

## 5 ALTERNATIVES

### 5.1 INTRODUCTION TO ALTERNATIVES ANALYSIS

#### 5.1.1 CEQA AUTHORITY FOR CONSIDERATION OF ALTERNATIVES

Section 15126.6(a) of the State CEQA Guidelines requires 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 which 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.” This section of CEQA 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.

Other components of State CEQA Guidelines §15126.6(e) require that the alternatives be compared to the proposed project’s environmental impacts and that the “no project” alternative is considered. In defining “feasibility” (e.g., “... feasibly attain most of the basic objectives of the project ...”), State CEQA Guidelines §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.

## **5.2 NO PROJECT ALTERNATIVE**

### **5.2.1 DESCRIPTION OF THE NO PROJECT ALTERNATIVE**

The No Project Alternative consists of the continued operation of the existing landfill without expanding onto the Phase II area to the east. The proposed Phase II expansion area would remain undeveloped as agricultural land. Based on current waste disposal rates at PHLF, the existing landfill would reach its permitted capacity in approximately 10 years.

### **5.2.2 IMPACTS OF THE NO PROJECT ALTERNATIVE**

With implementation of the No Project Alternative, the adverse environmental impacts anticipated with the proposed project would not occur. The disturbance of the Phase II area would not occur and the proposed operational changes at the existing landfill would not be implemented.

However, the objectives of the proposed project, including providing a long-term source of disposal capacity and promoting recycling and composting activities, would not be met with this alternative. Once the disposal capacity of the existing site is reached, waste would need to be transported to an alternative landfill. Depending upon the distance to the alternative landfill, travel distances for waste-hauling vehicles may increase, which could increase air emissions associated with waste disposal.

### **5.2.3 CONCLUSION**

The No Project Alternative would be considered the environmentally superior alternative because it would minimize the environmental impacts anticipated at the project site. However, new impacts would be anticipated at the destination landfill that would receive diverted waste once the existing landfill's capacity is reached. The severity of these impacts would depend upon the operational changes at the destination landfill that would be necessary to accommodate the diverted waste. It cannot be determined at this time whether those impacts would be greater or less than those identified for the proposed project. It is clear, however, that with implementation of the No Project Alternative, the objectives of the proposed project would not be met.

## **5.3 HIGHER PHASE I AREA ALTERNATIVE**

### **5.3.1 DESCRIPTION OF THE HIGHER PHASE I AREA ALTERNATIVE**

This alternative assumes the extension of the height of the landfill within the existing Phase I landfill footprint (Exhibit 5-1). In place of expanding the landfill footprint, this alternative would increase the permitted height of the Phase I area to 410 feet, which would increase the landfill's capacity to 48 million cubic yards. This alternative would provide an additional 15 years of site life.



Implementation of this alternative would require drainage to be diverted along the north edge of the site rather than along its southern edge. This alternative would include the placement of benches at every 50 feet of landfill slope elevation and would require a slope setback for placement of the landfill access road. This alternative would create a steep peak-shaped landfill with a narrow top width, which would make landfill operations difficult during its final stages due to a lack of operating space. This shape would also limit the ability to operate the composting operations on the landfill mound once the facility reaches capacity. In addition, without the soil excavated in the Phase II area, insufficient soil would be available for the daily and final cover requirements of this alternative. This alternative would require approximately 3.8 million cubic yards of soil to meet the operational requirements. This soil would have to either be imported to the site or excavated from the adjacent Phase II area. In order to import this volume of soil, approximately 190,000 truck loads of soil, assuming 20 cubic yards per truck, would need to be transported to the site. Assuming the delivery of 100 trucks per day, it would take over 5 years to deliver all of this soil to the site. Because of the substantial volume and the costs associated with importing this volume of soil, this alternative assumes that soil would be provided through excavation of the Phase II area. Based on the available in-place soil within the Phase II area, the average excavation depth would be approximately 10 feet across the site.

### **5.3.2 IMPACTS OF THE HIGHER PHASE I AREA ALTERNATIVE**

#### **LAND USE**

This alternative is consistent with the land use and zoning designations of the Solano County General Plan (1995). Because this alternative does not involve horizontal expansion of the landfill, the changes in land use anticipated with the proposed project would not be anticipated. However, extensive soil excavation would be necessary in the Phase II area to provide adequate daily and final cover soil for the Phase I landfill expansion. Due to the distance to the nearest residences and the location of the northern ridgeline of the Potrero Hills between the Phase II area and these residences, adverse land use compatibility impacts would not be anticipated. The land use compatibility impacts of this alternative would not differ substantially from those anticipated with the proposed project.

#### **BIOLOGICAL RESOURCES**

The loss of biological resources with this alternative would be similar to the proposed project. However, this loss would generally occur for a shorter duration. Soil excavation of the Phase II area would likely occur in phases as soil is required for the Phase I landfill expansion. As an area is excavated, it could be quickly restored to preexisting conditions. With the proposed project, revegetation of the landfill mound would not occur until waste capacities are reached. Therefore, the biological resource impacts associated with this alternative would be slightly reduced when compared with the proposed project.

## **EARTH RESOURCES**

Although this alternative would require the excavation of the Phase II area, this excavation would occur for short periods of time as soil is needed, thus minimizing the potential for soil erosion and sedimentation. Also, this alternative would not include the development of landfill uses on the Phase II area, therefore minimizing the earth resource impacts anticipated with the proposed project in this area. Therefore, the earth resource impacts of this alternative would be less than with the proposed project.

## **HYDROLOGY AND WATER QUALITY**

This alternative would reduce the hydrology and water quality impacts associated with the proposed project by not including landfill development on the Phase II area. However, the excavation of the Phase II area to meet the operational soil requirements of the Phase I expansion would alter existing drainage patterns and increase erosion potential from the site. Similar to the proposed project, the implementation of detailed erosion control measures would be required to minimize potential adverse water quality impacts associated with this alternative. The hydrology and water quality impacts of this alternative would be less than with the proposed project.

## **UTILITIES AND PUBLIC SERVICES**

This alternative would not contribute significantly to the demand for public services. The site is not served by a municipal water supply, public wastewater infrastructure, or the PG&E power grid. The site's demand for police and fire protection services is negligible. Therefore, the demand for public services and utilities would be similar to the proposed project with this alternative.

## **PUBLIC SAFETY**

The public health and safety impacts of this alternative would generally be similar to the proposed project, although this alternative would make landfill operations more difficult as the facility approached its final capacity due to a limited area for waste disposal operations. This could adversely affect worker safety by limiting the maneuverability of waste-hauling vehicles. Also, because of the greater exposure of the working face as it reaches peak elevations, the exposure to the elements (i.e., high winds) would increase, potentially causing increased litter generation. The total volume of landfill gas generated from this alternative would be less than with the proposed project due to its smaller total size. However, landfill gas emissions would be similar on a daily basis.

## **NOISE**

This alternative would slightly reduce the noise levels associated with the proposed project in the Phase II area. However, similar noise levels would be generated at the Phase I site as assumed with the proposed project. Also, with the higher elevation of the proposed landfill operations, no noise screening would be provided by the surrounding ridgelines as the Phase I

area reached its upper elevations. Noise generated from the site would be more likely to be noticeable from the residences located to the north. Consequently, the noise levels generated from the Phase I area associated with this alternative could be higher than anticipated with the proposed project.

#### **TRAFFIC**

This alternative would have traffic impact similar to the proposed project, although they would occur for a shorter duration.

#### **AIR QUALITY**

The air quality impacts of this alternative would be reduced when compared to the proposed project due to its shorter lifespan. However, once the capacity of the Phase I area is reached, waste would need to be transported to another facility with the associated air quality impacts associated with that transportation.

#### **VISUAL RESOURCES**

The visual impacts of this alternative would be substantially greater than anticipated with the proposed project. By increasing the Phase I area's peak elevation to 410 feet, the landfill mound would protrude approximately 160 feet above the highest point of the Potrero Hills ridgeline to the north. Due to the generally pyramid shape of the final landfill mound, it would be clearly noticeable as a manmade feature within the local viewshed. The landfill mound anticipated with this alternative would not be expected to visually blend with the surrounding hills.

#### **CULTURAL RESOURCES**

The potential impacts on cultural resources anticipated with this alternative would be the same as expected with the proposed project due to the need to excavate the Phase II area to provide cover soil. However, adverse impacts on cultural resources would not be anticipated with either alternative.

### **5.3.3 CONCLUSION**

The potential impacts of this alternative would generally be reduced when compared to the proposed project. Therefore, other than the No Project Alternative, this alternative would be considered the environmentally superior alternative. However, this alternative would not substantially reduce the significant biological resource and hydrology impacts anticipated with the proposed project because it would require the excavation of the Phase II area. Also, this alternative would result in significant visual resource impacts on the local community that could not be mitigated. Furthermore, this alternative would not be as effective as the proposed project in meeting the project objectives.

## **5.4 ALTERNATIVES CONSIDERED AND REJECTED**

A number of alternatives were considered that either modified the proposed footprint on the Phase II area or altered the proposed drainage characteristics of the site drainages. However, none of these alternatives significantly reduced the environmental impacts anticipated with the proposed project and generally resulted in less efficient landfill operations and lower total disposal capacity. Therefore, these alternatives were eliminated from further considerations.

In addition, an offsite landfill alternative was considered but none would avoid or substantially reduce all of the environmental impacts anticipated with the proposed project. The existing site was selected for landfill expansion based on its unique characteristics, including the operation of the existing landfill and resource recovery operations at the site, its location in a rural agricultural area surrounded by ridgelines that block its view from surrounding areas, the ability to expand an existing operation, limited groundwater aquifers close to the surface, and adequacy of soils on the site for use as cover. A new landfill facility would be reasonably expected to create significant impacts of similar magnitude to the proposed project.