

**Land Application of Biosolids
Draft Ordinance Consistency with Board Adopted Directives**

Board Adopted Directive	Draft Ordinance Consistency
<p>1. Create a local ordinance establishing more stringent requirements for quality of acceptable biosolids material, as well as local control and oversight of how, when and where biosolids may be applied. A public education campaign (PEC) would be implemented concurrently.</p>	<p>The Draft Ordinance for land application of biosolids (Draft Ordinance) includes extensive control and oversight of land application by:</p> <ul style="list-style-type: none"> a) Requiring permits, which include submission of laboratory test results from biosolids generators; b) Requiring determination of agronomic rate for intended agricultural use; c) Requiring a Nutrient and Heavy Metals Management Plan; d) Limiting the season in which land application can occur; e) Limiting the total amount of biosolids that can be applied (10 tons per acre over three years); f) Prohibiting application in wind conditions exceeding five miles per hour; g) Requiring noticing to adjacent land owners; h) Prohibiting application in flood zones and areas where runoff to surface water could occur; i) Prohibiting application near drinking water sources; j) Limiting application on slopes exceeding 25%; k) Requiring an Erosion Control Plan for application on land exceeding 10% slopes; l) Requiring supervision of land application by the preparer of the Nutrient and Heavy Metals Management Plan; m) Requiring larger projects to conduct Water Quality Management Plans and Odor Management Plans; n) Requiring documentation and record keeping by biosolid generators and land appliers, including details on the

	<p>quantity and quality (specific pollutant concentrations) of biosolids material, as well as where, when, and by whom it was applied.</p> <p>While the Draft Ordinance does not establish more stringent requirements for the quality of acceptable biosolids material, there are numerous requirements regarding the application of biosolids material that are more stringent than current Federal or State regulations. Refer to Item #2 for further discussion on why quantitative standards were not included in the Draft Ordinance.</p> <p>A public education campaign can be implemented if the draft ordinance is adopted.</p>
<p>2. Local standards for sewage sludge quality shall be derived from but not limited to state and federal regulations; San Luis Obispo County should adopt a sewage sludge land application ordinance using pollution accumulation limits, considering local soil pollutant levels.</p> <p>3. San Luis Obispo County should incorporate into an ordinance a comprehensive set of constituents including heavy metals, synthetic chemicals, pathogens and other pollutants not limited to those in current state and federal standards, for setting sewage sludge quality and land accumulation limits.</p>	<p>By allowing Exceptional Quality (EQ) biosolids only, requiring baseline testing of the native soils for pollutants for each project, and requiring the short and long-term tracking of applied EQ material, the Draft Ordinance provides an effective tracking mechanism to ensure pollutant accumulation limits are not exceeded.</p> <p>In addition, EQ material must be applied in a manner that does not exceed the crop agronomic rate, as calculated by the land owner’s third-party professional consultant, which further limits the amount of material that can be land applied.</p> <p>Environmental Health Services (EHS) concluded that developing County-specific biosolids material quality standards would exceed our in-house expertise because comprehensive studies and testing would be required to determine quantitative standards, and would need to be sourced out and conducted over a period of years. It is EHS’ determination that the amount of resources and funding that would be required to</p>

	<p>establish specific quantitative levels of pollutants is not warranted since EQ material is required by the ordinance (change text per preceding highlight).</p> <p>It is also relevant to note that pollutant limits determined by the Federal 503 regulations are based on research from the National Academy of Sciences, which periodically conducts human health risk assessments (remove preceding highlight). The National Academy of Science reviewed the 503 regulations and concluded that land application of biosolids is safe when applied as prescribed in the regulations. More importantly, and consistent with the intent of the Board recommendations, the protection of public health can be achieved through the rigorous restrictions provided in the Draft Ordinance.</p> <p>It is acknowledged that there are contaminants of emerging concern, such as personal care products and pharmaceuticals, which are being detected in biosolids material. Research into the health effects of these contaminants is currently underway by the EPA and U.S. Geological Survey, as well as numerous other private research entities. Should research show that pollutant levels from contaminants of emerging concern are causing negative health effects, the Ordinance can be amended at a later date.</p>
<p>4. The County should establish a limitation on accepting or processing new land application projects for treated sludge beyond historical amounts of EQ treated sewage sludge until completion of the local ordinance to control and regulate land application of treated sludge.</p>	<p>This recommendation has been completed, via the Interim Ordinance. No projects have come in since its adoption in 2004.</p>
<p>5. In developing an ordinance San Luis Obispo County should consider all feasible methods of treated sewage sludge/biosolids management and their relative impacts.</p>	<p>EHS did consider other feasible methods of biosolids management. However, a concurrent comprehensive evaluation of feasible/viable alternatives for biosolids management was determined to be beyond staff resources .</p>

	<p>In doing research for alternatives to land application, the recurring opinion of experts in the field was that viable/feasible alternatives are quite limited (e.g., incineration (however the CA Air Resources Board has stringent regulations), composting, landfilling, use as an alternative daily or final cover for landfills, surface disposal for mine reclamation and fire ravaged land, deep well injection, cement kiln fuel.</p> <p>Co-generation of power is a trend being utilized by some CA WWTP's as a method to reduce waste that goes to landfills as CalRecycle is pushing landfills to further reduce landfilling amounts. By adding food scraps and domestic grease to the WTPP digesters, less recyclable material is landfilled, and although the process does create additional bio-gas to off-set plant energy costs, the process still results in a Class B biosolids being generated.</p> <p>According to Federal and State authorities, jurisdictions are waiting for other governmental entities to try new alternative technologies due to concerns the new unproven methodologies are expensive and may not be cost effective in the long-term.</p> <p>The Draft Ordinance does not restrict other beneficial uses of biosolids. Nor does the Draft Ordinance require that biosolids be land applied. The Draft Ordinance provides a set of regulations to govern the land application of biosolids.</p> <p>If and when a project is proposed for an alternative beneficial use of biosolids, EHS would participate in developing policy, as appropriate.</p> <p>The EIR will consider alternatives to land</p>
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	application, but the scope will be more limited.
6. Specific procedures to ensure adequate public and community notification of project proposals, including opportunities to comment regarding them.	<p>Via Section 8.13.090, the Draft Ordinance requires notification of neighboring landowners regarding proposed land application projects at least 14 days in advance. Since the land application ordinance permitting process would not be discretionary, a formal process for public comment was not included.</p> <p>However, comments received from the public on a proposed land application project would always be accepted, reviewed and addressed as deemed appropriate. Proposed projects could be posted on our website for public review. Further, our policies and procedures could explain how the public could comment on proposed projects.</p>
7. Specific testing, written notification and reporting procedures to ensure the users of land applied biosolids receive adequate information about treated sewage sludge/biosolids content, source, and usage guidelines (e.g., that landowners/users would understand the potential problems and benefits of land appl.).	The Draft Ordinance requires specific testing and reporting procedures in several areas. See Sections 8.13.070/080/100/110, etc. The addition of specific policies and procedures and educational materials would further serve to inform and educate users regarding the pros and cons of land application. Handouts and website resources could be developed as well.
8. Specific procedures for delivering a notification to recipient landowners and users as to the potential problems and benefits associated with the use and/or misuse of treated sewage sludge/biosolids, and for obtaining formal and prior informed consent.	Although the draft doesn't specifically address such notification, EHS believes the permitting process would adequately vet such issues and that users and land owners would be sufficiently informed. Due to negligible health risks with EQ, we do not see the need to require informed consent.
9. Specific procedures to ensure that the fees imposed upon each project are sufficient to fund required assessment, monitoring and oversight activities.	<p>Section 8.13.130 addresses fees. Policies and procedures would be developed to handle specifics.</p> <p>Adequate project fees for pre and post land application monitoring and oversight is considered important to ensure regulations are met.</p>

<p>10. Provisions for assessment of fines and/or penalties in case of violations to effectively and rapidly enforce its regulations.</p>	<p>Section 8.13.190 addresses penalties/fines. Policies & procedures would be more specific.</p>
<p>11. Requirements for project proponents to post performance bonds and obtain insurance coverage, including pollution liability, to recompense parties potentially impacted by related remediation and/or litigation.</p>	<p>Sections 8.13.140/150 addresses liability and remediation responsibilities.</p> <p>Again, since EQ could theoretically be land applied essentially like any other commercial fertilizer, requiring liability insurance was considered punitive (although the draft does mention such insurance could be required on a case-by-case basis).</p>
<p>12. General Use and Site Prohibitions</p> <p>In preparing its ordinance, San Luis Obispo County should consider how, when, where, and whether treated sewage sludge/biosolids should be applied to:</p> <ul style="list-style-type: none"> a. Human Food-Chain Crops b. Animal Feed Crops c. Grazing, Pasture Land d. Agricultural Soil Classifications e. Home Gardens f. Home Lawns g. Public Parks h. School Playgrounds i. Sports Fields j. Forests k. Sensitive Ecological Areas & Species 	<p>The draft specifically states that EQ biosolids can only be applied in agricultural zoned areas for crops, grazing, and pasture land. The draft also says EQ biosolids may be considered for land reclamation projects, via discretionary permitting and review by EHS and other appropriate governmental agencies. See Section 8.16.040 #8.</p> <p>Since the draft regulates five or more cubic yards being land applied, home gardeners would be exempt from regulation.</p>