CHAPTER 5
ALTERNATIVES TO THE PROJECT

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)). The range of alternatives is governed by the "rule of reason" that requires the Environmental Impact Report (EIR) to set forth only those alternatives necessary to permit a reasoned choice (Section 15126.6(f)). The significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project, and a matrix may be used to summarize the comparison of alternatives (Section 15126.6(d)).

The EIR must assess the identified alternatives and determine which among the alternatives (including the project as proposed) is the environmentally superior alternative. One of the alternatives to be assessed is the "No Project" alternative (see discussion below). If the No Project alternative is identified as the environmentally superior alternative, then another of the remaining alternatives must be identified as the environmentally superior alternative.

This chapter discusses the following alternatives to the project:

1. No Project Alternative
2. Reduced Tonnage Alternative
3. Reduced Footprint Alternative

The components of these alternatives are described below, including a discussion of their impacts and how they would differ from the significant impacts of the proposed Project. A discussion of the environmentally superior alternative is also included in this chapter.

The *CEQA Guidelines* require that an EIR briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6(a)) and suggest that an EIR also identify any alternatives that were considered by the lead agency but were rejected as infeasible (Section 15126.6(c)). This chapter of the EIR also addresses these issues.

5.2 FACTORS IN SELECTION OF ALTERNATIVES

The alternatives addressed in this EIR were selected in consideration of one or more of the following factors:

- the extent to which the alternative would accomplish most of the basic objectives of the project (see Chapter 2, Project Description);
- the extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project;
- the feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, consistency with regulatory limitations, and whether the County can reasonably acquire, control, or otherwise have access to the site or off-site locations that could potentially be a project alternative;
- the appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- the requirements of *CEQA Guidelines* to consider a "no project" alternative and to identify an "environmentally superior" alternative in addition to the no-project alternative (*CEQA Guidelines*, Section 15126.6).

As stated in Chapter 2, Project Description, the project objectives are:

Objective 1. To decrease adverse environmental impacts of landfill development, operations, and final closure, and increase the environmental benefits that can be derived from certain aspects of existing Yolo County Central Landfill (YCCL) operations.

Objective 2. To increase the County's ability to divert waste (including organics) from the landfill and continue to meet the state-mandated diversion goals provided in AB 1383, other state-mandates to reduce waste from landfill (AB 341) and reduce greenhouse gas (GHG) emissions (AB 32).

Objective 3. To increase efficiency, diversify operations, and operate more economically.

Objective 4. To extend the overall site life of the existing YCCL through new operational methodologies.

In consideration of the above factors, three alternatives (including the No Project Alternative) are analyzed in this EIR.

5.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Several other alternatives were considered in the process of identifying a reasonable range of alternatives to the proposed Project.

5.3.1 OFFSITE TRANSFER STATION ALTERNATIVE

One of the Project elements is the development of a transfer station at the YCCL. The transfer station would consolidate incoming wastes for disposal from route trucks and re-load the wastes into larger transfer trucks that are maximized to haul longer distances (in this case the transfer would be to other landfills in the region). Development of the transfer station would allow the disposal materials to be efficiently transported to other landfills. The transfer station is included in the Project because of the increased soil needs and cost to develop new landfill modules. The transfer station would provide an option for waste disposal if new landfill modules are not developed. The Project plans are to develop a transfer station on an approximately 15-acre portion of the 41-acre north central area at the YCCL identified for future facility development (see **Figure 2-3**).

This alternative would develop a transfer station at another location or multiple locations in the County or in incorporated cities in the County. An offsite transfer station would eliminate the biological resource impacts to approximately 15 acres at YCCL. Offsite transfer stations would have the most positive benefit if they were closer to the sources of waste generation (i.e., in or near the cities of Davis, Woodland or West Sacramento). Being closer to residents would reduce the length of haul truck trips compared to the existing trips going to YCCL. Reducing the length of trips to the offsite transfer could potentially reduce air quality, GHG emissions, and energy use when compared to the trips to YCCL.

This alternative was rejected from further analysis for several reasons. Due to size requirements for such a facility, the offsite transfer station(s) would probably end up on agricultural land and have effects on agricultural land as well as Swainson's hawk foraging land, potentially far greater than at YCCL. Because of the central location of YCCL, most new transfer station locations would result in more hauling miles, unless multiple transfer stations were developed in different areas of the County. Development of multiple offsite transfer stations in the County would not be a feasible scenario. Finally, truck trips going to the new offsite transfer station would be considered new trips at that location, while development of a transfer station at YCCL would have less new trips, because the incoming trucks already travel to the YCCL with wastes for landfill disposal. For these reasons, this alternative was rejected from further consideration. Removal from this analysis does not eliminate the possibility that in the future, transfer stations might be proposed at other locations in the County.

5.3.2 RAIL HAUL ALTERNATIVE

One of the options to truck transport of wastes to landfills is rail cars (rail haul). That could be a long-term option in the future to reduce truck trips from a potential transfer station to distant landfills that might have excess waste disposal capacity and lower rates. However, rail haul is very expensive to develop and is generally only considered for major metropolitan areas such as San Francisco and the Los Angeles metro area. Rail haul was not further considered because there are no nearby rail lines that could feasibly be extended to the YCCL and the size of the County waste stream is not large enough to benefits from the potential benefits of rail haul when the costs are considered. If a rail line is located near the landfill in the future, this alternative would be revisited.

5.3.3 TRANSFER OF WOOD AND ORGANICS

Several of the Project elements would increase processing of wood and organic waste and increase the environmental benefits derived from the waste, such as the waste gasification facility, wood pellet facility, and organic waste fertilizer facility, which are all proposed to be located in the 41-acre north central area at the YCCL identified for future facility development. One alternative to developing these Project elements would be to develop a larger transfer station and to transfer wood and organic waste to other landfills in the region. This would reduce the footprint of development in the 41-acre north central area at the YCCL, which would reduce potential impacts to wetlands and biological resources. However, this alternative was not further considered because it would reduce the environmental benefits of the Project (i.e., renewable hydrogen and electricity, fertilizer produced from organic waste, and wood pellets produced from wood waste) and the hauling of the material to other landfills would increase impacts to air quality, GHG emissions, energy, and transportation.

5.3.4 FILL OF EXISTING WATER STORAGE RESERVOIR

Another alternative that was considered to reduce potential impacts to wetlands and biological resources by limiting development in the 41-acre north central area at the YCCL was to fill the existing Water Storage Reservoir at the YCCL and develop Project elements there. However, this alternative was not further considered because it would create additional challenges for the YCCL to store groundwater and stormwater and would remove the large scale floating solar photovoltaic (PV) system from the Project.

5.4 NO PROJECT ALTERNATIVE

5.4.1 NO PROJECT ALTERNATIVE DESCRIPTION

If the Project is not approved, the YCCL would continue to operate under its current Solid Waste Facilities Permit (SWFP) and the various Project elements would not have an approved California Environmental Quality Act (CEQA) review or Project approval from the County. The YCCL would continue to operate with a permitted tonnage of 1,800 tons per day and permitted traffic volume of 1,047 vehicles per day. The YCCL would continue to operate like the existing operations, including a continuation of challenges related to:

- Acquisition of soil to maintain current operations,
- Processing organic materials to meet state requirements, and
- Processing wood.

Under the No Project Alternative, minor operational changes could occur within the existing SWFP, but the scale of the changes would be limited compared to the various Project elements proposed by the Project. The No Project Alternative would continue to operate under the current SWFP limits. Therefore, under the No Project Alternative, the YCCL would have to reject loads that put daily totals above 1,800 tons per day or permitted traffic volume of 1,047 vehicles per day.

The No Project Alternative could partially meet each of the Project objectives through operational changes allowed under the current SWFP, but the Project has elements to better achieve the Project objectives, such as increasing the County's ability to divert waste from the landfill and meeting state-mandated diversion goals. Furthermore, without development of many of the Project elements the County would lose environmental benefits such as renewable fuels, renewable electricity, and organic fertilizer. Additionally, without the Off-Site Borrow Area that is part of the Project, the YCCL would be short of soil for landfill operations in the future, potentially resulting in elimination of landfill disposal at the Project site.

5.4.2 ENVIRONMENTAL IMPACTS

Aesthetics

Under the No Project Alternative an Off-Site Borrow Area would not be developed in the future. Therefore, the No Project Alternative would have less aesthetics impacts compared to the Project.

Land Use, Planning, and Agriculture

Under the No Project Alternative an Off-Site Borrow Area would not be developed in the future. Therefore, the No Project Alternative would have less land use, planning, and agricultural impacts compared to the Project.

Air Quality

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL. Therefore, the No Project Alternative would have less air quality impacts related to construction activities compared to the Project.

Under the No Project Alternative, none of the Project elements would be operational and the YCCL's permitted daily tonnage would not be increased, thus there would be no increased emissions from on-site mobile equipment, heavy trucks, and employee vehicles. Therefore, the No Project Alternative would have less air quality impacts related to operational activities compared to the Project.

Biological Resources

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since no new ground disturbing activities would occur, the No Project Alternative would avoid all potential impacts to biological resources associated with the Project. Therefore, the No Project Alternative would have less biological resources impacts compared to the Project.

Cultural and Tribal Resources

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since no new ground disturbing activities would occur, the No Project Alternative would avoid all potential impacts to

cultural resources associated with the construction of the Project elements. Therefore, the No Project Alternative would have less cultural and tribal resources impacts compared to the Project.

Energy

Neither the Project nor the No Project Alternative would have significant impacts on energy resources. Under the No Project Alternative, none of the Project elements would be developed, thus the No Project Alternative would use less energy because many of the Project elements require the consumption of electricity and petroleum fuels to operate. However, the No Project Alternative would not have the same beneficial impact as the Project from renewable energy generation without Project elements such as the large scale floating solar PV system, solar PV system on closed landfill units, waste gasification facility, expanded biogas utilization options, peaking power plant, and biogas to methanol pilot facility. Therefore, the energy impacts of the Project and No Project Alternative would be approximately the same.

GHG Emissions

Neither the Project nor the No Project Alternative would have significant impacts on GHG emissions. Under the No Project Alternative, none of the Project elements would be developed and the YCCL's permitted daily tonnage would not be increased, thus there would be no increased GHG emissions from on-site mobile equipment, heavy trucks, and employee vehicles. However, the No Project Alternative would not have the same beneficial impact as the Project from renewable energy generation and increased organics diversion from landfills. Therefore, the GHG emissions impacts of the Project and No Project Alternative would be approximately the same.

Public Health and Safety

Under the No Project Alternative, none of the Project elements would be developed at the YCCL. Since no new facilities would be developed, the No Project Alternative would avoid potential impacts to public health and safety associated with the Project. Therefore, the No Project Alternative would have less public health and safety impacts compared to the Project.

Geology, Soils, and Seismicity

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since no new ground disturbing activities would occur, the No Project Alternative would avoid potential impacts to geology, soils, and seismicity associated with the Project. Therefore, the No Project Alternative would have less geology, soils, and seismicity impacts compared to the Project.

Hydrology and Water Quality

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since none of the Project elements would be developed such as additional groundwater pumping, the No Project Alternative would avoid potential impacts to hydrology and water quality associated with the Project. However, the County is proposing to increase groundwater pumping at the YCCL because the

existing groundwater extraction and treatment system is not completely effective at lowering groundwater under several of the closed landfill units and the Central Valley Water Quality Control Board (CVWQCB) has directed the County to address the issue. Therefore, the hydrology and water quality impacts of the Project and No Project Alternative would be approximately the same.

Noise

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since none of the Project elements would be developed, the No Project Alternative would avoid potential impacts to noise associated with the Project. Therefore, the No Project Alternative would have less noise impacts than the Project.

Transportation

Neither the Project nor the No Project Alternative would have significant impacts on transportation. Under the No Project Alternative, none of the Project elements would be developed and the YCCL's permitted daily tonnage would not be increased, thus there would be no increased vehicles trips. Therefore, the No Project Alternative would have less transportation impacts than the Project.

Public Services and Utilities

Under the No Project Alternative, none of the Project elements would be constructed at the YCCL and an Off-Site Borrow Area would not be developed in the future. Since none of the Project elements would be developed, the No Project Alternative would avoid potential impacts to public services and utilities associated with the Project. Therefore, the No Project Alternative would have less public services and utilities impacts than the Project.

Wildfire

Neither the Project nor the No Project Alternative would have significant impacts on wildfire. Therefore, the wildfire impacts of the Project and No Project Alternative would be approximately the same.

5.5 REDUCED TONNAGE ALTERNATIVE

5.5.1 REDUCED TONNAGE ALTERNATIVE DESCRIPTION

The Reduced Tonnage Alternative would include all the elements of the Project, except there would be a reduction in the increased daily permitted tonnage and the resulting increase in the facility's permitted traffic volume compared to the Project. Under the Reduced Tonnage Alternative, the County would expand the overall permitted tonnage for the YCCL to a monthly average of 1,800 tons per day with a daily peak of 2,400 tons per day, which would limit waste hauling vehicles to 1,253 vehicles per day.

The Reduced Tonnage Alternative could meet each of the Project objectives because all the Project elements would still be developed, but the Reduced Tonnage Alternative would be limited in increasing the County's ability to divert waste (including organics) from the landfill compared to the Project because the YCCL would have to reject loads that put daily totals above 2,400 tons per day (or the monthly average of 1,800 tons per day) or the permitted traffic volume of 1,253 vehicles per day.

5.5.2 ENVIRONMENTAL IMPACTS

Aesthetics

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the potential aesthetics impacts of the Project and Reduced Tonnage Alternative would be the same.

Land Use, Planning, and Agriculture

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the land use, planning, and agricultural impacts of the Project and Reduced Tonnage Alternative would be the same.

Air Quality

Under the Reduced Tonnage Alternative, all the Project elements would be constructed at the YCCL. Therefore, the potential air quality construction impacts of the Project and Reduced Tonnage Alternative would be the same.

Under the Reduced Tonnage Alternative, all the Project elements would be operational but the YCCL's permitted daily tonnage and permitted traffic volume would increase less compared to the Project, thus there would be decreased emissions from heavy trucks compared to the Project. Therefore, the Reduced Tonnage Alternative would have less air quality impacts related to operational activities than the Project.

Biological Resources

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the biological resource impacts of the Project and Reduced Tonnage Alternative would be the same.

Cultural and Tribal Resources

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the impacts to cultural and tribal resources impacts under the Project and Reduced Tonnage Alternative would be the same.

Energy

Neither the Project nor the Reduced Tonnage Alternative would have significant impacts on energy resources. Under the Reduced Tonnage Alternative, less petroleum fuels would be consumed since the YCCL's permitted daily tonnage and permitted traffic volume would be less compared than

under the Project. However, the Reduced Tonnage Alternative may not have the same beneficial impact as the Project from renewable energy generation because less feedstock would be available for Project elements that produce renewable energy compared to the Project. Therefore, the energy impacts of the Project and Reduced Tonnage Alternative would be approximately the same.

GHG Emissions

Neither the Project nor the Reduced Tonnage Alternative would have significant impacts on GHG emissions. Under the Reduced Tonnage Alternative, less GHG emissions would be generated since the YCCL's permitted daily tonnage and permitted traffic volume would be increased less compared to the Project. However, the Reduced Project Alternative may not have the same beneficial impact as the Project from renewable energy generation and increased organics diversion from landfills because less feedstock would be available for Project elements that produce renewable energy compared to the Project, and the YCCL would have to reject loads that exceed the Reduced Tonnage Alternatives limits. Therefore, the potential GHG emission impacts of the Project and Reduced Tonnage Alternative would be approximately the same.

Public Health and Safety

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the public health and safety impacts of the Project and Reduced Tonnage Alternative would be the same.

Geology, Soils, and Seismicity

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the geology, soils, and seismicity impacts of the Project and Reduced Tonnage Alternative would be the same.

Hydrology and Water Quality

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the hydrology and water quality impacts of the Project and Reduced Tonnage Alternative would be the same.

Noise

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Under the Reduced Tonnage Alternative, less heavy truck noise would be generated since the YCCL's permitted daily tonnage and permitted traffic volume would be increased less compared to the Project. Although the Reduced Tonnage Alternative would result in less heavy truck noise, all the Project elements would be developed including the Off-Site Borrow Area. Therefore, the potential noise impacts of the Project and Reduced Tonnage Alternative would be approximately the same.

Transportation

Neither the Project nor the Reduced Tonnage Alternative would have significant impacts on transportation. Under the Reduced Tonnage Alternative, the YCCL's permitted daily tonnage and

permitted traffic volume would be increased less compared to the Project. Therefore, the Reduced Tonnage Alternative would have less transportation impacts than the Project.

Public Services and Utilities

Under the Reduced Tonnage Alternative, all the Project elements would be developed. Therefore, the public services and utilities impacts of the Project and Reduced Tonnage Alternative would be the same.

Wildfire

Neither the Project nor the Reduced Tonnage Alternative would have significant impacts on wildfire. Therefore, the wildfire impacts of the Project and Reduced Tonnage Alternative would be approximately the same.

5.6 REDUCED FOOTPRINT ALTERNATIVE

5.6.1 REDUCED FOOTPRINT ALTERNATIVE DESCRIPTION

The Reduced Footprint Alternative would include most of the elements of the Project and there would be a reduction in the developmental footprint compared to the Project, specifically in the 41-acre north central area at the YCCL identified for future facility development (see **Figure 2-3**). Under the Reduced Footprint Alternative, the County would limit development in this area to 30 acres to avoid the potential wetland area to the northeast and limit potential impacts to biological resources. It is important to note that the north central area at the YCCL identified for future facility development was originally planned to be 80 acres, but the County reduced the footprint to 41-acres to avoid potential impacts to biological resources.

The Reduced Footprint Alternative could partially meet each of the Project objectives because most of the Project elements would likely still be developed. However, the Reduced Footprint Alternative would not meet each of the Project objectives as effectively as the Project because the Project elements proposed to be developed in the north central area at YCCL identified for future facility development (i.e., transfer station, waste gasification facility, organic waste fertilizer facility and wood pellet facility) would be unable to fit within a 30-acre area. Therefore, for the purposes of this alternatives analysis it is assumed that the organic waste fertilizer facility and wood pellet facility would not be developed under the Reduced Footprint Alternative.

5.6.2 ENVIRONMENTAL IMPACTS

Aesthetics

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed. Therefore, the Reduced Footprint Alternative would have less impacts to aesthetics than the Project.

Land Use, Planning, and Agriculture

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed. Since these facilities would be within the YCCL boundary under the Project, the potential land use, planning, and agricultural impacts of the Project and Reduced Footprint Alternative would be the same.

Air Quality

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed. Therefore, the potential air quality construction impacts from the Reduced Footprint Alternative would be less than the Project.

Under the Reduced Footprint Alternative, there would be less on-site mobile equipment required and the YCCL's permitted traffic volume would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project. Therefore, the potential air quality operational impacts of the from the Reduced Footprint Alternative would be less than the Project.

Biological Resources

Under the Reduced Footprint Alternative, the County would limit development in the north central area at the YCCL identified for future facility development to 30 acres to avoid the potential wetland area to the northeast and limit potential impacts to biological resources. Therefore, the Reduced Footprint Alternative would have less impacts to biological resources than the Project.

Cultural and Tribal Resources

Under the Reduced Tonnage Alternative, less ground disturbance would take place in the north central area at the YCCL identified for future facility development. Therefore, the Reduced Footprint Alternative would have less impacts to cultural and tribal resources than the Project.

Energy

Under the Reduced Footprint Alternative, there would be less on-site mobile equipment required and the YCCL's permitted traffic volume would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project. However, the energy benefits from producing fertilizer and wood pellets from organic and wood waste would be lost. Therefore, the potential energy impacts of the Reduced Footprint Alternative would be greater than the Project.

GHG Emissions

Under the Reduced Footprint Alternative, there would be less on-site mobile equipment required and the YCCL's permitted traffic volume would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project. However, the GHG emissions benefits from producing fertilizer and wood pellets from organic

and wood waste would be lost, and the Reduce Footprint Alternative would be less than consistent with the California Air Resource Board's (CARB's) 2017 Scoping Plan. Therefore, the potential GHG emission impacts of the Reduced Footprint Alternative would be greater than the Project.

Public Health and Safety

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed. Therefore, the potential public health and safety impacts of the Reduced Footprint Alternative would be less than the Project.

Geology, Soils, and Seismicity

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed, and ground disturbance would be slightly reduced compared to the Project. The slight reduction in ground disturbance would likely not lessen impacts to geology, soils, and seismicity. Therefore, the potential geology, soils, and seismicity impacts of the Project and Reduced Footprint Alternative would be approximately the same.

Hydrology and Water Quality

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed, and ground disturbance would be slightly reduced compared to the Project. The slight reduction in ground disturbance would not substantially reduce impacts to hydrology and water quality. Therefore, the potential hydrology and water quality impacts of the Project and Reduced Footprint Alternative would be approximately the same.

Noise

Under the Reduced Footprint Alternative, there would be less on-site mobile equipment required and the YCCL's permitted traffic volume would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project. Therefore, the potential noise impacts of the Reduced Footprint Alternative would be less than the Project.

Transportation

Under the Reduced Footprint Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed and the traffic volume at YCCL would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project. Therefore, the potential transportation impacts of the Reduced Footprint Alternative would be less than the Project.

Public Services and Utilities

Under the Reduced Tonnage Alternative, the organic waste fertilizer facility and wood pellet facility would not be developed. Therefore, the potential public services and utilities impacts of the Reduced Footprint Alternative would be less than the Project.

Wildfire

Neither the Project nor the Reduced Footprint Alternative would have significant impacts on wildfire. Therefore, the potential wildfire impacts of the Project and Reduced Footprint Alternative would be the same.

5.7 SUMMARY COMPARISON OF ALTERNATIVES

The relative impacts of the various Project alternatives (in comparison to the proposed Project) are shown in **Table 5-1**.

TABLE 5-1. PROJECT ALTERNATIVES COMPARISON

EIR Chapter/Project Impact	No Project Alternative	Reduced Tonnage Alternative	Reduced Footprint Alternative
Aesthetics	L	E	L
Land Use, Planning, and Agriculture	L	E	E
Air Quality	L	L	L
Biological Resources	L	E	L
Cultural and Tribal Resources	L	E	L
Energy	E	E	G
GHG Emissions	E	E	G
Public Health and Safety	L	E	L
Geology, Soils, and Seismicity	L	E	E
Hydrology and Water Quality	E	E	E
Noise	L	E	L
Transportation	L	L	L
Public Services and Utilities	L	E	L
Wildfire	E	E	E

KEY:
L = Less impact than the Project
E = Equal or similar impacts as the Project
G = Greater impact than the Project

SOURCE: RCH Group, 2021

Table 5-2 shows the ability of each alternative to achieve the Project objectives. As shown by the table, the No Project Alternative fails to meet the Project objectives. The Reduced Tonnage Alternative and Reduced Footprint Alternative meet or partially meet all the Project objectives. As described in the Project Description (Chapter 2) and in Section 5.2 of this Chapter, the Project objectives are as follows:

Objective 1. To decrease adverse environmental impacts of landfill development, operations, and final closure, and increase the environmental benefits that can be derived from certain aspects of existing YCCL operations.

Objective 2. To increase the County's ability to divert waste (including organics) from the landfill and continue to meet the state-mandated diversion goals provided in AB 1383, other state-mandates to reduce waste from landfill (AB 341) and reduce GHG emissions (AB 32).

Objective 3. To increase efficiency, diversify operations, and operate more economically.

Objective 4. To extend the overall site life of the existing YCCL through new operational methodologies.

TABLE 5-2. ALTERNATIVES ABILITY TO MEET PROJECT OBJECTIVES COMPARISON

Objectives	No Project Alternative	Reduced Tonnage Alternative	Reduced Footprint Alternative
Objective 1		✓	X
Objective 2		X	✓
Objective 3		✓	X
Objective 4		✓	X

KEY:
✓ = Alternative substantially achieves objective
X = Alternative partially achieves objective

SOURCE: RCH Group, 2021

5.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Reduced Tonnage Alternative and Reduced Footprint Alternative meets or partially meets all the Project objectives (as depicted in **Table 5-2**). The Reduced Tonnage Alternative only partially meets Objective 2 since it would limit the County's ability to divert waste (including organics) from the landfill compared to the Project and the YCCL would have to reject loads that put daily totals above the reduced tonnage limit. The Reduced Footprint Alternative only partially meets Objectives 1, 3, and 4 since not all the Project elements would be developed (the organic waste fertilizer facility and wood pellet facility would not be developed).

The Reduced Tonnage Alternative has no impacts that would be greater than the Project (as shown in **Table 5-1**). The Reduced Tonnage Alternative would result in less air quality and transportation impacts compared to the Project because of the reduced permitted tonnage increase and resulting permitted traffic volume increase.

The Reduced Footprint Alternative has energy and GHG emissions impacts that would be greater than the Project since the energy and GHG emissions benefits from the organic waste fertilizer facility and wood pellet facility would no longer be achieved The Reduced Footprint Alternative would result in less biological resources and potentially less cultural and tribal resources impacts because the County would limit development in the north central area at the YCCL identified for future facility development to 30 acres to avoid the potential wetland area to the northeast and limit potential impacts to biological resources. The Reduced Footprint Alternative would also result in less aesthetics, air quality, public health and safety,

noise, transportation, and public services and utilities impacts since the organic waste fertilizer facility and wood pellet facility would not be developed and the YCCL's permitted traffic volume would be slightly less (since outgoing haul trips carrying wood pellets and organic fertilizer would no longer be required) compared to the Project.

Since the Reduced Tonnage Alternative substantially meets Project Objectives 1, 3 and 4 and partially meets Objective 2, while reducing impacts to air quality and transportation and having no impacts greater than the Project, the Reduced Tonnage Alternative is the environmentally superior alternative. However, the proposed Project meets all the objectives and could accept additional loads for processing (above the limit of the Reduced Tonnage Alternative).

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