

APPENDIX F

Response to Comments on the Draft General Order and Draft SEIR

This document includes State Water Resources Control Board (State Water Board) staff responses to public comments received on the Draft General Waste Discharge Requirements for Commercial Composting Operations (General Order) and Draft Supplemental Environmental Impact Report (SEIR) that were distributed on October 31, 2019. The original comment is reproduced, followed by staff responses to the comment.

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Letter 1, Adam Kotin, The Wine Institute

Letter 1, Comment 1: Thank you for preparing your proposed revisions to the General WDR for Composting Operations and providing the opportunity to comment. Wine Institute is the public policy voice for California wine, representing over 1,000 wineries and affiliated businesses in the state. Many of our members are passionate about soil health and have long viewed composting as a desirable and sustainable reuse pathway for agricultural materials, including grape pomace and vineyard trimmings.

Since the WDR was adopted in 2015, we have expressed our concerns to staff that the WDR might be inadvertently discouraging some winery and vineyard operations from pursuing or expanding on-site composting activities. We are pleased to see that many of our concerns would be addressed by these October 31, 2019 draft revisions and encourage the Board to adopt them.

In particular, the revised definition of 'vegetative agricultural material' would reduce confusion as well as increase this WDR's consistency with CalRecycle's composting regulations in 14 CCR § 17852. The revisions would also make clear that, in order to improve the quality of the compost, a winery or vineyard could receive some feedstocks from offsite and still qualify for the Conditional Exemption.

These proposed revisions would increase the amount of compost an operation can annually give away or sell from 1,000 to 5,000 cubic yards. This change would remove a key barrier to those wineries that purchase and crush grapes from other growers and would like the ability to 'give back' those nutrients and biomass to the originating farm(s) in the form of compost, to feed the soil and support the next year's crop.

Along with the changes described above, the Board proposes a set of basic BMPs to ensure protection of water quality at 'conditionally exempt' operations. We find these BMPs to be both reasonable and meaningful, and, if the WDR is adopted, we intend to educate our members about these best practices. We note that the WDR's use of a 'conditional exemption' for operations that pose a minimal threat to water quality is a common and effective approach employed in other permits, and its use here is appropriate.

These proposed changes will in no way allow or encourage wineries and vineyards to, in either scale or intent, resemble 'commercial composting operations'; and regardless, wineries and vineyards do not wish to become commercial compost sellers. By clarifying that this WDR applies to 'Commercial Composting Operations', the proposed revisions would clarify the WDR's applicability and remove the concern and confusion that our members have expressed for the past few years.

In closing, we wish to congratulate staff for their diligent work on this issue. We greatly appreciate all the efforts you made to hear our perspectives and seek solutions. These

revisions will remove barriers to composting in our industry while maintaining our shared goal to protect and enhance the quality of waters in our state.

Response: Thank you for your comment.

Letter 2, David Runsten, Community Alliance with Family Farmers

Letter 2, Comment 1: The Community Alliance with Family Farmers (CAFF) is a statewide organization that represents both farmers and non-farm Californians who support sustainable food and farming policies. Many of our farmer members are organic farmers who utilize compost in their operations.

We are pleased to see that the staff is recommending some of the changes we sought in the Compost General Order. We were not able to participate in the original drafting of that Order and we have spent several years trying to clarify that on-farm composting is not subject to the same regulations as commercial facilities.

Response: Thank you for your comment.

Letter 2, Comment 2: With respect to the revised Compost General Order as it relates to on-farm composting, we make the following observations:

Letter 2, Comment 2 (a): The limit of 25,000 cubic yards of material at any time would accommodate all the on-farm composting operations in California of which we are aware.

Response: Thank you for your comment.

Letter 2, Comment 2 (b): The list of feedstocks appears to allow enough flexibility for making compost, however it would be important to clarify that clean urban green waste is allowed. UC Davis is currently running experiments with cleaned green waste compost in Yolo County and we are aware of a number of farmers who utilize this feedstock. The National Organic Program explicitly allows this feedstock on organic farms.

Response: Urban green material may be used as a feedstock at Tier 1, Tier 2, and on-farm composting operations.

Letter 2, Comment 2 (c): The addition of manure to allowable feedstocks is essential for farmers to achieve appropriate C:N ratios. Allowing farmers to bring such feedstocks from other farms and nearby facilities will align this Order with Cal Recycle regulations and will assist dairies and other animal feeding operations to move excess manure off their farms.

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Response: Thank you for your comment.

Letter 2, Comment 2 (d): We were unable to locate an on-farm composting operation on a crop farm in California that did not utilize all the compost produced themselves.

Response: Thank you for your comment.

Letter 2, Comment 2 (e): The increase in the amount of compost that can be sold or given away from 1,000 to 5,000 cubic yards will likely have no impact on crop farms, with one exception. There has been discussion of having one farm in an area compost for themselves and small neighboring farms. This could be structured as a cooperative business entity, but we encourage you to think about how the language in your General Order might affect such an arrangement.

Response: While the example described in the comment may not qualify for the exemption in the General Order as written, finding 30 indicates "the Regional Water Board may determine individual WDRs are appropriate under site-specific conditions. Conditionally exempt composting operations may be subject to other federal, state, or local regulations." Considering the site-specific conditions of the conceptual facility proposed in the example, the facility could either be covered under the General Order, an individual order, or under an exemption as the Regional Water Board deems appropriate.

Letter 2, Comment 2 (f): Allowing 5,000 cubic yards to be sold will assist dairies in moving composted manure off their farms. We note that Cal Recycle regulations still have a 1,000 cubic yard limit and we would ask that the Water Board make a formal request to Cal Recycle to align their regulations with this revised Compost General Order.

Response: CalRecycle staff have provided input on the General Order since the early stages of development and Water Board staff meet regularly with CalRecycle staff to discuss cross-agency concerns. CalRecycle has separate regulatory authority from the State Water Board. The agricultural composting export limit in CalRecycle's regulations is based on considerations within their responsibility. State Water Board staff communicate with CalRecycle staff, but it is ultimately under CalRecycle's purview to modify their regulations.

Letter 2, Comment 2 (g): The best management practices appear completely reasonable and we look forward to informing farmers about them.

Response: Thank you for your comment.

Letter 2, Comment 3: Once this Order is finalized, CAFF intends to promote on-farm composting, including dissemination of these regulations. Since most crop farmers who

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make or could make compost are subject to the Water Board's Irrigated Lands program, we would hope to collaborate with that program to conduct workshops on the proper methods to develop a compost site and to make compost. Jenny Lester Moffitt at CDFA has also expressed interest in such a program of education, which could perhaps be funded through CDFA's Healthy Soils demonstration grants.

Response: Water Board staff responsible for developing this General Order regularly communicate with staff in the Irrigated Lands Regulatory Program and CDFA staff. The Irrigated Lands Regulatory Program focuses mostly on application rates of compost and other nutrients to crops, whereas this General Order focuses on the process of creating compost. The Irrigated Lands Regulatory Program includes a component of education for best management practices on farms. Water Board staff agree increased education is beneficial toward implementing best management practices. Some best management practices and conditions are included in the General Order for on-farm composting to be eligible for exemption.

Letter 2, Comment 4: The Draft Supplemental EIR makes the case that composting manure on dairies would reduce greenhouse gas emissions and discusses some of the permitting challenges that dairies face with local Air Quality Management Districts. At the very least, we would ask the Water Board to forward this analysis to the air districts and the Air Resources Board. The balkanization of environmental regulation is endlessly frustrating to farmers.

Response: Water Board staff shared the Draft Supplemental EIR with representatives from the California Air Resources Board and air districts. Modifications to air requirements are outside the purview of the Water Boards.

Letter 3, Jane Sooby, California Certified Organic Farmers

Letter 3, Comment 1: Thank you for the opportunity to comment on the General Waste Discharge Requirements (WDRs) for Commercial Composting Operations.

California Certified Organic Farmers (CCOF) is a nonprofit organization that advances organic agriculture for a healthy world through organic certification, education, advocacy, and promotion. CCOF has 4,000 certified organic members throughout North America.

Response: Thank you for your comment.

Letter 3, Comment 2: CCOF supports and appreciates the following edits to the revised WDRs.

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- Inserting “commercial” in the title of the order makes a useful distinction and emphasizes the Water Board’s intent that the order be applied to industrial-scale, commercial composting operations.
- Offering a full exemption for operations with less than 500 cubic yards of compost and feedstocks at any given time and a conditional exemption for operations that have less than 5,000 cubic yards of compost materials will be workable for most on-farm composting operations.
- Replacing the definition of “agricultural material” with a definition of “vegetative agricultural material” and allowing manure as a compost feedstock, in combination with the full and conditional exemptions, solves many of the problems we identified with the original General WDRs for Composting Operations.

Response: Thank you for your comment.

Letter 3, Comment 3: CCOF is concerned the conditional exemption will preclude organic farmers from using municipal green waste as a compost feedstock. On p. 14, the conditional exemption is extended to operations that use feedstocks consisting of “vegetative agricultural materials, green materials, and/or manure, *all of which are generated by production* of farm, ranch, agricultural, horticultural, aquaculture, silvicultural, floricultural, vermicultural, or viticultural products...” (emphasis added). Some organic farmers use municipal green waste as a compost feedstock. Green waste has been cleaned, grinded, and screened, and it is an acceptable compost feedstock under the National Organic Program standards. Farmers should not be prohibited from using this feedstock simply because the green waste is not a by-product of a commercial agricultural enterprise; therefore, language should be inserted to clarify that green materials may be sourced from a waste management company or other non-agricultural source.

Response: Urban green material may be used as a feedstock at Tier 1, Tier 2, and on-farm composting operations.

Letter 3, Comment 4: Thank you for your consideration of our comments and your effort to ensure the state’s composting regulations do not impede organic farmers’ routine composting practices.

Response: Thank you for your comment.

Letter 4, Jeanne Merrill and Brian Shobe, California Climate & Agriculture Network

Letter 4, Comment 1: On behalf of the California Climate and Agriculture Network (CalCAN), we offer the following comments on the proposed General Order for Commercial Composting Operations. Our coalition has long promoted on-farm production and application of compost for its benefits to soil health, water quality, and the climate.

Soils are the foundational “natural infrastructure” of our water system. When healthy, soils act like sponges to capture, store, and purify water, while also sequestering carbon and sustaining the plants and animals we depend on for food, fiber, and shelter. Increasing soil water holding capacity reduces runoff that carries sediment and other pollutants into streams and rivers, reduces irrigation demand and associated energy use, increases crop and forage yields, increases baseflows and groundwater recharge, reduces flood risk, and increases drought resiliency.

Healthy soils, which are rich in soil organic matter (SOM) and life, are also less dependent on synthetic nitrogen and pesticides because they have healthy, functioning ecosystems and slow-releasing, tightly-cycling natural sources of fertility. Healthy soils are fundamental to securing food sovereignty, economic prosperity, and the human right to safe, clean water.

Compost application to agricultural soils offers the most rapid means of directly increasing soil organic matter. Researchers at UC Davis’s Russell Ranch Sustainable Agriculture Facility recently published the results of a 19-year study, which found that when both compost and cover-crops were added in an organic-certified system, soil carbon content increased 12.6 percent over the length of the study, or about 0.07 percent annually. That’s more than the international “4 per 1000” initiative, which calls for an increase of 0.04 percent of soil carbon per year. Composting organic materials also reduces potent methane emissions and water quality concerns by diverting organic wastes from landfills and by diverting dairy and other livestock manure from lagoons and fields, where it is often over-applied.

Compost application is by far the most popular practice in the California Department of Food and Agriculture’s (CDFA) Healthy Soils Program, reflecting high farmer and rancher interest in using more compost to improve their soils. Building the facilities to compost manure is also highly popular in CDFA’s Alternative Manure Management Program (AMMP), as two-thirds of AMMP projects will compost manure. In addition to helping them mitigate air and water quality concerns and improve soil health and forage productivity, some of these dairies see selling compost as a way to remain financially viable in the current dairy financial crisis.

Unfortunately, the existing regulatory scheme affecting on-farm compost production, consisting of overlapping, confusing, and expensive regulations from multiple agencies,

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has intimidated and prevented farms and dairies from starting or scaling up responsible on-farm compost production. Moreover, the current Compost General Order's limitations on sharing compost feedstocks, including manure, are preventing farmers and dairies from addressing longstanding nutrient imbalances across the agricultural landscape and achieving necessary carbon to nitrogen ratios for effective composting.

As such, we support staff's proposed revisions to the Compost General Order to:

1. allow farms and dairies to import offsite materials, including manure
2. increase the total volume of allowable feedstocks, compost, additives and amendments on site at any given time
3. increase the total volume of compost that can be exported per year
4. require farms to comply with reasonable best management practices

Response: Thank you for your comment.

Letter 4, Comment 2: For individual crop farms, we believe the 25,000 cubic yard limit for on-site materials and 5,000 cubic yard limit for compost exports are reasonable. We wish to clarify that clean urban green waste will be allowed as an eligible feedstock, since there seemed to be some confusion about that in the December 11 public workshop. UC Davis is currently running experiments with clean green waste compost in Yolo County and we are aware of a number of farmers who utilize this feedstock. The National Organic Program also explicitly allows this feedstock on organic farms. We ask that the use of clean urban green waste be explicitly allowed as a feedstock in the General Order.

Response: Urban green material may be used as a feedstock at Tier 1, Tier 2, and on-farm composting operations.

Letter 4, Comment 3: Concern About the Inclusion of Dairy Compost Production Restrictions

Letter 4, Comment 3 (a): We are concerned about potential unintended consequences of these volume limits for dairy operations. Our understanding from staff is the GO will not apply to dairies already covered by a Dairy WDR. However, we are concerned that regional boards may adopt the Compost GO restrictions on dairies selling more than 5,000 cubic yards of compost, which falls well below what many dairies can produce and export. Furthermore, the 25,000 cubic yard limit on compost in process, including feedstocks, is well below what the average sized dairy can produce. These numbers appear to be arbitrary and not based on water quality standards.

Response: As discussed in Finding 13, the General Order need not apply to facilities that are regulated through waste discharge requirements which include requirements for their composting operations. Regional Water Boards may issue

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individual or general waste discharge requirements or waivers of those requirements based on site-specific conditions. The General Order was written to streamline and simplify permitting of composting operations with similar wastes and operations. The General Order was not intended to apply to all composting operations. Composting operations that are co-located with dairies may fall under the provisions of Finding 13 of the General Order. Therefore, the General Order does not discourage composting that may occur at dairies but provides a streamlined regulatory mechanism for composting operations that meet the criteria for coverage under the General Order.

Letter 4, Comment 3 (b): Rather than setting these limits now in the GO, we suggest the GO remain silent on dairy composting, instead relying on existing WDR to address dairy composting issues. Why include these restrictions in the GO if regulation of dairy composting is handled by the regional boards through their dairy WDR? Composting of dairy manure is an important strategy for addressing water quality concerns from a manure handling and storage perspective. The Board should be incentivizing composting of dairy manure, not limiting it.

Response: It is not the intent of the State Water Board that the requirements of the General Order apply to all composting operations in the state. The General Order does not apply to operations, such as farms or dairies, which already have Waste Discharge Requirements appropriate for that operation. It is not the intent of the State Water Board to limit agricultural composting. Proposed changes to the General Order allow conditionally exempted sites to import feedstocks like manure to be composted and used primarily on site. The import of compost feedstocks to farms was not previously allowed under the agricultural exemption in Order WQ 2015-0121-DWQ. Proposed changes to the General Order expand the conditional exemption for composting operations while protecting water quality.

Letter 5, Jeffrey Creque, Carbon Cycle Institute

Letter 5, Comment 1: Thank you for the opportunity to comment upon the Draft Supplemental Environmental Impact Report (DEIR) for General Waste Discharge Requirements and the Draft General Order (GO) for Commercial Composting Operations. We have four principal concerns with the DEIR Supplement and the GO:

Response: Thank you for your comment.

Letter 5, Comment 1.a.: First, while both documents refer explicitly to commercial composting operations, they both in fact include small volume and on-farm composting operations in their scope, neither of which are “commercial.” We urge the Board to remove small and on-farm compost operations from the GO;

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Response: The General Order includes conditions under which small volume and on-farm compost operations would not be subject to the General Order. If the conditions for exemption are not met, and the composting operation meets the criteria for the General Order, the composting operation would be considered a commercial composting operation and would need to comply with the requirements in the General Order under the appropriate tier.

Letter 5, Comment 1.b.: Second, as structured, the GO will inhibit, not support, compost production in CA, at a time when increased compost production is both an essential public need and a central strategy in meeting the State's waste reduction and climate change goals;

Response: The General Order was developed to streamline permitting of composting operations with similar wastes and operations while protecting water quality. The regulatory approach without a general order is to regulate each composting facility separately with individual waste discharge requirements, a process that may require additional time and resources and may result in greater costs.

Letter 5, Comment 1.c.: Third, the GO remains inconsistent with Cal Recycle regulatory tiers and standards; rather than imposing a 2nd (and inconsistent) set of criteria, the GO should be harmonized with existing CalRecycle compost tiers, standards and protocols;

Response: The requirements in the General Order were developed in collaboration with CalRecycle staff while considering impacts to water quality. CalRecycle has separate regulatory authority from the Water Boards; this authority does not extend to water quality and the tiers and standards in CalRecycle regulations were not established for the protection of water quality.

Letter 5, Comment 1.d.: Fourth, there is no reason for the Board to regulate odors from compost operations, as odors are already regulated by both CalRecycle and Regional Air Districts.

Response: While CalRecycle has primary jurisdiction over odors at compost operations, nuisance odor conditions are also within the jurisdiction of the Water Boards and are required to be avoided or mitigated under the General Order. Water Code, section 13263, subdivision (a) provides that waste discharge requirements shall take into consideration the need to prevent nuisance. Water Code, section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

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- (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- (3) Occurs during, or as a result of, the treatment or disposal of wastes.

Other agencies such as CalRecycle and the local air districts also have requirements for odor conditions. Should an odor condition occur, agency staff work together to investigate the nature of the odor and to determine the appropriate lead agency for that circumstance.

Letter 5, Comment applying to comments 2 through 18: Comments on specific components of the DEIS supplement and GO follow, with original text in plain font, followed by our comment in italics.

Letter 5, Comment applying to comments 2 through 6: Comment on the DEIS Supplement

Letter 5, Comment 2: P.6. requirements for composting manure in the General Order are different than requirements for manure handling in many Regional Water Quality Control Board (Regional Water Board) orders for confined animal facilities and dairies. Stakeholders indicated that this serves as a disincentive to compost. Because dairies that are enrolled in a Regional Water Board order already have requirements for manure handling areas, there is confusion between the two sets of requirements. *The Board has apparently now decided that dairies that compost their manure should be subject to a different, and more stringent, set of regulations than those dairies that do not. This is most assuredly a disincentive to compost manures, and stands in direct contradiction to both the intent of the GO –water quality protection- and ongoing state efforts to reduce short-lived climate pollutants from livestock manure through aerobic composting of manures. Revision of the agricultural composting exemption as a conditional exemption would represent imposition of a new set of regulatory restrictions on livestock agriculture that does not encourage implementation of composting as a best management practice (BMP) for water quality protection or climate change mitigation. **The GO for Commercial Composting Operations should not regulate non-commercial on-farm composting.***

Response: The General Order was written to streamline and simplify permitting of composting operations with similar wastes and operations. It is not the intent of the State Water Board that the requirements of the General Order apply to all composting operations in the state or to limit agricultural composting. Finding 13 in the General Order indicates the General Order does not apply to operations,

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such as farms or dairies, which already have waste discharge requirements appropriate for that operation. Therefore, dairies operating pursuant to requirements that a Regional Board determined is appropriate for that facility do not need to apply for coverage under the General Order. Proposed changes to the General Order allow conditionally exempted sites to import feedstocks like manure to be composted and used primarily on site. The import of compost feedstocks to farms was not allowed under the agricultural composting exemption in Order WQ 2015-0121-DWQ. Proposed changes to the General Order expand the conditional exemption for composting operations while protecting water quality.

Letter 5, Comment 3: P 7: Dairy representatives indicated that in order to provide an incentive to compost, the 1,000 cubic yard restriction on selling or giving away compost should be lifted. However, if this restriction were eliminated completely, it may create an unlevel playing field with commercial composters. *Increasing the compost gift/sell limit to 5,000 cubic yards annually for on-farm compost operations in no way creates an unlevel playing field with commercial composters. No **commercial** composter in CA can be financially viable selling 5,000 cubic yards of compost annually. SWRCB should recognize that on-farm compost operations are distinct from Commercial Composting Operations and exclude non-commercial on-farm operations from the GO. At a minimum, the GO should increase the gift/sell limit for on-farm compost to 5,000 cubic yards annually and maintain tier 1 classification for on-farm compost operations, including operations that compost manure, with not more than **12,500 cubic yards on site at any one time (not annually), consistent with the CalRecycle Notification regulatory tier.***

Response: The General Order proposes to conditionally exempt on-farm operations from the requirements of the General Order if certain criteria are met, including that the operation does not sell or give away more than 5,000 cubic yards of compost per year and does not have more than 25,000 cubic yards of material on site at any time. Regional Boards may consider composting activities that do not meet criteria for exemption to be commercial operations and subject to the requirements of the General Order or site-specific waste discharge requirements as appropriate. While on-farm composting operations are not required to meet Tier 1 specifications as defined in the General Order, the volume allowed on site at any time is the same for consistency.

CalRecycle has separate regulatory authority from the State Water Board. CalRecycle regulations include a volume limit for the Notification Tier of 12,500 cubic yards of material on site at any time while the General Order includes a volume limit of 25,000 cubic yards of material on site at any time for Tier 1. Although the General Order contains different volume and tier criteria than in

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CalRecycle regulations, these were developed in coordination with CalRecycle staff.

Letter 5, Comment 4: P. 7. Composting operations that receive, process and store less than 5,000 cubic yards per year of allowable Tier 1 and Tier 2 feedstocks, additives and amendments are currently conditionally exempt. *These facilities should remain exempt. 5,000 cubic yards is a very small annual quantity of material and does not reflect a **Commercial Composting Operation**. These small, but locally important, operations will almost certainly be unable to afford to meet the monitoring requirements of the Draft GO, and will be forced to close should they be subject to the General Order.*

Response: Composting operations that receive, process, and store less than 5,000 cubic yards per year of allowable feedstocks, additives, and amendments are exempt from the requirements of Tier 1 and Tier 2 in the General Order. Composting activities that meet criteria for exemption are not considered commercial operations subject to the requirements of the General Order.

Letter 5, Comment 5: P. 11. Methane is formed when organic material decomposes in an anaerobic environment. Nitrous oxide is formed as fixed nitrogen is oxidized and generally occurs in an oxygen-deficient, carbon-deficient, and nitrogen-rich environment. *It should be noted here that proper composting involves maintaining an aerobic environment within the compost pile and C/N ratios under proper composting conditions are high enough to avoid carbon deficiency. As a consequence, both methane and nitrous oxide emissions from managed composting are negligible to undetectable (Perez and Silver, in Press).*

Response: CEQA analysis requires the lead agency to discuss all potential environmental impacts from a proposed project, whether the lead agency has jurisdiction over mitigation or not. The presentation of possible significant environmental impacts, unrelated to the General Order, is included in the SEIR for disclosure purposes only. The Water Boards do not have regulatory authority over emissions from composting operations and do not dictate how composting should be done to avoid negative impacts to air quality. The requirements in the General Order are designed to protect water quality from potential impacts from composting operations.

Letter 5, Comment 6: P. 11. Using manure as a compost feedstock, in combination with vegetative material, can contribute to a finished product with a balanced carbon/nitrogen ratio. *It may, but appropriate C/N ratios for finished compost are entirely dependent upon the end use of the material. More to the point is that proper composting involves the bringing together of disparate materials to achieve an ideal **initial** (rather than final) C/N ratio of roughly 25/1 to 40/1. Whether those materials include manure, green waste, straw or anything else is irrelevant, as long as the appropriate initial C/N*

ratio, particle size, water content, oxygen content and bulk density are achieved. For this reason, on-farm compost BMPs must allow the importation of appropriate materials for blending with on-farm materials to achieve desired C/N and other parameters. Again, on-farm composting operations that are not Commercial Composting Operations should not be subject to the GO.

Response: CEQA analysis requires the lead agency to discuss all potential environmental impacts from a proposed project, whether the lead agency has jurisdiction over mitigation or not. The presentation of possible impacts from carbon to nitrogen ratio imbalance, unrelated to the General Order, is included in the SEIR for disclosure purposes only. The Water Boards staff do not have regulatory authority over emissions from composting operations. Composting activities that meet criteria for exemption are not considered commercial operations subject to Tier 1 or Tier 2 requirements of the General Order. Proposed revisions to the General Order allow the import of materials at conditionally exempt composting operations. Composting conducted on site (on-farm) is exempt from the requirements of this General Order providing BMPs are implemented as described in Finding 30.

Letter 5, Comment applying to comments 7 through 18: Comment on the Draft General Order

Letter 5, Comment 7: P. 6: "Research to evaluate BMPs for composting manure in California soil and climate conditions will performed (sic) as a result of a State Water Board contract with the University of California at Davis. The amendments to the General Order remove barriers to create compost for beneficial uses." *The meaning of this sentence is unclear; research will be performed; was performed? Please clarify how the GO amendments remove barriers to creation of compost for beneficial use; all evidence is that the GO will increase, not remove, barriers to compost production.*

Response: The sentence referenced included a typo. The sentence was revised to read: "Research to evaluate BMPs for composting manure in California soil and climate conditions will be performed as a result of a State Water Board contract with the University of California at Davis." The intent of the research contract with UC Davis is to determine whether these requirements are appropriate or if the requirements should be revised. In the interim, the General Order proposes to allow manure to be composted at Tier 1 facilities, whereas Order No. WQ 2015-0121-DWQ only allows manure to be composted at Tier 2 facilities. The General Order also proposes to allow conditionally exempted sites to import feedstocks like manure to be composted and used primarily on site, whereas the import of feedstocks was not previously allowed under the agricultural exemption in Order WQ 2015-0121-DWQ. These changes are proposed in an effort to remove barriers to composting manure.

Letter 5, Comment 8: Composting is the biological decomposition of organic materials by ~~microorganisms~~ under controlled aerobic conditions to create a product (~~e.g., soil amendment or soil blend~~) *suitable for beneficial application to soil. Please amend this sentence as shown above.*

Response: Finding 2 is consistent with CalRecycle's definition in California Code of Regulations, title 14, section 17901 (b), "'Compost' means the product resulting from the controlled biological decomposition of organic wastes" and does not qualify the product. The General Order does not regulate the use or application of compost.

Letter 5, Comment 9: Composting organic material yields environmental benefits by recycling nutrients, *sequestering atmospheric carbon in stable, agronomically beneficial form*, and diverting materials from landfills. Diversion of compostable materials from landfills reduces the amount of material landfilled, *reduces GHG emissions, recovers valuable nutrients from the waste stream* and extends landfill capacity and service life. *Please amend this sentence as shown above.*

Response: Although nutrient recovery and carbon sequestration are mentioned in Findings 3 and 4, the General Order does not regulate the use or application of compost. The production of compost does not guarantee that the resulting product will be used either beneficially or agronomically. Because the suggested revision is subjective, revising the General Order to incorporate the suggestion is not recommended.

Letter 5, Comment 10: P. 8: If a composting operation is co-located at a facility that has individual or general WDRs, the composting operation does not need to be covered under this General Order if the facility's WDRs include requirements for the composting activities that are protective of water quality as determined by the Regional Water Board. *This suggests a composting operation on a dairy, with a WDR does not need to be covered by the GO if the dairy WDR include requirements for the composting activities that are protective of water quality, as determined by the Regional Water Board. If this interpretation is correct, this is appropriate. However, it should be noted that the dairy WDR may or may not include a requirement regarding surface permeability, ground water monitoring, etc. Thus this GO may force a dairy to implement additional measures in order to adopt composting as a manure-handling BMP. This fails to recognize composting as a manure management BMP and thus appears counterindicated for water quality protection in California. Again, on-farm composting operations that are not Commercial Composting Operations should not be subject to this GO.*

Response: Finding 13 describes conditions in which a facility is covered by WDRs which include requirements for material handling that are protective of

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water quality as determined by the Regional Board, then the facility does not need to apply for coverage under the General Order, even if those requirements do not include specifications for surface permeability, groundwater monitoring, etc.

Letter 5, Comment 11: P. 9. Composting can be done on a small or large scale. This General Order only addresses composting operations that receive, process, and store at least 500 cubic yards of materials at any given time. *500 cubic yards of material is an absurdly low amount of material for the SWRCB to be concerning itself with and certainly does not represent a “large” or **Commercial Composting Operation**. We urge the Board to adjust this quantity upward, consistent with CalRecycle’s notification tier volume, to 12,500 cubic yards at any given time, and confine its oversight to **Commercial Composting Operations, consistent with the title of the GO.***

Response: Composting activities that meet criteria for exemption are not considered commercial operations subject to Tier 1 or Tier 2 requirements of the General Order. CalRecycle and the Water Boards have separate authority over discharges to land. The Water Boards have the authority and the responsibility to protect water quality from discharges to land under the Water Code. CalRecycle has authority over solid waste under the Public Resources Code; this authority does not extend to water quality. The separation of authority is described in Public Resources Code Section 43101. Consequently, each agency may regulate composting operations differently. CalRecycle regulates operations that are greater than 100 cubic yards on-site and 750 square feet in area (California Code of Regulations, title 14, section 17855(a)(4)). CalRecycle provided input to the General Order and the General Order was developed with consideration of CalRecycle's regulations.

Letter 5, Comment 12: P. 10. Wastewater refers to leachate or any other liquid flowing from, or on the working surface. That wastewater from the working surface may be conveyed to a detention pond. Wastewater may be reapplied to the compost piles as needed, *as consistent with CalRecycle requirements for compost pathogen reduction. **Please add the italicized phrase to this sentence to clarify that wastewater may NOT be reapplied to compost piles once the pathogen reduction phase has begun, unless the pathogen reduction phase is then reinitiated, as required under CalRecycle regulation.***

Response: CalRecycle regulations address pathogen reduction; it is not the intent of the Water Boards to impose duplicate requirements through the General Order. CalRecycle and the Water Boards have separate authority over composting operations, therefore, revising the General Order to incorporate the suggestion is not recommended.

Letter 5, Comment 13 (a): P. 14. The following activities are unlikely to degrade water quality if the management practices noted below are implemented and are therefore conditionally exempt from this General Order. However, the Regional Water Board may determine individual WDRs are appropriate under site-specific conditions. Conditionally exempt composting operations may be subject to other federal, state, or local regulations.

a) Composting operations that meet all the following conditions:

- 1) The facility receives, processes, and stores less than 25,000 cubic yards of a combination of allowable feedstocks, compost (active, curing, and final product), additives and amendments on site at any given time;
- 2) Feedstocks consist of vegetative agricultural materials, green materials, and/or manure, all of which are generated by production of farm, ranch, agricultural, horticultural, aquaculture, silvicultural, floricultural, vermicultural, or viticultural products, and/or other material as allowed by the Regional Water Board, but do not include animal carcasses. Examples include manures and bedding, orchard and vineyard prunings, culls and crop residues, and spoiled or unsalvageable food commodities;
- 3) The resulting compost product is returned to the same site or a property owned by the owner of the composting activity and applied at an agronomic rate; and
- 4) No more than 5,000 cubic yards of compost final product is given away or sold annually;

*The preceding criteria (3 and 4) insure there is no threat to **commercial composting operations** from on-farm composting. However, There is no increased risk to water quality if compost is distributed offsite versus onsite, and the 5,000 cubic yard limit is both arbitrary and may inhibit farms from being able to meet their nutrient management needs by exporting surplus nutrients as compost. We suggest limiting off farm transfer of compost to not more than 50% of total compost produced annually, rather than a specific quantity. **Again, on-farm composting operations that are not Commercial Composting Operations should not be subject to the GO.***

Response: The criteria for conditional exemption included in the in the General Order help define the scope of the General Order. Composting activities that meet criteria for exemption are not considered commercial operations subject to the requirements of the General Order. The General Order is not intended to apply to on farm composting operations unless they do not meet the criteria, in which case the operation may be considered a commercial composting operation. As discussed in Finding 13, the General Order need not apply to facilities that are regulated through waste discharge requirements that are protective of water quality. The General Order was not intended to apply to all

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composting operations. Composting operations that are co-located at farms or dairies may fall under the provisions of Finding 13 of the General Order. The General Order provides a streamlined regulatory mechanism for composting operations that meet the criteria for coverage under the General Order. Alternatively, Regional Water Boards may determine that other general or individual waste discharge requirements or a waiver of waste discharge requirements are more appropriate based on the site-specific conditions. On farm composting operations are generally limited in size by the amount of excess organic material produced. However, since proposed revisions allow the import of off-site material, size limitations were put in the General Order to reduce both the threat to water quality and competition with commercial composting operations from on-farm composting activities. The export limit of 5,000 cubic yards per year was also added, consistent with the small-volume composting exemption already established in Order WQ 2015-0121-DWQ.

Letter 5, Comment 13 (b): b). Composting operations that receive, process and store less than 5,000 cubic yards ~~per year~~ of allowable Tier 1 and/or Tier 2 feedstocks, additives and amendments ***at any one time***. *5,000 cubic yards on site at any one time is a small quantity of feedstock that does not represent a **Commercial Composting Operation** and should be considered below the regulatory threshold, regardless of the total quantity processed in a given year.*

Response: The conditional exemption for small composting operations was added to the General Order as a lower-cost option to Tier 1 requirements in response to findings in the 2015 EIR Economic Considerations, therefore, revising the General Order to incorporate the suggestion is not recommended. Composting operations that receive, process or store less than 5,000 cubic yards of allowable material per year may pose a threat to water quality and are therefore required to implement the management practices specified in the General Order in order to be exempt. Composting activities that meet criteria for exemption are not considered commercial operations subject to Tier 1 or Tier 2 requirements of the General Order.

Letter 5, Comment 14: P 21. 51. The State Water Board recognizes that composting operations play an important role in meeting California's recycling goals to divert more wastes from landfills into reusable products. In addition, composting is a strategy for reducing greenhouse gas emissions throughout the state. Benefits of using compost include increasing soil water holding capacity, adding beneficial micro-organisms to improve soil health, improving soil tilth, and carbon sequestration. Considering these benefits, the State Water Board finds that composting in compliance with this General Order is consistent with the maximum benefit to the people of the state. *The Board should also recognize that composting is a BMP for handling a wide variety of feedstocks, and that composting of feedstocks reduces water and air quality risks*

associated with those component feedstocks, including manures, green waste, food waste and biosolids.

Response: State Water Board recognizes the importance of composting to support meeting California's recycling goals and compost application for the improvement of soil health. Compostable materials may contain nutrients metals, salts, pathogens, and oxygen-reducing compounds that can degrade water quality. Water Code section 13260 requires, in part, that any person discharging or proposing to discharge materials that could affect the quality of the water of the state, shall file a report of waste discharge with the appropriate Regional Water Board. The intent of the General Order is to streamline the permitting process for composting operations while providing statewide requirements for materials that can pose a threat to water quality, within the authority of the Water Code. Composting in accordance with the requirements of the General Order reduces the risk to water quality.

Letter 5, Comment 15: 53. (P. 21-22). ...compostable material presents a lower risk to water quality than typical designated wastes when managed as required by this General Order. *This is not because of the General Order, but because of the biochemical dynamics of compost feedstock and compost, which binds soluble nutrients in complex organic compounds and destroys pathogens through biophagy and thermophilic temperatures.*

Response: The composting process may bind soluble nutrients and destroy pathogens. However, feedstocks accepted at composting operations may contain nutrients, metals, salts, pathogens, and oxygen-reducing compounds which can impact water quality if not managed appropriately. Additionally, the act of composting generates a leachate which may impact water quality without appropriate requirements. The requirements in the General Order are designed to protect water quality from active composting activities and are not intended to apply to the use of finished compost product.

Letter 5, Comment 16: Impact 6.5. Composting operations have the potential to create objectionable odors affecting a substantial number of people. The General Order requires control of objectionable odors. Mitigation measures are contained in the Specifications and Design Construction and Operation Requirements – All Tiers. *CalRecycle already regulates compost odors under existing statutes; SWRCB should not duplicate this oversight, which has nothing to do with protection of water quality.*

Response: CEQA requires the lead agency to discuss all potential environmental impacts from a proposed project, whether the lead agency has jurisdiction over mitigation or not. However, while CalRecycle has primary jurisdiction over odors at compost operations, nuisance odor conditions are also within the jurisdiction of the Water Boards and are required to be avoided or

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mitigated under the General Order. Water Code, section 13263, subdivision (a) provides that waste discharge requirements shall take into consideration the need to prevent nuisance. Water Code, section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- (3) Occurs during, or as a result of, the treatment or disposal of wastes.

Other agencies such as CalRecycle and the local air districts also have requirements for odor conditions. Should an odor condition occur, agency staff work together to investigate the nature of the odor and to determine the appropriate lead agency for that circumstance. Duplicative regulation by the Water Boards is not intended.

Letter 5, Comment 17: P. 29. Discharge of any of the following wastes, including storage thereof, at a composting operation under this General Order is prohibited: Animal carcasses (begin insert) (whole or in part) (end insert); *Note that only the composting of mammalian tissue is prohibited under existing CalRecycle regulations; composting of poultry and poultry byproducts is currently permitted and should be encouraged. SWRCB should revise its prohibition to apply only to mammalian tissue.*

Response: The requirements of the General Order are not intended to apply to all composting operations. Animal carcasses, whole or in part, are prohibited from being accepted at a facility under the General Order because they pose a significant threat to water quality. Finding 32 states that the composting of these materials may be more appropriately regulated by individual waste discharge requirements or other orders issued by the Regional Water Board. If a facility wishes to accept and compost carcasses (whole or in part), they may apply for coverage under individual waste discharge requirements. CalRecycle has separate regulatory authority from the Water Boards; this authority does not extend to water quality and the standards in CalRecycle regulations were not established for the protection of water quality.

Letter 5, Comment 18: For Tier 1 facilities, If manure is accepted at greater than 10 percent combined, on a total volume basis, of the total feedstocks for any given batch of compost, a groundwater protection monitoring plan must be implemented for the composting operation in accordance with Finding 29 and Design, Construction, and Operation Requirements for Composting Manure at Tier 1 Facilities. *Allowable manure*

*percentage under Tier 1 should be increased to at least 50% to allow co-composting of realistic quantities of manure at dairies and other confined animal feeding operations without the added burden of Tier II requirements. Achieving proper composting conditions, including starting C/N ratios, will insure manure nutrients and pathogens are retained and destroyed, respectively, within the compost ecosystem, and are not lost to the environment. **Again, on-farm composting operations that are not Commercial Composting Operations should not be subject to this GO.***

The General Order was not intended to apply to all composting operations. As discussed in Finding 13, the General Order need not apply to facilities that are regulated through waste discharge requirements that are protective of water quality. Composting operations that are co-located at confined animal facilities or dairies may fall under the provisions of Finding 13 of the General Order. If a confined animal facility does not have waste discharge requirements, the General Order includes conditions under which small volume and on-farm compost operations would not be subject to the General Order. If the facility does not have appropriate waste discharge requirements as determined by the Regional Water Board, the conditions for exemption are not met, and the composting operation meets the criteria for the General Order, the composting operation would be considered a commercial composting operation and would need to comply with the requirements in the General Order under the appropriate tier. Tier 1, as revised, allows any percentage of manure to be composted without complying with Tier 2 hydraulic conductivity requirements for working surfaces, detention ponds, or drainage ditches. Instead, for Tier 1 composting operations accepting manure as a feedstock, the General Order allows a (generally) less costly option of groundwater monitoring in lieu of hydraulic conductivity requirements.

Letter 5, Comment 19: Discussion Significant near-term expansion of California's composting capacity is essential if the state is to meet its organic waste diversion and greenhouse gas reduction goals, as well as address its groundwater nitrate pollution crisis, driven almost entirely by the forcing of the state's nitrogen cycle by ongoing annual imports of synthetic nitrogen fertilizers. On-farm and community composting efforts have the potential to contribute significantly to meeting these multiple objectives, but cannot do so if burdened with regulations and monitoring requirements designed for profit-making Commercial Operations.

The vast majority of excess ecosystem N contributing to water and air pollution in CA is derived through the anthropogenic forcing of the N-cycle through the manufacture and use of synthetic N fertilizers (CNA 2015). Enhancing compost production and use provides a uniquely powerful opportunity to incentivize reductions in the amount of synthetic fertilizer applied to California's agricultural ecosystems (Bowles et al 2015, ARB 2011). Compost production and use must be maximized as Best Management

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Practices, to avoid GHG emissions (CH₄, N₂O), displace synthetic N production and use, decrease NO_x emissions and increase CO₂ sequestration as soil organic carbon (CDFA, CARB 2019).

Overall, 69% of the N added annually to cropland statewide is derived from synthetic fixation (CNA 2015). It is this ongoing infusion of manufactured N fertilizer into California's working land soils that is forcing the state's N-cycle, providing much of the excess available N driving ground and surface water pollution, and increasing atmospheric N₂O, a potent GHG. Cropland soils and manure management together represent 32% of N₂O emissions in the state (CNA 2015), and cropland N has recently been identified as a major contributor to NO_x pollution in the Central Valley (Almaraz et al 2018). Importantly, the quantity of soluble N entering the state's groundwater each year is equivalent to nearly 70% of the synthetic N added to the state's ecosystems each year (CNA 2015). Successfully addressing the anthropogenic forcing of the N-cycle in CA must involve reduction, if not total elimination, of synthetic N fertilizer use and tightening of nutrient cycles across the state. This can only be accomplished through careful stewardship of all organic waste materials and their beneficial reutilization through compost production and use.

Leaching from cropland represents 88% of N input to groundwater in California, with roughly one third of that N coming from dairy manure (CNA 2015), and roughly one third of dairy manure N originating as synthetic N used in production of livestock forages and feed concentrates (CNA 2015). By reducing use of synthetic N fertilizers, demand for livestock manures as a source of organic N, and, particularly, of composted manures as a source of biochemically stabilized N and other nutrients, can be increased, leading to greater spatial distribution of manure and manure composts, less overall synthetic N entering the environment, and less loss of all forms of N to the air and waters of the state. As noted by Rosenstock et al (2013), "Overuse of nitrogen fertilizer threatens the health of the state's agricultural, human and natural resources." Tightening of N cycling, from atmosphere to bacteria to plant, or from organic matter to plant, means N losses can be virtually nil from higher carbon soils Bowles et al (2015).

Climate change, driven by increasing concentrations of GHG in the atmosphere, is already driving undesirable changes on global working lands, including desertification and the loss of soil carbon (Koteen et al 2011, FAO 2009, Lal 2004). California working lands have been shown to benefit from stable carbon-based soil amendments such as compost (Koteen et al 2011, Ryals et al 2015). Given the significant role of California's working lands as a source of much of the state's water supply, it is critical that the capacity of these lands to capture and filter water is supported and, where possible, improved, particularly in the face of increasing probability of drought and high intensity rainfall events associated with climate destabilization. Compost has been repeatedly shown to provide both water filtering and water absorption benefits (CIWMB 2007). By supporting the shift in agronomic demand away from synthetic fertilizers toward compost, composting of waste streams, both on and off farm, can be encouraged and

spatial distribution of composted organics in California can be increased, stabilizing the state's water, nutrient and carbon cycles and relieving pressure on eutrophic soils, ground waters and surface waters, while simultaneously reducing CO₂, CH₄, N₂O and NO_x emissions, sequestering C in soils, enhancing agricultural resilience to climate change, including drought, increasing soil water holding capacity, and supporting working land productivity.

We urge the Board to recognize composting, both on and off farm, as an environmental Best Management Practice warranting the fullest possible support from SWRCB and the state as a whole. Small, Community and On-Farm compost operations are not Commercial Composting Operations and should not be subject to the General Order. As written, the **Draft General Waste Discharge Requirements for Commercial Composting Operations** applies to much more than Commercial Composting Operations. The Board should restrict the scope of the GO to compost operations that are in fact commercial in nature.

Response: The General Order provides requirements to protect water quality from potential impacts from composting activities. Water Board staff recognize on-farm composting operations (or composting operations conducted on site) are different than commercial operations, therefore, the General Order proposes to conditionally exempt on-farm operations from the requirements of the General Order if certain conditions are met. The General Order does not regulate the use or application of compost to land.

Letter 6, Neil Edgar, California Compost Coalition

Letter 6, Comment 1: The California Compost Coalition (CCC) is appreciative of the opportunity to comment on the Draft Supplemental Environmental Impact Report (EIR) for the proposed amended General Waste Discharge Requirements (WDRs) for Composting Operations (Draft Order WQ-2015-0121-DWQ) (General Order).

Since the 2003 sunset of the previous Conditional Waiver of Waste Discharge Requirements for Composting Operations – adopted by the State Water Resources Control Board (SWRCB) in 1996 – compost industry representatives had sought new regulations that would establish regulatory certainty for composting operators as the nascent industry struggles to expand and meet Californian's desire to "close the loop" on organic materials management and landfill diversion.

CCC has supported the development of the General Order and participated in every workshop and meeting in an effort to help facilitate a clear and fair regulation that meets the state's water quality goals while still enabling the needed growth of the industry at a critical juncture, given the looming mandates for diverting organic materials from landfilling under SB 1383 and other requirements

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CCC members have invested millions of dollars in facility infrastructure improvements since the regulations took effect in August 2016, with additional expenditures still ongoing for our members and other industry participants.

CCC members have significant concerns with the proposed amendments and look forward to future participation in the development of these potential regulatory changes.

In general, we believe that the basic premise of declaring that the composting of manure – which the Board had previously determined was such a significant threat to water quality that it required Tier 2-level water quality protection measures – can now be composted in large quantities at sites which have no enforceable, specific requirements, simply because the resulting compost product(s) will be used in agricultural crop production (while at the same time requiring Tier 1-level water quality protection measures for commercial composting operations) cannot be supported by scientific data or environmental standard. The proposed revisions to the General Order create a double-standard that will not only impair the ability of commercial composting manufacturers to compete fairly in the California market, they also clearly portend water quality impacts which are misrepresented in the Draft Supplemental Environmental Impact Report for the General Order. **In short, the Board's proposed revisions to the General Order do not appear satisfy either the spirit of, nor legal requirements of, the California Environmental Quality Act (CEQA). If the proposed changes to the General Order are approved by the Board, it will clearly be a political decision which is not supported by relevant scientific analysis or following an adequate CEQA process.**

Response: The General Order proposes to allow manure to be transported to farms for composting; however, the revised exemption limits the amount of material to be composted on site at any time to 25,000 cubic yards consistent with the volume in Tier 1. Larger volumes of materials represent a greater threat to water quality. The agricultural composting exemption in Order WQ 2015-0121-DWQ placed no criteria for the volume of materials (including manure) processed on site, as long as the compost was used onsite, applied at an agronomic rate, and no more than 1,000 cubic yards is given away or sold annually. Furthermore, the revised exemption now requires best management practices to protect water quality from potential impacts from composting operations. In addition, on farm composting operations will only be able to sell or give away 5,000 cubic yards of compost annually. Exceeding either the volume on-site or annual export annual limit will require on farm composting operations to seek coverage under the proposed General Order or possibly an individual WDR. The Supplemental Environmental Impact Report contains information necessary to make the previously certified 2015 EIR adequate for the proposed revisions to the General Order. Although the EIR's impact analysis is intended to address potential environmental impacts of the General Order at any locations in the state that are not **exempt** from the General Order (2015 EIR, page 16, emphasis added), the

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Supplemental Environmental Impact Report discusses potential impacts from facilities that are exempt in order to fully address proposed revisions to the General Order.

The General Order also proposes to allow manure in any percentage to be composted in Tier 1. Order WQ 2015-0121-DWQ allowed this practice only in Tier 2. Water Board staff understand more data is needed to determine appropriate requirements specific to manure handling practices, therefore, the Background for Revising Order WQ 2015-0121-DWQ states that research to evaluate best management practices for composting manure in California soil and climate conditions will be performed. To ensure best management practices implemented are protective of water quality at facilities composting manure, the proposed General Order requires Tier 1 facilities that compost manure as a feedstock to implement a groundwater monitoring protection plan. Should the results of additional research indicate more protective requirements are appropriate for manure handling practices, Water Board staff may propose additional modifications to the General Order. The Supplemental Environmental Impact Report contains information necessary to make the previously certified 2015 EIR adequate for the proposed revisions to the General Order. Potential water quality impacts from manure feedstocks were discussed in the 2015 EIR.

Letter 6, Comment 2: Both at your June 14, 2019 Public Scoping Meeting and December 11, 2019 Public Workshop, staff presented short PowerPoints and longer discussion with stakeholders about the following key proposals affecting agricultural materials composting operations. Our comments are provided in bold text below each issue.

Letter 6, Comment 2.a.: Allow herbivore manure (herd animals only) in Tier 1 facilities where groundwater monitoring wells are installed, and a groundwater protection monitoring plan is implemented. **We believe that where reasonable groundwater protection measures are implemented, allowing herbivore manure in Tier 1 could be warranted.**

Response: Water Board staff are proposing to allow all manures to be composted at Tier 1 facilities where a groundwater monitoring protection plan is implemented. Water Board staff are not proposing to distinguish herbivore manure from non-herbivore manure as all manure contains constituents of concern such as nitrates, pathogens, and salts. Water Board staff agree allowing manure in Tier 1 is protective of water quality if the facility is designed in accordance with Tier 1 specifications, the volume of material is limited, and groundwater protection monitoring plan is implemented.

Letter 6, Comment 2.b.: Expansion of the Agricultural Composting exemption to become a Conditional Exemption (subject to best management practices):

Letter 6, Comment 2.b.1.: Allow for an unlimited transfer of agricultural materials into ag composting sites subject to conditions that composter must use compost on their own lands subject to agronomic rates, except for what is sold or given away (currently, 1,000 cubic yards annually but proposed to be expanded) – **CCC does not believe that the proposed revisions are justifiable from an environmental standpoint. The unlimited transfer of manure (or some other agricultural materials which may be impactful in large quantities) to be stockpiled, processed, and composted on agricultural, or other, sites which may have no specified standards for grading, pad compaction, runoff control or containment will create significant potential water quality impacts or other potential environmental impacts. At best, the proposed best management practices appear to be vague and unenforceable.**

Response: The proposed General Order provides for an unlimited transfer of agricultural materials to an agricultural composting site under a conditional exemption, but limits the volume of material on site at any time in to no more than 25,000 cubic yards in order to qualify for the exemption. In practice, the amount of material that can be accepted is also limited by the size of the parcel to which the resulting compost can be agronomically applied. The best management practices to reduce impacts to water quality from conditionally exempt composting operations depend on site-specific conditions. The Regional Water Board may require coverage under other individual or general waste discharge requirements on a case-by-case basis.

Letter 6, Comment 2.b.2.: Expansion of the agricultural compost exemption limit to 5,000 cubic yards – **CCC cannot support a five-fold expansion to allow up to approximately \$50,000 or more in sales or donation. Any facility which is selling more than 1,000 cubic yards annually is a commercial operation which should be regulated fairly with other market participants, in a manner which preserves a level playing field.**

Response: Water Board staff are proposing to increase the export limit to 5,000 cubic yards at conditionally exempt composting operations, consistent with the small-volume exemption allowed in Order WQ 2015-0121-DWQ. In response to findings in the EIR's Economic Considerations, the conditional exemption for operations with a throughput less than 5,000 cy of materials was added to the General Order as a lower-cost option to compliance with the General Order. While on site composting can have up to 25,000 cubic yards of material on site at any time consistent with Tier 1 limitations, the amount that can be sold or given away is the same as the small volume composters that are currently exempt.

Letter 6, Comment 2.b.3.: Extension of the agricultural exemption onto non-agricultural sites – **There is a significant difference between small, on farm composting being given an exemption, and what is now proposed, to operate**

large, commercial operations anywhere, as long as they sell into agriculture, by far the largest portion of the market for compost manufacturers who have already been required to make large capital expenditures on infrastructure improvements under the current General Order. CCC cannot support this unreasonable double standard, and do not believe it is justifiable from an environmental standpoint.

Response: Conditionally exempt on-farm operations may use material generated on site, may accept material from off site, and must apply the resulting compost back to land owned by the same land owner while not selling or giving away more than 5,000 cubic yards per year. As discussed in the prior comment, the on-farm composting exemption is limited to 25,000 cubic yards on site at any time, consistent with the volume restrictions in Tier 1. Order WQ 2015-0121-DWQ did not include on-site volume criteria for agricultural composting operations to qualify for the exemption. While the proposed exemption allows for more material to be brought on site, and the locations of facilities may expand beyond purely agricultural parcels such as in forestry activities, the exemption is more limited in that a smaller volume can be composted on site and requires best management practices to qualify for the exemption. If conditionally exempt facilities exceed either on-site or export volume criteria, accept materials that are not allowed, or do not follow the best management practices conditioned in the General Order, the composting operation would be considered a commercial composting operation and would need to enroll in the General Order or obtain other general or individual waste discharge requirements from the appropriate Regional Water Board.

Letter 6, Comment 2.c.: Furthermore, CCC cannot support the concept that non-agricultural green materials (and perhaps food materials) from municipal sources be added to the list of acceptable materials at Agricultural Composting operations, the potential of which was discussed at the Public Workshop. The receipt of municipally-derived materials would clearly qualify a facility as a commercial composting manufacturer and subject to the General Order requirements accordingly.

Response: The criteria for the conditional exemption of on-farm composting include accepting only vegetative agricultural materials, green materials, and/or manure feedstocks and/or other material as allowed by the Regional Water Board. Examples include manures and bedding, orchard and vineyard prunings, culls and crop residues, and spoiled or unsalvageable food commodities. An on-farm composting operation would not necessarily be considered a commercial composting operation if it accepted green materials.

Letter 6, Comment 3: CCC believes that any proposed amendments to the General Order be justified and equitable from an environmental standpoint. We believe that staff concerns and analysis regarding the potential threat to water quality which required the

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level of investments in infrastructure improvements at commercial facilities in the General Order cannot be overlooked or discounted because dairy industry economics are challenging and it is costly for them to comply.

We look forward to continued discussion with SWRCB staff and other stakeholders in an effort to develop reasonable solutions to the concerns of on-farm and dairy composting advocates.

Response: Just as Order WQ 2015-0121-DWQ, the General Order is not intended to apply to dairies or other confined animal facilities which compost and have waste discharge requirements for those operations. Water Board staff look forward to continued discussion on this topic.

Letter 7, J Stacey Sullivan, Sustainable Conservation

Letter 7, Comment 1: Sustainable Conservation appreciates the opportunity to comment on the proposed revisions to the General Waste Discharge Requirements for Composting Operations (Compost GO) and attendant Draft Supplemental Environmental Impact Report (SEIR). Sustainable Conservation has been working for many years on ensuring the ability of dairies to compost excess manure and export the finished product as a means to improve and protect on-dairy water quality, primarily in the San Joaquin Valley. Our comments focus on four aspects of the proposed Compost GO revisions: 1) the details and ramifications of the proposed exemption for “composting operations that are regulated through individual or general WDRs,” 2) the revision of the amount of compost permitted for export in the proposed successor to the current Agricultural Composting exemption, 3) the water quality implications of the proposed import of manure feedstock onto non-dairy sites, and 4) the classification of manure as a Tier I feedstock.

Response: Thank you for your comment.

Letter 7, Comment 2: Dairies subject to and compliant with the Dairy GO exempt from the Compost GO? Finding 31 of the Compost GO specifies composting-related activities that are exempt from the GO. The proposed revisions create a new subsection (g) of this finding, which adds "composting operations that are regulated through individual or general WDRs with requirements for the composting activities that are protective of water quality as determined by the Regional Board" to the list of exempt activities. In terms of dairies operating in the Central Valley, this new subsection appears to say that dairies subject to and compliant with the Central Valley Regional Water Quality Control Board's General Waste Discharge Requirements for Milk Cow Dairies (Central Valley Dairy GO) and the Central Valley Dairy Representative Monitoring Program (CVDRMP) would be exempt from the requirements of the Compost GO. This was the impression created by comments from Water Board staff at

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the public workshop on the Compost GO and SEIR revisions on December 11, 2019. We request specific confirmation of this reading from Water Board staff.

If our reading of this new subsection is confirmed as correct, it represents an important step forward in clarifying the relationship of the Compost GO and the Central Valley Dairy GO, an issue that has concerned us for some time. We have long maintained that the manure management requirements of the Central Valley Dairy GO, which were put in place by the Regional Board to ensure dairy manure is managed in a way that is protective of water quality, should also be sufficient for composting manure on a dairy. The Regional Board is preparing to revise the Central Valley Dairy GO, and research currently underway will inform the review and possible revision of the GO's requirements for manure management as it relates to composting. We believe that completing this research and basing subsequent revisions of the Dairy GO on its results is the best way for the State and Regional Boards to achieve their goals of improving and protecting water quality on dairies.

Response: Finding 31 (g) reiterates Finding 13 in the General Order. If the Regional Water Board issued waste discharge requirements or a waiver of waste discharge requirements with applicable requirements for the compost operation, then coverage under the General Order is not required, regardless of whether that operation is at a dairy or a composting operation co-located at a landfill.

Letter 7, Comment 3: Export limits. We are particularly interested in the potential impact of the new Finding 31(g) on the ability of dairies to not only compost manure on-site but also import needed feedstocks and export the finished compost off-dairy to achieve and maintain the nutrient balance required by the Central Valley Dairy GO. We would appreciate clarification that the requirements of the Compost GO from which Central Valley Dairy GO-compliant dairies are exempt include the proposed export limit of 5000 cubic yards/year for compost operations under the new "on-site" exemption. If that is in fact the case, we will also be interested in being informed of any discussions that may occur between the State Board and the Regional Board on the subject of compost exports. Economic and agronomic factors should create de facto limits on the amount of compost a dairy will produce or export. Dairies are concerned with removing only the quantity of manure that is in excess of what they need to achieve and maintain nutrient balance. A dairy will want to keep as much manure on site as is agronomically beneficial to the production of feed crops rather than pay for synthetic fertilizers.

If for some reason the new 31(g) exemption is not seen as extending to exports, then we would reiterate the concerns we raised in our June 14, 2019 comments on the scope of the Compost GO SEIR regarding the imposition of the proposed 5000 cubic yards/year limit on finished compost exports (see Appendix 1, below). Those comments questioned the rationale for using the small-volume exemption as the basis for an export limit, or in fact the need for any formal limit on exports from dairies that are exporting to achieve whole-farm nutrient balance, and proposed that the decision on the

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amount of compost that can be exported from a dairy should be based solely on an assessment of potential water quality impacts and risks. We believe that imports of feedstocks and exports of manure compost by dairies should not be formally limited as long as they meet Central Valley Dairy GO storage and handling requirements and serve the purpose of enabling exports of excess manure generated on-site in order to manage manure generated on-site in a manner that is protective of water quality. The Regional Board, through the Central Valley Dairy GO and annual reports, should have the information necessary to determine whether a dairy is composting with the end goal of achieving whole-farm nutrient balance and managing manure generated on-site in manner that is protective of water quality, per Central Valley Dairy GO requirements, or whether they are composting and exporting in excess of what would reasonably be needed to manage the manure generated on-site. If the latter is the case, Compost GO requirements may need to be applied. We would also reiterate the point about de facto limits on the amount of compost a dairy will export.

Response: If a facility is regulated through different individual or general waste discharge requirements or a waiver of those requirements which apply to the composting operation, the facility does not need additional coverage under the General Order. The export limit criteria for conditional exemption as described in the General Order are not applicable to those facilities that already have requirements applicable to the composting operation under different general or individual waste discharge requirements or a waiver of those requirements.

Letter 7, Comment 4: Import of manure feedstock onto non-dairy agricultural sites. The State Water Board is proposing to amend the Compost GO to allow sites (including but not limited to farms) covered by the new on-site exemption to compost materials both generated on site and imported from off site. Manure is one of the feedstocks that may be imported for composting. Sustainable Conservation supports the ability of small and medium-sized farms to produce and use compost in their operations, and is generally in favor of this amendment, but we are concerned about the potential for water quality impacts from the importation of manure onto non-dairy sites that currently have no protections in place for storage and handling of manure. Manure is a feedstock that poses risks to water quality, which is why Sustainable Conservation has been working with dairies to improve manure management and reduce leaching of nitrates to groundwater. For example, non-dairy agricultural sites, unlike dairies in compliance with the Dairy GO (which already have specific, enforceable requirements on how to manage, handle, and store manure), have no mandated water quality protections for the storage and handling of manure feedstocks on the site itself. The Irrigated Lands Regulatory Program (ILRP) does address water quality protection for member farms, but it applies to the field application of nutrients, not storage/composting sites. This presents a potential gap in water quality protections for storage and handling of manure feedstocks.

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To address this, the proposed revisions to the Compost GO include best management practices (BMPs) that must be implemented on sites importing manure and other permitted feedstocks for composting under the on-site exemption. Currently, those BMPs require that:

- Material and activities do not cause or contribute to pollution, contamination, or nuisances;
- Activities are set back at least 100 feet from surface water body and/or nearest water supply well;
- Dischargers implement practices to minimize or eliminate discharges that adversely impact beneficial uses;
- Dischargers must manage application of water (including from precipitation) to reduce generation of wastewater; and
- Working surfaces must be designed to prevent, as much as possible, ponding, infiltration, inundation, and erosion notwithstanding precipitation, equipment movement, and other aspects of facility operation.

We find some of these BMPs to be vague and overly general. In order to ensure that water quality is being protected on these sites we recommend that the proposed BMPs in the Compost GO be amended to provide more specific requirements for water quality protection on-site. We recommend including some of the commonly-used compost BMPs from organizations such as USDA's National Organic Program, OMRI, US Compost Coalition, and CalRecycle, among others. Additionally, we are concerned about what enforceability, if any, would attach to those BMPs, who would be responsible for assessing compliance, and whether an existing inspection mechanism could be employed. Water Board staff has suggested that this responsibility would fall to the Regional Board. We recommend that this be made specific. If the Regional Board is to be the inspecting agency, then the Water Board may wish to consider whether linking this responsibility with the Regional Board's ILRP inspection process might be a complementary and efficient approach to ensuring BMP compliance.

Response: Regional Water Board staff are responsible for implementing and enforcing core regulatory programs and the standards set in the California Water Code; the specific program staff responsible for oversight of composting activities may vary based on the type of composting activity. Additionally, composting activities that are conditionally exempt from the Water Board's General Order would still be subject to CalRecycle regulations and inspections in accordance with Title 14. The best management practices included in the General Order are intended to be performance based and site specific, so numeric prescriptive standards were not included analogous to the prescriptive requirements in the General Order.

Letter 7, Comment 5: Manure as Tier I feedstock. The proposed revisions to the Compost GO make manure a compost feedstock that can be accepted by a Tier I facility (<25K cubic yards Tier I feedstock, compost, and amendments on site at any given time), but only if the facility has a groundwater protection monitoring plan in place including groundwater monitoring wells. The requirements for a Tier I compost facility are generally less stringent than those for facilities handling Tier II feedstocks (which is manure's current classification). We are interested in obtaining clarification about whether the Central Valley Dairy Representative Monitoring Program (CVDRMP) and other representative monitoring programs would be considered to be qualifying groundwater protection monitoring plans in this context. At the December 11, 2019 public workshop Water Board staff said that the CDVRMP and other representative monitoring programs should be acceptable. While we appreciated this generally positive answer, we would be grateful for additional clarification on what constitutes an acceptable program, who makes this determination, and what criteria are used to do so.

Sustainable Conservation is very grateful for the open and receptive nature of our engagement with State Water Board members and staff on the issue of composting dairy manure. We look forward to continuing that engagement through this process of amending the Compost GO. Please let us know if we can provide any further information, and thank you again for the opportunity to comment.

Response: The criteria used to determine whether a groundwater monitoring protection plan is adequate will be site specific, depending on the characteristics of the feedstocks, the volumes accepted, the size of the facility, the soils underlying the operation, and the complexity of the underlying soils and groundwater quality. Any proposed groundwater monitoring and protection plan should include the requirements described in Attachment D of the General Order. However, if the Regional Water Board issued waste discharge requirements or a waiver of waste discharge requirements with applicable requirements for the compost operation, then coverage under the General Order is not required, regardless of whether that operation is co-located at a dairy.

Letter 8, Sunshine Saldivar, California Farm Bureau Federation; Emily Rooney, Agricultural Council of California; Michael Boccadoro, Dairy Cares

Letter 8, Comment 1: The California Farm Bureau Federation ("Farm Bureau") is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the State of California and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau is California's largest farm organization, comprising 53 county

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Farm Bureaus currently representing nearly 36,000 agricultural, associate, and collegiate members in 56 counties, and is part of a nationwide network of more than 5.5 million members. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Dairy Cares is a statewide coalition of California's leading dairy producer and processor organizations, including trade associations representing dairy farmers, milk-processing companies and cooperatives, and others with a stake in the long-term environmental and economic sustainability of California's more than 1,200 family dairy farms.

Agriculture Council of California ("Ag Council") represents approximately 15,000 farmers across the State of California, ranging from small, farmer-owned businesses, to some of the world's best-known brands.

Collectively, Farm Bureau, Dairy Cares, and the Ag Council appreciate the opportunity to submit comments on the proposed General Waste Discharge Requirements for Commercial Composting Operations, Order WQ 2020-XXXX-DWQ ("General Order") and the draft California Environmental Quality Act ("CEQA") Supplemental Environmental Impact Report ("SEIR").

Compost has many benefits, which include increasing soil's water-holding capacity, aiding drought conservation, providing erosion control, increasing soil organic material, reducing greenhouse gases, and improving soil health. Given these benefits and more, we appreciate the State Water Resources Control Board's revisions to the General Order (Order WQ-2015-0121- DWQ) including clarifying that on-farm composting is not subject to the same regulations as commercial facilities. Based on our review of the draft General Order and SEIR, we generally support the proposed amendments, because the changes would remove barriers for growers throughout California to create compost for beneficial uses in an economically sustainable manner.

It is worth noting that notwithstanding the requirements within the proposed General Waste Discharge Requirements for Commercial Composting Operations, the California agriculture industry is already subject to rigorous state and federal water quality requirements, and are required to comply with water quality standards, through applicable NPDES permits, waste discharge requirements, and conditional waivers of waste discharge requirements issued by various California Regional Water Quality Control Boards (Regional Water Boards) or the State Water Resources Control Board. Implementation of and compliance with these orders is costly and has profoundly affected irrigated lands and dairies' water resources and land management practices.

These regulations include, but are not limited to, irrigated lands regulatory programs, dairy waste discharge requirements, poultry waste discharge requirements, bovine feeding operations waste discharge requirements, and more. The extensive requirements include regulation of retention ponds, stormwater run-on and run-off, erosion and sediment control, groundwater and surface water protection, and surface

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water and groundwater quality monitoring. The broad nature of these orders (and others from the various Regional Water Boards) protects water quality from wastes generated on-site, compost utilized for agricultural purposes, and wastes incidental to operations, including wastes associated with compost piles. Accordingly, composting activities that occur on agricultural lands and/or facilities are already regulated under current Regional Water Board/State Water Board orders, and water quality is protected, which is the primary purpose of the State Water Board's Draft Order.

Thank you for the opportunity to provide our comments. We look forward to further involvement and discussion with the State Water Board on the General Order for Commercial Composting Operations.

Response: It is not the intent of the State Water Board to duplicate requirements for a given activity. The General Order was not intended to apply to all composting operations. As discussed in Finding 13, the General Order need not apply to facilities that are regulated through waste discharge requirements which include requirements for their composting operations. Regional Water Boards may issue individual or general waste discharge requirements or waivers of those requirements based on site-specific conditions. The General Order also includes criteria for exemption of composting activities. Water Board staff look forward to continuing discussions on agriculture and composting activities.

Letter 9, Jaime Scott Guthrie, Monterey County Resource Management Agency – Planning

Letter 9, Comment 1: Thank you for allowing County of Monterey RMA-Planning the opportunity to comment on the draft Supplemental Environmental Impact Report (SEIR) for the General Waste Discharge Requirements for Commercial Composting Operations (General Order).

Comments are as follows:

Letter 9, Comment 2: Draft SEIR

1) Appendix A is referred to on page 4 under 1.2 **Notice of Preparation** as being the May 13, 2019 Notice of Preparation. On page 8, the last sentence refers to Appendix A as the full text of the proposed amended General Order. No Appendix A is attached to the SEIR nor is it easy to locate on the waterboards.ca.gov website.

Response: Thank you for your comment; the draft SEIR was corrected. Appendix A is the full text of the proposed amended General Order, published on October 31 on the [State Water Board Composting Program website](https://www.waterboards.ca.gov/water_issues/programs/compost) (https://www.waterboards.ca.gov/water_issues/programs/compost). Appendix B

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is now the Notice of Preparation. A revised DSEIR and appendices will be published prior to the meeting for adoption and certification of the General Order and DSEIR, respectively.

Letter 9, Comment 3: Draft GENERAL ORDER Revisions

2) Page 6 – typo in the first paragraph, “soil and climate conditions will be performed as a result”.

Response: Thank you for the comment. The typo was corrected in the sentence as reflected.

Letter 9, Comment 4: 3) Page A-1 – the word “thermophilic” is used in the definition of Active Compost. Please include a definition of thermophilic to Attachment A.

Response: In an effort to increase consistency between agencies and use of terms, for the purposes of the General Order, the use of the term “thermophilic” is the same as that on the webpage for CalRecycle’s [glossary of terms dealing with organic materials management](https://www.calrecycle.ca.gov/organics/glossary/) (<https://www.calrecycle.ca.gov/organics/glossary/>); Thermophilic: (Gr.-Heat loving) Heat-loving, applied especially to certain bacteria requiring high temperatures for normal development.

Letter 9, Comment 5: 4) Page A-9 – the definition of “Tier 1 Feedstocks”: added sentence might be more consistent with 1.a.4) under **Specifications** (top of page 30) by inclusion of a qualifier that no more than ten percent of the total volume of feedstock may be composed of manure. This would be in addition to the qualifier that a groundwater protection monitoring plan is implemented.

Response: The General Order allows manure to be accepted at a Tier 1 facility in excess of 10 percent if a groundwater monitoring protection plan is implemented, or at the discretion of the Regional Water Board. Revising the Tier 1 Feedstocks definition to incorporate the suggestion is not recommended because Tier 1 feedstocks have not changed. The qualifier is only a criterion for composting operations that meet the specifications in Design, Construction, and Operation Requirements for Composting Manure at Tier 1 Facilities.