 1996)."

49-93

The Associations recommend adding: "Clemson University (McLeod and Hegg, 1984) conducted a study of pasture runoff, as a result of various inorganic and organic fertilizer sources. The study allowed the authors to conclude that runoff from plots with biosolids fertilizer had the least overall potential for pollution when compared to plots using dairy and poultry manures or chemical fertilizers." Reference: McLeod, R. V. and R. O. Hegg, 1984. Pasture runoff water quality from application of inorganic and organic nitrogen sources. (J. Environ. Qual. 13:122-126)

Animal manures may pose a threat to human health. Farm animals such as cattle, pigs, and chickens become infested and excrete a number of human pathogens in their feces. These include *Salmonella*, *Campylobacter*, *Yersinia*, *E. Coli* O157:H7, *Listeria* spp., and the protozoan parasite *Cryptosporidium*. Cattle manure is believed to be the major source of both water and food borne outbreaks of *E. Coli* in the United States associated with lettuce and apples. Reference: Feachem et al, 1983, Pepper et al, 1996.

Although animals have not been known to be a source of human enteric viruses, recent studies have shown that hepatitis E infects pigs and can be found in their feces. Two recent cases of hepatitis E in the United States are believed to have been associated with water and food borne outbreaks in the developing world. Reference: Meng et al, Genetic and experimental evidence for cross-species infection by swine hepatitis E virus, J. Virol. 1998 Dec; 72 (12): 9714-21.

**Page 5-20, Ambient Air Quality and Air Toxics:**

The second sentence in this paragraph should be expanded to mention that the general nuisance provisions found in Section 41700 of the California Health & Safety Code indirectly pertain to biosolids land application.

**Page 5-29, Mitigation Measure 5-2: Extend Grazing Restriction Period to Allow for Pathogen Reduction:**

The DEIR recommends the site resting period for grazing animals to 90 days, and the site use by cattle to 60 days. These resting periods are stated to "promote maximum degradation of pathogens (and SOC's) before grazing animals are exposed to the soil."

The Associations recommend omitting the extended criteria beyond the 30 days. The 30 days restriction found in 40 CFR 503 was based on scientific research and data, and has been found to be adequate to protect animal health. Each wastewater treatment plant is required to do appropriate testing via their NPDES permits with the EPA. These reports show that the pathogens are not a threat to animal grazing after 30 days.

49-93  
(cont)

49-94

49-95

**Page 5-29, Horticultural Use:**

Given the typical nitrogen concentrations found in biosolids, it appears most horticultural projects would not be required to apply for coverage under the GO, unless biosolids are to be applied at very high rates. Therefore, the statement "use of Class A biosolids for larger scale landscaping projects would be subject to the GO" is not necessarily true.

49-96

**CHAPTER 6. Land Use and Aesthetics**

**Page 6-3, Agriculture:**

Please change from "biosolids disposal sites" to "biosolids recycling sites" or "biosolids beneficial use sites". Industry terminology is to use the term "disposal" only when biosolids are landfilled or otherwise not being put to beneficial use. Biosolids are used for beneficial purposes at agricultural sites.

49-97

**Page 6-7, Mitigation 6-1, Item (a):**

The Associations recommend revising as follows: "no application of Class B biosolids shall be permitted within an area defined in the GO as having a high potential for public exposure unless the biosolids are injected into the soil or access to the site is restricted by fencing and signs, and ..."

49-98

**CHAPTER 8. Fish**

**Page 8-1, Special Considerations:**

The Associations recommend modifying the sentence to read: "The GO is not applicable for the application of biosolids in three areas of Region 2: the Primary Zone as defined in the Delta Protection Act of 1992 (AB 1866)".

49-99

**CHAPTER 10. Air Quality**

**Page 10-2, Ozone:**

EPA suspended the 1-hour standard when they promulgated the 8-hour standard in 1997.

49-100

**Page 10-2, Particulate Matter:**

Road dust generated by vehicles is largely PM10, while vehicle exhaust contributes to the formation of PM2.5. Only a small portion of PM2.5 is directly emitted.

49-101

**Page 10-5, Methods, 3rd paragraph:**

The intended purpose of the SWRCB for covering stored biosolids from October 1 to April 30 is to prevent precipitation from contacting biosolids and washing them away, not for odor control as recommended in the Draft

49-102

EIR. Biosolids application site buffers provide adequate odor control. Storm water concerns can be addressed through proper management of the contained rainwater in the storage site. (See GO comments page 18, Item 6 & DEIR comments page 2-15)

49-102  
(cont)

**Page 10-5, Methods, 4th paragraph:**

Explain the jurisdictional authority of the RWQCB to require no visible emission during biosolids land application.

49-103

**Page 10-6, Thresholds of Significance, 5th bullet:**

The Associations suggest changing the term "substantial" to "considerable". The last paragraph is unclear. The threshold of significance should be that applied by the respective air district for CEQA purposes and simply not the most stringent of the three air basins mentioned.

49-104

**Page 10-7, Mitigation Measure 10-1:**

Provide the basis for arriving at 4,800 VMT per day requirement. Explain whether the VMT per day calculated for the miles traveled are contained within each Air Quality Management District or are not dependent on location of travel. Specify whether other items of commerce are subjected to similar VMT restrictions. Explain whether the trucks containing nutrient sources replacing biosolids as a result of the VMT limit on biosolids are also limited in the amount of VMT.

49-105

The analysis is unclear. The vehicle emissions are estimated from the total miles driven and not the total miles driven within each air basin. The total miles driven in each air basin should be compared against the significance thresholds established by the APCD for that air basin.

This "mitigation measure" would result in the exact opposite effect of that desired, (i.e., less PM10 and NOx emissions). Limiting vehicle travel to 4,800 VMT per day for biosolids trucks would significantly increase vehicle emissions, in some cases by up to 50 percent. Such a limit of 4,800 VMT per day, per site would limit many 2,000-acre sites to 12 or fewer trucks per day (400-mile round trips). Normal farming operations could not proceed on such a limited amount of biosolids.

The alternate closest location for biosolids management would be at a landfill. The distance to travel to the closest available landfill would be significantly farther, up to 600-mile round trips. Traveling to the landfill would significantly increase vehicle emissions. Farms utilizing biosolids land application would have to utilize another nutrient source, resulting in additional VMTs. Landfilling of biosolids would also adversely impact California's mandate under AB 939 to decrease by fifty percent the amount of material being landfilled by year 2000.

This impact should be re-evaluated to determine if limiting truck travel to 4,800 VMT per day actually reduces emissions or creates more emissions and other environmental impacts.

49-105  
(cont)

The Associations understand that the DEIR must look at all impacts including VMT per day. However, the Associations do not believe that the regulation of VMT per day is within SWRCB's authority. Any regulation of VMT per day, if done at all, should be done by either the California Air Resources Board, or the affected APCD. Mitigation of air impacts may be accomplished through the use of alternative fuels in biosolids hauling vehicles.

49-106

The GO addresses the biosolids migrating off site issue. The SWRCB's concern is whether biosolids particles are leaving the site from the perspective of water quality, not for PM10 or NOx air quality. As such, the GO contains biosolids application setbacks from property lines, where the delivery trucks travel, and other requirements, including buffer zones to insure biosolids do not leave the site.

49-107

To the extent that agricultural production on marginal land sites currently utilized for Class B biosolids application is deemed to be economically infeasible due to the VMT restrictions, resulting in land left fallow, there will be a significant increase in soil loss through wind and erosion. The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) has estimated that the loss of soil as PM10 through wind erosion of bare, construction-disturbed, surfaces in the San Joaquin Valley averages 0.11 tons/acre-month (Guide for Assessing Air Quality Impacts, SJVUAPCD, May, 1998). If similar losses were experienced for bare, fallow farmland, the approximately 50,000 CVRWQCB GO permitted acres in the San Joaquin Valley could produce approximately 66,000 tons per year to the Valley's non-attainment PM10 air quality violation.

49-108

If the sites remain in operation under the biosolids VMT restriction, the transportation and utilization of manures and chemical fertilizers to supplement the farm's nutrient needs will add unaccounted for VMTs. The use of these non-biosolids nutrient sources are essentially unregulated at this time, with the exception of limited controls of onsite dairy manure application rates and practices. The foreseeable and predictable, non-speculative, effect of the substitution of such unregulated materials for Class B biosolids application will be significant dust and water quality impacts.

49-109

Such water quality impacts from unregulated use of manures and chemical fertilizers have been observed in the eastern San Joaquin Valley where nitrate concentrations in groundwater often exceeded the drinking-water standard. Nitrate concentrations in 24 percent (21 of 88) of the domestic wells sampled during 1993-95 in the regional aquifer survey and

land-use studies of the eastern San Joaquin Valley exceeded the drinking-water standard of 10 mg/L established by the USEPA. Furthermore, groundwater samples from 77 percent of the wells had nitrate concentrations greater than 2 mg/L, which is believed to represent background concentrations (Mueller and Helsel, 1996). These findings indicate that groundwater quality has been degraded over a large part of this aquifer because of the input of nitrate from human activity (USGS Water Quality in the San Joaquin-Tulare Basins, California, 1992-95).

Page 10-8, Mitigation Measure 10-2: Control Fugitive Dust From Unpaved Roads, bullet 1 reads: "Limit truck travel on unpaved roads to 67 VMT per day."

The Associations suggest limiting the impacts of truck travel on unpaved roads by imposing a speed limit of 15 mph. Most farms receiving biosolids throughout the state are in rural areas with few sensitive PM10 and PM2.5 receptors. Also, because of the rural sites the roads are typically not paved. Imposing a limit on truck travel miles per day is not feasible for many sites, and other reasonable alternatives exists, such as speed limit and mandatory road watering. Biosolids are not applied to unpaved roadways, thus biosolids leaving the site with dust from the unpaved roadways is not an issue.

The SCAQMD CEQA Air Quality Handbook says that water or chemical stabilizers can reduce PM10 by up to 85%. Lowering traffic speeds once the trucks are on site can reduce PM10 up to 70%. (See DEIR comments Page 10-7, Mitigation Measure 10-1)

Page 10-8, Mitigation Measure 10-2: Control Fugitive Dust from Unpaved Roads, bullet 2 reads:

"Apply water or chemical stabilizers that have no secondary ecological effects to unpaved roads in sufficient quantities to prevent visible dust emissions and limit truck travel on unpaved roads to 134 VMT per day."

The Associations suggest the following amendment: "Apply water or chemical stabilizers that have no adverse secondary ecological effects to unpaved roads in sufficient quantities to prevent visible dust emissions and limit minimize impacts due to truck travel on unpaved roads with a 15-mph speed limit."

Some air quality districts are working with farmers to minimize PM2.5 and PM10 emissions, and a 15-mph speed limit and watering roads are two of their most effective tools. Limiting truck traffic on the farm impedes the farming business and is often not practical for the biosolids program to be complete. (See DEIR comments Page 10-7, Mitigation Measure 10-1)

49-109  
(cont)

49-110

49-111

## CHAPTER 11. Noise

Page 11-6, Mitigation Measure II-I: Avoid the Use of Haul Routes near Residential Land Uses reads:

"If the use of haul routes near residential land uses cannot be avoided, the project applicant and or transporter will limit project-related truck traffic to daylight hours (8 a.m. to 6 p.m.)."

The Associations recommend revising as follows: "If the use of haul routes near residential land uses cannot be avoided, the project applicant and or transporter will limit project-related truck traffic to daylight hours, or non-peak traffic hours (8 a.m. to 6 p.m.)."

Confining operations to daylight hours is not feasible on many projects. The larger treatment plants operate round-the-clock and have minimal storage for their biosolids. Another difficulty in operating during daylight hours only, especially the given time frame of 8am-6pm, is the truck coordination of travel time to the rural areas. This limitation would make operations not feasible in many areas.

## CHAPTER 13. Cumulative Impacts

Page 13-4, 1st bullet reads:

"requirements for the discharger to use the services of a certified agronomist, crop advisor, or agricultural engineer to develop additional management practices related to: 1) determining the agronomic rate for biosolids application projects that includes all nitrogen sources applied..."

The Associations recommend to revise as follows: "requirements for the discharger to use the services of a certified agronomist, crop advisor, soils scientist, or agricultural engineer to develop additional management practices related to: 1) determining the agronomic rate for biosolids application projects that includes all nitrogen sources applied..."

Again, ARCPACS sets the standards for professional certifications for agronomists and soil scientists alike. Soil scientists are qualified to determine the ecological implications of a recommended agronomic rate.

## CHAPTER 14. Alternatives Analysis

Page 14-2, Modified GO Provisions:

Please modify the fourth bullet to read, "Land application of Class B Biosolids shall be prohibited within one half mile of areas defined as having a 'high potential for public exposure', unless access to the site is restricted by fencing and signs".

49-112

49-113

49-114

**CHAPTER 15. Mitigation Monitoring Program**

**Table 15-1:**  
The Associations recommend updating Table 15-1 to reflect the proposed changes in this comment letter. | 49-115

**Table 15-1, Mitigation Measure 4-1:**  
Change "phototoxicity" to "phytotoxicity" | 49-116

## **Responses to Comments from Tri-Tac / SCAP**

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- 49-1. This comment provides an overview of the California Association of Sanitation Agencies (CASA), Tri-TAC, and the Southern California Alliance of Publicly Owned Treatment Works (SCAP) (collectively referred to as the Associations). Additionally, the comment states that the Associations support the SWRCB's effort to develop a reasonable, science-based GO that will allow for the continued land application of biosolids in an environmentally safe manner without overly burdensome regulatory requirements. The commenter's opinion regarding the merits of biosolids land application is noted.
- 49-2. The commenter's opinion that there is no substantial evidence, in light of the whole record, that biosolids land application will have a significant adverse effect on the environment is noted. Where applicable, the responses to comments will identify when public comments are based on speculation.
- 49-3. See Response to Comment 8-4.
- 49-4. See Responses to Comments 23-27 and 23-31.
- 49-5. See Responses to Comments 8-4, 23-27 and 23-31.
- 49-6. Comment noted.
- 49-7. See Response to Comment 14-15.
- 49-8. The proposed GO text (Finding No. 3 of Appendix A) now defines "agriculture" as follows:
- The practice, science, or art of using the soil for the production of crops and/or raising livestock for human's use.
- 49-9. The proposed GO text (Finding No. 3 of Appendix A) now defines "Class B biosolids" as follows:
- Biosolids meeting the ~~pathogen~~ vector attraction reduction standards and meeting pollution concentration limits specified in 40 CFR Part 503 and pathogen reduction specified in 40 CFR Part 503.32(b).
- 49-10. See Master Response 11.
- 49-11. See Master Response 11.
- 49-12. See Response to Comment 14-9.

- 49-13. See Response to Comment 23-30.
- 49-14. The NRC committee made specific recommendations regarding organic chemicals in biosolids, especially for pollutants that were found in more than 5 percent of the sludge sampled in the NSSS. Although the committee did not specify that California should monitor its sludge for those chemicals in a general permit, the committee did recommend that “a more comprehensive and consistent survey of municipal water treatment plants is needed to show whether or not toxic organic compounds are present in sludges at concentrations too low to pose a risk to human health and the environment.” Monitoring for those listed constituents is therefore being required to establish California-specific data on those pollutants. See Responses to Comments 1-4, 23-31 and 23-43, and Master Response 6.
- 49-15. See Responses to Comments 14-3, 14-5, and 14-17. The landowner is ultimately responsible for the condition of his or her land and is therefore the focus for compliance.
- 49-16. The Safe Drinking Water and Toxic Enforcement Act applies to discharges of chemicals known to the State to cause cancer or reproductive toxicity into a source of drinking water. However, it does not appear that businesses employing fewer than 10 people, any city, county or district or any department or agency thereof, or any department or agency in state or federal government are subject to this law.
- 49-17. The proposed GO text (Prohibition No. 7 of Appendix A) has been revised as follows:
- ~~Surface water runoff~~From the permitted site, ~~resulting from irrigation water runoff of site to which biosolids has been applied~~is prohibited for 30 days after application of biosolids if vegetation in the application area and along the path of runoff does not provide 33 feet of unmowed grass or similar vegetation in the application area and along the path of runoff to prevent the movement of biosolids from the application site.
- 49-18. The proposed GO text (Prohibition No. 9 of Appendix A) has been revised as follows:
- Application of biosolids at rates . . . Certified Agronomist, Certified Soil Scientist, Registered Agricultural Engineer . . .
- 49-19. See Master Response 4.
- 49-20. See Master Response 9.
- 49-21. This requirement has been revised. See Response to Comment 21-80.
- 49-22. See Master Response 6.

- 49-23. See Master Response 4 and Response to Comment 14-19.
- 49-24. See Master Response 4.
- 49-25. The proposed GO text (Discharge Specification No. 7 of Appendix A) has been revised as follows:
- If biosolids are applied . . . than ten percent (10%) or if required by the Executive Officer, a report, including . . . be prepared by a Certified Soil Scientist, Certified Agronomist, Registered Agricultural . . .
- 49-26. See Master Responses 7 and 8.
- 49-27. See Response to Comment 23-38 and Master Response 3.
- 49-28. See Response to Comment 18-7.
- 49-29. See Response to Comment 45-62.
- 49-30. See Response to Comment 14-22.
- 49-31. See Response to Comment 14-23.
- 49-32. The CWEA Manual requires more specific information than is required by the proposed GO. As such, the Pre-Application Report requires the necessary information without the extra documentation listed in the CWEA Manual.
- 49-33. See Response to Comment 23-46.
- 49-34. See Response to Comment 23-42.
- 49-35. The text of the proposed GO, as found in Pre-Application Report, first paragraph, in the Monitoring and Reporting Program of Appendix A, has been revised as follows:
- A pre-application report shall be submitted for each field or distinct application area prior to the ~~initial~~ application of biosolids ~~in proposed application areas~~ in accordance with the WDRs. Where biosolids are applied on a continuing basis to a single area, the pre-application report may cover ongoing operations and need not be submitted for each load applied. A Pre-Application Report should be submitted 15 days prior to the date of the proposed application. . . .
- 49-36. See Response to Comment 14-5.
- 49-37. See Response to Comment 23-41.

- 49-38. See Response to Comment 23-42.
- 49-39. See Response to Comment 45-64.
- 49-40. See Responses to Comments 23-43 and 45-64.
- 49-41. See Response to Comment 45-65.
- 49-42. See Response to Comment 23-44.
- 49-43. See Response to Comment 23-45.
- 49-44. This requirement has been removed.
- 49-45. The new time frame for annual reporting has been changed since publication of the draft EIR. The new period is December 1 to November 30. Eventually electronic reporting may supersede any forms developed for the proposed GO. As such, the proposed language would inhibit such forms.
- 49-46. Page ES-3, third paragraph of the draft EIR is revised as follows:

The California Association of ~~Sanitary~~ Sanitation Agencies (CASA) . . .

- 49-47. See Master Response 2.
- 49-48. See Response to Comment 45-5.
- 49-49. See Response to Comment 45-6.
- 49-50. See Master Response 9.
- 49-51. See Response to Comment 45-8.
- 49-52. See Response to Comment 45-9.
- 49-53. See Response to Comment 45-10.
- 49-54. See Response to Comment 45-11.
- 49-55. The text of the GO, page ES-12, second paragraph, first sentence, is changed as follows:

The proposed GO species. . . ~~cannot be permitted~~ is not applicable.

Also, see Response to Comment 30-5.

- 49-56. See Master Responses 7 and 8.
- 49-57. See Master Response 5.
- 49-58. See Master Response 5.
- 49-59. See Master Response 5.
- 49-60. See Master Response 2.
- 49-61. See Master Response 2.
- 49-62. See Responses to Comments 14-3, 14-5 and 14-17.
- 49-63. See Master Response 10.
- 49-64. The SWRCB cannot restrict local government entities' ability to adopt biosolids control standards that are more restrictive than those of the State. Also see Response to Comment 23-4.
- 49-65. See Response to Comment 45-18.
- 49-66. See Response to Comment 45-19.
- 49-67. See Master Response 4.
- 49-68. See Response to Comment 14-9.
- 49-69. See Master Response 4.
- 49-70. See Master Response 4.
- 49-71. See Response to Comment 18-7.
- 49-72. Draft EIR page 2-15, third bullet, second sentence is revised as follows:

Groundwater monitoring would generally be required if the depth to groundwater at the ~~disposal~~ land application site is less than 25 feet and biosolids would be applied more than twice in a 5-year period.

- 49-73. Page 2-16, first paragraph, first sentence is revised as follows:

The proposed GO specifies several areas of the state within which biosolids application projects under the GO ~~cannot be permitted~~ are not applicable.

- 49-74. See Response to Comment 45-21.
- 49-75. See Response to Comment 45-22.
- 49-76. See the Response to Comment 45-23.
- 49-77. See the Response to Comment 45-24.
- 49-78. See the Response to Comment 45-27.
- 49-79. The suggested change is semantic in nature and would not substantively change the intent or significance conclusion finding for the impact. Therefore, no EIR changes have been made.
- 49-80. The commenter states that the NSSS demonstrated that organic pollutants in biosolids occur at low levels and do not pose significant risk to the environment or public health. The commenter noted that the science behind the NSSS would justify dropping SOC testing from the proposed GO program and that SOC testing will continue to be required by treatment plants as conditions of their NPDES permits.

Several scientists, including some at Cornell Waste Management Institute (1997), have criticized the science behind the risk assessment completed as part of the Part 503 regulations. For example, they cited EPA's finding that SOCs were present in fewer than 5% of the sludges in the NSSS and that these SOCs were not in sufficient concentrations to warrant their regulation. Therefore, SOCs could occur in 5% of biosolids and be present at levels of concern, but would not be regulated or further considered. Some SOCs were not included (they were excluded under the Part 503 regulations) because there was insufficient information to complete a risk analysis.

The NSSS has been criticized because standardized sludge sample analyses were not completed and samples analyzed from various treatment plants in the survey had markedly different water contents, which caused inconsistencies in determining detection limits. As a result, estimates of the concentrations and occurrence frequencies for some organic chemicals could not be reliably made. In addition, not all SOCs that may be present in biosolids are capable of detection by commercial analytical testing laboratories. A conservative approach has been taken in the proposed GO because of this controversy and uncertainty, supporting the need for ongoing research in these areas. The EIR recommends a set of mitigation measures that are protective of human health and the environment while not being overly burdensome to biosolids generators, applicators or end users.

The proposed GO does not require redundant or additional testing of SOCs in biosolids. If the generator tests for SOCs, per the requirements of their NPDES permit and these data, are available, then the proposed GO merely requires the test results to be included in the Pre-Application Report. If, for some reason, test data on biosolids constituent concentrations are unavailable, then the applicator must complete testing for the limited SOCs listed in the Pre-Application Report. The RWQCB, a farmer, or an applicator could conceivably request additional follow-up testing if the initial test results indicate areas of concern. This could include additional organic analyses not covered in the standard semi-volatile organic compound testing program, if the applicator is concerned about treatment area industrial discharges that generate waste that is not detectable in the NPDES permit-required analysis.

49-81. See Response to Comment 45-30.

49-82. Comment noted. The third sentence under the first impact header on Page 3-29 of the draft EIR, is hereby revised as follows:

The proposed GO defines the agronomic rate as “the nitrogen requirements of the plant needed for optimal growth and production, as cited in professional publications for California, the County Agricultural Commissioner, or recommended by a Certified Agronomist or Soil Scientist.”

49-83. See Response to Comment 45-33.

49-84. See Response to Comment 45-34.

49-85. Comment noted. The text for page 3-34, fourth bullet, second sentence of the draft EIR is revised as follows:

The proposed GO is therefore a more ~~restrictive~~ conservative approach than the  
...

See also Master Response 4.

49-86. The commenter would like the last sentence of the first bullet on page 3-37 of the draft EIR to be deleted (this sentence pertains to the unlawful disposal of hazardous wastes). This sentence has not been deleted because it is an accurate statement and is not intended to indicate that biosolids contain hazardous waste.

49-87. This change has not been made because the draft EIR is not evaluating the environmental impacts of fertilizers.

49-88. See the Response to Comment 45-40.

- 49-89. See the Response to Comment 45-41.
- 49-90. See the Response to Comment 45-42.
- 49-91. See Master Response 7.
- 49-92. The commenter states that Tables 5-1 & 5-4 need to be revised so that the survival time specifies a duration period. The requested duration periods have been added. See Response to 9-2.
- 49-93. After the last paragraph on Public Health, page 14-14, add the following:

Animal manures may pose a threat to human health. Farm animals such as cattle, pigs, and chickens become infested and excrete a number of human pathogens in their feces. These include *Salmonella*, *Campylobacter*, *Yersinia*, *E. coli* 0157:H7, *Listeria* spp., and the protozoan parasite *Cryptosporidium*. Cattle manure is believed to be the major source of both water- and food-borne outbreaks of *E. coli* in the United States associated with lettuce and apples.

Although animals have not been known to be a source of human enteric viruses, recent studies shown that hepatitis E infects pigs and can be found in their feces. Two recent cases of hepatitis E in the United States are believed to have been associated with water- and food-borne outbreaks in the developing world (Meng et al. 1998).

- 49-94. The commenter stated that the second sentence of the paragraph on draft EIR page 5-20 (relating to ambient air quality and air toxics) should be expanded to mention that the general nuisance provision in Section 41700 of the California Health and Safety Code indirectly pertains to biosolids land application.

The second sentence of the paragraph on draft EIR page 5-20 is hereby revised as follows:

There are no state policies or regulations that specifically address air quality issues related to biosolids land application. There are numerous state and local air quality regulations that govern compliance with transportation-related source emissions (from hauling equipment and incorporation equipment) and general provisions related to compliance with local air quality management district regulations for ambient air quality and specific source control which might have been adopted with regard to toxic air emissions. As an example, the general nuisance provision found in Section 41700 of the California Health and Safety Code indirectly pertains to biosolids land application. The federal and state ambient air quality standards of greatest concern with respect to land

application of biosolids are the particulate matter standard for fine particulates (PM10). For more details, see the air quality chapter (Chapter 10).

- 49-95. See Master Response 8.
- 49-96. See Response to Comment 9-4.
- 49-97. See Response to Comment 9-5.
- 49-98. This comments suggests adding language to Mitigation Measure 6-1 that allows for fences and signs to be installed in order to allow biosolids to be applied in areas having a high potential for public exposure. This change has not been made because the addition of this language contradicts the intent of the measure. The measure is intended, in part, to prevent aesthetic impacts, and installing fences would not achieve this mitigation.
- 49-99. Page 8-1, third paragraph of the draft EIR is revised as follows:
- The GO ~~prohibits application of biosolids~~ is not applicable in three areas of Region 2 . . .
- Also see Response to Comment 30-5.
- 49-100. The commenter is correct that EPA suspended the 1-hour standard when it promulgated the 8-hour standard. However, due to a court ruling, the 8-hour standard was remanded and the 1-hour standard was reestablished.
- 49-101. Of the fugitive road dust generated by vehicles, approximately 19 percent is PM10 (10 microns or smaller) while 81 percent is larger than PM10. Approximately 5% of fugitive road dust is PM2.5 or smaller.
- 49-102. The commenter is correct that the primary purpose of covering biosolids is not odor control, but to prevent precipitation from contacting biosolids. However, odor and dust control is a secondary benefit.
- 49-103. See Response to Comment 18-5.
- 49-104. The word “substantial” in the fifth bullet on page 10-6 is taken directly from the Appendix G of the CEQA guidelines environmental checklist form. The significance thresholds mentioned have been modified to reflect the programmatic nature of this EIR as described in Master Response 9 regarding paved and unpaved roads.
- 49-105. See Master Response 5.
- 49-106. See Master Response 5.

- 49-107. See Master Response 5.
- 49-108. See Master Response 5.
- 49-109. See Master Response 5.
- 49-110. See Master Response 5.
- 49-111. See Master Response 5.
- 49-112. The proposed change is not an acceptable mitigation. Theoretically, it would allow trucks to pass through residential areas at all hours of the night. Also see Response to Comment 45-49.
- 49-113. Page 13-4, first bullet of the draft EIR is revised as follows:
- Requirements for the discharger to use the services of a certified agronomist, crop advisor, soils scientist, or agricultural engineer . . . .
- 49-114. Signs and posting are not sufficient mitigation for nuisance odors and aesthetic detraction of those land uses designated as “high potential areas.”
- 49-115. See Appendix C of this final EIR for a revised version of Table 15-1, “Mitigation Monitoring Program”.
- 49-116. Table 15-1, Mitigation Measure 4-1 (under the Monitoring and Enforcement Activity column) of the draft EIR is hereby revised such that “phototoxicity” is changed to “Phytotoxicity”.