6 ALTERNATIVES

6.1 ALTERNATIVES TO THE PROPOSED PROJECT

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires environmental impact reports (EIRs) to describe "… a range of reasonable alternatives to the project, or to the location of the project, which 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, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." (See also CEQA Guidelines Section 15126.6[f].) This section of the CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis, as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]). The State CEQA Guidelines further require that the "no project" alternative be considered (CEQA Guidelines Section 15126.6[e]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CEQA Guidelines Section 15126.6(f)(1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the Solano County (County) (See Public Resources Code Section 21081[a][3].)

6.1.1 Project Objectives

In determining what alternatives should be considered in the Subsequent Environmental Impact Report (SEIR), the objectives of the project must be considered, as attainment of most of the basic objectives forms one of the tests of

whether an alternative is feasible (see discussion above). The following project objectives have been identified for the project, as previously described (see Chapter 3, "Project Description"):

- increase the RHR Landfill's disposal capacity by approximately 8.8 million cubic yards;
- maximize daily tonnage to the RHR Landfill, while providing at least 15 years of estimated disposal capacity at the RHR Landfill;
- extend the estimated RHR Landfill life by at least 5 years compared to future conditions under which the RHR Landfill's disposal capacity is not increased;
- extend the ability of JPO to compost Solano County organics by at least 4 years compared to future conditions under which the RHR Landfill's disposal capacity is not increased;
- correct the permitted RHR Landfill boundary to reflect existing conditions at the site;
- allow the RHR Landfill more flexibility in how it balances high-volume and low-volume days;
- achieve higher solid waste diversion at RHR with better sorting of construction and demolition materials;
- account for changing market conditions for recyclable commodities while avoiding disposal;
- allow for the continued disposal of friable asbestos in Solano County past the filling and closure of the existing permitted monofill (DM-1), projected to be 2021; and
- provide adequate soil cover for the landfill and avoid the import of soil.

6.1.2 Summary of Project Impacts

The Executive Summary chapter (Chapter 2) of this SEIR presents a detailed summary of the potential environmental impacts of implementation of the project. Please refer to Table 2-1 for a summary of impacts associated with development of the project. All impacts associated with the proposed project would be reduced to less-than-significant levels with mitigation, except for cumulatively considerable contributions to significant and unavoidable transportation impacts at the intersections of State Route (SR) 12/SR 113 and SR 113/Midway Road and along Midway Road (see Chapter 5, "Cumulative Impacts").

6.1.3 Alternatives Considered, but not Analyzed in Detail

State CEQA Guidelines Section 15126.6(c) provides the following guidance in selecting a range of reasonable alternatives for the project. The range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

Because of the nature of the project (i.e., expansion of disposal area at an existing landfill, revisions to the existing tonnage limitations to allow for additional throughput, and modifications to internal operations), alternatives that attain most of the project objectives are limited. The Recology Hay Road (RHR) Landfill has been operating continuously since 1964 and has extensive solid waste disposal and landfill control facilities and infrastructure such as monitoring and control systems (e.g., groundwater, landfill gas, leachate), storm water retention ponds, flood control berms, groundwater dewatering facilities, and materials handling and processing areas; therefore, alternative sites for the project are limited. In addition, alternative uses of the project site that do not involve waste disposal are infeasible because of the substantial infrastructure and inactive disposal areas already in place. Further, alternatives are intended to reduce significant environmental impacts. As noted above, the project would result in one significant and unavoidable impact with respect to cumulative transportation conditions. These factors were considered in this analysis, which ultimately resulted in elimination of the following alternatives from further consideration in this Draft SEIR.

OFFSITE ALTERNATIVE – NEW FACILITY

In determining whether alternative locations for the project need to be considered in an EIR, State CEQA Guidelines Section 15126.6(f)(2)(A) states that only locations that would feasibly avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. In addition, Section 15126.6(f)(2)(B) of the Guidelines provides that if the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include the reasons in the EIR. With respect to assessing the feasibility of alternatives, State CEQA Guidelines Section 15126.6(f)(1) provides that the following factors may be taken into account: site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the project proponent).

Consideration of potential offsite locations for the proposed project is limited to the project region because a primary objective of the project is to provide long-term solid waste disposal capacity to existing RHR Landfill customers (i.e., primarily located in Solano County as well as the San Francisco Bay Area and the Sacramento Valley). The EIR approved in 1993 for expansion of the RHR Landfill evaluated four offsite alternative locations at existing landfills within 62 miles of the RHR Landfill (i.e. Portrero Hills, Clover Flat, Keller Canyon, and Redwood Sanitary Landfills). The 1993 EIR determined that the offsite alternatives would have greater impacts than expansion of the existing landfill because of the additional vehicle miles travelled for RHR Landfill customers to get to these alternative sites would add to traffic congestion and air quality impacts, and could potentially increase adverse litter and noise effects. In addition, the EIR determined there would be a regional net loss in landfill capacity and a lower landfill life at individual alternative sites because of increased utilization of landfill capacity.

In addition, the only significant and unavoidable impact associated with the proposed project would be increases in delay at intersections which are projected to operate at unacceptable levels under Cumulative No Project conditions (i.e., SR 113/Midway Road and SR 12/SR 113), It is unlikely that construction of a new landfill facility at a new location would avoid the significant and unavoidable traffic impact on intersection level of service because construction of a new facility would require substantially more construction trips compared to expansion of an existing facility, and operation of a new facility of similar capacity to the proposed project would likely have similar long-term impacts on the transportation network. (Offsite alternatives could also logically include expansion of a different landfill in the region. For purposes of this analysis, "offsite alternative" would be a new solid waste disposal facility. Routing RHR Landfill customers to another existing landfill owned by Recology is considered in the range of reasonable alternatives assessed below).

Construction of a new facility also has a higher potential to have a greater effect on air quality and GHG emissions; biological resources; cultural resources; geology, soils, and mineral resources; hazards and hazardous materials; hydrology and water quality; land use and agriculture resources; noise; traffic and transportation; visual resources; and utilities. Development of a new landfill on a previously undeveloped site would require far more construction than expansion of an existing site and there is greater potential for disturbance of resources with undeveloped sites. Although this alternative may reduce localized impacts associated with the currently proposed project, it would result in greater impacts to numerous resource areas compared to the proposed project; would be substantially more costly to conduct siting studies and constraints analyses, purchase property, and to construct another landfill; and may require condemnation of land. Construction of a new landfill also has a higher potential for issues related to land use compatibility. This alternative would be costly, would not minimize the net fiscal effects on rate payers and taxpayers, and would not conserve resources while providing a reasonable level of solid waste disposal. Therefore, this alternative is eliminated from further consideration in this SEIR.

ALTERNATIVE TECHNOLOGY ALTERNATIVE

To handle additional waste disposal needs, Recology also considered alternative means of reducing waste disposed of within RHR Landfill. The use of alternative technologies, such as thermal conversion, is one method of reducing the need for additional waste disposal capacity that was considered. Thermal conversion technologies use high temperatures to convert waste into ash, flue gas (i.e., combustion exhaust gas), and heat. Facilities that use this

technology may also include scrubbers and filters that clean flue gas and reduce pollution emissions; however, these facilities still produce some heavy metal and dioxin emissions and toxic fly ash that must be disposed of properly in a Class I landfill. This alternative may also result in additional traffic and air quality impacts beyond those identified for the project evaluated as part of this SEIR during construction of alternative technology infrastructure onsite and then transporting of ash to a Class I landfill. In addition, implementation of alternative technologies would result in additional time, costs, and permitting requirements associated with updating the landfill infrastructure to accommodate the new technologies. Because of the additional costs and permitting required for this alternative, it is considered infeasible. As a result, this alternative was eliminated from further consideration in this SEIR.

6.1.4 Alternatives Evaluated in this SEIR

Alternatives evaluated in this SEIR are:

- Alternative 1: No Project;
- Alternative 2: Vertical Expansion Alternative; and
- Alternative 3: Recology Ostrom Road (ROR) Expansion Alternative.

The rationale for selection of these alternatives is provided below.

ALTERNATIVE 1: NO PROJECT

CEQA Guidelines Section 15126.6(e)(1) requires that the no project alternative be described and analyzed "to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project." The no project analysis is required to discuss "the existing conditions at the time the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (Section 15126.6[e][2]). "If the project is…a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the RHR property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment" (Section 15126[e][3][B]).

Under the No Project Alternative, no amendments to the existing RHR Landfill land use permit (LUP) and other permits would be made and current conditions would continue until the landfill reaches capacity. Once the site reaches capacity, the landfill would be closed in accordance with closure and monitoring procedures and groundwater and LFG would continue to be monitored. All structures unrelated to ongoing monitoring of the site would be removed. Alternative uses of the site would not be practical as it is dedicated as a long-term waste disposal site, and there are currently several inactive disposal areas within the site that would not be suitable for any other use. Therefore, the No Project Alternative reasonably assumes no additional facilities would be constructed on the project site. Once the existing landfill reaches capacity, other regional options would need to be in place to meet the waste disposal needs for Solano County and other RHR customers in the region. Potential options could include transporting the waste to a disposal site outside of the county, construction of a new landfill (as evaluated above), or expansion of an existing landfill (as evaluated below as Alternative 3). Implementation of this alternative would avoid the impacts associated with the proposed project, but would not meet the need for long-term solid waste disposal capacity in Solano County and the region, would not minimize the net fiscal effects on rate payers and taxpayers, and would not conserve resources while providing a reasonable level of solid waste disposal. Therefore, this alternative would not realize any of the basic objectives of the project.

ALTERNATIVE 2: VERTICAL EXPANSION ALTERNATIVE

Alternative 2 would involve an increase in the allowable height limit of the existing landfill as part of the amended CUP to the maximum feasible height (260 feet above ground surface) from a grading perspective (shown in Figure 6-1). A summary of the increased total disposal capacity and landfill life for Alternative 2 compared to the proposed project is shown in Table 6-1. This alternative would result in no lateral expansion of the landfill into the Triangle and no increase to existing tonnage limit of 2,400 tons per day (tpd). As a result, deepening and widening of the borrow pit and installation of an additional flare would not be required under this alternative. However, improvements to existing C&D operations, as well as temporary storage of recyclable bales would occur under this alternative. While this alternative would result in an expansion in the overall solid waste disposal capacity of the landfill, the expansion would accommodate approximately 7,721,700 cy less than that of the proposed project. The smaller increase in disposal capacity under Alternative 2 would result in an estimated closure date extension of approximately 1.5 years versus a date extension of at least five years that would likely occur under the proposed project.

Table 6-1 Alternative 2 Compared to Proposed Project

	Increase In Gross Disposal Capacity[1]	Approximation of Additional Life of Landfill with Existing Tonnage Limit of 2,400 tpd[2]
Alternative 2	1,119,100 cy	1.5 years
Proposed Project	8,840,800 cy	at least 5 years

Notes: Tpd = tons per day; cy = cubic yards

[1] Includes volume of waste disposed, daily and intermediate cover utilized, and final cover soils placed.

[2] Current fill rate based on annual tonnage received in 2017-18 with a 1.9% growth rate as of 6/30/18. Includes San Francisco waste stream until January 2026.

Source: Golder 2018; adapted by Ascent 2019

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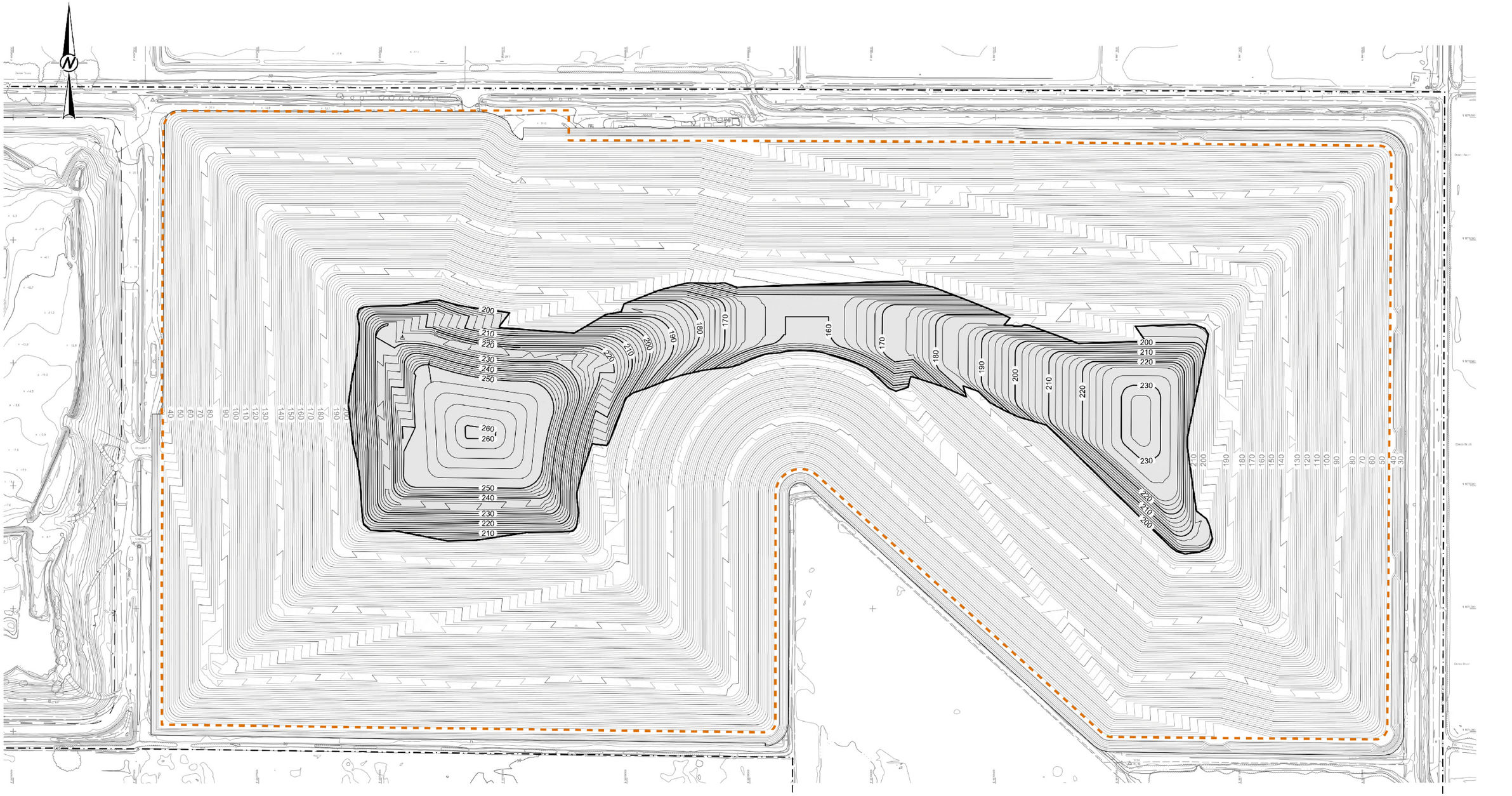

NOTE(S)

1. TOPOGRAPHIC MAP PROVIDED BY TETRA TECH. DATE OF TOPOGRAPHY: MARCH 27, 2018.

Source: Image prepared by Golder Associates Inc. in 2019

Figure 6-1 Alternative 2 Final Grading Plan

ALTERNATIVE 3: RECOLOGY OSTROM ROAD LANDFILL EXPANSION ALTERNATIVE

Under Alternative 3, expansion in disposal capacity would occur at the Recology Ostrom Road (ROR) Landfill instead of expanding disposal capacity at RHR Landfill. ROR is a Class II Landfill and the only other landfill owned and operated by Recology. Located in southern Yuba County (5900 Ostrom Rd, Wheatland, CA), the ROR Landfill is approximately 76 miles northeast of RHR Landfill and provides solid waste disposal services to both municipal and commercial customers in the northern Sacramento Valley including Yuba, Sutter, Butte, Nevada, and Colusa Counties. The facility has been in operation since 1995, and to date, approximately 70 acres out of a total landfill development of 225 acres has been constructed and approved for operation (CRWQCB 2018: 2). The facility's maximum permitted capacity is 43,467,231 cubic yards (CY) and maximum permitted throughput is 3,000 tons per day (CalRecycle 2007). With a remaining capacity of 24,395,000 tons as of June 2016, ROR Landfill is estimated to reach capacity by 2102 (CVRWQCB 2018:2). Expansion of an existing waste disposal facility would have fewer impacts than construction of a new site, and as discussed above, other offsite alternatives were determined to be infeasible. To meet long-term, regional solid waste disposal needs, the projected additional solid waste capacity necessary for RHR customers (i.e., 8.8 million cubic yards) would be provided at ROR Landfill for disposal instead of through the expansion of existing disposal capacity at RHR Landfill. Under this alternative, a similar lateral expansion of ROR Landfill would occur. Additionally, vehicles carrying solid waste coming from the Bay Area would travel an additional 152 miles per round trip to reach the ROR Landfill. Assuming that only transfer and packer trucks associated with the projected increase in vehicle trips under the proposed project would travel to the ROR Landfill instead of the RHR Landfill, up to 114 vehicles per day (refer to Table 4.11-6 of Section 4.11, 'Transportation') would travel the additional 152 miles, resulting in a net increase of 17,328 vehicle miles per day under this alternative, compared to the proposed project. However, no expansion of operations or potential increase in the number of vehicles travelling to and from the landfill per day would occur at the RHR Landfill under this alternative.

6.1.5 Evaluation of Alternatives

ALTERNATIVE 1: NO PROJECT

Aesthetics

Under the No Project Alternative, the landfill would not be expanded to increase the current long-term capacity. Operations would continue in a manner similar to existing conditions until the landfill reaches capacity. Under the No Project Alternative, the potentially significant effects of the proposed project related to litter control would not occur. Mitigation is available to reduce this impact to a less-than-significant level; however, overall, the potential for windblown litter under No Project Alternative would be less than the project. (*Less*)

Air Quality

Under the No Project Alternative, the landfill capacity at the project site would not be expanded, no operational changes would occur, and the CUP and other permits would not be amended to increase capacity at the landfill. This alternative would avoid the project's construction and operational impacts associated with the expanded capacity. The existing landfill, under this alternative, would continue to comply with applicable Yolo-Solano Air Quality Management District (YSAQMD), Bay Area Air Quality Management District (BAAQMD), and California Air Resources Board (CARB) regulations. Therefore, the No Project Alternative would have a lesser overall impact on air quality, as compared to the proposed project. *(Less)*

Archaeological, Historical, and Tribal Cultural Resources

Under the No Project Alternative, no construction-related ground disturbing activities would occur within the project site and the existing footprint of the landfill would not change. Under the No Project Alternative, the potentially significant effects of the proposed project on previously undiscovered subsurface unique archaeological resources and unknown tribal cultural resources would not occur. Mitigation is available to reduce these impacts to a less-than-

significant level; however, overall, archaeological and tribal cultural resource impacts under No Project Alternative would be less than the project. *(Less)*

Biological Resources

Under the No Project Alternative, the footprint of the existing permitted landfill would not be expanded into the Triangle area, and the landfill would continue to operate in a manner similar to existing conditions. Under the No Project Alternative, the potentially significant effects associated with project implementation on special-status plants; California tiger salamander; giant garter snake; burrowing owl; California black rail; northern harrier; Swainson's hawk; tricolored blackbird; white-tailed kite; other nesting birds; special-status branchiopods; Delta green ground beetle; wetlands; vernal pools; and other waters of the United States and State would not occur. Additionally, potential conflicts with Solano County General Plan policies would also not occur because conversion of vernal pool habitat within an area identified as a high-priority habitat area by the County would not occur (Solano County 2008: RS-15). As noted in Section 4.3, "Biological Resources," mitigation is available to reduce project-related impacts to a less-than-significant level. However, impacts to sensitive biological resources would be avoided altogether and would be less with implementation of the No Project Alternative compared to the proposed project. *(Less)*

Energy

Under the No Project Alternative, solid waste disposal would continue at the RHR Landfill within the limits of the existing CUP. Under this alternative, the daily tonnage limit would remain the same, and there would be less fuel consumption associated with landfill operations compared to the project. On-site operations would not change compared to existing conditions, and no on-site construction would occur. As described in Section 4.4, "Energy," the project's energy use impact would be less than significant as it would not result in inefficient, wasteful, and unnecessary consumption of energy. Under the No Project Alternative, energy impacts would also be less than significant but of lesser magnitude because of the lesser fuel consumption associated with solid waste hauling. (*Less*)

Geology, Soils, Mineral, and Paleontological Resources

Under this alternative, no expansion of the landfill would occur, and existing onsite operations would continue, similar to existing conditions and within the limits of the existing CUP. The potential for the proposed project to uncover previously unknown paleontological resources during ground-disturbing construction activities would be avoided under this alternative. Although the proposed project would have a less-than-significant impact on geology, soils, and mineral resources with mitigation, these impacts would be avoided under the No Project Alternative. Therefore, overall, the No Project Alternative would result in less of an impact to geology, soils, minerals, and paleontological resources compared to the project. *(Less)*

Greenhouse Gas Emissions

Under the No Project Alternative, the landfill capacity at the project site would not be expanded, no operational changes or construction would occur, and the CUP and other permits would not be amended to increase capacity at the landfill. This alternative would avoid the project's construction and operational impacts associated with the expanded capacity and climate change. Although the proposed project would have a less-than-significant impact on GHG emissions, impacts would be avoided under the No Project Alternative Therefore, the No Project Alternative would have a lesser overall impact on GHG emissions, as compared to the proposed project. *(Less)*

Hazards and Hazardous Materials

Under this alternative, no construction and/or additional operational activities related to landfill expansion would occur, and existing operations at the RHR Landfill would be similar to existing conditions. Although the impacts of the proposed project on hazards and hazardous materials would be less than significant, these impacts would be avoided altogether under the No Project Alternative. Therefore, impacts of the No Project Alternative on hazards and hazardous materials would be less than the proposed project. *(Less)*

Hydrology and Water Quality

Under the No Project Alternative, potential impacts of the proposed project on hydrology and water quality, including groundwater, would be avoided, and stormwater from operation of the landfill would continue to be captured within the limits of the existing disposal area. Although the impacts of the proposed project on hydrology and water quality would be less than significant with mitigation, these impacts would be avoided under the No Project Alternative. Therefore, impacts of the No Project Alternative on hydrology and water quality would be less than the proposed project. (*Less*)

Noise

Under this alternative, the proposed project would not be implemented, and existing onsite operations would continue similar to existing conditions. The proposed project would have less-than-significant impacts on noise; however, these impacts would be avoided under the No Project Alternative. Therefore, overall, the No Project Alternative would result in less of an impact on noise than the project. *(Less)*

Transportation

Under the No Project Alternative, RHR Landfill would not be expanded and the CUP would not be amended. Therefore, the considerable contribution to significant and unavoidable cumulative intersection (i.e., SR 113/Midway Road and SR 12/SR 113) and roadway segment (i.e., Midway Road between I-80 and Porter Road) operations impacts associated with the proposed project at local transportation facilities would be avoided. As a result, impacts associated with this alternative would be less than the proposed project. *(Less*)

ALTERNATIVE 2: VERTICAL EXPANSION ALTERNATIVE

Aesthetics

Alternative 2 would replace the proposed lateral landfill expansion with an increase to the vertical height of the existing landfill to the maximum that is feasible from a grading perspective. Under this alternative, the maximum height of the landfill would be 260 feet above ground surface (abs) (see Figure 6-1). Similar to the proposed project, there would be no increase in nighttime lighting. Under Alternative 2, the Triangle area would remain undeveloped and the height of the existing landfill disposal area would be increased by 30 feet abs to a maximum of 90 feet abs from the proposed final grade. Under the proposed project, maximum height of the landfill would be 170 feet abs at final grade. However, most views of landfill operations to motorists driving along the eastern portion of Hay Road and SR 113 are partially screened or obstructed because of steep terrain surrounding the landfill boundary and the landfill modules appear as rolling hills against the background of the Vaca Mountain range. It would be anticipated that the height increase would be noticeable to motorists but would blend in with steep terrain surrounding the landfill and the mountain range in the background. Under Alternative 2, the potentially significant effects of the proposed project related to control of windblown litter from the landfill would likely be greater due to the increased height of the landfill. Mitigation is available to reduce these impacts to a less-than-significant level; however, overall, litter under Alternative 2 would be greater due to the increased height. Visual impacts would be less than significant with the proposed project, but would be greater because of the increased visibility and landfill height associated with Alternative 2. (*Greater*)

Air Quality

The primary difference between Alternative 2 and the proposed project is that a vertical expansion would replace the proposed lateral expansion and a much smaller increase in disposal capacity and shorter expansion of landfill life would occur. The existing landfill, under this alternative, would continue to comply with applicable Yolo-Solano Air Quality Management District (YSAQMD), Bay Area Air Quality Management District (BAAQMD), and California Air Resources Board (CARB) regulations. Because lateral expansion would not occur under this alternative, construction-related air quality impacts are expected to be less than the proposed project. The reduced disposal capacity under this alternative would result in the landfill reaching capacity sooner than under the proposed project. Therefore, long-term operational impacts associated with air quality would be less under this alternative because there would be

fewer vehicle trips and less waste producing LFG. Overall, the impacts of Alternative 2 on air quality would be less than the proposed project. *(Less*)

Archaeological, Historical, and Tribal Cultural Resources

The potentially significant effects of the proposed project on previously undiscovered subsurface unique archaeological resources and unknown tribal cultural resources would be less under Alternative 2 because no ground-disturbing activities associated with development of the Triangle and installation of an additional flare. Mitigation is available to reduce these impacts to a less-than-significant level under the proposed project. Overall, impacts related to archaeological, historical, and tribal cultural resources would be less than the proposed project. (*Less*)

Biological Resources

Replacing the proposed lateral landfill expansion with an increase to the vertical height of the existing landfill under Alternative 2 would result in no disturbance of habitat located within the Triangle area. Therefore, the potentially significant effects of the proposed project on special-status plants; California tiger salamander; giant garter snake; burrowing owl; California black rail; northern harrier; Swainson's hawk; tricolored blackbird; white-tailed kite; other nesting birds; special-status branchiopods; Delta green ground beetle; wetlands; vernal pools; and other waters of the United States and State would not occur. Mitigation is available to reduce these impacts to a less-than-significant level; however, overall, impacts to sensitive biological resources would be less or eliminated under the Lateral Expansion Alternative. In addition, the magnitude and types of construction activities would be less under Alternative 2 because expansion onto undeveloped land within the Triangle would not occur. Overall, impacts to biological resources under Alternative 2 are expected to be less compared to the proposed project. *(Less)*

Energy

The Vertical Expansion Alternative would result in no development of the Triangle area or increase to existing tonnage limits at the landfill. This alternative would have a less-than-significant energy impact as it would result in less new development that could result in wasteful, inefficient, or unnecessary consumption of energy. Compared to the proposed project, Alternative 2 would result in in less fuel consumption associated with the use of construction equipment and vehicles travelling to and from the landfill. As described in Section 4.4, "Energy," the project's energy use impact would be less than significant as it would not result in inefficient, wasteful, and unnecessary consumption of energy. Relative to the proposed project, impacts would be of lesser magnitude under the Vertical Expansion Alternative because fewer construction activities and truck trips would result in less new use of energy. (*Less*)

Geology, Soils, Mineral, and Paleontological Resources

Alternative 2 would replace the proposed lateral landfill expansion with an increase to the vertical height of the existing landfill and no installation of an additional flare would occur. The potential for the proposed project to uncover previously unknown paleontological resources during ground-disturbing construction activities would be avoided under this alternative because no ground-disturbing construction activities would occur under Alternative 2. Although the proposed project would have a less-than-significant impact on geology, soils, and mineral resources, these impacts would be avoided under Alternative 2. Therefore, overall, the Vertical Expansion Alternative would result in less impacts to geology, soils, minerals, and paleontological resources compared to the project. (*Less*)

Greenhouse Gas Emissions

The primary difference between Alternative 2 and the proposed project is that a vertical expansion would replace the proposed lateral expansion and a much smaller increase in disposal capacity and shorter expansion of landfill life would occur. Because lateral expansion would not occur under this alternative, fewer construction-related GHG emissions would be generated compared to the proposed project. The reduced disposal capacity under this alternative would result in the landfill reaching capacity sooner than under the proposed project. Therefore, long-term operational impacts associated with GHG emissions would be less because there would be fewer landfill-generated methane and mobile source emissions compared to the proposed project. Overall, the impacts of Alternative 2 on GHG emissions would be less than the proposed project. *(Less*)

Hazards and Hazardous Materials

Under this alternative, no construction and operation related to lateral landfill expansion on undeveloped land would occur, less LFG would be produced due to a smaller landfill expansion, and existing operations at RHR Landfill would be similar to existing conditions. Although the impacts of the proposed project on hazards and hazardous materials would be less than significant, impacts of the Vertical Expansion Alternative on hazards and hazardous materials would be less than the proposed project. (*Less*)

Hydrology and Water Quality

Under Alternative 2, deepening and widening of the existing borrow pit and expansion of the landfill into the triangle area would not occur. Therefore, potential impacts of the proposed project on hydrology, water quality, and groundwater would be less compared to the proposed project, and stormwater from operation of the existing landfill footprint would continue to be captured and monitored onsite. Although the impacts of the proposed project on hydrology, water quality, and groundwater would be less than significant with mitigation, these impacts would be avoided under Alternative 2. Therefore, overall, the Vertical Expansion Alternative would result in less of an impact to hydrology, water quality, and groundwater compared to the project. (*Less*)

Noise

Under this alternative, the proposed project would be reduced and existing onsite operations would continue similar to existing conditions. The proposed project would have less-than-significant impacts on noise; however, these impacts would be less under Alternative 2. Therefore, overall, the Vertical Expansion Alternative would result in less of an impact on noise than the project. (*Less*)

Transportation

Under the Lateral Expansion Alternative, the life of the landfill would increase but no increase under the CUP's existing tonnage limit of 2,400 tpd would occur. Therefore, the considerable contribution to significant and unavoidable cumulative intersection (i.e., SR 113/Midway Road and SR 12/SR 113) and roadway segment (i.e., Midway Road between I-80 and Porter Road) operations impacts associated with the proposed project would be avoided. The overall impacts of the Lateral Expansion Alternative related to transportation would be less than the proposed project. (*Less*)

ALTERNATIVE 3: RECOLOGY OSTROM ROAD LANDFILL EXPANSION ALTERNATIVE

Aesthetics

Alternative 3 would include expansion of the existing ROR Landfill instead of RHR Landfill. Surrounding land uses in the area include agriculture to the east, a rural residential home approximately one mile from the site, Beale AFB to the north, and a wetlands mitigation bank at Best Slough. Similar to the project, sensitive receptors with views of ROR Landfill include one residential home a mile from the site, and are similar to those with views of RHR Landfill, and would likely result in similar visual impacts as the proposed project. Unlike the RHR Landfill site, expansion of the ROR Landfill would not be visible from a scenic highway. Visual impacts would be less than significant with the proposed project; however, visual impacts would be less under Alternative 3 because a scenic highway is not located in the vicinity of the ROR Landfill. Under Alternative 3, the potentially significant effects of the proposed project related to windblown litter would likely be similar. Mitigation is available to reduce this impact to a less-than-significant level; however, overall, litter control under Alternative 3 would be similar. (*Similar*)

Air Quality

Because Alternative 3 would require construction of a similar disposal expansion footprint to the proposed project; construction under this alternative would likely be similar. Long-term operational impacts to air quality and emissions related to LFG are expected to be similar under the proposed project and Alternative 3 because the additional volume of waste accommodated by ROR Landfill would be the same as the project. However, ROR Landfill is located in in Yolo County and transporting waste from RHR Landfill customers (i.e., Solano County, San Francisco Bay Area, and Sacramento Valley) would result in a farther distance than under the proposed project. The additional miles

travelled compared to the proposed project would result in additional operational emissions related to truck trips. Although mitigation is available to reduce these impacts, Alternative 3 would have a greater overall impact on air quality compared to the proposed project. *(Greater)*

Archaeological, Historical, and Tribal Cultural Resources

The potentially significant effects of the proposed project on previously undiscovered subsurface unique archaeological resources and unknown tribal cultural resources would be similar under Alternative 3 because this alternative would result in similar expansion and ground-disturbing activities. Mitigation is available to reduce these impacts to a less-than-significant level. Under Alternative 3, it is considered likely that similar mitigation measures would be required at the ROR Landfill, and overall impacts related to archaeological, historical, and tribal cultural resources are anticipated to be similar to the proposed project. *(Similar)*

Biological Resources

Alternative 3 would include expansion of an existing facility and operations similar to the proposed project. The ROR Landfill is also surrounded by sensitive habitats (ex., vernal pools) that are similar to the RHR Property. Therefore, landfill expansion at the ROR Landfill could result in similar impacts to the project related to development of undisturbed sensitive habitat. Although mitigation is available to reduce these impacts, Alternative 3 may result in a similar overall impact on biological resources compared to the proposed project. *(Similar)*

Energy

Similar to the project, Alternative 3 would have a less-than-significant energy impact as it would not result in new development that could result in wasteful, inefficient, or unnecessary consumption of energy. Construction of Alternative 3 would result in similar fuel consumption associated with the use of construction equipment and construction vehicles travelling to and from the landfill. The project's energy use impacts would be less than significant. However, operation of Alternative 3 would result in greater fuel consumption than the proposed project because transporting waste from RHR Landfill customers (i.e., Solano County, San Francisco Bay Area, and Sacramento Valley) to the ROR Landfill would result in a farther distance for trucks to travel to and from the landfill. Relative to the project, fuel consumption from operations would be higher under the ROR Landfill Expansion Alternative. (*Greater*)

Geology, Soils, Mineral, and Paleontological Resources

Similar to the project, impacts on geology, soils, and mineral resources under Alternative 3 are anticipated to be less-than-significant through compliance with existing regulations. According to the Yuba County 2030 General Plan EIR, no paleontological resources have been previously identified in the County. Therefore, the potential for Alternative 3 to result in uncovering previously unknown paleontological resources would be less than the proposed project. *(Less)*

Greenhouse Gas Emissions

Because Alternative 3 would require construction of a similar disposal expansion footprint to the proposed project, similar construction-related GHG emissions would be generated. Because the additional volume of waste accommodated by ROR Landfill would be the same as the proposed project, long-term operational impacts would produce a similar amount of landfill-generated methane and mobile source emissions. However, ROR Landfill is located in in Yolo County and transporting waste from RHR Landfill customers (i.e., Solano County, San Francisco Bay Area, and Sacramento Valley) to the ROR would result in a farther distance than the proposed project. The additional miles travelled compared to the proposed project would result in additional operational-related emissions related to truck trips. Therefore, Alternative 3 would result in a greater overall impact related to operational-related GHG emissions compared to the proposed project. *(Greater)*

Hazards and Hazardous Materials

Impacts on hazards and hazardous materials are expected to be similar under Alternative 3 because the footprint of ROR Landfill would need to be expanded, which could result in similar hazards during construction. Operations under Alternative 3 would be similar to the proposed project. Therefore, hazards associated with operation of Alternative 3

are expected to be similar to the proposed project. The proposed project would have a less-than-significant impact related to hazards and hazardous materials through compliance with existing regulations. Overall, impacts related to hazards and hazardous materials under Alternative 3 would be similar to the proposed project. *(Similar)*

Hydrology and Water Quality

Impacts on hydrology and water quality are expected to be similar under Alternative 3 because the footprint of ROR Landfill would be similarly expanded, which could result in a negligible increase in impervious surfaces across the site. Similar to the project, the surface water management system under this alternative would be required to handle a minimum 100-year, 24 hour storm event such that any additional runoff generated onsite would be retained at the landfill property and no offsite flooding or potential capacity exceedances of existing or planned storm drains would occur. Similar to the proposed project, this alternative would require Recology to control onsite stormwater and protect water quality through implementation of a SWPPP and associated BMPs, as required by federal and State regulations. Design of the new disposal expansion area and associated liner would also be required to comply with federal and State regulations regarding water quality, similar to the project. It is possible that deepening and widening of the existing borrow pit at the ROR Landfill would be necessary under Alternative 3; however, similar to the project, it is anticipated that implementation of this alternative would not require groundwater supplies in excess of current demands for dust control. Overall, groundwater impacts and hydrology and water quality impacts associated with operation of Alternative 3 are expected to be similar to the proposed project through required compliance with existing regulations and mitigation. *(Similar)*

Noise

Both the ROR and RHR facilities are located approximately one mile from the nearest residence. Under Alternative 3, construction and operations would likely be similar to the proposed project. The proposed project would result in less-than-significant impacts related to noise. Overall, impacts of the ROR Expansion Alternative on noise would be similar to the proposed project. (*Similar*)

Transportation

Construction-related traffic under Alternative 3 would be similar to the proposed project. No expansion of disposal capacity at RHR Landfill would occur under Alternative 3. Therefore, the considerable contribution to significant and unavoidable cumulative intersection (i.e., SR 113/Midway Road and SR 12/SR 113) and roadway segment (i.e., Midway Road between I-80 and Porter Road) operations impacts associated with the proposed project would be avoided. However, waste from RHR Landfill customers would be transported to the more distant landfill facility once the RHR Landfill reaches capacity under the existing CUP. Therefore, long-term transportation impacts could be greater than those caused by the project. Although this alternative would avoid significant localized traffic impacts associated with the project, it could create or exacerbate localized traffic impacts near ROR. Therefore, overall transportation impacts of the ROR Landfill Expansion Alternative would be greater than the proposed project. (*Greater*)

6.1.1 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6 suggests that an EIR should identify the "environmentally superior" alternative. "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Table 6-2 provides a tabular comparison of the three alternatives evaluated in this chapter in contrast to the proposed project.

The No Project Alternative would avoid the localized significant environmental impact associated with the proposed project and the other "build" alternatives. However, if the project or a similar expansion of RHR Landfill is not undertaken, an alternative location for solid waste disposal in the region would be necessary. As noted above, the RHR Landfill represents one of the closer regional landfills to the Bay Area. An alternative solid waste disposal location would likely be farther away, and require longer haul truck trips, which would result in a greater overall impact on air quality, GHG emissions, and transportation within the region. In addition, the No Project Alternative would not meet the need for long-term solid waste disposal capacity in Solano County and elsewhere in the region,

would not minimize the net fiscal effects on rate payers and taxpayers, and would not conserve resources while providing a reasonable level of solid waste disposal. Therefore, this alternative would not realize the basic objectives of the project.

Table 6-2 Comparison of the Environmental Impacts of the Alternatives in Relation to the Proposed Project

Resource Area	Proposed Project	Alternative 1: No Project	Alternative 2: Vertical Expansion Alternative	Alternative 3: ROR Expansion Alternative
Aesthetics	Less than Significant	Less	Greater	Similar
Air Quality and Greenhouse Gas Emissions	Less than Significant	Less	Less	Greater
Archaeological, Historic, and Tribal Cultural Resources	Less than Significant	Less	Less	Similar
Biological Resources	Less than Significant	Less	Less	Similar
Energy	Less than Significant	Less	Less	Greater
Geology, Soils, Mineral, and Paleontological Resources	Less than Significant	Less	Less	Less
Hazards and Hazardous Materials	Less than Significant	Less	Less	Similar
Hydrology and Water Quality	Less than Significant	Less	Less	Similar
Noise	Less than Significant	Less	Less	Similar
Transportation	Significant and Unavoidable	Less	Less	Greater

Source: Compiled by Ascent Environmental in 2019

With regard to the other alternatives considered in this SEIR, development of Alternative 2 (Vertical Expansion Alternative) would reduce all but aesthetic-related potentially significant impacts of the project, primarily through less land disturbance. Alternative 3 would reduce localized impacts at the RHR Landfill but would have potentially greater impacts associated with haul trucks travelling further for disposal purposes and similar localized impacts at ROR Landfill. With respect to Alternative 2, it would avoid the considerable contribution to significant and unavoidable cumulative intersection and roadway segment operational impacts in the vicinity of the RHR Landfill associated with the project. With the exception of aesthetics, Alternative 2 would reduce impacts associated with all other resource areas compared to the proposed project. While Alternative 2 would involve an expansion of landfill capacity, consistent with the project objectives, it would not achieve the project objectives related to increased gross disposal capacity and extension of the landfill's life to the extent of the proposed project. Therefore, Alternative 2 would be environmentally superior within the near term but may result in greater long-term effects as a result of a lack of solid waste disposal options available to the Bay Area, similar to Alternative 3. Therefore, the environmental impact differences between the project and Alternative 2 are not substantial enough that one is clearly superior over the other. On balance, the environmentally superior alternative would be either the project or Alternative 2, depending on decisions weighing types of environmental benefits and adverse effects by Solano County.