YOLO COUNTY DEPARTMENT OF COMMUNITY SERVICES

Addendum #1 to the Yolo County Central Landfill Permit Revisions EIR (SCH # *2020080465*)

LF2023-01

March 2023

EIR ADDENDUM

CEQA REQUIREMENTS

This document has been prepared as an Addendum to the Yolo County Central Landfill (YCCL) Permit Revisions EIR (SCH # *2020080465*) (referred to as the 2021 EIR) in accordance with the CEQA Guidelines, Section 15164. This is the first Addendum to the Yolo County Central Landfill Permit Revisions EIR, which was certified by the County on November 9, 2021. This Addendum evaluates a proposal by Northern Recycling to increase the maximum throughput for Compost Facility 2 (CF2) to an annual maximum of 260,000 tons per year and a daily peak tonnage of 1,500 tons per day. This Addendum also evaluates the phase out of an anaerobic compost facility referred to as Compost Facility 1 (CF1).

The hours of operation for public access at CF2 would be the same as for YCCL. The current hours of operation are shown in Table 1.

Table 1. YCCL Current Hours of Operation (Public Access)

	Monday through Saturday	**Sunday**
Open to Public	6:30 a.m. to 4:00 p.m.	8:00 a.m. to 4:00 p.m.
Holidays Closed	New Year's Day, Easter Sunday, Independence Day, Labor Day, Thanksgiving Day, Christmas Day	

The permitted hours of public access in the YCCL 2018 Solid Waste Facility Permit are 6:00 a.m. to 5:00 p.m. Monday through Saturday and 7:00 a.m. to 6:00 p.m. on Sunday. These hours are longer than the current public access hours. Currently the County has no plans to extend the public access hours of the YCCL to match the permitted maximum hours but reserves the right to do so in the future. If the County extends the YCCL public access hours to the permitted maximum, the compost facility operating hours will extend public access hours to match.

As noted in the YCCL 2021 Joint Technical Document (JTD), facility operations, such as placement or removal of daily cover (soil or alternative daily cover (ADC)), administrative activities, or other construction activities may occur up to several hours before or after the hours of refuse acceptance. This EIR Addendum will clarify that after hours activities at CF2 will extend between closure of YCCL at 4:00 p.m. until 9:00 p.m. Activities will include compost processing tasks such as grinding, screening, and temperature monitoring.

Section 15164 provides that the Lead Agency "shall prepare an Addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." Pursuant to Section 15164(e) a brief explanation is provided herein documenting the County's decision that preparation of a subsequent EIR is not required.

The Guidelines go on to state that: 1) the addendum need not be circulated but can be included in or attached to the Final EIR (Section 15164(c)), and that 2) the County must consider the addendum with the Final EIR (Section 15164(d)).

Section 15164 was created in response to Public Resources Code Section 21166 which provides that no subsequent or supplemental EIR shall be required unless "substantial changes" in the project or the circumstances under which the project is being undertaken will necessitate "major revisions" of the EIR, or "new information" which was not known and could not have been known at the time the EIR was certified, becomes available.

The requirements of the Guidelines are described in more detail in the matrix below. Under the current situation, use of an Addendum is not only justified, but actually required by the Public Resources Code (Section 21166).

This Addendum demonstrates that the circumstances, impacts, and mitigation requirements identified in the Yolo County Central Landfill Permit Revisions EIR remain substantively unchanged by the circumstances described herein and supports the finding that the proposed modifications do not raise any new issues and do not cause the level of impacts identified in the previous EIR to be exceeded.

BACKGROUND

The “project” that is the focus of this Addendum includes two changes to the Joint Technical Document for the Yolo County Central Landfill (YCCL) and related regulatory documents that would allow the increase of daily and annual maximum tonnage at CF2 and the phase out of the CF1 operations. (The Joint Technical Document is one of the main operating plans required by State agencies.) The 2021 EIR states the following goals in the Purpose and Need for the 2021 YCCL Permit Revisions Project.

1. To decrease adverse environmental impacts of landfill development, operations, and final closure, and increase the environmental benefits that can be derived from certain aspects of YCCL operations;
2. To increase the County’s ability to divert waste (including organics) from the landfill and continue to meet the state-mandated diversion goals provided in AB 1383, other state mandates to reduce waste from landfill (AB 341), and reduce greenhouse gas (GHG) emissions (AB 32);
3. To increase efficiency, diversify operations, and operate more economically; and
4. To extend the overall site life of the existing YCCL through new operational methodologies.

By increasing compost processing, Addendum #1 will assist in achieving the above goals identified in the 2021 EIR.

The proposed changes in the 2021 EIR also evaluated increases in daily peak tonnage that include organics (yard waste and food waste). The first proposed change in the 2021 EIR is shown below.

> **“1. Increased Daily Permitted Tonnage**
>
> The County is proposing to expand the overall permitted tonnage for the YCCL to a monthly average of 2,500 TPD with a daily peak of 3,000 TPD. Currently, the YCCL SWFP limits incoming waste tonnage (disposed and recycled) to a maximum of 1,800 TPD. The 1,800 TPD includes various waste streams, including waste for landfill disposal, organics (yard waste, food waste), wood waste, CDI, liquid waste and recyclables. The current average daily waste disposed in the landfill at the YCCL is about 500 tons. The County

intends to increase the overall tonnage of waste processed at YCCL (recycling, composting, gasification, etc.) and expand construction of various waste conversion technologies to extend landfill life and reduce landfill disposal of wastes, reducing landfill gas methane GHG emissions…."

The 2021 EIR analyzed 14 alternative technologies for waste reduction and indicated that there was one compost facility at the site (CF1) and another compost facility being developed (CF2). Northern Recycling began operating CF2 on July 1, 2022, with a permitted maximum throughput of 182,500 tons per year and a peak maximum daily amount of 1,000 tons per day. The proposal is to increase the annual maximum at CF2 to 260,000 tons per year and a daily peak tonnage of 1,500 tons per day. These increases are consistent with the increased daily permitted tonnage in the 2021 EIR (a monthly average of 2,500 tons per day with a daily peak of 3,000 tons per day).

The proposed phase out of CF1 is due to economics. CF1 began operating in October 2019 under an Authority to Construct from the Yolo-Solano Air Quality Management District for a throughput of 110,000 tons per year. Since the development of CF2, it has become apparent to landfill management that CF2 will operate more economically than CF1. Therefore, landfill management proposes that all future compost feedstocks be directed to CF2. This is consistent with the 2021 EIR goal:

"To increase efficiency, diversify operations, and operate more economically."

Directing future compost feedstocks to CF2 will result in the phase out of CF1. As the modules in CF1 finish their anaerobic composting they will be closed and not refilled.

The increased after-hours activities until 9 p.m. at CF2 would not require additional mitigations for resource areas (i.e., noise, aesthetics, and traffic) not already included in the 2021 EIR.

DETERMINATION

The increased operations of CF2 and the phasing out of CF1 do not represent a substantive change in the approved YCCL project as analyzed under the certified 2021 EIR.

In order to assess whether additional CEQA review is required for the above-described change in operations, an analysis of the applicability of Section 15162 of the CEQA Guidelines has been prepared. The table on the following pages provides verbatim wording from the Guidelines and a corresponding analysis of the applicability of each section to the proposed new operations.

COMPARISON OF CEQA REQUIREMENTS AND REQUEST	
CEQA Requirement (Section 15162)	**Relationship to Proposed Project**
(a) When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:	The Yolo County Central Landfill Permit Revisions EIR was certified by the Yolo County Board of Supervisors on November 9, 2021. Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan were also adopted at the same time. The information below summarizes the substantial evidence in support of the County's determination that the preparation of a Subsequent EIR is not required for the proposed changes at the YCCL.
(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;	There are no substantial changes proposed in the Yolo County Central Landfill composting expansion project. The proposed increase in organics processing was anticipated in the 2021 EIR. The successful start of compost operations at CF2 justifies expansion of composting at CF2 and phase out of CF1. The 2021 EIR already analyzed impacts of increased daily and annual operations (increases in daily and total tonnage and vehicles trips at YCCL). The after-hour processing at CF2 (until 9 p.m.) would not result in substantial changes in noise levels. The 2021 EIR analyzed Project elements that could operate 24 hours a day and determined that noise from post-construction and operations of the proposed Project elements would not be expected to be significantly louder than activities that already occur at the YCCL. The YCCL has landfill gas to electricity engines that operate 24 hours a day. Consistent with the 2021 EIR, CF2 processing until 9 p.m. would not be substantially greater than existing levels without the Project, and the increased hours of operation at CF2 would not result in any significant effects relating to operational noise. Regarding air quality emissions, an evaluation was completed by RGM Environmental (see Attachment 1). The conclusion is that the emission factors used to permit CF2 were very conservative relative to source-tested emissions that have resulted from aerated static pile systems at Yolo County and the City of Napa. Applying reasonable and still conservative emission factors to the proposed 260,000 tons per year at the expanded CF2 facility would result in no increase above the previously permitted level of volatile organic compound (VOC) and ammonia (NH3) emissions.

COMPARISON OF CEQA REQUIREMENTS AND REQUEST	
CEQA Requirement (Section 15162)	**Relationship to Proposed Project**
(2) Substantial changes will occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or	The 2021 EIR was approved in November 2021. No substantial changes have occurred with respect to the circumstances under which the project is or will be undertaken that would warrant major revisions to the previous CEQA review. The 2021 analyzed increased materials arriving at YCCL, that were higher than the proposed increases in processing at CF2. The 2021 EIR also evaluated increased hours of operation for proposed Project Elements at YCCL. As identified in item (1) above, consistent with the 2021 EIR, CF2 processing until 9 p.m. would not be substantially greater than existing levels without the Project, and the increased hours of operation at CF2 would not result in any new significant effects relating to operational noise. Therefore, the County has concluded that the proposed modification is not a substantial change in circumstances.
(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:	There has been no new information of substantial importance that has become known since the 2021 EIR. Increased process at CF2 and phase out of CF1 will not cause any new significant effects that were not discussed in the 2021 EIR.
(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;	The project will not have any significant impacts that were not discussed in the previous EIR.
(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;	As noted above, the increased composting at CF2 and phase out of CF1 will not contribute to, or substantially increase the severity of, any previously identified significant impacts.
(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or	There were no mitigation measures or alternatives in the 2021 EIR previously found not to be feasible.
(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.	There are no mitigation measures or alternatives different from those analyzed in the 2021 EIR that have been rejected by the County. Potential mitigation measures for the increased operations at CF2 and phasing out of CF1 are not considerably different from the measures that were already considered in the 2021 EIR.

COMPARISON OF CEQA REQUIREMENTS AND REQUEST	
CEQA Requirement (Section 15162)	**Relationship to Proposed Project**
b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subsection (a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.	A negative declaration was not adopted for the Yolo County Central Landfill Permit Revisions; therefore, this section does not apply.
c) If the project was approved prior to the occurrence of the conditions described in Subsection (a), the subsequent EIR or negative declaration shall be prepared by the public agency which grants the next discretionary approval for the project. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.	The Yolo County Central Landfill Permit Revisions 2021 project was approved prior to the need for increased composting at CF2, leading to the preparation of this Addendum. However, as documented herein the preparation of a subsequent EIR is not required. Therefore, this section is not applicable.
d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.	A subsequent EIR has been determined not to be required, therefore, this section is not applicable.

TECHNICAL MEMORANDUM

TO: RCH Group

FROM: Rick Moore, RGM Environmental

DATE: March 23, 2023

SUBJECT: Emission Factors for an Expansion of Compost Facility 2 at the Yolo County Central Landfill

Introduction

Northern Recycling is proposing to increase the maximum throughput for Compost Facility 2 (CF2), an aerated static pile compost facility located at the Yolo County Central Landfill (YCCL). CF2 began operating on July 1, 2022, with a permitted maximum throughput of 182,500 tons per year and a peak maximum daily amount of 1,000 tons per day. The proposal is to increase the annual maximum to 260,000 tons per year and a daily peak tonnage of 1,500 tons per day.

The intent of this technical memorandum is to determine the emission factors required for CF2 to expand as proposed and remain below the already permitted annual emission limits and to assess if those emission factors are appropriately conservative.

Default Emission Factors Used to Estimate CF2 Emissions for Air District Permitting

CF2 received an Authority to Construct (ATC) from the Yolo-Solano Air Quality Management District (YSAQMD) prior to beginning operations. The permitted emissions for Volatile Organic Compounds (VOCs) and ammonia (NH3), as presented in the ATC Application, were based on emission factors being used by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and are quite conservative. Those emission factors are:

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Feedstock Storage:

- VOC emission factor = 0.20 lb. VOCs/ton/day
- NH3 emission factor = 0.02 lb. NH3/ton/day

Active Compost Emissions with Placement of a Biofilter Layer on Top of the Composting Material:

- Uncontrolled VOC emission factor = 5.14 lb. VOCs/feedstock ton
- Uncontrolled NH3 emission factor = 0.55 lb. NH3/feedstock ton
- Biofilter control efficiency for VOCs = 80%
- Biofilter control efficiency for NH3 = 53%
- Controlled VOC emission factor = 1.03 lb. VOCs/feedstock ton
- Controlled NH3 emission factor = 0.26 lb. NH3/feedstock ton

Note that the SJVAPCD revised their VOC emission factor in March 2022 to a lower value to correspond with the value adopted by the California Air Resources Board (CARB). The revised value is 3.22 lb. VOCs/feedstock ton during active composting, resulting in a controlled VOC emission factor of 0.64 lb. VOCs/feedstock ton, rather than 1.03.

Curing Emissions:

- VOC emission factor = 0.57 lb. VOCs/feedstock ton
- NH3 emission factor = 0.24 lb. NH3/feedstock ton

The revised VOC emission factor during curing (SJVAPCD, March 2022) is 0.36 lb. VOCs/feedstock ton.

The default emission factors used in the ATC Application resulted in facility-wide emission factors for the entire process of processing, composting and curing the organic material of 2.2 lb. VOCs/feedstock ton and 0.48 lb. NH3/feedstock ton. Applying the revised VOC emission factor results in a facility-wide emission factor for VOCs of 1.6 lb. VOCs/feedstock ton. These facility-wide emission factors are shown in Table 1 below.

Table 1. CF2 Permitted Facility-Wide Emission Factors

Description	CF2 Permitted	CF2[1] Updated
VOC emission factor (lb./ton)	2.2	1.6
NH3 emission factor (lb./ton)	0.48	0.48

1. Updated VOC emissions are based on the VOC emission factor adopted by the SJVAPCD in March 2022, which corresponds to the CARB-adopted emission factor (CARB 2015).

Source Test Results for CF2

Following the initiation of operations at CF2, Northern Recycling conducted source testing to demonstrate compliance with the YSAQMD permit. Results of the source testing are shown in Table 2.

Table 2. Results of CF2 Source Testing

Operational Phase	VOCs (lb./ton)	NH3 (lb./ton)
Active Composting	0.089	0.04
Curing	0.007	0.012
Finished Product Storage	0.009	0.03
Feedstock Storage	0.0012	0.00012
Facility-Wide Total	0.11	0.08

Source Test Results for the City of Napa Compost Facility

A sister company to Northern Recycling operates a compost facility for the City of Napa. The compost technology used is the same as the YCCL technology and was designed by the same vendor, Engineered Compost Systems (ECS). The Napa aerated static pile compost facility began operation in January 2020.

In 2017, Napa Recycling and Waste Services (NRWS, a sister company to Northern Recycling) conducted a source test on feedstock stockpiles using a Bay Area Air Quality Management District (BAAQMD) approved testing protocol. Results are:

Food Waste Stockpile: **VOCs:** 0.1 lb. VOCs/ton/day (half of the default of 0.2)
NH3: 0.00053 lb. NH3/ton/day (38 times lower than the default of 0.02)

Green waste stockpile: **VOCs:** 0.05 lb. VOCs/ton/day (one quarter of the default of 0.2)
NH3: 0.00043 lb. NH3/ton/day (46 times lower than the default of 0.02)

Following the commencement of operations, NRWS conducted four quarterly source tests on the composting and curing phases over the first four quarters of operation, as required by the BAAQMD. Results are shown in Table 3 below.

Table 3. Results of NRWS Aerated Static Pile Source Testing

Emission Type	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Average
VOC (lb./ton)	0.03	0.08	0.20	0.22	0.13
NH3 (lb./ton)	0.03	0.09	0.07	0.23	0.11

Using these values from the Napa source testing and applying the average emission factors from the four quarters of testing results in facility-wide emission factors of:

- (0.1 lb. VOCs/ton/day)(3 days) + 0.13 lb. VOC/ton = 0.43 lb. VOCs/ton
- (0.00053 lb. NH3/ton/day)(3 days) + 0.11 lb. VOC/ton = 0.11 lb. NH3/ton

The facility-wide per ton emission factors are shown in Table 4 for a side-by-side comparison.

Table 4. Default and Source Test-Derived Facility-wide Emission Factors

Description	CF2 Permitted	CF2 Updated[1]	CF2 Source Test[2]	Napa Facility Source Test[3]
VOC emission factor (lb./ton)	2.2	1.6	0.11	0.43
NH3 emission factor (lb./ton)	0.48	0.48	0.08	0.11

1. Updated VOC emissions are based on the VOC emission factor adopted by the SJVAPCD in March 2022, which corresponds to the CARB-adopted emission factor.
2. Results of source testing of CF2 using a YSAQMD-approved protocol.
3. Results of source testing of the City of Napa aerated static pile compost facility using a BAAQMD-approved protocol.

Maximum Allowable Emission Factor for CF2

Northern Recycling is proposing to increase the annual maximum CF2 tonnage to 260,000 tons per year. The maximum facility-wide emission factors to remain below the already permitted emissions are:

Max VOC EF = (182,500 tons per year/260,000 tons per year)(2.2 lb./ton) =
1.54 lb. VOCs/ton

Max NH3 EF = (182,500 tons per year/260,000 tons per year)(0.48 lb./ton) =
0.34 lb. VOCs/ton

A comparison of these maximum emission factors with those shown in Table 4 show that the maximum emission factors are conservative with respect to the source test results and not significantly lower than the emission factors shown in the CF2 Updated column.

Conclusion

The emission factors used to permit CF2 were very conservative relative to source-test-derived emission factors that have resulted from aerated static pile systems at Yolo County and the City of Napa. Applying reasonable and still conservative emission factors to the proposed 260,000 ton per year expanded CF2 facility results in no increase in the previously permitted level of VOC and NH3 emissions.

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