State Water Resources Control Board, Division of Water Quality P.O. Box 100, Sacramento, CA 95812-0100

California Environmental Quality Act DRAFT Initial Study

1. Background

1.1. Project Title:

General Waste Discharge Requirements for the Discharge of Wastes at Compost Management Units

1.2. Applicant:

State Water Resources Control Board, Division of Water Quality

1.3. Applicant's Contact Person:

Roger Mitchell, PG

State Water Resources Control Board, Division of Water Quality

9174 Sky Park Court, Suite 100

San Diego, CA 92123-4340

rmitchell@waterboards.ca.gov

2. Introduction

During the early 1990's, the State Water Resources Control Board (State Water Board) staff developed boilerplate language for a conditional waiver of waste discharge requirements (WDRs) for composting operations. By 1996, this language was incorporated by most of the Regional Water Quality Control Boards (Regional Water Boards) into region-specific conditional waivers of WDRs for composting facilities (Green Waste Conditional Waivers). These waivers addressed potential impacts to water quality from the storage and treatment of various wastes by composting including green waste, food processing waste, agricultural waste, and paper waste, with a total on-site volume greater than 500 cubic yards (cy) at any given time.

In 1999, sections 13269 and 13350 of the California Water Code (Water Code) were amended through the enrollment of Senate Bill 390, which required all waivers issued by the State and/or Regional Water Boards to be terminated effective January 1, 2003 unless the State and/or Regional Water Board:

- Concludes after reviewing the waiver policy terms, in a public hearing, that the discharge for which the waiver policy was established should not be subject to general or individual WDRs;
- Incorporates into the waiver policy requirements for compliance with the conditions pursuant to which a waiver was granted; and
- Incorporates into the waiver policy provisions stipulating that a person, enrolled under the waiver, may be liable civilly if that person intentionally or negligently violates any of the waiver requirements; or in violation of prescribed requirements, intentionally or negligently discharges waste, or causes waste to be deposited where it is discharged, into the waters of the state and creates a condition of pollution or nuisance.

Waiver policies adopted by either the State or a Regional Water Board, on or after January 1, 2003, pursuant to Water Code section 13269 and 13350, must be re-adopted every five years, along with the California Environmental Quality Act (CEQA) analysis. As a result of the Water Code amendments, composting facilities were either issued individual WDRs or they were regulated under informal waiver requirements, the latter of which are unenforceable and pose a significant threat to the environment and waters of the state.

In 2008, the State Water Board in consultation with the Department of Resources Recycling and Recovery (CalRecycle) began developing water quality protection regulatory concepts for a statewide general order for discharges of waste at Compost Management Units (CMUs). By 2011, the State Water Board began collaborating with external stakeholders to further develop regulatory concepts, which later became the State Water Boards' *Statewide General Waste Discharge Requirements for Discharges of Wastes at Compost Management Units* (hereinafter the Order).

3. Project Description

The project is the adoption of the Order, which is applicable to any person responsible for discharging, or proposing to discharge waste to a CMU, or any person who owns and/or operates a CMU; or any person responsible for ensuring compliance with the maintenance and monitoring operations at a CMU (hereinafter the Discharger), whereby the Order establishes three tiered design specification and monitoring and maintenance requirements based on the following three considerations:

- Which of the feedstocks specified in the Order (agricultural materials, biosolids, food materials, green materials, manure, paper materials, and/or vegetative food materials) are discharged, or are proposed to be discharged at the CMU;
- The total volume of the feedstocks, additives, amendments, and compost (active or stabilized) discharged (i.e., stored and treated), or proposed to be discharged at the CMU at any time; and
- The ability to conduct composting in a manner that minimizes leachate production.

The proposed Order provides regulatory requirements for the protection of water quality, while harmonizing with the regulatory requirements for composting operations, promulgated by CalRecycle, under California Code of Regulations (Cal. Code Regs.) title 14, beginning with section 17850.

4. Environmental Setting

The environmental setting is "the physical environmental conditions in the vicinity of the project, as they exist at the time environmental analysis is commenced, from both a local and regional perspective. (Cal. Code Regs. tit. 14, section 15125, subd. (a)) This project covers CMUs throughout California that potentially meet the criteria in the proposed order. Site specific information can be found on the State Water Board's data management system, GeoTracker. The scope of the *General Waste Discharge Requirements for Discharges of Waste at Compost Management Units* includes all Compost Management Units located within the State of California.

5. <u>Responsible and Trustee Agencies</u>

It is the responsibility of local governments, through the exercise of general permitting authority, to ensure that: (1) a CMU has been sited appropriately, (2) it is adequately planned and equipped; and (3) it has adequate control and monitoring mechanisms. Additionally, to protect the health of CMU workers and surrounding communities, CMUs are designed and operated with protective factors such as the uniform mixing of compost, moisture control, temperature control, dust control, ventilation of buildings (if applicable), odor control, and liquids run on/runoff (Epstein and Epstein, 1989). The Regional Water Boards are responsible for the protection of surface and ground water quality within their respective regions. Other local and/or state agencies that have regulatory authority over siting and operation of CMUs include, but may not be limited to:

- Department of Food and Agriculture;
- Department of Public Health;
- Department of Resources Recycling and Recovery;
- Local Air Quality Districts;
- Local Counties and Cities; and
- Local Solid Waste Enforcement Agencies (LEAs)

6. Environmental Impacts

This project may potentially affect the following checked environmental factors. See the checklist on the following pages for more details.

Issues	Section
Aesthetics	6.1
Agriculture and Forestry Resources	6.2
Air Quality	6.3
Biological Resources	6.4
Cultural Resources	6.5
Geology/Soils	6.6
Greenhouse Gas Emissions	6.7
Hazards & Hazardous Materials	6.8
Hydrology/Water Quality	6.9
Land Use/Planning	6.10
Mineral Resources	6.11
Noise	6.12
Population/Housing	6.13
Public Services	6.14
Recreation	6.15
Transportation/Traffic	6.16
Utilities/Service Systems	6.17
Mandatory Findings of Significance	6.18

		Less Than		
	Potentially	Significant	Less Than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
Issues (and Supporting Information Sources):		Incorporated		

6.1. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista?b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and

historic buildings within a state scenic highway?

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?
- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Conclusion:

The proposed Order itself would not directly result in potential impacts to aesthetics. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

		Less Than		
	Potentially	Significant	Less Than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
Issues (and Supporting Information Sources):		Incorporated		

- **6.2. AGRICULTURAL AND FOREST RESOURCES**. In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:
 - a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses?



- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?
- d) Result in the loss of forest land or conversion of forest land to non-forest use?
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?



Conclusion:

The proposed Order itself would not directly result in potential impacts to agricultural and forest resources. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.3. Air Quality				
a) Conflict with or obstruct implementation of the applicable air quality plan?				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				
c) Expose sensitive receptors to substantial pollutant concentrations?				
d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?				

e) Create objectionable odors affecting a substantial \Box \Box \blacksquare \Box number of people?

Air Quality (paragraphs "b". "c". and "d") Discussion:

Air quality impacts such as an increase in the concentration of airborne dust and particulates may occur as a result of, but may not be limited to equipment operations or windy conditions over bare ground. These impacts can be controlled by: (1) keeping adequate moisture in and on piles of feedstocks, additives, amendments, and compost (active or stabilized); (2) applying adequate moisture to roadways and working surfaces at the CMU, and (3) adhering to local, regional, and state air quality management requirements.

The process of composting releases greenhouse gases (e.g., carbon dioxide), but such operations are subject to permit limits established under the local Air Quality Management District or Air Pollution Control District. Likewise, siting and design of CMUs are within the purview of local land use authorities and mitigation measures related to air quality would be required as a condition of their approval. Therefore, the dust and greenhouse emissions involved with activities conducted under the Order should not violate air quality standards.

The process of composting may result in the release of noxious gases (e.g., hydrogen sulfide), if anaerobic conditions develop (e.g., due to saturated conditions and inadequate turning). Similar to the mitigation measures for unpleasant odors, proper aeration through frequent mixing and turning of the active compost will likely limit the potential formation and release of noxious gases.

Objectionable Odors (paragraph "e") Discussion:

There may be unpleasant odors if anaerobic conditions develop — e.g., due to saturated conditions or inadequate turning. In addition, the decomposition of lignin, a complex chemical compound found in plants, produces naturally occurring phenols. These natural phenols can impart an unpleasant taste and odor to water, but are non-toxic (Provost, 1992). Proper aeration through frequent mixing and turning of the compost will prevent odor from becoming a significant adverse impact (Richard and Chadsey, 1990; Provost, 1992).

The proposed Order incorporates environmentally protective measures, including nuisance prevention. Under the Order the Discharger must operate without causing, threatening to cause or contributing to conditions of contamination, pollution, or nuisance (including odors), and the Discharger's NOI must declare how the operation will achieve this goal.

Lastly, under Cal. Code Regs., tit. 14, section 17867, subd. (a)(2), CalRecycle includes effective odor and nuisance control measures as minimum standards applicable to any composting operation. The LEA has primary responsibility for assuring that a given composting operation is in compliance with the CalRecycle's minimum standards, including odor control.

Given the LEA's efforts plus the site-specific mitigation procedures that, as part of the proposed NOI for a CMU, become enforceable upon approval, CMUs under this Order should not produce significant odor problems.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to air quality. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special statu species in local or regional plans, policies, or regulations, or by the DFG or USFWS?	s		•	
 b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS? 			•	
c) Have a substantial adverse effect on federally- protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, <i>etc.</i>) through direct removal, filling, hydrological interruption or other means?	e		-	
 d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites? 				•
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			•	
 f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? 				•

Impacts to Biological Resources (paragraphs "a" - "c", and "e") Discussion:

There may be impacts to plant and animal habitat when constructing and operating a CMU. It will be necessary to obtain site-specific data on a project-by-project basis to determine potential impacts to flora and fauna, especially if a facility is located in or adjacent to sensitive habitat. Appropriate local, state, and federal agencies should be involved in any case where the siting of a CMU in a specific area could adversely impact a sensitive ecosystem. In such a case, the local land use authority should instigate the CEQA process to analyze and address any site-specific environmental impacts that are outside the scope of the impacts and their respective mitigatory measures considered in this document. Therefore, CMUs under this Order should have a less than significant impact on biological resources.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to biological resources. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.5. CULTURAL RESOURCES. Would the project:				
 a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? 			•	
 b) Cause a substantial adverse change in the significance of an archaeological resource as defined in Section15064.5? 			•	
 c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? 			•	
d) Disturb any human remains, including those interred outside of formal cemeteries?			•	

Impacts to Cultural Resources, Including Archeological, or Paleontological Resources or Human Remains (paragraphs "a" – "d") Discussion:

Although there is a slight possibility that the grading operations prior to and during composting operations could disturb a previously unknown cultural resource, responding appropriately to such an occurrence is within the scope of permits issued by local land use

agencies. Therefore, CMUs under the proposed Order are unlikely to produce any significant impact upon cultural resources.

Conclusion:

The proposed Order itself would directly result in less than significant potential impacts to cultural resources. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Issues (and Supporting Information Sources):		Incorporated		
6.6. GEOLOGY and SOILS. Would the project:				
 a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: 				•
 i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42. 				•
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				•
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?			•	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				•
 d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? 			•	

e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?

General Discussion:

The construction and operation of a CMU may result in compaction and covering over of the soil. Dischargers composting feedstocks (agricultural materials, biosolids, food materials, green materials, manure, paper materials, and vegetative food materials), additives, and amendments, can pose a threat to water quality either from runoff from the facility property or downward percolation of wastewaters. Likewise, the construction and operation of a CMU may also involve creating a change in the surface topography as a result of grading of the site.

In the case of this project, both the ground compaction and grading are, in fact, mitigatory measures that the Order requires in order to provide protection of water quality (see Hydrology and Water Quality, below). It is not possible to quantify impacts pertaining to grading and compaction at this time; however, these changes should be of minimal extent, will occur only upon land that is zoned for such work (e.g., agricultural or industrial), will be subject to local planning, design, and construction criteria for each individual CMU, and, typically, will need to be reversed as part of the site restoration activities specified under *Site Restoration Specifications* of the Order.

Substantial Soil Erosion or Loss of Topsoil (paragraph "b") Discussion:

The flow concentration aspects of the required run-on and run-off control systems could result in some soil erosion during large storms. Therefore, under the proposed Order, the Discharger's NOI must include a plan to prevent significant surface erosion during a 25-year return interval 24-hour duration storm. Upon approval by the Regional Water Board, this becomes an enforceable requirement. Therefore, CMUs implementing site-specific mitigation plans and procedures according to the Order are unlikely to produce any significant soil erosion or loss of topsoil.

Operations Located on Expansive Soil (paragraph "d") Discussion:

Although there is a remote possibility that a CMU could be located upon an expansive soil, this would not result in risks to life or property, given that such operations are carried out under outdoor conditions and not within large man-made structures.

Soils Incapable of Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems (paragraph "e") Discussion:

It is possible that a CMU might use a septic tank and leach field for sewage disposal. However, such installations are regulated by local public health agencies that routinely deny a permit in any case where the site fails to pass the percolation test. In such a case, the Discharger would have to find another solution, such as the installation and maintenance of portable toilets. Therefore, CMUs operating under the proposed Order are unlikely to cause environmental degradation with regard to sewage disposal, given the implementation of local siting permits.

It is also possible that a Discharger proposes the use of a detention pond to control wastewater run-off in a location of high soil permeability. In this case, the pond might serve as an artificial recharge device, thereby causing groundwater pollution. The proposed Order

addresses this concern by establishing the performance standards whereby Dischargers implementing either Tier 1 or 3 design specifications at a CMU are responsible for designing, constructing, and maintaining any wastewater detention pond in such a way as to prevent conditions contributing to, causing, or threatening to cause contamination, pollution, or nuisance. Dischargers implementing Tier 2 design specifications at a CMU, are required to design, construct, and maintain a wastewater detention pond to maintain a hydraulic conductivity of 1×10^{-6} cm/s or less. Given the mitigating effect of a well-designed and maintained detention pond, the proposed Order should result in no significant effect on groundwater as a result of run-off water percolating downward to groundwater.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to the geology and soils. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.7. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			•	
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			•	

Greenhouse Gas Emissions (paragraph "a") Discussion:

While the process of composting releases greenhouse gases (e.g., carbon dioxide), such operations are subject to permit limits established under the local Air Quality Management District or Air Pollution Control District. Likewise, siting and design of CMUs are within the purview of local land use authorities and mitigation measures related to air quality would be required as a condition of their approval. Therefore, greenhouse emissions involved with activities conducted under the Order should not violate air quality standards.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to greenhouse gas emissions. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

	Potentially	Significant	Less Than			
	Significant	With	Significant	No		
	Impact	Mitigation	Impact	Impact		
ssues (and Supporting Information Sources):	Incorporated					

6.8. HAZARDS and HAZARDOUS MATERIALS. Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			•
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			-
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?			•
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment?		•	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?			•
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			•
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			•
 h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with 			•

wildlands?

CMU is Located on a Hazardous Materials Site (paragraph "d") Discussion:

If a CMU sited and operated on a property polluted with hazardous waste, the operations have the potential to mobilize some of the hazardous constituents. The proposed Order precludes the siting of a CMU at a property polluted with hazardous waste under Prohibitions, section D.3, and requires the Discharger, as part of the NOI Technical Report to consult the Cortese List maintained by the Department of Toxic Substances Control, for all known hazardous waste sites statewide. Therefore, CMUs properly sited according to the Order should have a less than significant impact on introducing new hazards to the public or to the environment from siting.

Conclusion:

The proposed Order itself would directly result in less than significant hazard to public or the environment. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.9. HYDROLOGY and WATER QUALITY. Would the proje	ect:			
a) Violate any water quality standards or waste discharge requirements?		•		
 b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (<i>e.g.</i>, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? 				•
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off- site?			•	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			•	

e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		•	
f)	Otherwise substantially degrade water quality?	•		
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			•
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		•	
i)	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?			•
j)	Inundation by seiche, tsunami, or mudflow?			

Effects on Water Quality (paragraphs "a" and "f") Discussion:

Preliminary water quality information collected indicates that composting of the feedstocks and additives, and/or the incorporation of amendments as specified in the Order, is relatively innocuous, when compared to the composting of such feedstocks as municipal solid waste, animal carcasses, and/or untreated sewage sludge. Nevertheless, composting of feedstocks and additives listed in the Order do have the potential to produce water quality impacts. These water quality impacts can be mitigated if the CMU implements effective control of run-on drainage (from off-site), run-off drainage (surface waters produced on-site), and downward percolation (Cole, 1994) in accordance with the Design Specifications of this Order.

The discharge of specified feedstocks, to land for the purposes of composting under the Order can include small quantities of organic and inorganic chemical constituents that can be mobilized during the composting process, including pesticides, fertilizers, nutrients, or chemical additives commonly used in the agriculture, food processing, home horticulture and lawn care, or paper processing industries. Such compounds could leach from a compost treatment or storage area into surface waters, or percolate down to groundwater if no run-on or run-off controls or containment structures have been incorporated into the design of a facility. Further degradation may result if normal pH is not maintained and the compost is not kept under aerobic conditions. An increase in physical and/or chemical oxygen demand (BOD), chemical oxygen demand (COD), nitrate, ammonia, odor, turbidity, pesticides, or trace metals may result from excessive liquid entering into a treatment area (Provost, 1992). The underlying soils may become saturated as a result of the formation of leachate in the waste; groundwater may be degraded as well as surface water (Provost, 1992; Fulford *et al.*, 1992).

In accordance with Cal. Code Regs., tit. 27, section 20200 subd. (a), the State Water Board has established that "For wastes that cannot be discharged directly to waters of the state, the waste classification system under Title 27" shall provide the basis for determining which wastes may be discharged at each class of Unit. Waste classifications are based on an

assessment of the potential risk of water quality degradation associated with each category of waste." However, Cal. Code Regs., tit. 27, section 20200 subd. (a)(1) authorizes the Regional Water Board to make a finding that, "...a particular waste constituent or combination of constituents presents a lower risk of water quality degradation than indicated by classification according to this article." Pursuant to the Order, the Discharger's Notice of Intent (NOI) must list and propose all feedstocks, additives, and amendment materials, so it will be clear that the waste involved is non-hazardous, is not a designated waste, and will pose a lower risk to water quality.

Mitigations to potential water quality impacts are an intrinsic part of the Order. For example, the Order requires the Discharger, under Tiers 1 and 3, to propose site-specific construction and operation procedures which will minimize the production of leachate and minimize its potential either to percolate downward to groundwater or to become a major contributor to site run-off. In most cases, the Discharger's proposed approach will include ground compaction by heavy equipment in the course of normal operations in combination with other methods, such as moving the location of the stock and composting piles, from time to time, to assure that the compost and storage piles remain on low-permeability compacted soil.

Likewise, the Order requires the Discharger to control facility run-on and run-off via grading and the construction of drainage features. Run-off water consists of the on-site surface flow of wastewaters from compost, feedstock, and additive piles, plus waters from precipitation events. Run-off control is essential to prevent ponding (at other than an intentional retention pond), to assure that potentially-polluted on-site surface water is collected and disposed of in an environmentally protective manner, and to assure that run-off does not cause local offsite flooding. Run-on control helps to assure that the CMU will not be burdened by the addition of off-site surface water. Run-on control typically involves creating a drainage ditch around the up-hill portions of the site to divert any off-site surface waters away from the project site.

There are a number of ways in which the Discharger could address the collection and disposal of run-off water. If the site will not be able to discharge its run-off water to a sewer, for treatment by a publicly owned treatment works, the proposed Order requires the Discharger to plan for collecting the runoff in a suitably designed surface impoundment. There are some locations where the weather is hot and dry enough that the Discharger's waste-water treatment needs can be addressed by an evaporation pond. If the Discharger proposes to discharge the run-off water to a surface water body, the Order requires an NPDES permit, which will limit, control, and monitor the release of adverse constituents.

Alterations to Existing Drainage Patterns of the Site or Area (paragraphs "c" through "e" and including "h") Discussion:

The grading, surface soil compaction, and drainage control work, as proposed by the Discharger and approved by the Regional Board Executive Office, will provide reliable protection against the operation's producing an adverse impact on surface or groundwater quality from the operation. Although such mitigation measures, themselves, have a temporary impact upon the site's soils and drainage patterns, all such impacts are minor. The Order requires the Discharger to propose and implement a site restoration plan that will reverse all such impacts, to the extent feasible, as part of permanently ceasing operations. Under the Order, the Discharger must design the run-off and run-on control structures to withstand the flow from an intense thunderstorm without significant soil erosion and to preclude contributing to off-site flooding conditions.

Potential to impede or redirect flood flows within a 100-year flood hazard area (paragraph <u>"h") Discussion:</u>

The Order requires the Discharge to discuss, as part of the Technical Report submitted in conjunction with the NOI, whether the CMU is located within a 100-year flood plain basin, based on the Federal Emergency Management Agency's (FEMA) designation, and any design features to prevent inundation of the feedstocks, additive, amendments, and/or compost (active or stabilized). Although there is a possibility that a CMU may be located within a 100-year flood plain, such an occurrence and any potential impediments or redirection of flood flows is within the scope of permits issued by local land use agencies.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to hydrology and water quality. With regards to the potential to violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality, the proposed Order itself would directly result in less than significant impacts to water quality, provided the mitigation measures prescribed within the proposed Order are adhered to. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
lssues (and Supporting Information Sources):		Incorporated		
6.10.	LAND USE AND PLANNING. Would the project:				
а) Physically divide an established community?				-
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				-
С) Conflict with any applicable habitat conservation plan or natural community conservation plan?			•	
	hitat Canaanyatian Dlan/Natural Community Concernation	n Dlan (aaraaraab	" ~ ")	

Habitat Conservation Plan/Natural Community Conservation Plan (paragraph "c") Discussion:

There is a possibility that a CMU could be proposed at an unsuitable location, regarding an existing or proposed habitat conservation plan or natural community conservation plan. However, all such proposed land uses must be approved by the local planning and zoning agencies. Therefore, projects conducted according to the Order are likely to have a less than significant impact.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to land use and planning. Composting projects regulated under the proposed Order would be subject to

project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	
6.11. MINERAL RESOURCES. Would the project:					

- a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?



Conclusion:

The proposed Order itself would not directly result in potential impacts to mineral resources. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.12. NOISE. Would the project result in:				
 a) Exposure of persons to, or generation of, noise levels in excess of standards established in the loca general plan or noise ordinance, or applicable standards of other agencies? 	□ al		•	
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?			•	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			•	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			•	

e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels?		•
f)	For a project within the vicinity of a private airstrip, would the project expose people residing in or		

Noise/Vibration Level (paragraphs "a" - "d") Discussion:

working in the project area to excessive noise levels?

CMUs are not likely to produce vibration impacts, except that there may be some increase in noise level as a result of truck and equipment operation during pre-construction, construction, and facility operation. Furthermore, the LEA is responsible for assuring that any composting operation meets the minimum standards listed in Cal. Code Regs., tit. 14, section 17867, including the minimization of noise impacts [Cal. Code Regs., tit. 14, section 17867 subd. (a)(2)]. Lastly, although it is not possible to quantify site-specific noise impacts at this time, prior to siting and permitting, any compost facility should be located in accordance with local land use and zoning ordinances and operated in accordance with all applicable noise ordinances. Therefore, CMUs permitted under the proposed Order should not result in a significant increase in noise levels.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to noise. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.13. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area either directly (<i>e.g.</i> , by proposing new homes and businesses) or indirectly (<i>e.g.</i> , through extension of roads or other infrastructure)?				•
 b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? 				•
 c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? 				•

Conclusion:

The proposed Order itself would not directly result in potential impacts to population and housing. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

		Less Than		
	Potentially	Significant	Less Than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
Issues (and Supporting Information Sources):		Incorporated		

6.14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

a) Fire protection?		
b) Police protection?		
c) Schools?		
d) Parks?		
e) Other public facilities?		

Conclusion:

The proposed Order itself would not directly result in potential impacts to public services. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

		Less Than		
	Potentially	Significant	Less Than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
Issues (and Supporting Information Sources):		Incorporated		
6.15. RECREATION. Would the project:				
 a) Increase the use of existing neighborhood and 				
regional parks or other recreational facilities such				
regional parte of other reoreational radiates such				
that substantial physical deterioration of the facility				
would occur or be accelerated?				

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Conclusion:

The proposed Order itself would not directly result in potential impacts recreation. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.16. TRANSPORTATION / TRAFFIC. Would the project:				
 a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? 			•	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			•	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				•
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				•
e) Result in inadequate emergency access?				-

 f) Conflict with adopted policies, plans, or programs
 □
 □
 □
 ■
 supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Generation of Additional Vehicular Movement (paragraphs "a" and "b") Discussion:

Although it is not possible to evaluate potential traffic impacts on a statewide basis, there may be an increase in local traffic due to haulers transporting waste to a CMU. This could have a local effect upon traffic congestion as well as the wear rate of local roads. For any project large enough to produce such problems, a local agency can require traffic studies to determine if there will be adverse environmental impact associated with a possible increase in traffic. It is necessary to plan, site, and design compost facilities on a project-specific basis. It is possible to alleviate most foreseeable traffic impacts by siting a CMU in an uncongested or unpopulated area and by establishing adequate ingress and egress patterns or by siting the operation in an area zoned industrial and provided with roads and highway access adequate to accommodate the needs of all business therein located. Such considerations will be part of the information the local agency considers prior to issuing a land use permit. Therefore, CMUs should not result in significant vehicular movement concerns when designed and operated in accord with local plans, ordinances and policies and in conjunction with this Order.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to transportation/traffic. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

Issues	(and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6.17.	UTILITIES AND SERVICE SYSTEMS. Would the proj	ect:			
a	a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			•	
t	b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?			•	
C	c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?			•	
C	I) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				•

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			•
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			•
g) Comply with federal, state, and local statutes and regulations related to solid waste?		•	

Exceedance of Wastewater Treatment Requirements (paragraph "a") Discussion:

Without mitigation, run-off waste waters from CMUs would most likely exceed water quality objectives for surface water and groundwater. However, this Order implements mitigatory measures such as low hydraulic conductivity requirements to protect groundwater from degradation and run-on/run-off requirements — including an NPDES permit for direct discharges — to protect surface water quality. Any discharges to a sewer system will be subject to arrangements with the applicable publicly-owned treatment works (POTW), which can impose pre-treatment requirements, if needed. Therefore, CMUs operated and designed according the Order should not pose a significant threat to wastewater treatment requirements.

<u>Need to Construct New/Expanded Storm Water or Wastewater Facilities (paragraphs "b"</u> and "c") Discussion:

Some CMUs that, prior to the initiation of composting operations, directed surface run-off to storm water sewers may, as a result of operating under the proposed Order, propose to direct their surface run-off to a sanitary sewer system for treatment by a POTW. Although this may involve a minor increase in the loading on any given POTW, the Discharger must make arrangements to have their discharge to the sanitary sewer system approved by the POTW. Such arrangements are discretionary on the part of the POTW, which retains the right to impose water quality or quantity restrictions upon the discharge if necessary to maintain effective wastewater treatment processing. Therefore, the adoption and implementation of this Order will not result in the need to construct new or expanded storm water or wastewater facilities.

Compliance with Federal, State, and Local Solid Waste Requirements (paragraph "g") Discussion:

The proposed Order incorporates all applicable State Water Board requirements regarding solid waste handling. Also, in accordance with the Order, CMUs are required to comply with the federal NPDES permit if they propose to discharge wastewater to surface water. CalRecycle regulates non-water quality aspects of solid waste handling with a tiered permitting system. All CMUs involving 12,500 cubic yards, total, of materials will have to meet CalRecycle's "full permit" requirements. The regulated community is familiar with the CalRecycle's system. To match CalRecycle's permitting structure, the State Water Board is proposing to use the same threshold value (12,500 cubic yards) for the Order. Many local jurisdictions regulate the discharge of solid waste through zoning restrictions. The Regional

Water Boards, CalRecycle, and LEAs all have enforcement authority to address violations of their solid waste requirements. Therefore, any significant non-compliance with federal, state, or local solid waste requirements can be addressed through existing enforcement authorities.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to utilities and service systems. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

		Less Than		
	Potentially	Significant	Less Than	
	Significant	With	Significant	No
	Impact	Mitigation	Impact	Impact
Issues (and Supporting Information Sources):		Incorporated		

6.18. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) c) Does the project have environmental effects that will cause substantial adverse effects on human beings,

either directly or indirectly?

Possible Impacts to Fish or Wildlife Species or Populations; Plant or Animal Communities; Rare or Endangered Plants or Animals; or Examples of Major Periods of State History or Prehistory (paragraph "a") Discussion:

Given the considerations and mitigative measures the proposed Order imposes, as discussed in response to all of the foregoing topics of concern in this checklist, CMUs should produce no significant impacts regarding the above-listed plants, animals, communities or artifacts.

Significant Cumulative Impacts (paragraph "b") Discussion:

Given the considerations and mitigative measures the proposed Order imposes, as discussed in response to all of the foregoing topics of concern in this checklist, and given the fact that CMUs under the proposed Order will be spread out over the State in response to the availability of feedstock material, this project is unlikely to produce any significant cumulative impacts other than diverting a significant proportion of the feedstock material from being disposed as a waste in landfills. Therefore, the project will have an overall positive impact.

Substantial Adverse Effects on Human Beings (paragraph "c") Discussion:

Given the considerations and mitigative measures the proposed Order imposes, and the potential additional regulatory oversight by other State and local agencies (i.e., CalRecycle, LEAs, Air Quality Management Districts, Department of Public Health, etc.) as discussed in response to all of the foregoing topics of concern in this checklist, this project is unlikely to preclude any substantive adverse effects on human being, either directly or indirectly.

Conclusion:

The proposed Order itself would directly result in less than significant impacts to the mandatory findings of significance, provided the mitigation measures prescribed within the proposed Order are adhered to. Composting projects regulated under the proposed Order would be subject to project level CEQA review, at which time potential adverse impacts must be evaluated and appropriate mitigation measures implemented.

7. DETERMINATION

On the basis of this initial evaluation: I find that although the proposed project COULD have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

Prepared by:

Roger Mitchell, Engineering Geologist State Water Resources Control Board Division of Water Quality Date

Reviewed by:

Scott Couch, Section Chief State Water Resources Control Board Division of Water Quality Date

Shahla Farahnak, Assistant Deputy Director	Date
State Water Resources Control Board	
Division of Water Quality	

(Form updated 7/28/09)

Authority: Public Resources Code Sections 21083, 21084, 21084.1, and 21087.

Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.1 through 21083.3, 21083.6 through 21083.9, 21084.1, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Monterey Board of*

Supervisors, 222 Cal. App. 3d 1337 (1990).