

ALTERNATIVES

Chapter 5

INTRODUCTION

CEQA Guidelines §15126.6 require that a reasonable range of alternatives to the proposed project be discussed in the EIR. Specific requirements include the following:

- CEQA Guidelines §15126.6(a): Alternatives to the proposed Project. An EIR shall 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.
- CEQA Guidelines §15126.6(b): Purpose. 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.
- CEQA Guidelines §15126.6(c): Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed 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.
- CEQA Guidelines §15126.6(d): Evaluation of alternatives. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.
- CEQA Guidelines §15126.6(e): “No project” alternative. The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.
- CEQA Guidelines §15126.6(f): Rule of reason. The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

“15021. Duty to minimize environmental damage and balance competing public objectives

- (a) CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.
 - (1) In regulating public or private activities, agencies are required to give major consideration to preventing environmental damage.
 - (2) A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.
- (b) In deciding whether changes in a project are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors.

- (c) The duty to prevent or minimize environmental damage is implemented through the findings required by Section 15091.
- (d) CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.”¹

ALTERNATIVES CONSIDERED

Alternative 1: No Project

This alternative by definition would not meet the objectives of the proposed Project. Although this alternative may lessen certain environmental impacts, it would also reduce the State of California’s ability to achieve a number of environmental goals. Without the proposed Project, there would be more impacts on landfill capacity and also have indirect impacts on Greenhouse Gases.

Alternative 2: Digester Only

One potential alternative is limit the Project to just the digester. This alternative by definition would not meet the objectives of the proposed Project. From an operational point of view, the existing parcel would remain underutilized and the operational efficiency of the proposed Project would not be achieved.

Alternative 3: Compost Expansion Only

One potential alternative is to eliminate the digester. This alternative by definition would not meet the objectives of the proposed Project. As delivery truck for the composting would utilize the natural gas produced by the digester, operational efficiencies would be reduced.

Alternative 4: Project on Adjacent Site

An alternative site is typically the most complex and costly alternative. For expansion projects, this alternative typically involves land cost, construction of new buildings and/or additional equipment. It may also be challenging to find available land that would allow this type of use required for the proposed Project element, have lower site specific environmental issues, and be located within the desired service area. As such, this alternative typically results in a substantial increase in the cost to meet the objectives of the proposed Project. In addition, from an operational point of view, an existing parcel could remain underutilized and the operational efficiency of the proposed Project would not be achieved.

The nearest potential alternative site is the adjacent parcel on which the dairy is located. As this adjacent site has a fully functional dairy, it may not be feasible to include all the elements of the proposed Project.

¹ 2012 CEQA Guidelines, Section 15021

Alternative 5: Alternative Configuration

A potential alternative could be to reconfigure the site layout of the proposed Project. This alternative would not reduce environmental impacts, as most of the potentially significant impacts are not related to site layout. The digester could be moved to middle of the site or the other end of the site; however, this alternative would impact operational efficiencies. Moving the location of the digester would have little effect on any of the potentially significant impacts.

FACTORS CONSIDERED IN ANALYSIS OF ALTERNATIVES

In this Alternatives analysis the following criteria will be used:

Evaluation Criteria 1: Implementation of AB 32

AB 32 has defined plans and programs for 2020, with the vision of 2050 that sets a goal to have an 80% reduction of greenhouse gas (GHG) compared to the 1990 base year. The proposed composting expansion, anaerobic digester, and CNG station accommodates AB 32 measures of 2020 and provides the framework for addressing the goals outlined in AB 32.

Evaluation Criteria 2: General Plan Update 2030 – Climate Action Plan

The County of Tulare Board of Supervisors adopted a Climate Action plan as part of the General Plan 2030. This Climate Action Plan identifies specific General Plan policies that encourage solid waste reduction. The creating more compost and generating methane. These two project elements would reduce solid waste and encourage private use of recycled materials.

Evaluation Criteria 3: Renewable Energy

One of the objectives of the proposed Project is the use of renewable energy to develop the ability to have sustainable business operations. Although renewable energy can help the environment, a steady supply of clean energy allows for low cost fuel which allows for more efficient operations.

Evaluation Criteria 4: Expand production of organically certified soil

Harvest Power is in a unique market segment. The composting operations create organically certified soil. As the demand for this product grows, the proposed Project will allow Harvest Power to capture the demand within this market niche.

Evaluation Criteria 5: Efficient Business Operations

As the proposed Project involves an expansion of an existing business, operational efficiency is a major concern in the long-term viability of the business. Operational efficiency affects both operational costs and operational effectiveness through the maximization of existing buildings and equipment.

Evaluation Criteria 6: Project Specific Elements

- Increase composting tonnage from 86,000 tons a year to a potential 216,000 tons per year.
- High Solids/Low Solids/Hybrid Low and High Solids Anaerobic Digester to produce methane. This digester will process 60,000 tons of green waste a year.
- CNG Gas Station to refuel vehicles.

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Evaluation Criteria 7: Reduce Impacts

Each alternative should be analyzed to assess the potential to reduce significant impacts. (On a cumulative basis, alternative sites generally require the construction of duplicate structure and/or duplicative equipment. The addition of new buildings and/or equipment require the use of additional resources, which on a cumulative basis would increase impacts to environment in general.)

Evaluation Criteria 8: Financial Feasibility

Although there may be a large amount of theoretical alternatives, there are only a few alternatives that could potentially be implemented due to costs involved in the alternative. Considerable increases in costs can make a project alternative infeasible. In addition to construction costs, operational costs will be compared to the proposed project based on lost revenue.

Evaluation Criteria 9: Physical Feasibility (Land Size and Configuration Constraints): Physical feasibility is required because if site for a particular alternative is too small or if the components of the proposed Project cannot be configured on the site, then the alternative would not be feasible and should be eliminated from review.

POTENTIAL IMPACTS OF ALTERNATIVES

The table below is a generalized comparative assessment of potential impacts of the alternatives.

**Table 5-1
Alternatives Potential Impact Analysis**

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Aesthetics	Less	Similar	Less	Similar	Similar
Agriculture and Forestry Resources	Similar	Similar	Similar	Similar	Similar
Air Quality	Less	Similar	Less	Similar	Similar
Biological Resources	Similar	Similar	Similar	Similar	Similar
Cultural Resources	Similar	Similar	Similar	Similar	Similar
Geology and Soils	Less	Less	Less	Similar	Similar
Greenhouse Gas Emissions	More	More	More	Similar	Similar
Hazards and Hazardous Materials	Less	Similar	Less	Similar	Similar
Hydrology and Water Quality	Less	Less	Less	More	Similar
Land Use and Planning	Similar	Similar	Similar	Similar	Similar
Mineral Resources	Similar	Similar	Similar	Similar	Similar
Noise	Less	Less	Similar	More	Similar
Population and Housing	Similar	Similar	Similar	Similar	Similar
Public Services	Similar	Similar	Similar	Similar	Similar
Recreation	Similar	Similar	Similar	Similar	Similar
Transportation and Traffic	Less	Similar	Less	Similar	Similar
Utilities and Service Systems	Less	Less	Less	Similar	Similar
Mandatory Findings of Significance	Less	Less	Less	Similar	Similar
Cumulative Impacts	Less	Similar	Less	Similar	Similar
Assessment of Impact Reduction	Yes & No	Yes & No	Yes & No	No	No

Alternatives 1, 2, and 3 would result in higher greenhouse gases (GHGs) on a cumulative level, as these alternatives do not include all the proposed Project elements that would have full environmental benefit related to GHGs. Although, these three alternatives could reduce other impacts, the GHG benefits of the proposed Project would not occur in these three alternatives.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would have more Greenhouse Gas Impacts, as the proposed Project would result in a benefit to Greenhouse Gases. As discussed in Chapter 3.7, the amount of greenhouse gases diverted from the implementation of the proposed Project has been estimated to be 73,487 MTCO₂E.

As noted in the mandatory findings of the significance section, odor on a cumulative basis is the only significant and unavoidable impact. Alternatives 1 and 3 could potentially reduce this odor, although the amount of reduction is hard to quantify. The other alternatives would have similar impacts as the proposed Project in regards to odor. When evaluating impacts of alternatives 1 and 3, the choice is between cumulative odor impacts and cumulative greenhouse gas benefits. As greenhouse gas reduction benefits has been fully quantified and odor impacts are difficult to measure, the argument for greenhouse gas reduction is stronger than odor reduction.

In addition, the No Project Alternative would not meet the project elements or the project objectives. Furthermore, each of the alternatives analyzed will have at least one evaluation criteria that would result in higher impacts than the proposed Project. As such, the proposed Project is Environmentally Superior Alternative.

FINANCIAL ANALYSIS OF ALTERNATIVES

As part of the feasibility analysis of the alternatives, a financial analysis has been conducted. To allow this business to maintain its competitive edge in their niche market, no dollar amounts are used. Instead, scales of financial impact are provided for each potential cost/expense item. See tables below.

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Table 5-2
Costs of Alternatives

Cost	Item
\$\$\$\$\$	Loss of Grant Funding
\$\$\$\$	Land Purchase
\$\$\$	Lost of Revenue from the additional compost sales
\$\$\$-\$\$	Operational Inefficiencies
\$\$	Loss of Digester Tipping Fees
\$\$	Loss of Composting Tipping Fees
\$	Increased Construction Costs
\$	Cost of Additional Equipment
\$	Loss of Electricity Sales
\$	Cost of Gas usage
\$	Very Low Cost
\$\$	Low Cost
\$\$\$	Moderate Cost
\$\$\$\$	High Cost
\$\$\$\$\$	Very High Cost

Table 5-3
Increased Costs of Alternatives

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Loss of Grant Funding	\$\$\$\$\$	-	\$\$\$\$\$	-	-
Land Purchase	-	-	-	\$\$\$\$	-
Lost of Revenue from the additional compost sales	\$\$\$	\$\$\$	-	-	-
Operational Inefficiencies	\$\$\$	\$\$	\$\$	\$\$	\$\$
Loss of Digester Tipping Fees	\$\$	-	\$\$	-	-
Loss of Composting Tipping Fees	\$\$	\$\$	-	-	-
Increased Construction Costs	-	-	-	\$\$	\$\$
Cost of New Equipment	-	-	-	\$	-
Loss of Electricity Sales	\$	-	\$	-	-
Cost of Gas Usage	\$	-	\$	-	-
Cost (Lost Revenue) Increase over Proposed Project	Very High	Moderate	Very High	High	Low
\$	Very Low Cost				
\$\$	Low Cost				
\$\$\$	Moderate Cost				
\$\$\$\$	High Cost				
\$\$\$\$\$	Very High Cost				

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Each alternative would have some level of additional cost associated with each alternative. Alternative 1 (No Project) and the Alternative 3 (Compost expansion only) would have the highest cost from the loss of the CEC grant. Alternative 4 (Location on another site) would have the second highest cost due to the need to purchase additional property. Alternative 2 (Digester only) would have third highest cost due to loss of revenue sales from the additional compost production. Alternative 5 (Reconfiguration) would have fourth highest cost due to operational inefficiencies and increased construction costs.

ALTERNATIVES ANALYSIS

The proposed Alternatives were analyzed based on the nine evaluation criteria noted above. All the Alternatives considered would not meet the objectives of the proposed Project. In addition, each of the alternatives has other individual deficiencies.

Alternatives 4 and 5 will have higher costs without improvements in business operations or a reduction in potentially significant impacts. Alternatives 1, 2, and 3 will result in a lower level of implementation of AB 32 and the Tulare County General Plan Climate Action Plan than the proposed Project. In addition, these three Alternatives do not include all the project elements, and as a result, will not result in efficient business processes.

As such, the proposed Project is the favored alternative. See table below.

**Table 5-4
Alternatives Evaluation**

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
1. Implementation of AB 32	No	No	No	Yes	Yes
2. General Plan Update 2030: Climate Action Plan	No	No	No	Yes	Yes
3. Use of Renewable Energy	No	Yes	No	Yes	Yes
4. Expand production of organically certified soil	No	No	Yes	Yes	Yes
5. Efficient Business Operations	No	No	No	No	No
6. Project Elements	No	No	No	No	Yes
7. Reduce Potentially Significant Impacts	No	Yes	No	No	No
8. Financial Feasibility	Very High Cost	Moderate Cost	Very High Cost	High Cost	Low Cost
9. Physical Feasibility	Yes	Yes	Yes	No	Yes