



City of Berkeley Transfer Station Solid Waste Facilities Permit Revision Project

Draft Initial Study – Negative Declaration

prepared by

City of Berkeley
Public Works Department
1326 Allston Way
Berkeley, California 94702

with assistance from

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

June 2020



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

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Initial Study

1. Project Title

City of Berkeley Transfer Station Solid Waste Facilities Permit Revision Project (SWIS No. 01-AC-0029)

2. Lead Agency/Project Proponent Name and Contact

City of Berkeley
Public Works Department
1326 Allston Way
Berkeley, California 94702

Contact: Joy Brown, Senior Management Analyst
(510) 981-6629
ejbrown@ci.berkeley.ca.us

3. Project Location

The project site is the existing City of Berkeley Solid Waste Management Center Transfer Station Facility (Transfer Station). The Transfer Station is located at 1201 Second Street in the city of Berkeley in Alameda County, California. The Transfer Station is located on a 4.68-acre site owned and operated by the City of Berkeley on the east side of Second Street, north of Gilman Street.

Figure 1 shows the regional location of the project site and Figure 2 shows an aerial view of the project site and its immediate surroundings.

4. General Plan Designation

Manufacturing (City of Berkeley 2002)

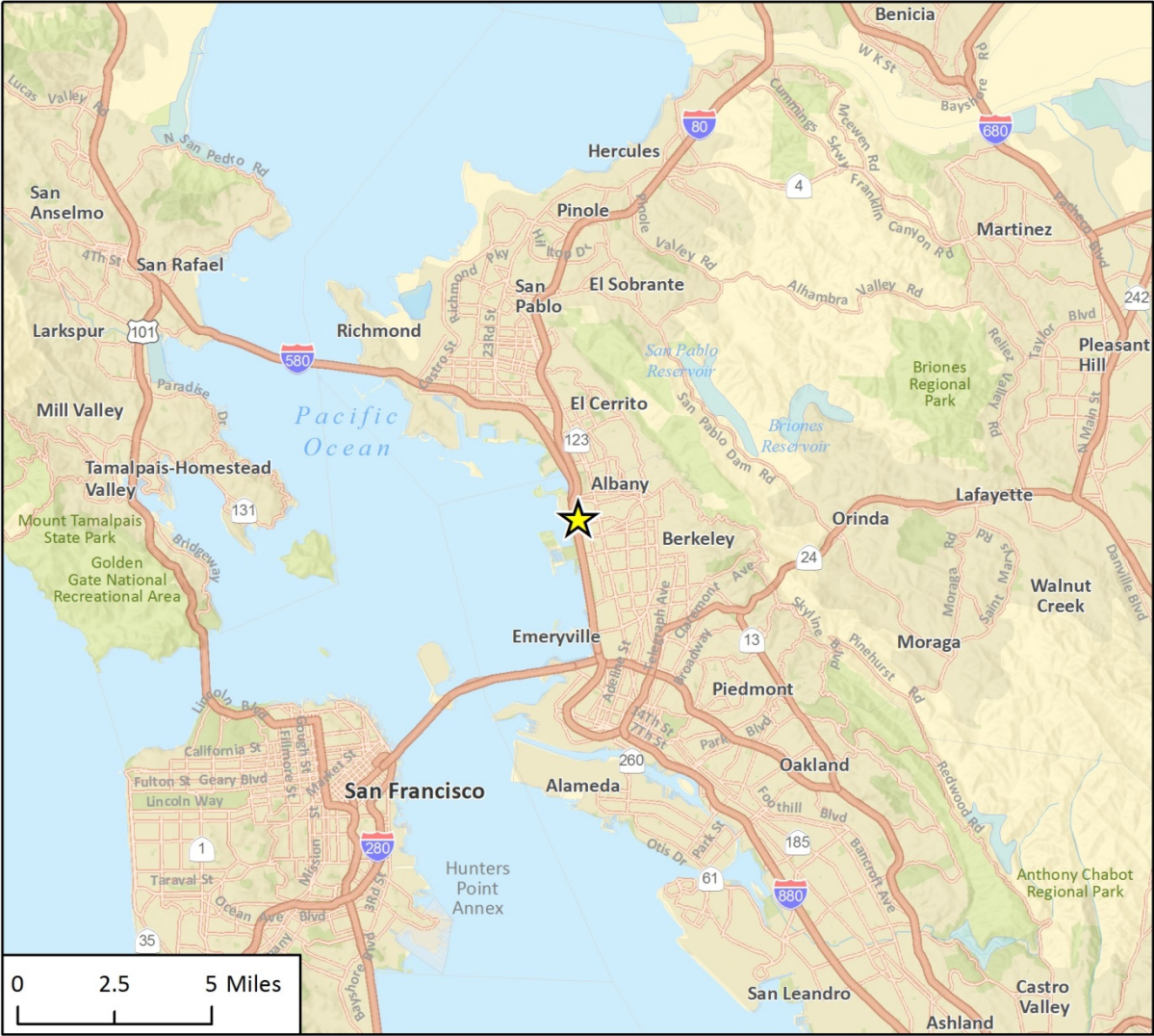
5. Zoning

Manufacturing (City of Berkeley 2014)

6. Project Background and Setting

The following discussion describes the setting, operations, and surrounding land uses at the project site. This discussion is primarily based on information provided in the *Solid Waste Management Center and Transfer Station Transfer/Processing Report* prepared by the City of Berkeley in September 2017 (City of Berkeley 2017a).

Figure 1 Regional Location



★ Project Location

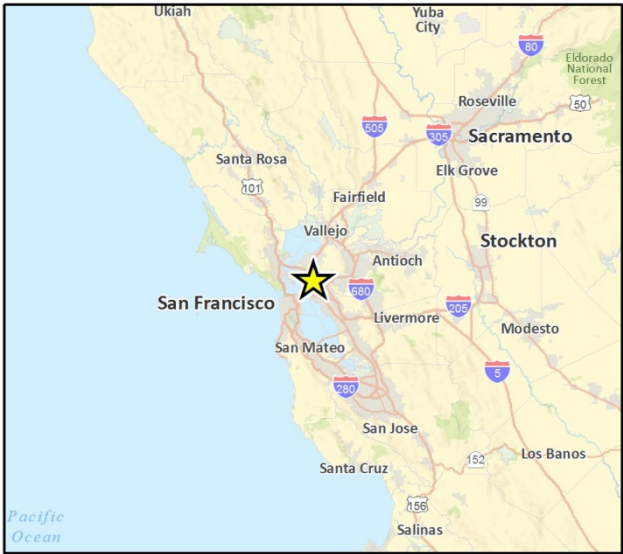


Fig 1 Regional Location

Figure 2 Project Site Location



Environmental Setting and Surrounding Land Uses

The Berkeley Solid Waste Management Center Transfer Station Facility (Transfer Station) site (project site) encompasses approximately 4.68 acres and is located in the neighborhood of West Berkeley. This neighborhood is characterized by industrial, manufacturing, and commercial uses with residential uses scattered throughout. The project site is bordered by Codornices Creek to the north, Union Pacific Railroad (UPRR) right-of-way and tracks to the east, industrial uses to the south, and Second Street to the west. Across Codornices Creek to the north is a two-story retail building (Target) and associated surface parking areas. Across the railroad tracks to the east are Harrison Park (an approximately 5.6-acre, City-owned park), a two-story homeless shelter (Harrison House), and one- to two-story industrial and manufacturing buildings. Across Second Street to the west are one- to three-story industrial and warehouse buildings. The project site is located approximately 275 feet east of Interstate 580/Interstate 80 (I-580/I-80).

Existing Operations and Facilities

The City of Berkeley Zero Waste Division (ZWD) provides: 1) residential and commercial refuse and compost collection service, and 2) recycling collection for businesses and multi-family dwellings with more than nine units located in the City of Berkeley. ZWD has operated the Transfer Station since August 1, 1985. Prior to 1985, Browning Ferris Industries, Inc. contracted with the City to construct and operate the City owned Transfer Station facility, which opened in 1983. The purpose of the Transfer Station is to collect and process waste materials before transport to the landfill or appropriate recycling or processing facility. The Transfer Station accepts mixed solid wastes, storm drain debris for dewatering, sewer line cleanout sludge, construction and demolition (C&D) debris, segregated green materials (such as yard waste and food waste), and separated or commingled recyclable materials.

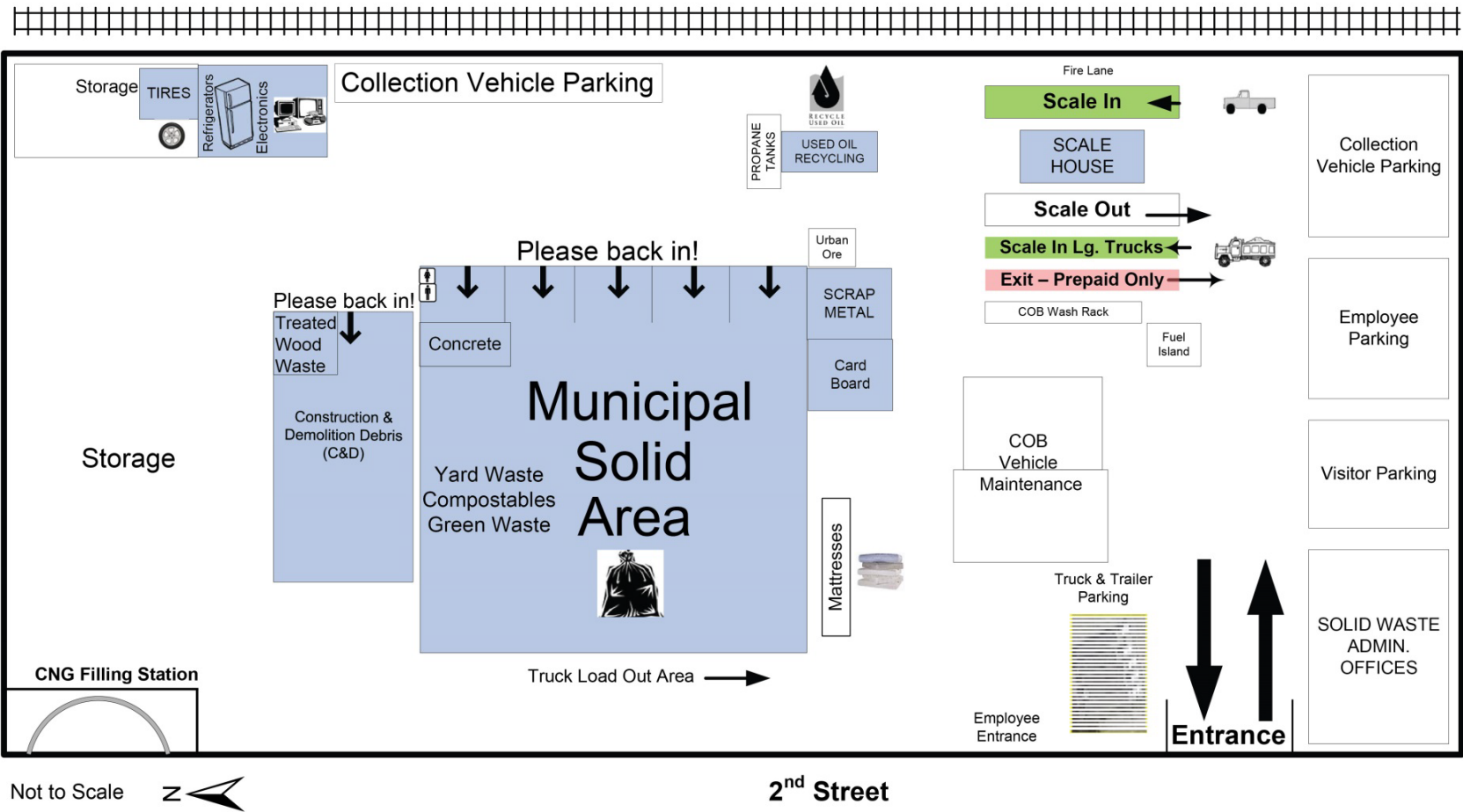
The Transfer Station consists of the entrance and parking area, scale house, administrative offices, the transfer/processing area, and other ancillary areas. A site map and flow diagram indicating the flow of material through the Transfer Station and the site layout is represented on Figure 3. A compressed natural gas (CNG) fueling station is located on the northwest corner of the project site but is operated by Trillium, Inc. and is fenced and separate from the ZWD operations. Site photographs correlating to some of the equipment and structures described in Figure 3 are shown in Figure 4a through Figure 4d

Municipal solid waste (MSW), segregated green materials, and C&D debris materials are offloaded by waste collection trucks and private vehicles onto the appropriate area of the tipping floor shown on Figure 3. From there, MSW is loaded into tractor trailers and transferred to the Altamont Landfill for disposal and segregated green material and C&D materials are loaded into transfer trailers for delivery to offsite processing facilities.

Other Transfer Station activities include vehicle and equipment washing, salvaging, collection of materials for recycling, and storage and maintenance of equipment. The permitted facility operating hours are from 5:00 a.m. to 9:30 p.m., Monday through Friday and 6:00 a.m. to 4:30 p.m. on Saturdays and Sundays.

The Transfer Station also operates as a self-haul transfer facility and is open to the public to drop off waste materials six days a week (Monday through Saturday) from 8:00 a.m. to 4:30 p.m. and is typically closed most state holidays. The current Transfer Station permit allows for hours of operations for public access are 8:00 a.m. to 4:30 p.m. seven days a week. However, the Transfer Station is open to the general public, Monday through Saturday, 8:00 a.m. to 4:30 p.m. All

Figure 3 Transfer Station Facilities and Flow of Materials Map



Source: City of Berkeley, 2020.

Figure 4a Site Photographs – Photos 1 and 2



Photo 1: View of scale house from near main entrance looking northeast



Photo 2: View of vehicle maintenance area looking north

Figure 4b Site Photographs – Photos 3 and 4



Photo 3: View of used oil recycling area looking east



Photo 4: View of roofed general waste area from near scale house looking northwest

Figure 4c Site Photographs – Photos 5 and 6



Photo 5: Photo of tipping floor looking west from outside general waste area



Photo 6: View of municipal solid waste storage area and dust/odor control misting system from tipping floor

Figure 4d Site Photographs – Photos 7 and 8



Photo 7: View of truck load out area and general waste area looking north



Photo 8: View of storage areas in northern portion of site in foreground, trees along Codornices Creek corridor in middleground, and adjacent Target building in background from near general waste area looking north

customers are directed onto a Scale House scale, where a weighmaster inspects the incoming load and determines the contents of each vehicle. In addition, the vehicles are inspected for hazardous materials, tires, appliances, upholstered furniture, and mattresses/box springs. After weighing the vehicle and collecting the amount due for small loads, the weighmaster directs the vehicle to the area on the tipping floor. At the tipping floor, an employee directs the customer to the appropriate area for offloading.

7. Description of the Project

The City of Berkeley ZWD is proposing additional commercial waste collection route days per week within the City based on a 2015 decision by the City Council. The City decided to take over commercial accounts that are seven cubic yards or less,¹ which included approximately 440 commercial accounts. These accounts were incorporated into the ZWD's existing 4,000 plus commercial accounts, increasing Commercial paper from four days to five days a week; Commercial bottles/cans from three days to four days per week; and incorporating Green/food into the existing seven days per week routes. The additional waste from the additional commercial collection route days, ZWD proposes to increase the tonnage handled at the Transfer Station and modify the hours of operation. The proposed operational changes at the Transfer Station require revisions to the Transfer Station's Solid Waste Facilities Permit (SWIS No. 01-AC-0029) ("Permit"), which is administered by the California Department of Resources Recycling and Recovery (CalRecycle). The current Permit was issued by CalRecycle on August 22, 2011.

The proposed project involves the operational changes needed related to the addition of commercial waste collection route days within the City's existing commercial materials collection routes. The project involves operational changes only. No changes to the project site, modification of the Transfer Station facilities, or new construction are proposed as part of the Permit revision project. The proposed operational changes are summarized below.

Permitted Tonnage Increase

The Transfer Station is currently permitted to receive a maximum of 560 tons of materials per day. On average, the Transfer Station receives approximately 417 tons per day based on the most recent information available (January 1 through December 31, 2019). However, as described above, some commercial waste customers were previously serviced by non-exclusive commercial waste franchise haulers are now being serviced by the City of Berkeley. Therefore, the City of Berkeley is requesting revisions to the site's Permit in order to increase the permitted tonnage of materials accepted at the facility for transfer and processing. The City is requesting an increase of the permitted maximum daily tonnage from 560 to 620 tons per day, an increase of 60 tons per day or approximately 11 percent. This increase is to ensure that the transfer station does not violate the Permit. Table 1 shows the current and proposed permitted tonnage.

¹ Based on bin capacity. The City of Berkeley can collect refuse, recyclables, or compost with bins that are six cubic yards in size or less. For accounts that require services to collect over seven cubic yards of materials, roll-off containers are allowed to be provided by non-exclusive commercial waste haulers franchisees only.

Table 1 Permitted Tonnages

	Tons per day (tpd)		
	Current Average	Current Permitted Maximum	Proposed Permitted Maximum
Transfer Station	414 ¹	560	620

¹ Based on Monday through Saturday tonnages received between January 1 and December 31, 2019

tpd = tons per day

Extend Waste Acceptance, Transfer, and Processing Hours

The City of Berkeley is also requesting an adjustment to the permitted daily operating hours. The current facility onsite operating hours and off-site hauling of materials operating hours are Monday through Friday from 5:00 a.m. to 9:30 p.m. and Saturday and Sunday (if needed) from 6:00 a.m. to 4:30 p.m. for commercial haulers and 8:00 a.m. to 4:30 p.m. Mondays through Saturday for the public. The proposed on-site operation and off-site hauling of materials hours would be Monday through Friday from 3:00 a.m. to 9:30 p.m. and Saturday and Sunday (if needed) from 3:00 a.m. to 4:30 p.m.

The current permitted hours of operations for public access are 8:00 a.m. to 4:30 p.m. seven days a week. Although the current permitted hours allows public access seven days a week, due to staffing constraints the Transfer Station would continue to only be open to the public to drop off waste materials six days a week (Monday through Saturday) from 8:00 a.m. to 4:30 p.m.

The proposed increased tonnage of waste accepted at the transfer station would not result in an increase in the total waste stream within the City. It would shift the location at which this waste is off-loaded and subsequently transported off site for composting or landfilled. A corresponding shift in truck trip destination would also occur. Rather than trucks hauling waste to and from another facility in the region, e.g. WMI's Davis Street Transfer Station or RSI's Richmond facility, they would instead haul waste to and from the project site.

Summary and Implications of Operational Changes

The additional commercial material (separated refuse, fiber, bottles/cans/plastic, or green/food materials) collection route days per week within the City of Berkeley based on the 2015 decision by the City Council results in an increase of one additional waste hauling route day per week and incorporation into existing route days. In addition, to accommodate the increase in tonnage, DWZ purchased two additional front-end loaders (in 2017) and hired two fulltime employees (completed in late 2019) to serve the additional collection route day and incorporation of tonnage into exiting commercial routes.

The average per vehicle load weight of the City's curbside collection vehicle is approximately six tons. With this average load weight per collection vehicle, the project would result in an increase in 9 to 11 incoming collection truck trips to the Transfer Station per day (60 additional permitted tons/6 tons per collection truck = approximately 10 truck trips needed to haul 60 tons). The collection trucks would be for the transfer of municipal solid waste, mixed recyclables and food/green materials.

For the outbound loads from the Transfer Station to the Altamont Landfill, a long haul tractor trailer unit (truck with transfer trailer) averages 20 tons per unit per trip of material leaving the Transfer Station. The City's commercial recyclable rate is currently 37 percent; therefore, approximately 40

tons (two outbound trips) of materials would be delivered to a landfill or composting facilities for disposal or processing. Including inbound empty tractor trailer trips back to the Transfer Station, there would be four total tractor trailer trips to and from the Transfer Station.

Overall, increasing the amount of permitted waste tonnage accepted by the Transfer Station would result in up to 11 inbound collection truck trips to the transfer station and up to four one-way long haul tractor trailer trips, for 15 truck trips total to and from the Transfer Station.

8. Required Permits and Agency Approval

This Initial Study provides environmental information and analysis in compliance with the California Environmental Quality Act (CEQA), which is necessary for City of Berkeley decision makers to be able to adequately consider the effects of the proposed project. The project requires modification to the Transfer Stations' Use Permit which would be considered by the City of Berkeley Zoning Adjustments Board.

CalRecycle, as responsible agency, has approval authority and responsibility for reviewing potential environmental effects of the project as a whole. This Initial Study will be used for the approval of a revised Solid Waste Facilities Permit by CalRecycle.

Additional regulatory agencies whose review may be required will include the Bay Area Air Quality Management District and San Francisco Bay RWQCB, both of which will be provided a copy of the Initial Study for review and comment.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Determination

Based on this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

City of Berkeley Transfer Station Solid Waste Facilities Permit Revision Project

- ☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature

Elizabeth Joy Brown
Printed Name

6/1/2020

Date

Senior Management Analyst
Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting

The project site is located in the West Berkeley neighborhood, which is characterized primarily by industrial, manufacturing, and commercial uses. The project site is bordered by Codornices Creek to the north, UPRR right-of-way and tracks to the east, industrial uses to the south, and Second Street to the west. The project site is visible from Harrison Park, adjacent roadways, Harrison House, a homeless shelter, and nearby commercial and industrial properties. Very limited views of the project site are available from I-580/I-80 down Harrison Street, as views of the Transfer Station buildings are largely blocked by intervening structures (one- to three-story buildings). The visual quality of the site is generally low. The project site includes buildings associated with a waste transfer station (a roofed two-story waste storage and loading area) and includes a scale house, a one-story office building, two-story shop, equipment and employee and collection vehicle parking. No resources that could be considered to have scenic value, such as trees or natural topographic features, are present on-site.

Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

The City's General Plan Urban Design and Preservation Element (adopted April 2001) Figure 8-2 and the West Berkeley Plan (adopted 1993) identifies community design features such as significant views, major gateways, and key gateways streets. None of these are located on the project site. The nearest gateways and significant view areas include Gilman Street (gateway) at the intersection of I-580/I-80 and Gilman Street, and a view corridor along Cedar Street that offers views of the San Francisco Bay to the west and of the Diablo Range to the east. The Gilman Street gateway is 370 feet to the south of the project site and the Cedar Street view corridor located 0.44 miles south of the project site. The Tannery Complex is 420 feet southeast and serves as the main landmark in the project vicinity and along the Gilman Street gateway (City of Berkeley 1993). The proposed project would not be visible from these view areas and does not involve new construction that would block or change significant views or other scenic vistas. The project involves operational changes only. No impact would occur.

NO IMPACT

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?

The closest designated state scenic highway is a portion of I-580, approximately 3.5 miles south of Berkeley in neighboring Emeryville (California Department of Transportation 2011). The project site is not visible from this portion of I-580. There are no scenic resources, such as scenic trees or rock outcroppings, on the project site. Furthermore, the project does not involve new construction, demolition, tree removal, or grading. The proposed project would not damage scenic resources and would not be visible from a scenic highway. No impact would occur.

NO IMPACT

c. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project is located in an urbanized area in Berkeley that is developed with industrial and commercial uses. The project site is characterized by scattered industrial buildings and areas for vehicle, equipment, and material storage. The proposed operational changes at the Transfer Station would be located on already disturbed, paved areas of the site. The increase in material storage and truck trips to and from the site would be consistent with the existing visual character of the site. No new construction or alteration of existing facilities or features would occur. Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings and no impact would occur.

NO IMPACT

- d. *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Existing sources of light on the project site include building security lighting, mounted lighting for evening and early morning operations, and lighting from headlights on vehicles entering and exiting the site. Existing pole-mounted lighting sources can be seen in the site photographs in Figure 4. Existing sources of glare include on-site equipment and vehicles and reflective building materials. The project site is an industrial area with generally moderate to high levels of lighting.

The proposed project would not introduce new sources of lighting, as it would not involve construction of new facilities or physical alteration of the existing Transfer Station facilities. However, the proposed project would increase the number of hours per day during which existing outdoor lighting illuminates early morning operations. The proposed hours of operation are 4:00 a.m. to 9:30 p.m., Monday through Friday and 3:00 a.m. to 4:30 p.m., on Saturday and Sunday. This would result in one additional hour of early morning operations on weekdays and three additional hours of early morning operations on the weekend.

Harrison House, the homeless shelter, located approximately 150 feet east of the project site, is the nearest light-sensitive land use and is across the UPRR tracks from the project site. In addition, the eastern boundary of the Transfer Station includes 100 feet of trees that provide visual shielding. However, existing on-site exterior lighting is situated and used such that minimal light sources are visible from outside the project site: the lights are directed downward to illuminate the operating area of the facility and do not spill over to nearby business or residences (City of Berkeley 2017a). Furthermore, trees located between the transfer station and nearby residences block some views of the pole-mounted lights. Therefore, lighting during the increased hours of operation would not adversely affect nearby residents.

Potential sources of increased glare associated with the project involve that from vehicle ingress and egress at the project site. Increased daily traffic volumes anticipated as a part of the proposed project have the potential to increase glare. However, the addition of up to 15 truck trips on a developed industrial site and adjacent roadways would not constitute a substantial increase in glare.

Although there would be an increase in light and glare sources beyond the current conditions, the project would not create a substantial new source of light that would adversely affect nighttime views in the area and would not create substantial new sources of glare. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forest Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

- e. *Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

Berkeley is a highly urbanized city in Alameda County. The Berkeley General Plan, General Plan land use map, and zoning maps do not identify agriculture or forestry resources in the city (City of Berkeley 2014). Per the Farmland Mapping and Monitoring Program of the California Resources Agency, there are no identified prime or unique farmlands, forestry resources, or forestland in the city (California Resources Agency 2014). The project site is developed with existing industrial operations, and the project would have no impact on agriculture, forestland, or forestry resources.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting

The project site is in the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if they are not, to develop strategies to meet the standards.

The Basin is in nonattainment for the federal and state standards for ozone, state standards for particulate matter (PM₁₀ and PM_{2.5}), and the federal standard for 24-hour PM_{2.5} (BAAQMD 2014). As a result, local jurisdictions in the Basin are required to implement strategies to reduce pollutant levels to recognized acceptable standards or avoid or mitigate new development Projects that would contribute to air pollution.

The 2017 Clean Air Plan (2017 Plan) is the most recently approved regional air quality management plan, adopted in April 2017 by the BAAQMD. This plan provides an integrated, multi-pollutant strategy to improve air quality, protect public health, and protect the climate. The 2017 Plan provides a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases (GHG) in a single, integrated plan. The 2017 Plan relies on population and employment forecasts from the Association of Bay Area Governments (ABAG) to inform its management strategies (BAAQMD 2017a).

The City of Berkeley has a Climate Action Plan (CAP) that includes goals related to improving air quality and promoting sustainable growth and operations (City of Berkeley 2009). Section 7, *Greenhouse Gas Emissions* provides additional information about the City's CAP and an evaluation of the proposed project's consistency with the CAP.

Air Emissions Thresholds

BAAQMD recommends that lead agencies determine appropriate air quality and GHG thresholds of significance based on substantial evidence in the record. As the lead agency for this project, the City of Berkeley has determined that the thresholds contained in BAAQMD's May 2017 *CEQA Air Quality Guidelines*, which are used regularly by the City of Berkeley and by jurisdictions throughout the Bay Area, are the appropriate thresholds. Table 2 presents the BAAQMD's May 2017 significance thresholds for construction and operational-related criteria air pollutants and precursor emissions. These represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. For the purposes of this analysis, the project would result in a significant impact if emissions would exceed the thresholds shown in Table 2.

Table 2 BAAQMD Significance Thresholds

Pollutant/Precursor	Construction-Related Thresholds	Operation-Related Thresholds	
	Average Daily Emissions (pounds per day)	Average Daily Emissions (pounds per day)	Maximum Annual Emissions (tons per year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.
Source: Table 2-1, BAAQMD 2017b

According to BAAQMD, a proposed project would result in less-than-significant impacts to localized carbon monoxide concentrations if the following screening criteria are met:

1. Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway)

Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The BAAQMD has adopted several air quality policies to reduce air emissions in the Basin. In April 2017, the BAAQMD adopted its final 2017 Clean Air Plan (BAAQMD 2017a). Vehicle use, energy consumption, and associated air pollutant emissions are related directly to population growth. A project would conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process. The 2017 Clean Air Plan assumes that development associated with general plans, specific plans, residential

projects, and public facilities will be constructed in accordance with population growth projections identified by the BAAQMD. In effect, if a project is proposed in a city with a general plan that is consistent with the Clean Air Plan (i.e., it does not require a general plan amendment), then the project would be consistent with the Clean Air Plan.

The proposed project does not involve new residential uses and would not increase population directly. The project would increase the number of employees at the Transfer Station with the addition of two full-time staff (see Section 13, *Population and Housing*). The project is consistent with the site's existing manufacturing land use and would not require a general plan amendment. The current Transfer Station facilities do not have stationary industrial sources that require BAAQMD permits. The proposed project would not add stationary sources subject to BAAQMD permit approval. Because the project would not substantially increase population or employment and would be consistent with the General Plan, air pollution emissions associated with the project are consistent with the assumptions in the 2017 Clean Air Plan and the project would not conflict with or obstruct implementation of the Plan. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

As stated above in the setting, the Basin is in nonattainment for the federal and state standards for ozone, state standards for PM₁₀ and PM_{2.5}, and the federal standard for 24-hour PM_{2.5}. The following includes a discussion of construction and operational emissions associated with the project.

Construction Emissions

The project does not include construction, therefore, would not result in construction-related air pollution emissions.

Operational Emissions

Operational changes associated with the proposed project include an increase in the maximum daily tonnage of materials permitted to be received by the facility, an increase in operating hours, and the addition of three to four additional waste hauling route days per week and up to 15 additional daily vehicle trips. The increase in the permitted maximum daily tonnage itself would not generate air pollution emissions and emissions associated with lighting during the additional operating hours would be negligible. However, the increase in truck trips associated with the additional waste hauling routes and employee trips to the site would result in air pollution emissions.

The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If all of the screening criteria are met by a project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. For projects that are infill or do not involve construction activity, such as the proposed project, emissions would be less than the greenfield-type project on which the screening criteria are based. The BAAQMD's operational-related screening levels for general light industry are 541,000 square feet of new buildings, a 72-acre construction footprint, or 1,249 new employees (BAAQMD 2017b). The project does not

involve new building square footage or construction and would add two new employees. Therefore, the project would be substantially below the operational screening level criteria. According to BAAQMD, if all of the screening criteria are met by a proposed project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. Since the screening criteria are met, then the project would not exceed BAAQMD air pollutant thresholds.

Nonetheless, in order to provide a conservative estimate, emissions associated with the additional truck trips were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Table 3 summarizes the results and Appendix A provides the detailed model results. The addition of new trips per day would not exceed the thresholds shown in Table 2.

Table 3 Project Operational Emissions

	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Daily Operational Emissions (pounds/day) ¹	0.07	2.51	0.43	0.12	0.04	<0.01
BAAQMD Thresholds (pounds/day)	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A
Annual Operational Emissions (tons/year) ²	0.01	0.46	0.07	<0.01	<0.01	<0.01
BAAQMD Thresholds (tons/year)	10	10	N/A	15	10	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

¹ See Table 2.2 "Overall operational-unmitigated operational" emissions in CalEEMod winter worksheets in Appendix A.

² See Table 2.2 "Overall operational-unmitigated operational" emissions in CalEEMod annual worksheets in Appendix A.

N/A = not applicable; no BAAQMD threshold for CO or SO_x

The project would not violate an air quality standard or contribute to an existing or projected air quality violation. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

BAAQMD considers a sensitive receptor to be any facility or land use that includes members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. If a project is likely to be a place where people live, play, or convalesce, it should be considered a sensitive receptor. It should also be considered a sensitive receptor if sensitive individuals are likely to spend a significant amount of time there. Examples of sensitive receptors include residences, schools and school yards, parks and play grounds, daycare centers, nursing homes, and medical facilities (BAAQMD 2010).

The nearest sensitive receptors to the project site are Harrison Park, approximately 100 feet east of the project site, and the Harrison House, a homeless shelter approximately 150 feet east of the project site.

As a part of the CEQA process for developing the fields at Harrison Park, the City conducted air quality monitoring for PM₁₀ and PM_{2.5} over a 19-month period between July 2001 and January 2003. Monitoring revealed that particulate matter produced by adjacent industrial facilities, automobiles, and railroad, including the Transfer Station, contribute to regular exceedances of state standards for particulate matter. Since then, the City has implemented a number of measures to reduce the movement of particulate matter from the Transfer Station to the park. These include the following:

- Planted ash trees (approximately 100 feet tall) on the east and west side of the facility
- Installed a 15-foot, ivy-covered, chain-linked fence on the east side of the Transfer Station
- Installed a mist system on the Transfer Station tipping floor to suppress the dust and odor (replaced in 2017 with an improved system)
- Implemented daily sweeping of the facility to keep the dust down, once per day with a mechanical sweeper and once per day with a vacuum sweeper
- Implemented use of a hose at the C&D debris area to suppress the dust (Applied Measurement Science 2003, City of Berkeley 2020a)

Incorporation of these measures reduces air quality impacts associated with the operation of the Transfer Station at nearby sensitive receptors. The proposed project would result in operational changes at the site that would add two employees, additional commercial waste collection route days and hours of operation and add up to 15 daily trips to and from the site. This would increase PM emissions incrementally compared to existing conditions but would not create substantial increases in pollutant emissions in excess of thresholds shown in Table 2. The measures outlined above to reduce emissions at nearby receptors would remain in place with the project and would continue to reduce exposure of nearby sensitive receptors to air pollution. Therefore, the operational changes would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

Carbon Monoxide Hotspots

The I-80/Gilman Street interchange near the project site is highly congested. However, average daily traffic at the intersection of Gilman Street, between Second Street and Fourth Street near the project site, is approximately 19,000 average daily trips (ACTC et. al. 2016). The addition of up to 15 daily trips compared to existing conditions associated with the project would not increase traffic volumes such that one of the criteria above would be met. Therefore, the project would not result in a CO “hotspot” and no intersection-specific CO modeling is required. This impact would be less than significant and the project would not expose sensitive receptors to substantial CO concentrations.

LESS THAN SIGNIFICANT IMPACT

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The BAAQMD *CEQA Air Quality Guidelines* state that the analysis of potential odor impacts should be conducted for both of the following situations: 1) sources of odorous emissions locating near existing receptors and 2) receptors locating near existing odor sources (BAAQMD 2017b). The closest odor-sensitive receptors to the Transfer Station are the residents of Harrison House approximately 150 feet away. According to the BAAQMD, transfer stations that are located within 1.0 mile of sensitive receptors should assess potential odor impacts. Therefore, since sensitive receptors are located within 1.0 mile of the Transfer Station, the following discusses potential odor impacts associated with the project.

The green and food waste (organics) transfer operations at the site have the potential to generate odors. Organic materials begin to release odors during the decomposition process and some organic materials may have begun the decomposition process before collection. The organic materials are in general loaded for off-site transport within 24 hours of offloading onto the Transfer Station floor.

According to BAAQMD, odors are regarded as an annoyance for the most part, rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache) (BAAQMD 2017b).

The proposed project would involve the addition of commercial waste collection route days in the City of Berkeley and accepting and processing additional waste from these additional commercial route days. The ZWD currently accepts yard waste and compostable green waste and proposes to increase the tonnage handled at the Transfer Station and expand the hours of operation. Therefore, additional commercial food waste could be delivered to the site. However, all such food waste is unloaded inside the tipping floor where a dust suppression system and odor neutralizers contain and minimize objectionable odors. In addition, all food waste is transferred to a composting facility within 24 hours of arrival at the Transfer Station to further minimize objectionable odors. The proposed increase in permitted maximum daily tonnage processed at the Transfer Station would not substantially increase on-site odors and the existing procedures would minimize odor generation associated with project implementation. There are no substantial differences in weather (i.e. wind or fog events) in the early morning hours of expanded operations that would cause a change in odors compared to existing conditions. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

The project site is located in a developed industrial area in incorporated Berkeley. The entire site is paved or covered with existing buildings. Landscaping is limited to trees along project boundaries, including 11 trees along Second Street and 15 trees along the eastern project boundary between the project site and the UPRR tracks. In addition, 100 feet to the east are 31 trees along the east side of the UPRR track. The open (non-culverted) Codornices Creek forms the northern border of the project site and is surrounded by trees and riparian vegetation. The project site experiences extensive human disturbance during operating hours including regular truck and equipment movement over much of the paved areas. Fencing along most of the perimeter for both parcels minimizes wildlife access to the project site. In addition, the site is located in an industrial neighborhood with little or no vegetation or wildlife habitat, except for that afforded in the Codornices Creek corridor and Harrison Park.

Impact Analysis

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

The project site does not contain habitat for species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations and would not adversely affect species either directly or through habitat modifications (City of Berkeley 2001a). As mentioned above, mature landscaping trees are present on the project site. These trees could contain bird nests and birds protected under the Migratory Bird Treaty Act. Protected birds include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows, and others, including their body parts (feathers, plumes etc.), nests, and eggs. However, as the proposed project consists of an operational change and does not include construction or demolition activities, no trees will be removed or disturbed because of the proposed project. Therefore, the project would not result in the direct removal of trees that could contain protected nests or bird species. The operational changes involve an increase in the permitted maximum daily tonnage allowed to be received and processed at the site and would add up to 15 daily trips. These incremental changes in project operations would not substantially increase noise or lighting such that indirect effects to protected nesting birds would occur (see also Section 1, *Aesthetics*, and Section 12, *Noise*). The project would not directly or indirectly have a substantial adverse effect on sensitive species. No impact would occur.

NO IMPACT

- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The project site is located adjacent to the Codornices Creek, identified as riverine habitat by the U.S. Fish and Wildlife Service (USFWS 2019). The proposed project would not involve construction or demolition activities. However, as mentioned in Section 1, *Aesthetics* above, the project would extend hours of operation, increasing nighttime lighting and operational noise adjacent to the Codornices Creek. Lighting and noise generated during early morning operation of the Transfer Station could disturb sleeping patterns of wildlife species who reside in the creek and along its

banks. However, existing light and noise levels in the project vicinity are already high due to the presence of other industrial operations in the project vicinity. The addition of one hour of early morning operation during the weekday and three hours during the weekend would not substantially increase lighting and noise in the Codornices Creek such that significant impacts on biological resources would occur. Furthermore, lighting is directed downward away from the creek, and existing fencing, storage areas, and structures in the northern portion of the site, shown in Figure 4d, Photo 8, help shield the creek from on-site lighting sources. Therefore, impacts to riparian habitat would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The project site does not contain state or federally protected wetlands and would not result in the direct removal, filling or hydrological interruption of wetlands (USFWS 2019). Furthermore, although the proposed project involves an increase in permitted daily tonnage, waste materials stored and processed on-site would continue to be stored and processed on the roofed tipping floor and C&D waste area as appropriate. The increase in stored materials and up to 15 additional truck trips to and from the site would not result in additional polluted stormwater runoff to the creek. Runoff from the project site is not directed to the creek but instead is directed to the sanitary sewer or storm drain systems (Section 9, *Hydrology and Water Quality*, includes additional information about runoff and pollution prevention measures). Therefore, the project would not result in indirect effects on the creek. No impact would occur.

NO IMPACT

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project site does not contain hydrologically connected waters that would support native resident or migratory fish. In addition, the project site is not located in a migratory wildlife corridor and most of the site is fenced, which currently limits wildlife movement. Because the project site does not include sensitive biological resources or movement corridors, and does not involve construction, its implementation would not interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Codornices Creek is adjacent to the site and may serve some function as a wildlife movement corridor, but, as described in the responses to questions (b) and (c) above, the project would not directly or indirectly affect the creek. Therefore, the project would not interfere with wildlife movement. No impact would occur.

NO IMPACT

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

According to the City's General Plan Environmental Management Element, the Berkeley Tree Policy (adopted 1990) protects trees growing in parks and parkways in the city and sets forth specific guidance on tree species criteria and tree selection (City of Berkeley 2001b). The City's Oak Tree Removal Ordinance (Ordinance No. 6,905-N.S.) prohibits the removal of coast live oak trees with a circumference of 18 inches for single stem trees and a circumference of 26 inches for multi-stemmed trees. The Riparian Preservation and Restoration of Natural Watercourses Ordinance (Ordinance No. 6956-N.S.) protects riparian areas in the city. This ordinance regulates building over or near culverted and open creeks and includes specific provisions for the rehabilitation and restoration of natural waterways and the management of watersheds (City of Berkeley 2016).

Riparian areas are known to have important tree species, such as coast live oak, that are protected under the Tree Policy and Oak Tree Removal Ordinance (City of Berkeley 2001a). The project site is adjacent to a non-culverted portion of Codornices Creek where these species may be present, but the proposed project would not involve tree removal, tree pruning, or construction activities that could impact biological resources on the project site. Therefore, the proposed project would have no impact with regard to local policies or ordinances protecting biological resources.

NO IMPACT

- f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project site is not located in an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (CDFWS 2017). Therefore, the project would not conflict with such a plan and no impact would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

Cultural resources are defined as buildings, sites, structures, or objects that may have historic, architectural, archaeological, cultural, or scientific importance. Under CEQA, public agencies must consider the effects of their actions on historical resources, defined by CEQA as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places. Pursuant to PRC §21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of an historic resource (California Code of Regulations, Title 14, 15064.5).

The project site contains industrial buildings typical of the late twentieth century, including an administrative office building, a scale house, an equipment maintenance facility, fuel station, and roofed tipping floor and loadout area. Browning Ferris Industries, Inc. constructed the structures at the Transfer Station in 1983, making them approximately 37 years old. Typically, structures under 50 years of age are not considered historic resources. No evidence of historic buildings, sites, structures, or objects is present on the project site. The nearest historic resource identified by the City of Berkeley is the Berkeley Municipal Incinerator located 108 feet to the west of the project site, on the site of the Public Storage facility (City of Berkeley 2016, Cerny 2002).

Impact Analysis

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

The project involves operational changes to an existing solid waste transfer station and does not involve the demolition, construction, or physical alteration of an existing structure. The project site is not located in an area of known historical resources (City of Berkeley 2016). The project site is developed with facilities related to ZWD waste collection and processing activities under 50 years in age. On-site buildings are industrial structures with no architectural interest or known historical associations (Figure 4a through Figure 4d). No historic resources are present on the project site. The proposed project would not have an impact or result in a change of historical resources. No impact would occur.

NO IMPACT

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?*

The project does not include excavation or ground-disturbing activities and therefore would not damage or destroy previously undiscovered archaeological, or paleontological resources. No impact would occur.

NO IMPACT

- d. *Disturb any human remains, including those interred outside of formal cemeteries?*

The proposed project would not involve ground-disturbing activities. Therefore, disturbance of human remains would not occur because of the proposed project. No impact would occur.

NO IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

The proposed increase in maximum daily tonnage of materials accepted at the transfer station and extension of permitted daily operating hours would not require physical expansion or new construction of the facility. The proposed project would not physically expand the waste transfer station. Therefore, there would be no additional or new space to heat or cool, nor to use power with electric lights and fixtures. Existing operational hours would expand slightly, with one additional hour of morning operations on weekdays and three additional hours of early morning operations on the weekend. This would generate minimal additional energy demand. The existing rates of energy consumption would continue. Thus, the energy required to power the physical operation of the waste transfer station would not change from existing conditions as a result of the proposed project.

As discussed in Section 17, *Transportation/Traffic*, the proposed project would result in an increase in daily traffic volume of up to 15 vehicles per day. The additional City collection vehicle trips would consume diesel fuel. However, the proposed increased tonnage of waste accepted at the transfer station would not result in an increase in the total waste stream within the city. It would shift the location at which this waste is off-loaded and subsequently transported off site for composting or landfilled. A corresponding shift in truck trip destination would also occur. Rather than trucks hauling waste to and from another facility in the region, e.g. Waste Management Inc.'s Davis Street Transfer Station or Republic Services Inc.'s Richmond facility, they would instead haul waste to and from the project site. Therefore, the increase in permitted waste allowed to be accepted at the Transfer Facility and the associated increase in truck trips to and from the project site would not overall result in a wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?*

As described above, the proposed project would not increase energy consumption on the project site because there would be no new structures requiring power or new uses on-site, aside from minimal additional lighting due to expanded operational hours. The Transfer Station is not currently heated or air-conditioned and this project does not propose to do either. Truck trips to and from the site would increase, but these trips already occur in the region and would be diverted to the project site instead of their current destination. Therefore, because there would be no new substantial sources of energy demand or consumption as a result of the project, the project would not conflict with plans for renewable energy or energy efficiency. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

Geology

The City of Berkeley is located in the USGS Richmond Quadrangle 7.5-minute topographic map areas (USGS 2015). The area is characterized by low topographic relief, with gentle slopes to the southwest in the direction of San Francisco Bay. By contrast, the Diablo Range, directly east of the city, has more pronounced relief. Locally, the highest peak is Grizzly Peak, which reaches an elevation of 1,759 feet above mean sea level (National Geodetic Survey 1932).

The shallow geology underlying some of the city consists of Holocene alluvium with fluvial deposits associated with five distributary streams: Derby, Potter, Strawberry, Schoolhouse, and Codornices creeks (City of Berkeley 2003). These sediments are composed frequently of medium dense to dense, gravelly sand or sandy gravel that often grades upward to sandy or silty clay (United States Department of Agriculture 1981).

Soils

Soils in the city are dominated by very deep, poorly drained, fine-grained soils such as clays and silty clay loams, with lesser areas of deep, well-drained silty loam in the northeast part of the city and very deep, very poorly drained clays in the tidelands that flank the west edge of Berkeley near San Francisco Bay. The soils along the Berkeley Bayshore are primarily artificial fill underlain by alluvial and bay mud. The artificial fill layer extends to a maximum depth of 25 feet and is composed of miscellaneous soils and sand. Alluvial materials are composed primarily of mud silt, sand, and gravel; bay mud consists of clays and sand silt material, small lenses of sand and shells and organic matter and ranges in depth from a few inches to 85 feet along the Berkeley waterfront (USGS 1969).

Earthquakes

Earthquakes are the most pervasive safety hazard in Berkeley. Ground shaking occurs when energy releases during faulting, which could result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion (City of Berkeley 2003).

The Hayward fault crosses the eastern portion of the city and has created serious and widespread damage in Berkeley in the past. The major earthquake hazards in Berkeley are ground shaking, ground failure, and liquefaction. These hazards tend to be amplified on artificial fill and deep alluvial soils (City of Berkeley 2003). A 2008 study of earthquake probabilities by the USGS estimated that there is a 63 percent chance that a magnitude 6.7 or greater earthquake will strike the Bay Area in the next 30 years. A major earthquake could occur on the Hayward Fault and on the San Andreas Fault, 8 miles west of Berkeley. An earthquake of this magnitude could topple buildings, disrupt infrastructure, impact transportation systems, and trigger landslides in the Berkeley Hills (City of Berkeley 2003).

Liquefaction

Liquefaction is a phenomenon where loose, saturated, non-cohesive soils, such as silts, sands, and gravels, undergo a sudden loss of strength during earthquake shaking. Under certain circumstances, seismic ground shaking can temporarily transform an otherwise solid, granular material to a fluid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may suddenly subside and suffer major structural damage. Liquefaction is most often triggered by

seismic shaking, but it can also be caused by improper grading, landslides, or other factors. In dry soils, seismic shaking may cause soil to consolidate rather than flow, a process known as densification (City of Berkeley 2003).

Landslides and Erosion

Landslides are relatively common in the East Bay Hills, particularly during high intensive bouts of rainfall. Most landslides occur naturally, but they can be induced by excessive grading, improper construction, and poor drainage. The City enforces grading and erosion control ordinances to reduce hazards such as landslides, siltation of streams, undermining of foundations, and loss of structures (City of Berkeley 2003).

Regulatory Setting

CALIFORNIA BUILDING CODE (CBC)

The CBC is Part 2 of Title 24 of the California Code of Regulations and is updated every three years. Except for certain enforcement provisions, the City of Berkeley adopted the CBC by reference into Title 19, Chapter 28-34 of the Berkeley Municipal Code. Through the CBC, the state provides a minimum standard for building design and construction. Of particular relevance, Chapter 16 contains specific requirements for structural design, including seismic loads. Chapter 18 of the CBC includes requirements for soil testing, excavation and grading, and foundation design (City of Berkeley 2017b).

BERKELEY MUNICIPAL CODE

Chapter 19.38 of the Berkeley Municipal Code (seismic hazard mitigation program for unreinforced masonry buildings) includes standards for structural seismic adequacy to ensure the safety of structures throughout the city in the event of strong seismic ground shaking. The ordinance establishes a mandatory seismic retrofit program that requires the owner of potentially hazardous unreinforced masonry buildings listed on the city's inventory to install necessary structural support to the building and submit a seismic engineering evaluation report prepared by a structural engineer of civil engineer to the city (City of Berkeley 2017b).

Impact Analysis

- a.1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

According to the California Department of Conservation, the project site is not located in an Alquist-Priolo Earthquake Fault Zone and there are no known faults crossing or projecting toward the site (Department of Conservation 2003). The closest such zone is along the Hayward Fault approximately 2.4 miles east of the project site. Therefore, ground rupture due to faulting is unlikely at the site and no impact would occur.

NO IMPACT

- a.2. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- c. Would the project be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?*

The project site is not in an Alquist-Priolo Earthquake Fault Zone and it is not located in an area identified as having potential for earthquake-induced landslides (DOC 1982, City of Berkeley 2001c). The project site is less than 2.4 miles west of the Hayward Fault Zone, considered an active fault by the California Geological Survey (2010). This fault runs north/south along the base of the East Bay Hills from San Jose to San Pablo Bay. Because the project is in a seismically active area, all structures, including the Transfer Station, could be affected by ground shaking if an earthquake occurs. Seismic shaking could cause extensive non-structural (e.g., plaster, furnishings, lighting) and limited structural damage to buildings (City of Berkeley 2001c). The project site is in a liquefaction zone (Department of Conservation 2003).

No physical alterations to the existing Transfer Station are proposed, and the existing structures were built to comply with the CBC and Berkeley Municipal Code regulations at the time of construction. Operational changes associated with the proposed project would increase the number of Transfer Station employees by two full-time staff. While the proposed project would increase the number of people potentially exposed to seismic events, regular building maintenance would ensure less than significant impacts related to seismic ground shaking, liquefaction, and unstable geologic units and soils. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

The project site is generally flat, and no steep slopes are located in the project vicinity. Therefore, there is no potential for landslide at the site and no impact would occur.

NO IMPACT

- b. Would the project result in substantial soil erosion or the loss of topsoil?*

The proposed project involves operational changes to an existing waste transfer station. No construction, demolition, or ground disturbing activities are proposed. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil.

NO IMPACT

- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?*

The project would not involve grading or new construction on the project site or expand the existing building footprint. Therefore, no impacts related to construction on expansive soil would occur as a result of the project.

NO IMPACT

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project would not include components that would require the use of septic tanks. The project site and facilities connect to the City of Berkeley's municipal sewer system. No impact would occur.

NO IMPACT

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project does not include excavation or ground-disturbing activities and therefore would not damage or destroy previously undiscovered paleontological resources. No impact would occur.

NO IMPACT

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting

Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC 2014), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2014).

Greenhouse gases (GHG) are gases that absorb and re-emit infrared radiation in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFC) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Observations of CO₂ concentrations, globally averaged temperature, and sea level rise

are generally well within the range of the extent of the earlier IPCC projections. The recently observed increases in CH₄ and N₂O concentrations are smaller than those assumed in the scenarios in previous assessments. Each IPCC assessment has used new projections of future climate change that have become more detailed as the models have become more advanced.

Manmade GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. CO₂ has a 100-year GWP of one. By contrast, CH₄ has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2007).

The accumulation of GHGs in the atmosphere regulates the earth’s temperature. Without the natural heat trapping effect of GHGs, Earth’s surface would be about 34° C cooler. However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations (CalEPA 2015).

The vast majority of individual projects do not generate sufficient GHG emissions to influence climate change directly, but physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project’s contribution towards an impact would be cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines §15064[h][1]).

Impact Analysis

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

The lead agency has determined that the GHG emissions thresholds appropriate for the purposes of this analysis are those contained in the BAAQMD’s May 2017 *CEQA Air Quality Guidelines*, which are used by the City of Berkeley and by jurisdictions throughout the Bay Area. The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether the proposed project could result in potentially significant GHG emissions. If a proposed project meets all of the screening criteria, then the lead agency or applicant would not need to perform a detailed GHG assessment of their project’s GHG emissions. These screening levels are generally representative of new development on greenfield sites without any reduction measures taken into consideration. Projects that do not involve construction activities generate fewer emissions than would the greenfield-type projects upon which the screening criteria are based. When projects do not meet the screening criteria and require quantification of GHG emissions, BAAQMD has a project-level numeric threshold of 1,100 metric tons of CO₂e emissions per year (BAAQMD 2017b).

Operational changes associated with the proposed project include an increase in the maximum permitted daily tonnage allowed to be accepted at the facility, an increase in operating hours, and

the addition of three to four waste hauling route days per week. The increase in the permitted maximum daily tonnage itself would not generate GHG emissions, but the increase in truck trips associated with the additional waste hauling routes and employee trips to the site would result in GHG emissions.

BAAQMD's lowest and most conservative GHG-related screening level for industrial uses is 65,000 square feet of new buildings (BAAQMD 2017b). The project would not include construction or demolition activities and would not exceed the screening criteria levels. Nonetheless, to produce a conservative estimate of project-related GHG emissions, CalEEMod was used to estimate GHG emissions associated with the increase in truck traffic to and from the site. The new trips per day would result in approximately 102 metric tons of CO₂e per year (Table 2.2, Overall Operational-Unmitigated Operational Emissions, in CalEEMod annual worksheets, Appendix A). Therefore, project-related emissions do not exceed BAAQMD's threshold of 1,100 metric tons of CO₂e emissions per year. The proposed expanded operations at the Transfer Station would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

BAAQMD's *CEQA Guidelines* approach to developing a threshold of significance for GHG emissions is to identify the emissions level at which "a project would not be expected to conflict substantially with existing California legislation adopted to reduce statewide GHG emissions" and move towards climate stabilization (BAAQMD 2017a). As described above, because the project is below the BAAQMD's screening criteria for GHG, it is considered to have a less than significant impact related to GHG and would not substantially conflict with existing California legislation adopted to reduce statewide GHG emissions at the time the BAAQMD's *CEQA Guidelines* were developed.

Since the time of adoption of the BAAQMD's *CEQA Guidelines*, the state of California has set a stricter GHG reduction target of 40 percent below 1990 levels by 2030 (Senate Bill 32 signed into law in 2016). The California Air Resources Board (CARB) lays out a strategy for achieving California's 2030 GHG target in its 2017 Climate Change Scoping Plan. As stated therein, part of reducing GHG emissions includes working toward in-state processing and management of waste generated in California. The project is consistent with this goal of the Scoping Plan. Other goals include maximizing recycling and diversion from landfills, and continuing implementation of recycling programs and diversion of organic waste from landfills in favor of edible food recovery and composting. The project would not conflict with the listed goals in the Scoping Plan or SB 32.

The City of Berkeley has a Climate Action Plan (CAP) that discusses goals to reduce air quality pollutants and promote sustainable growth (City of Berkeley 2006). Several of the goals from the CAP focus on increasing commercial and residential recycling, composting, and source reduction (Goal 5.1). Another goal from the CAP is to increase recycling of C&D debris (Goal 5.3). The proposed project involves increasing capacity at a waste transfer facility to help reduce the amount of waste sent to the landfill. Therefore, the project is consistent with the applicable goals and policies in the CAP. Impacts associated with conflicting with applicable plan, policy, or regulation of an agency adopted for reducing the emissions of GHG would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

According to the California Department of Toxic Substances Control (DTSC) EnviroStor database, the project site is not included on a list of hazardous waste sites. However, several such sites are located near the project site, including Alcan Ingot & Powders, Berkeley Unified School District Transportation Facility, Dover Sales, Flint Ink Corp, and Harrison Street Playing Fields. Of these six sites, four are active (DTSC 2016).

Impact Analysis

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

During project implementation, potentially hazardous liquid materials such as oil, diesel fuel, gasoline, and hydraulic fluid would be used and transported to the project site. The existing Transfer Station operations include the recycling of motor vehicle oil and hydraulic fluid. No hazardous wastes are accepted at the Transfer Station, but some hazardous waste can be included in the waste stream delivered to the facility. To ensure that the acceptance of hazardous materials is minimized, ZWD has implemented a Hazardous Waste Exclusion Program to prevent hazardous or prohibited materials from being offloaded at the transfer station. As part of this Program, on-site personnel visually monitor the off-loading of materials and inspect loads for prohibited materials, such as paints. This Program would continue with implementation of the proposed project. Furthermore, continued compliance with the applicable federal, state, and local standards and regulations concerning proper handling of potentially hazardous materials would ensure less than significant impacts with regard to hazardous materials. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The project would increase the permitted maximum daily waste allowed to be accepted at the Transfer Station and would incrementally increase trips to and from the site by approximately 15 trips. Therefore, it would incrementally increase the potential for release of hazardous materials through upset or accident conditions. However, the Transfer Station does not accept and is not a hazardous waste facility, which decreases the likelihood that the project would result in a hazard to the public or environment due to upset or accident conditions. Similar to the analysis of question (a) above, handling, transporting, use, or disposal of hazardous or potentially hazardous materials is required to comply with all applicable federal, state, and local agencies and regulations. Long-term operation of the project would be required to adhere to the policies and programs set forth by applicable regulatory agencies. This compliance would minimize the potential for the accidental release of hazardous materials into the environment. Therefore, the project would not be expected to create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

There are no schools within 0.25 mile of the Transfer Station. The nearest school to the project site is the Berkeley Unified Pre-School, located 0.4 miles to the southeast. Therefore, no impact would occur.

NO IMPACT

- d. *Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Rincon Consultants, Inc. conducted a database search on the DTSC's EnviroStor and State Water Resources Control Board (SWRCB) GeoTracker databases on January 9, 2020 (DTSC 2020; SWRCB 2015). The project site is not listed on either database. Furthermore, the project does not involve ground disturbance or new construction, and, thus, would not create a significant hazard to the public or the environment as a result of being located on such a site. No impact would occur.

NO IMPACT

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The nearest airport to the site is the Oakland International Airport, which is located over ten miles to the south. The project site is not located inside the Oakland International Airport Influence Area and is not located inside the eight Safety Compatibility Zones (Oakland International Airport 2010). The project would not subject persons working at the site to airport-related hazards or excessive noise. No impact would occur.

NO IMPACT

- g. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed project involves expansion of operations at the existing Berkeley Transfer Station; no construction would occur as a result of the proposed project. Implementation of the proposed project's additional waste collection route days would not impede roadway traffic on public rights-of-way. The project does not include components that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Based on its location adjacent to the end of a cul-de-sac (Second Street), the evacuation of the site would not physically interfere with the emergency evacuation of other properties in the local area. Two access points are provided on the project site for emergency vehicle access or evacuation. No impact would occur.

NO IMPACT

- h. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The project site is located in a developed industrial area that is surrounded by industrial uses; there are no adjacent or nearby wildlands. The Berkeley Fire Department provides fire protection to the site. Operation of the facility currently includes specific health and safety procedures intended to minimize the potential for fires and accidents, and these procedures would continue to be in place with project implementation. The facility also maintains on-site fire suppression equipment. For the above reasons, the project would not expose people or structures to significant risk of loss, injury, or death involving wildland fires. There would be no impact.

NO IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
j. Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Existing Setting

The project site is located in the San Francisco Bay Hydrologic Region, which covers approximately 4,500 square miles and encompasses nine counties, including Alameda County. It corresponds with the boundaries of the San Francisco Regional Water Quality Control Board (RWQCB) Region 2 and the San Francisco Bay Area Integrated Regional Water Management Plan. The San Francisco Bay Hydrologic Region is a complex network of watersheds, marshes, rivers, creeks, reservoirs, and bays mostly draining into the San Francisco Bay and the Pacific Ocean (RWQCB 2017).

The project site is in the Gilman Street Watershed. The on-site storm water drainage is directed into either above ground or underground retention tanks to reduce suspended solids from the incoming storm water which in turn is permitted to be discharged EBMUD conveyance system. Adjacent site drainage is conveyed through the City storm drain system (moving south on Second Street and west on Gilman Street) and drains into the San Francisco Bay at the Gilman Street outfall.

The City of Berkeley Department of Public Works owns and maintains 100 miles of storm drain conduits throughout the city. The City's drainage facilities include manholes, curb and gutters, inlets, catch basins, cross-drains, valley gutters, wyes and tees, and outlets connecting the storm drain system to receiving waters (City of Berkeley 2011).

Stormwater runoff pollutants vary with land use, topography, and the amount of impervious surface, as well as the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contain oil, grease, litter, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the "first flush" (City of Berkeley 2011).

All stormwater runoff from the project is discharged ultimately into San Francisco Bay. The San Francisco Bay RWQCB monitors surface water quality through implementation of the Water Quality Control Plan (Basin Plan) and designates beneficial uses for surface water bodies and groundwater. The beneficial uses for San Francisco Bay include industrial service supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, wildlife habitat, water contact recreation, water non-contact recreation, and navigation (RWQCB 2017).

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the site. The SWPPP was prepared in accordance with the requirements of the California State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities dated April 1, 2014 (General Permit or 2014-0057-DWQ). The most recent revision to the SWPPP occurred July 31, 2018. The SWPPP is designed to: 1) identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the Transfer Station; and 2) identify and describe the minimum Best Management Practices (BMPs) and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized non-stormwater discharges (City of Berkeley 2018).

The project site is almost entirely paved with either concrete or asphalt and graded to facilitate drainage and prevent ponding. The storm drainage system was designed to collect and convey storm water in compliance with the requirements of the City of Berkeley. Stormwater runoff from the Transfer Station flows into several trench drains that are adjacent to the Transfer Station and the Second Street entrance and then to catch basins. From there, it is then routed to either a 21,000 gallon above ground stormwater holding tank for discharge into the East Bay Municipal Utility District (EBMUD) sanitary sewer under permit or into the City's storm drain network, depending on the volume and duration of the storm event. Run-on to the project site from adjacent properties is limited to flows from Codornices Creek during flooding events.

Currently, collection vehicles off-load waste materials to the tipping floor. Municipal solid waste and compostable waste are covered, and C&D materials are uncovered. There is the potential for some materials to contact rainwater or to be blown into storm drains. Collection vehicles and trailers also have the potential to leak oil, fuel, and other materials on the surface. However, attendants clean up fallen debris daily to keep the material from contaminating stormwater and to keep the facility clean. If materials do reach storm drains, the Transfer Station uses underground stormwater treatment devices to filter and treat stormwater to remove pollutants and debris. Mechanical methods (e.g., hydrocarbon filtering material, screening and sandbags) are used at the trench and storm drains that drain to the underground devices. The devices are capable of reducing concentrations of total suspended solids, metals, and oil and grease (City of Berkeley 2017a; City of Berkeley 2018).

Impact Analysis

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- f. *Would the project otherwise substantially degrade water quality?*

The proposed project would be limited to operational changes to the existing Transfer Station and would not alter the physical structure, surface configuration, permeability or topography of the Transfer Station. Implementation of the proposed project would not increase runoff from the project site. The project would expand operating hours and increase the amount of waste stored and processed at the facility. Therefore, there is the potential for some materials to contact rainwater or be blown into storm drains. However, the Transfer Station implements several measures, described under “Existing Setting,” and a Stormwater Pollution Prevention Plan to prevent violations of water quality standards from site runoff. As discussed in Section 18, *Utilities and Service Systems*, wastewater generated by the Transfer Station would continue to be conveyed and treated by existing wastewater treatment infrastructure. Development of the proposed project would not violate water quality standards or waste discharge requirements. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The project site is urbanized and adjacent areas are predominately built-out. Implementation of the project would not cause an increase of impervious surfaces and therefore would not interfere with groundwater recharge, as the project site is almost entirely asphalt and is not a substantial groundwater recharge site. As discussed in Section 18, *Utilities and Service Systems*, sufficient water supply is available to serve the project and therefore it would not substantially deplete groundwater supplies. The project would have no impact on groundwater.

NO IMPACT

- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

- c.(iv) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

Because no construction or grading/paving would occur from the proposed project, the existing drainage patterns would be not altered. No impact would occur.

NO IMPACT

- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

The nearest large body of water to the project is the San Francisco Bay, approximately 0.25 miles to the west. In addition, the project is also over 5.0 miles from the San Pablo Reservoir to the northeast. Terrain at the project site is flat; slopes with potential for mudflow are not present at the project site or vicinity. Despite the proximity of the project site to the San Francisco Bay, the project site is not located in an identified tsunami inundation zone (City of Berkeley 2001c). Therefore, the project site would not risk release of pollutants due to inundation by seiche, tsunami, or mudflow. No impact would occur.

NO IMPACT

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As described above, the proposed project would result in no changes to the amount of impervious surface on-site and associated stormwater runoff rates and volumes from the project site. The proposed project would not change the types of materials accepted at the Transfer Station. Thus, there would be no sources of potential new pollutants. Stormwater runoff from the site would continue to flow into a bioswale at the southern end of the site before being discharged to the City's stormwater drain system. All discharges must be compliant with discharge permits. Therefore, the proposed project would not conflict with or obstruct implementation of the Basin Plan.

The project site is almost entirely asphalt and is not a substantial groundwater recharge site. The proposed project would have no impact.

NO IMPACT

- g. *Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?*
- h. *Would the project place structures in a 100-year flood hazard area that would impede or redirect flood flows?*

The proposed project is located in a two percent Annual Chance Flood Hazard area and is adjacent to the Codornices Creek, categorized as a special flood hazard zone with projected flood depths of 2 feet (Berkeley 2001, FEMA 2018). Although the project site is in a mapped flood hazard area, no construction activities are included in the proposed project, and it would not locate housing on the project site. Because the project would not develop new structures on the project site, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- i. *Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding including that which occurs as a result of failure of a levee or dam?*

The project site is located in the inundation area of the Berryman Reservoir (City of Berkeley 2001c). However, in 2010 the EBMUD replaced the Berryman Reservoir with an earthquake resistant steel water tank, thereby reducing inundation potential at the project site associated with the Berryman Reservoir (Wengraf 2010). Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

According to the City of Berkeley General Plan Land Use Element and the 1993 West Berkeley Plan, the project site has a land use designation of Manufacturing (City of Berkeley 1993, City of Berkeley 2002). The project site is zoned Manufacturing (City of Berkeley 2014).

According to the General Plan and the West Berkeley Plan, the primary goal of the Manufacturing land use designation is to preserve and enhance the city's existing industrial and manufacturing industries. Goal 1 of the West Berkeley Plan calls for incorporating manufacturing and other uses to benefit Berkeley residents and business economically, the City fiscally, and to promote the varied character of the area. Goal 2 of the West Berkeley Plan aims to channel development to appropriate districts and includes policies to allow different types and intensities of manufacturing uses in various districts (City of Berkeley 1993, City of Berkeley 2001a).

The City of Berkeley Zoning Ordinance Section 23E.72.020 states that the purpose of the Manufacturing (M) zoning district is to encourage development of general manufacturing for the full range of manufacturers, including those dealing in larger-scale materials processing. Floor area ratios in this district range from less than 1 to 2. Transfer stations and recycling facilities are permitted by right in areas zoned Manufacturing, but transfer stations handling hazardous waste are prohibited in this zoning district (City of Berkeley 2016).

Impact Analysis

a. *Would the project physically divide an established community?*

The project includes operational changes at the Transfer Station including the addition of existing commercial waste collection route days and increased hours of operation to accommodate increased waste processing resulting from the expanded waste hauling routes. No physical changes to the site or surrounding infrastructure are proposed. None of the operational changes would divide the community physically. There would be no impact.

NO IMPACT

- b. *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The project site has a land use designation of Manufacturing and is zoned Manufacturing. The Manufacturing zone allows for recyclable materials collection points, not including facilities handling primarily hazardous wastes. The existing facility has provided solid waste management and recycling services to the city since 1983, and the proposed project would not change this use. The proposed operational changes would increase the intensity of existing uses (increase in permitted daily tonnage accepted) but would not introduce new or alter existing land uses. Therefore, the proposed project would be consistent with the subject parcel's Manufacturing zoning designation and with its Manufacturing General Plan/West Berkeley Plan land use designations (City of Berkeley 1993, 2001a, 2016). No impact would occur.

NO IMPACT

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Impact Analysis

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

Due to Berkeley's long-established urban character, the city has no active mineral extraction operations. The project would not involve new construction and would not result in a loss of available minerals. There would be no impact.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes are not perceived generally. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while arterial streets are in the 50 to 60+ dBA range. Normal conversational levels are in the 60 to 65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as construction equipment). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by the introduction of intervening structures. For example, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA. The construction style for dwelling units in California generally provides a reduction of exterior-to-interior noise levels of about 30 dBA with closed windows (Federal Highway Administration 2006).

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. For example, residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor recreation areas are more sensitive to noise than commercial and industrial land uses. The nearest residential use to the project site is the Harrison House, a homeless shelter, located approximately 150 feet to the east of the project site, beyond the adjacent UPRR at the corner of Harrison Street and Third Street. The Berkeley Mount Zion Baptist Church is located 0.38 miles to the southeast of the project site. The nearest school to the project site is the Berkeley Unified Pre-school located 0.47 miles to the southeast of the project site.

The noise environment on the project site is dominated by the industrial uses on and surrounding the site, vehicle noise generated from I-80/I-580, which accommodates 11 lanes of vehicle traffic in the project vicinity, vehicle noise from Gillman Street, and rail vehicle noise from the adjacent UPRR tracks.

Regulatory Setting

Noise regulations and ordinances typically establish allowable noise levels for different land uses and define exempt noise activities. The City of Berkeley Municipal Code Section 13.40.050 contains exterior noise standards that vary by land use zone, as shown in Table 4.

Table 4 City of Berkeley Exterior Sound Level Limits by Zone

Zone	Time	Applicable Limit One-Hour Average Sound Level (Decibels)
Residential Zones (R-1, R-2, R-1A, R-2A, and ESR)	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	45
Multi-Residential Zones (R-3 and above)	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Commercial Zones	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	60
Industry ¹	Anytime	70

¹ Industrial area includes areas zoned for manufacturing per City of Berkeley Municipal Code Section 13.10.020(P)
Source: City of Berkeley Municipal Code Section 13.40.050

Because the City has not adopted standards that regulate increases in roadway noise caused by projects, this analysis uses recommendations contained in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (2006). These guidelines are used to determine if the project's effect on roadway noise would represent a substantial permanent increase. According to the FTA criteria, the allowable noise exposure increase is based on the existing ambient noise level. Roadways with lower ambient noise levels have a higher allowable increase, while roadways with a higher ambient noise level are allowed a lower noise increase. Traffic-related noise increases would constitute a significant impact if roadway noise levels exposure for nearby sensitive receptors would increase by more than the levels indicated in Table 5.

Table 5 Significance of Changes in Operational Roadway Noise Exposure

Existing Noise Exposure (dBA Ldn or Leq)	Allowable Noise Exposure Increase (dBA Ldn or Leq)
45-50	7
50-55	5
55-60	3
60-65	2
65-74	1
75+	0

Source: FTA 2006

Impact Analysis

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Operational Noise

The project site is located in an industrial neighborhood. Primary sources of noise include noise from adjacent industrial uses and traffic noise from the I-580/I-80 freeway. Existing noise generated at the Transfer Station includes the operation and movement of heavy machinery and vehicles including waste hauling trucks. An employee noise exposure evaluation was prepared in 2016 in which the highest on-site noise level of 84.8 dBA was recorded adjacent to the tipping floor (Earth Safety Dynamics, Inc. 2016). Assuming a noise attenuation of 6 dBA per doubling of distance, the noise level at the nearest sensitive receptor (residences at Third Street and Harrison Street) over 200 feet away from the tipping floor is estimated to be 66.7 dBA. Equipment used at the tipping floor at the time of measurement included two trucks, a wheel loader, and a forklift. Although the project would increase the permitted daily tonnage and amount of materials storage on the tipping floor, the proposed project would not alter the number or type of equipment used at the project site or on the tipping floor. Extended operating hours would increase ambient noise levels at the project site during early morning hours. However, because the project would not increase the number or type of equipment used on-site, the overall noise level would not change. Rather, the noise levels would occur over a longer amount of time throughout the day. Overall, noise levels would not exceed the applicable noise limit of 70 dBA in industrial and manufacturing areas. Therefore, the project would not substantially increase noise associated with operation of the transfer station. In addition, the wheel loaders have been outfitted with “white noise” backup alarms, which moderate the alarm volume based on sensing ambient sound.

The proposed project would increase the number of trips to the site by approximately 15 trips per day, but these additional vehicle trips would be dispersed throughout the day and would not substantially increase noise levels at the project site. Therefore, the proposed project would not substantially increase operational traffic noise on area roadways.

Overall, the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.

Roadway Noise

The proposed project would increase vehicle trips to and from the project site and therefore would increase traffic-related noise on roadways surrounding the site. Traffic noise modeling prepared by Rincon Consultants, Inc. indicates that in general and regardless of the existing traffic volume on a given roadway, a 10 percent increase in traffic volume would raise traffic noise by approximately 0.4 dBA. The proposed project would increase trips to and from the site by up to 15 truck trips. Overall, this would be an incremental and minimal increase in existing traffic volumes on area roadways and would be well below a 10 percent increase in traffic volume. Therefore, the project would not increase noise levels on area roadways above the FTA criteria shown in Table 5. Impacts related to traffic noise would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

The proposed project does not include construction activities and would not introduce new stationary equipment that would generate groundborne vibration. Although the project would increase trips to and from the site by up to 15 truck trips and introduce two additional collection trucks (purchased in 2017) to the site and on the City's collection routes, this incremental increase would not perceptibly increase vibration levels. Therefore, generation of substantial temporary increases in noise or vibration would not occur as a result of the proposed project. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project is located outside of the Airport Land Use Plan for the nearest airport, Oakland International Airport, which is over 10 miles from the project site. No impacts would occur.

NO IMPACT

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

The project site is located in an industrial area in Berkeley. The nearest residential use (Harrison House, a homeless shelter) is 150 feet east of the project site, across the UPRR tracks and right-of-way.

Impact Analysis

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The project does not involve development of new housing or habitable residences. Implementation of the project would not affect residential growth and would not directly add residents to the city of Berkeley. However, according to ZWD, the proposed project would result in the hiring of two new full-time employees (completed in late 2019). The addition of two employees would not result in substantial population growth. Furthermore, the positions are expected to be filled from the local labor pool. Therefore, no substantial growth would be generated from the project, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

There are no residences on the project site. No construction activities would occur as a result of the proposed project, and the project would not involve the demolition or displacement of housing. There would be no impact.

NO IMPACT

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15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

The project site is served by the Berkeley Fire Department, the Berkeley Police Department, and is located in the Berkeley Unified School District. Additional details are provided in the analyses below.

Impact Analysis

- a.1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?*

The Berkeley Fire Department provides fire protection to the city. The Fire Department provides fire suppression, hazardous materials mitigation, medical emergencies, urban search and rescue, water rescue, fire prevention, and public education. The Transfer Station is located in Fire District E6 and is served by Station 6, located at 999 Cedar Street, approximately 0.9 miles southeast of the project site and houses an engine and a reserve engine (City of Berkeley 2020b).

The proposed project includes operational changes that would increase the permitted daily tonnage percent of materials allowed to be accepted at the facility, incrementally increase vehicle trips to and from the site by approximately 15 trips, and expand the site's acceptance, transfer, and processing hours. Because the project expands operations occurring already at the site, there is potential that fire and accident risk could increase incrementally. However, operation of the facility includes specific health and safety procedures intended to minimize the potential for fires and accidents, and these procedures would continue to be implemented with the proposed project. Historically, the Fire Department has been called to the site for minor on-site incidents contained within a small area approximately once every two years. The facility maintains on-site fire suppression equipment. The existing site is currently served by the Berkeley Fire Department, and the project would not require new or physically altered government facilities or require the need for new or physically altered government facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?*

The Berkeley Police Department provides law enforcement services in Berkeley. The Department is located at 2100 Martin Luther King, Jr. Way, approximately 2.8 miles southeast of the project site. The project site is located in Beat #15 (City of Berkeley 2020c).

The project includes several operational changes that would increase vehicle trips to and from the site by up to 15 truck trips and would expand the site's acceptance, transfer, and processing hours. The project would not increase the demand for police protection services because the type of operations at the site would not change substantially. The existing site is currently served by the Berkeley Police Department, and the project would not require new or physically altered government facilities or require the need for new or physically altered government facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

The project site is located in the Berkeley Unified School District. The nearest school to the project site is Berkeley Unified Pre-School, approximately 0.5 miles to the southeast. The project does not include residential development and would not directly or indirectly add substantial population to Berkeley. Therefore, the project would not generate substantial numbers of new students, thus not impacting school resources. No impact would occur.

NO IMPACT

- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

The Berkeley Recreation Division manages the recreational and park services in the city. The nearest recreational facilities to the project site are in Harrison Park, 150 feet to the east of the project site across the UPRR track. Harrison Park includes the Gabe Catalfo Fields, Codornices Creek, and a skate park (City of Berkeley 2020d).

As discussed in Section 13, *Population and Housing*, the project would not add substantial population to the City of Berkeley. Therefore, the project would not substantially increase demand for recreational resources. There would be no impact.

NO IMPACT

- a.5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?*

As discussed in Section 13, *Population and Housing*, the project would not add substantial population to Berkeley. Therefore, the project would not substantially increase demand for other public facilities and resources. Impacts to stormwater, wastewater, and water facilities are discussed in Section 18, *Utilities and Service Systems*. No impact would occur.

NO IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

The project site is located in a developed industrial area in the City of Berkeley. The nearest recreational facility is Harrison Park, approximately 100 feet east of the project site. Facilities at Harrison Park include two separate lighted playing fields for rugby/soccer/lacrosse and other field sports, a skate park, a field house with public meeting room, and parking.

Impact Analysis

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The project does not include components that would directly increase use of Harrison Park or other park or recreational facilities in the City of Berkeley. In addition, as discussed in Section 13, *Population and Housing*, the project would not add substantial population to the city that would use recreational facilities. Therefore, the project would not increase the use of parks or other recreational facilities such that substantial physical deterioration would occur. There would be no impact. Although the proposed project would not directly increase the use of the nearby Harrison Park, the proposed project may result in indirect impacts to the park (i.e., potential impacts associated with air pollution, odors, noise, and traffic). Indirect impacts to Harrison Park are discussed throughout this Initial Study and all impacts were found to be less than significant.

NO IMPACT

- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. There would be no impact.

NO IMPACT

17 Transportation/Traffic

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

I-580/I-80 provides regional access to the project site via highway entrances at Gilman Street, with five lanes in the northbound and four lanes in the southbound direction. The posted speed limit is 65 miles per hour. San Pablo Avenue is a 7.3-mile arterial roadway that provides access to Berkeley from neighboring cities. The roadway is a four lane, divided roadway with a southern terminus at I-580 in Oakland and a northern terminus at Cutting Boulevard in Richmond. The posted speed limit in the project vicinity is 25 miles per hour. Gilman Street is a collector roadway connecting Second Street to the I-580/I-80 and San Pablo Avenue. The roadway is predominantly two lanes undivided, with on-street parking permitted along some sections. The posted speed limit is 25 miles per hour. Major intersections near the project site include the following:

- **Gilman Street/I-80/I-580 Interchange (approximately 500 feet southwest).** This interchange is unsignalized with northbound on- and off-ramps on the west side of the freeway and southbound on- and off-ramps on the east side of the freeway.
- **Gilman Street/Eastshore Highway (approximately 430 feet southwest).** This intersection is unsignalized with marked crosswalks eastbound and westbound on Second Street and bike lanes eastbound and westbound on Gilman Street. It is almost a completely uncontrolled intersection with the exception of two stop signs on south- and northbound Eastshore Highway.
- **Gilman Street / Second Street (approximately 370 feet south).** This intersection is unsignalized with marked crosswalks eastbound and westbound on Second Street and bike lanes eastbound and westbound on Gilman Street. It is almost completely uncontrolled with the exception of one stop sign on northbound Second Street. It has no turn bays.

- **Gilman Street/San Pablo Avenue (approximately 2,700 feet east).** This intersection is signalized with marked crosswalks on all approaches. It has one left-turn bay, one through lane, and one shared through and right-turn lane in the northbound and southbound directions. It also has one shared through and left-turn lane and one shared through and right-turn lane in the eastbound direction, and one shared through and right-turn lane in the westbound direction.

Thresholds of Significance

The City of Berkeley has developed *Guidelines for Development of Traffic Impact Reports* (2005) and endeavors to maintain a target LOS at signalized intersections at LOS D, in compliance with the Alameda County standards. Therefore, the proposed project would create a significant impact at a signalized intersection if it would cause the LOS levels to drop below LOS D.

Impact Analysis

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

A public bus stop is located approximately 0.5 mile away, on Gilman Street at the Sixth Street intersection; it serves AC Transit routes 12 and H. Additional AC Transit bus stops are located along Gilman Street and San Pablo Avenue (SR 123) near the project site. Implementation of the proposed project would have no impact on existing public transit facilities and would not decrease performance or safety of such facilities.

The proposed project is located near Class 2 and Class 2.5 bike lanes along Gilman Street. Class 2 bike lanes are located along Gilman Street from I-580 to San Pablo Avenue; Class 2.5 bike lanes are available from San Pablo Avenue to Hopkins Road. Additionally, Class 2.5 bike lanes are available near the project site on Fifth Street from Gilman Street to Hearst Street; Tenth Street is designated as a bicycle boulevard. Class 2 facilities include striped bike lanes. Class 2.5 bikeways are distinguished from Class 2 by the addition of signed and improved bikeways that provide direct access and connections to major destinations in Berkeley. Bicycle boulevards are roadways that have been improved to reduce vehicle traffic volumes, discourage non-local motor vehicle traffic, and encourage the free flow of travel for bicycles by assigning right of ways to the bicycle boulevard at intersections. The proposed project would have no impact on existing bicycle facilities and would not decrease performance or safety.

Existing pedestrian facilities in the area include sidewalks along both sides of Second Street and Third Street, and sidewalks along the south side of Gilman Street. The proposed project would have no impact on existing pedestrian facilities and would not decrease performance or safety.

As explained in the Project Description under “Summary and Implications of Operational Changes,” the proposed project would add vehicle trips to and from the Transfer Station. Therefore, the proposed project would incrementally increase traffic on roadways and intersections in the project vicinity by approximately 15 trips. However, the additional vehicle trips are anticipated to occur between the hours of 10:00 a.m. and 3:00 p.m. Monday through Friday and between 9:00 a.m. and 2:00 p.m. Saturdays and Sundays. Overall, the incremental increase in 15 trips distributed over several hours throughout the day would not cause significant traffic congestion at roadways and intersections in the project vicinity. Further, collection trucks would not travel on freeways, and the addition of up to four inbound and outbound long-haul trips on I-580 to the Altamont Landfill would not cause significant traffic congestion at the Gilman Street/I-80/I-580 interchange.

In addition, although there are inconsistent and infrequent queues for vehicle waiting to enter the scale house at project driveways, the additional increase in hauling trips would not cause a substantial increase in queuing impacts at project driveways. Overall, increases in traffic and queues resulting from the proposed project would be minimal and would not conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of the circulation system, including an applicable congestion management program. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Section 15064.3 of the 2019 CEQA Guidelines established new methodology for determining the significance of transportation impacts. Prior to adoption of the 2019 CEQA Guidelines in December 2018, transportation impacts as they related to roadways was typically correlated with traffic delay. Level of Service (LOS) was most often used a measurement of traffic delay, and decreasing LOS was an indicator of potential impacts. However, Section 15064.3 codifies a switch from LOS and traffic delay to Vehicle Miles Traveled (VMT) as the metric for analyzing transportation impacts.

The proposed project involves increasing the permitted daily tonnage of waste allowed to be accepted at the Transfer Station because the City is now serving commercial accounts that were previously served by other commercial waste haulers. The proposed increase of up to 11 collection truck trips within the City and up to four long-haul outgoing and incoming truck trips from the Transfer Station would not substantially increase Citywide or regional VMT.

Furthermore, increasing the tonnage of waste accepted at the transfer station would not result in an increase in the total waste stream but would shift the location at which this waste is processed. A corresponding shift in truck trip destination would also occur. Rather than trucks hauling waste to another facility in the region, they would instead haul waste from within the City of Berkeley to the project site and from the project site to the Altamont Landfill. Therefore, trucks that were previously hauling waste to another transfer facility in the region (such as to Republic Services' Richmond transfer facility) materials would be hauled to the project site. Overall, it is likely that the project would reduce VMT compared to existing conditions.

Overall, VMT associated with medium and heavy-duty truck trips would be relatively unchanged in the region as a result of the project. For this reason, and because the project would not generate population growth dependent on personal vehicle travel, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

The project would not include alterations to the existing Transfer Station that would result in hazardous design features, such as sharp curves or dangerous intersections; nor would it create hazardous conditions by introducing incompatible uses. Project implementation would be limited to operation changes and would not alter or affect existing street and intersection networks or project site driveways. No impact would occur.

NO IMPACT

d. Would the project result in inadequate emergency access?

The project site is directly accessible via Second Street and is located at the end of a cul-de-sac. Project implementation would not change access points to the project site. Two emergency access points are provided onto Second Street to the Transfer Station: one at the main entrance/ exit and one at the compressed natural gas filling station near the end of the cul-de-sac. No changes implemented by the project would result in inadequate emergency access, and there would be no impact.

NO IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted, expanding CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency must establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

Tribal cultural resources (TCR) are defined under PRC §21074(a)(1) as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either 1) included or determined to be eligible for inclusion in the CRHR, or 2) included in a local register of historical resources. TCRs are those determined to be significant by the lead agency at its discretion and supported by substantial evidence. In making a determination that something is a TCR, the lead agency is required to consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is

traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. The project site contains industrial buildings typical of the late twentieth century. ZWD has operated a recyclables collection, processing, and transfer operation at the project site since 1985. The project site is paved and covered with existing buildings. No historic resources have been identified at the project site (City of Berkeley 2016).

Impact Analysis

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

One tribe, the Chochenyo Ohlone, has requested to be notified of projects proposed in the City of Berkeley. The City of Berkeley notified tribal representative Andrew Galvan of the project on August 28, 2018. Mr. Galvan declined consultation on this project because the proposed project involves only operational changes at the existing Transfer Station. No ground-disturbing activities, new construction, or alteration of existing structures or ground surface on the site would occur. Therefore, the proposed project would not affect known or unknown TCRs. No impact would occur.

NO IMPACT

19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact Analysis

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The facility is almost entirely paved with either concrete or asphalt concrete and graded to facilitate drainage and prevent ponding. All storm water and surface drainage from non-waste hauling areas is directed across sloped areas to a catch basin. The Transfer Station uses underground stormwater management devices to treat stormwater. Mechanical methods (i.e., hydrocarbon filtering material,

screening, and sandbags) are used at the trench and storm drains that drain to the devices. The devices are capable of reducing concentrations of total suspended solids, metals, and oil and grease. A Storm Water Pollution Prevention Plan has been prepared for the site. The municipal storm drain system is maintained by the City of Berkeley Public Works Department (City of Berkeley 2011).

The proposed project would not alter the existing stormwater collection system and no changes in the collection system's capacity or overall function are proposed. The existing Transfer Station is entirely paved, and the proposed project would not change this condition. The proposed project would not substantially increase stormwater runoff from the project site such that new or expanded stormwater drainage facilities would be required. There would be no impact.

Existing electric power, natural gas, and telecommunication facilities would serve the project site without the need for expansion or additional construction. Therefore, the proposed project would have no impact.

NO IMPACT

- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Municipal water is provided to the project site by the EBMUD (EBMUD 2015). Water is used at the facility for dust suppression (the misting system), cleaning, and sanitary purposes. The addition of three to four additional waste hauling route days per week and the expansion of Transfer Station hours of operation would increase waste accepted at the facility and slightly increase the demand for water for dust suppression and sanitary purposes. The anticipated increase in demand would represent a negligible effect on EBMUD's available water supplies. For this reason, sufficient water supplies would be available to serve the project from existing entitlements and resources and new or expanded water entitlements would not be necessary. This impact is less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Wastewater collection and treatment for the project site is provided by the City of Berkeley Department of Public Works. The collection system includes approximately 254 miles of City-owned sanitary sewers, seven sewage pump stations, and approximately 31,600 service laterals. Wastewater generated in the City's collection system is conveyed to the EBMUD's Main Wastewater District wastewater interceptor system and is treated at EBMUD's Main Wastewater Treatment Plant (MWWTP). The MWWTP is permitted by the RWQCB to provide secondary treatment of up to 168 million gallons per day (mgd). The average daily flow is approximately 63 mgd. Thus, the MWWTP has an average of 105 mgd of unused permitted dry weather flow capacity on a daily basis (EBMUD 2018).

The proposed project involves an increase in the amount of permitted tonnage of materials received at the Transfer Station. The Transfer Station receives, separates, and transfers materials to recycling or composting facilities or landfills. This process is not water-intensive and therefore does not generate substantial amounts of wastewater (the misting system on the tipping floor is not water intensive and would not change as a result of this project). Increasing the amount of materials processed at the facility would not substantially increase the amount of wastewater generated on-site. As the proposed project would not include physical alterations to the existing Transfer Station,

there would be no wastewater increase as a result of construction of new or alteration of the existing Transfer Station.

The MWWTP has approximately 105 mgd of unused permitted capacity. The proposed project would not substantially increase wastewater generated beyond existing conditions. Therefore, the proposed project would not exceed wastewater treatment requirements of the RWQCB, result in the need for new or expanded wastewater facilities, or be served by a treatment provider with inadequate capacity. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. Would the project comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?*

The proposed project would involve operational changes to an existing solid waste Transfer Station. The Berkeley Transfer Station is included in the Alameda County Integrated Waste Management Plan (IWMP; Alameda County 2017). The IWMP is used as a road map in approaching Alameda County's waste management, including countywide waste reduction programs, and it includes information on the Transfer Station's opening hours and tonnage. The proposed increase in tonnage accepted at the Transfer Station and extended operating hours would be amended with the planned regular updates to the IWMP. The proposed project would not interfere with the IWMP waste reduction goals.

The purpose of the Transfer Station's operations is to collect, process, and transfer waste for recycling or disposal at area landfills. Increasing tonnage of waste accepted at the site would not result in an increase in the total waste stream but would shift the waste processing location. The proposed project is intended to improve on-site operations, increase efficiencies, and increase the amount of recyclable materials processed at the Transfer Station. Therefore, overall the proposed project may reduce the amount of solid waste sent to area landfills.

The project is designed to be consistent with and to implement federal and state solid waste regulations. The operational changes associated with the project would require revisions to the Transfer Station Permit (SWIS No. 01-AC-0029) administered by CalRecycle. With approval of Permit revisions, the proposed project would be consistent with state regulations that govern the solid waste transfer facility. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- b. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- c. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

- d. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project site is not within a fire high fire hazard severity zone or state responsibility area (California Department of Forestry & Fire Protection 2007; 2008). The project site is located over two miles from the nearest very high fire hazard severity zone, which is located in the eastern part of the City of Berkeley. The project site is located in an area developed with urban land uses and is generally flat and not sloped. The project would no impact related to wildfire.

NO IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact Analysis

- a. *Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Based on the information and analysis provided in this Initial Study, implementation of the proposed project would not do any of the following: substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of California history or prehistory. The proposed project would not involve ground-disturbing activities or new construction. Section 4, *Biological Resources*, Section 5, *Cultural*

Resources, and Section 17, *Tribal Cultural Resources* describe how operational changes at the existing Transfer Station would not damage or disturb historical, archeological, or paleontological resources that illustrate examples of California history and prehistory or impact biological resources. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Implementation of the proposed project would result in less-than-significant environmental impacts. The impacts associated with the project are anticipated to be localized at the project site and would not be expected to combine with other projects to cause cumulatively considerable environmental impacts. Given the limited impacts anticipated with project implementation, the project would not have a cumulatively considerable contribution to cumulative impacts. This impact is less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Effects to human beings are generally associated with air quality, noise, traffic safety, and hazards. As discussed in this Initial Study, implementation of the project would result in less-than-significant environmental impacts with respect to all studied impact areas. The project would not cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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List of Preparers

Rincon Consultants, Inc. prepared this IS-ND under contract to the City of Berkeley. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Appendix A

Air Quality and GHG Modeling Worksheets

Berkeley Transfer Station - Alameda County, Winter

Berkeley Transfer Station

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - no construction

Construction Phase - no construction

Vehicle Trips - 13 trips per day

Fleet Mix - Assume all MHD trucks

Berkeley Transfer Station - Alameda County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblFleetMix	HHD	0.04	1.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2280e-003	0.00
tblFleetMix	MCY	5.5690e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.5900e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1180e-003	0.00
tblFleetMix	SBUS	3.0800e-004	0.00
tblFleetMix	UBUS	2.8050e-003	0.00
tblLandUse	LandUseSquareFeet	1,000.00	0.00
tblLandUse	LotAcreage	0.02	0.00
tblVehicleTrips	CC_TL	7.30	10.00
tblVehicleTrips	CNW_TL	7.30	10.00
tblVehicleTrips	CW_TL	9.50	10.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	13.00
tblVehicleTrips	SU_TR	0.68	13.00
tblVehicleTrips	WD_TR	6.97	13.00

Berkeley Transfer Station - Alameda County, Winter

2.0 Emissions Summary**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1106	9.4656	8.1155	0.0128	0.0822	2.4128	0.7055	0.0218	2.2567	0.6166	0.0000	1,251.065 5	1,251.065 5	0.2280	0.0000	1,256.765 9
Maximum	1.1106	9.4656	8.1155	0.0128	0.0822	2.4128	0.7055	0.0218	2.2567	0.6166	0.0000	1,251.065 5	1,251.065 5	0.2280	0.0000	1,256.765 9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1106	9.4656	8.1155	0.0128	0.0822	2.4128	0.7055	0.0218	2.2567	0.6166	0.0000	1,251.065 5	1,251.065 5	0.2280	0.0000	1,256.765 9
Maximum	1.1106	9.4656	8.1155	0.0128	0.0822	2.4128	0.7055	0.0218	2.2567	0.6166	0.0000	1,251.065 5	1,251.065 5	0.2280	0.0000	1,256.765 9

Berkeley Transfer Station - Alameda County, Winter

[illegible]

Berkeley Transfer Station - Alameda County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0682	2.5061	0.4397	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3282	607.3282	0.0449		608.4497
Total	0.0682	2.5061	0.4398	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3284	607.3284	0.0449	0.0000	608.4500

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0682	2.5061	0.4397	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3282	607.3282	0.0449		608.4497
Total	0.0682	2.5061	0.4398	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3284	607.3284	0.0449	0.0000	608.4500

Berkeley Transfer Station - Alameda County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2018	7/25/2018	5	1	
2	Site Preparation	Site Preparation	7/25/2018	7/24/2018	5	0	
3	Grading	Grading	7/25/2018	7/24/2018	5	0	
4	Building Construction	Building Construction	7/25/2018	7/24/2018	5	0	
5	Paving	Paving	7/25/2018	7/24/2018	5	0	
6	Architectural Coating	Architectural Coating	7/25/2018	7/24/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Berkeley Transfer Station - Alameda County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Berkeley Transfer Station - Alameda County, Winter

3.1 Mitigation Measures Construction**3.2 Demolition - 2018****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.350 2	1,169.350 2	0.2254		1,174.985 7
Total	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.350 2	1,169.350 2	0.2254		1,174.985 7

Berkeley Transfer Station - Alameda County, Winter

3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0463	0.0361	0.3393	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		81.7152	81.7152	2.6000e-003		81.7803
Total	0.0463	0.0361	0.3393	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		81.7152	81.7152	2.6000e-003		81.7803

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857

Berkeley Transfer Station - Alameda County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0463	0.0361	0.3393	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		81.7152	81.7152	2.6000e-003		81.7803
Total	0.0463	0.0361	0.3393	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		81.7152	81.7152	2.6000e-003		81.7803

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

[illegible]

3.4 Grading - 2018

Unmitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

[illegible]

3.5 Building Construction - 2018

Unmitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

3.5 Building Construction - 2018

Mitigated Construction Off-Site

[illegible]

3.6 Paving - 2018

Unmitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

[illegible]

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

Berkeley Transfer Station - Alameda County, Winter

3.7 Architectural Coating - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Berkeley Transfer Station - Alameda County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0682	2.5061	0.4397	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3282	607.3282	0.0449		608.4497
Unmitigated	0.0682	2.5061	0.4397	5.7200e-003	0.1137	6.4300e-003	0.1201	0.0312	6.1500e-003	0.0373		607.3282	607.3282	0.0449		608.4497

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	13.00	13.00	13.00	47,320	47,320
Total	13.00	13.00	13.00	47,320	47,320

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	10.00	10.00	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

Berkeley Transfer Station - Alameda County, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Berkeley Transfer Station - Alameda County, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Berkeley Transfer Station - Alameda County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

Berkeley Transfer Station - Alameda County, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

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Berkeley Transfer Station

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	4			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - no construction

Construction Phase - no construction

Vehicle Trips - 13 trips per day

Fleet Mix - Assume all MHD trucks

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblFleetMix	HHD	0.04	1.00
tblFleetMix	LDA	0.56	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2280e-003	0.00
tblFleetMix	MCY	5.5690e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.5900e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1180e-003	0.00
tblFleetMix	SBUS	3.0800e-004	0.00
tblFleetMix	UBUS	2.8050e-003	0.00
tblLandUse	LandUseSquareFeet	1,000.00	0.00
tblLandUse	LotAcreage	0.02	0.00
tblVehicleTrips	CC_TL	7.30	10.00
tblVehicleTrips	CNW_TL	7.30	10.00
tblVehicleTrips	CW_TL	9.50	10.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	13.00
tblVehicleTrips	SU_TR	0.68	13.00
tblVehicleTrips	WD_TR	6.97	13.00

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2.0 Emissions Summary**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	5.5000e-004	4.7300e-003	4.0500e-003	1.0000e-005	4.0000e-005	3.1000e-004	3.5000e-004	1.0000e-005	3.0000e-004	3.1000e-004	0.0000	0.5678	0.5678	1.0000e-004	0.0000	0.5704
Maximum	5.5000e-004	4.7300e-003	4.0500e-003	1.0000e-005	4.0000e-005	3.1000e-004	3.5000e-004	1.0000e-005	3.0000e-004	3.1000e-004	0.0000	0.5678	0.5678	1.0000e-004	0.0000	0.5704

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	5.5000e-004	4.7300e-003	4.0500e-003	1.0000e-005	4.0000e-005	3.1000e-004	3.5000e-004	1.0000e-005	3.0000e-004	3.1000e-004	0.0000	0.5678	0.5678	1.0000e-004	0.0000	0.5704
Maximum	5.5000e-004	4.7300e-003	4.0500e-003	1.0000e-005	4.0000e-005	3.1000e-004	3.5000e-004	1.0000e-005	3.0000e-004	3.1000e-004	0.0000	0.5678	0.5678	1.0000e-004	0.0000	0.5704

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-25-2018	9-30-2018	0.0038	0.0038
		Highest	0.0038	0.0038

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.0000	102.1058	102.1058	7.0200e-003	0.0000	102.2814
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.3251	102.4698	102.7949	0.0295	1.8000e-004	103.5852

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.0000	102.1058	102.1058	7.0200e-003	0.0000	102.2814
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.3251	102.4698	102.7949	0.0295	1.8000e-004	103.5852

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2018	7/25/2018	5	1	
2	Site Preparation	Site Preparation	7/25/2018	7/24/2018	5	0	
3	Grading	Grading	7/25/2018	7/24/2018	5	0	
4	Building Construction	Building Construction	7/25/2018	7/24/2018	5	0	
5	Paving	Paving	7/25/2018	7/24/2018	5	0	
6	Architectural Coating	Architectural Coating	7/25/2018	7/24/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Demolition - 2018****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	4.7100e-003	3.8900e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	0.5304	0.5304	1.0000e-004	0.0000	0.5330
Total	5.3000e-004	4.7100e-003	3.8900e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	0.5304	0.5304	1.0000e-004	0.0000	0.5330

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3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0374	0.0374	0.0000	0.0000	0.0374
Total	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0374	0.0374	0.0000	0.0000	0.0374

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	4.7100e-003	3.8900e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	0.5304	0.5304	1.0000e-004	0.0000	0.5330
Total	5.3000e-004	4.7100e-003	3.8900e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	0.5304	0.5304	1.0000e-004	0.0000	0.5330

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0374	0.0374	0.0000	0.0000	0.0374
Total	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0374	0.0374	0.0000	0.0000	0.0374

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

[illegible]

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

[illegible]

3.4 Grading - 2018

Unmitigated Construction On-Site

[illegible]

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3.4 Grading - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

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3.4 Grading - 2018

Mitigated Construction Off-Site

[illegible]

3.5 Building Construction - 2018

Unmitigated Construction On-Site

[illegible]

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

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3.5 Building Construction - 2018

Mitigated Construction Off-Site

[illegible]

3.6 Paving - 2018

Unmitigated Construction On-Site

[illegible]

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3.6 Paving - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

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3.6 Paving - 2018

Mitigated Construction Off-Site

[illegible]

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

[illegible]

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

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3.7 Architectural Coating - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.0000	102.1058	102.1058	7.0200e-003	0.0000	102.2814
Unmitigated	0.0121	0.4571	0.0737	1.0600e-003	0.0200	1.1500e-003	0.0212	5.5000e-003	1.1000e-003	6.6000e-003	0.0000	102.1058	102.1058	7.0200e-003	0.0000	102.2814

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	13.00	13.00	13.00	47,320	47,320
Total	13.00	13.00	13.00	47,320	47,320

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	10.00	10.00	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		0.4374	7.5500e-003	1.8000e-004	0.6802

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		0.4374	7.5500e-003	1.8000e-004	0.6802

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2517	0.0149	0.0000	0.6236
Unmitigated	0.2517	0.0149	0.0000	0.6236

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.24	0.2517	0.0149	0.0000	0.6236
Total		0.2517	0.0149	0.0000	0.6236

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.24	0.2517	0.0149	0.0000	0.6236
Total		0.2517	0.0149	0.0000	0.6236

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
