9.0 ALTERNATIVES ANALSIS

9.1. Introduction

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed Project and evaluates them, as required by CEQA.

Regulatory Requirements for Identifying and Analyzing Project Alternatives

Key provisions of the CEQA Guidelines on alternatives are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR (Sections 15126.6(a) through (f)).

- "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." (Section 15126.6(b))
- "The specific alternative of 'No Project' shall also be evaluated along with its impact." (Section 15126.6(e)(1))
- "The No Project analysis shall discuss the existing conditions at the time the NOP is published, and at the time the environmental analysis is commenced, as well as what would reasonably be 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. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." (Section 15126.6(e)(2))
- "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. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project." (Section 15126.6(f))
- "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, 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)." (Section 15126.6(f)(1))
- "For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." (Section 15126.6(f)(2)(A))

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." (Section 15126.6(f)(3))

9.2. Alternatives Analysis Format and Methodology

CEQA Guidelines Section 15126.6(d) provides that the degree of analysis required for each alternative need not be exhaustive, but rather should be at a level of detail that is reasonably feasible and shall include "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." Under CEQA Guidelines Section 15151, the EIR must contain "a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences." Hence, the analysis of environmental effects of the Project alternatives need not be as thorough or detailed as the analysis of the Project itself.

The level of analysis in the following sections is sufficient to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the proposed Project. In addition, each alternative is evaluated to determine whether the Project objectives, identified in Section 6.2, would be substantially attained by the alternative.

The evaluation of each alternative also considers the anticipated net environmental impacts after implementation of feasible Mitigation Measures. The net impacts of the alternatives for each environmental issue area are classified as either having no impact, a less-than-significant impact, or a significant and unavoidable impact. These impacts are then compared to the corresponding impact for the Project in each environmental issue area. To facilitate the comparison, the analysis identifies whether the net incremental impact would clearly be less, similar, or greater than that identified for the Project. Finally, the evaluation provides a comparative analysis of the alternative and its ability to attain the basic Project objectives.

9.3. Alternatives Development and Screening

This section outlines the process used by the ICPDSD to develop the alternatives to be analyzed in this Draft EIR. Alternatives considered by the Applicant and the ICPDSD were evaluated using the CEQA criteria and requirements listed below. No project alternatives were suggested during the public scoping process.

- Does the alternative fulfill all or most of the Project Objectives?
- Does the alternative avoid or reduce adverse effects to human/environmental resources associated with the Project, or, conversely, would the alternative create adverse effects potentially greater than those of the Project?
- Is the alternative feasible to construct, operate, and perform post-closure maintenance?
- Are there any conflicts between the alternative and the objectives of federal, state or local land use plans, policies, or regulations for the area concerned?

Alternatives that met most or all of the criteria listed above were carried forward for analysis and are detailed in Section 9.5. Those that did not meet the above criteria or were eliminated from further analysis.

9.4. Potentially Significant Impacts of the Project

A primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts and to meet most of the objectives of the proposed project. Pursuant to CEQA Guidelines Section 15126.6[b], alternatives to the proposed project include those that are capable of avoiding or substantially lessen 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 proposed Project has the potential to have significant adverse impacts on biological resources; cultural and tribal cultural resources; geology and soils; paleontological resources; and hydrology/water quality within the County. However, mitigation measures described in Chapter 5 of this EIR would reduce impacts for these resource areas to less than significant. Therefore, per the CEQA Guidelines, this alternatives analysis focuses on alternatives that are capable of avoiding or substantially lessening project effects listed above.

Section 9.5, below, restates the applicants' project objectives. Section 9.6 presents alternatives to the proposed Project that were considered but eliminated for further analysis. Section 9.7 presents alternatives fully analyzed in this EIR and provide a comparison of alternatives. Section 9.8 makes a determination about the environmentally superior alternative.

9.5. Project Objectives

As described in Chapter 4, Project Description, of this EIR, the following objectives have been established for the proposed Project and will aid decision makers in the review of the project and associated environmental impacts:

- Maintain and expand cost-effective disposal for CalEnergy's geothermal facility operations beyond 2025;
- Minimize haul distances for waste collection vehicles to reduce traffic, air quality, energy, and climate change impacts by providing up to 2.6 million cubic yards of additional waste disposal capacity at the Desert Valley Company Monofill;
- Utilize existing disposal facilities to minimize land use conflicts and impacts to the environment;
- Minimize the negative impacts if waste disposal at the expanded monofill through an environmentally sound operation that incorporates modern engineering and design techniques.

9.6. Alternatives Rejected from further Consideration

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines, Section 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines, Section 15126[f][2]). Imperial County considered several alternatives to reduce project impacts on biological resources, cultural and tribal cultural resources, paleontological resources, and hydrology/water quality, (please refer to Sections 5.2, 5.3, 5.4, 5.7, and 5.11 of this EIR for more information on these resource areas). Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because the alternatives do not meet project objectives or were infeasible.

9.6.1. Modified Footprint to Avoid Cultural Impacts (Alternative A)

An alternative site plan (Option 2) for proposed Cells 4A/4B was developed avoids all archaeological sites, whether or not they would be considered significant under CEQA. The purpose of the alternative to evaluate the feasibility of providing the same size/capacity of the proposed Project.

The proposed Project consists of two new Cells, 4A and 4B, which required a total of 45 acres plus an approximate 14-acre drainage diversion berm and swale to route stormwater from existing drainages north and west of the expanded monofill. In order to avoid the archaeological sites, the western limits of grading for the diversion berm and swale were moved eastward. This area constrained on its eastern side due to 200 -foot fault setback requirements, which required a narrowing of the footprint to avoid archaeological resources. The length of Cell 4B was extended northward to compensate for the reduced width while still maintaining the same capacity.

Figures 9.1 and 9.1a present the site plan for the Modified footprint, with each of the two cells having equal areas of 22.5-acres for a total of 45-acres. The Modified Footprint Alternative does not provide a functional configuration for construction or operations. Cell A would be an irregular shape that could not facilitate installation of the multiple layers of synthetic liner, leachate collection and ultraviolet protection materials. The cell would be too narrow for truck access into and out of the cell.

The extension of Cell B to the north also presents other concerns. The land required for the cell would extend beyond Section 33 into Section 28. The extension would require disturbance/ diversion of three additional existing drainages, compared to the proposed Project. This would result in additional biological resources impacts and the additional drainages would require the size of the diversion swale(s) to be increased.

Another item that would require evaluation would be to extend the faulting studies to the North in order to identify if any fault setbacks would restrain the extension of the site.

In summary, while modification of the landfill footprint would reduce impacts to know cultural resources, it would also result increased biological resource impacts compared to the proposed Project. The Modified Footprint Alternative would accomplish the project objectives, it would not provide a functional configuration for construction or operations. For these reasons, the Modified Footprint Alternative was not eliminated from further consideration in the EIR.

9.6.2. Reduced Waste Generation - Operational Modifications to Geothermal Plants (Alternative B)

Since the waste being transported to the monofill results from the normal use of geothermal brine to provide steam that generates power, there are few opportunities for reducing solid waste that precipitates as brine is cooled after steam for power generation is extracted from the process.

Minor additional quantities of waste are generated when the plant is shut down for an outage and solids that would have been reinjected to the geothermal reservoir are instead cooled to ambient temperatures such that the material is no longer in suspension and has to be disposed of as a solid waste from the geothermal brine pond where brine is routed during startup, shutdown and upset conditions. It should, however, be noted that solid waste generated during upset conditions or maintenance outages are normally disposed of as hazardous waste, based on California's hazardous waste criteria, and these wastes are not sent to the Desert Valley Company monofill. As such no operational changes are possible, given the existing equipment, that would reduce solid waste generation and disposal at the Desert Valley Company monofill. For these reasons, a reduced waste generation alternative through the modification of operations at CalEnergy geothermal plant is considered infeasible pursuant to State CEQA Guidelines 15126.6(c) and is eliminated from detailed consideration in this EIR.

9.6.3. Additional Compaction to Reduce Required Footprint (Alternative C)

The current method of placing the geothermal waste into the monofill involves moisture conditioning of the material and installing/compacting it in 6-inch lifts with a large rubber tire front end loader. The initial process is followed up with regular watering and compacting until future loads are delivered. Previous testing of the compacted material yielded results exceeding 95% relative compaction which is the maximum standard for engineered structural fills. Waste sites normally have a lower compaction requirement.

In summary, because the current method of installing the geothermal waste provides the maximum compaction that can be realized, this is not a feasible alternative to extend the life of Cell 3, nor to reduce the overall volume/size of the new Cells 4A/4B. For these reasons, the additional compaction

alternative is considered infeasible pursuant to State CEQA Guidelines 15126.6(c) and is eliminated from detailed consideration in this EIR.

9.7. Alternatives to Be Analyzed

9.7.1. No Project/No Expansion Alternative (Alternative 1)

Alternative 1 is the No Project, No Build Alternative. Consideration of the No Project Alternative is required by Section 15126.6(e) of the CEQA Guidelines. The analysis of the No Project Alternative must discuss the existing conditions at the time the Notice of Preparation was published (April 2, 2012), 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" [CEQA Guidelines Section 15126.6 (e) (2)]. The requirements also specify that: "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" [CEQA Guidelines Section 15126.6 (e) (3) (B)].

The purpose of describing and analyzing a No Project Alternative is to allow decision-makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. The No Project, No Build Alternative analysis is not the baseline for determining whether the environmental impacts of a proposed project may be significant, unless the analysis is identical to the environmental setting analysis that does establish that baseline.

Under the No Project Alternative, the monofill would not be expanded to provide a new Cell 4. Operations of the monofill would continue as authorized under the existing conditional use permit, solid waste facility permit and waste discharge report. Permitted non-hazardous geothermal waste from CalEnergy geothermal plants would continue to be disposed of within Cell 3, until its capacity is reached in January 2025. After that Cell 3 would be closed in accordance with the Preliminary Closure and Post Closure Maintenance Plan (Closure Plan) for Cell 3 (Desert Valley Company Joint Technical Report, 2016), which was approved by the Imperial County Division of Environmental Health in 2016. Once Cell 3 reaches capacity, the landfill cap will be installed, which will require four to six months to complete. All structures involved in the security, monitoring and maintenance and all existing environmental control (vadose zone monitoring wells, groundwater monitoring wells, ambient air monitoring stations, etc.) will remain in place during the post-closure period and will be maintained in accordance with the approved Closure Plan.

Impacts Compared to Project Impacts

The following compares environmental impacts associated with the No Project Alternative as compared to the impacts of the proposed Project.

Air Quality

The proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. Estimated construction emissions from the proposed Project would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. The proposed Project could result in a cumulatively considerable net increase of a criteria air pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone). The Project would not expose sensitive receptors to substantial pollutant concentrations and would not create objectionable odors affecting a substantial number of people.

However, under the No Project alternative, non-hazardous geothermal waste would be transported to the Copper Mountain Landfill in Arizona. Given the estimate 2,417 loads of waste that were disposed of in 2019, transporting wastes to a landfill in Arizona will result in an increase in carbon dioxide emissions of 833 tons per year and emission of all other pollutions (including volatile organic carbons, carbon monoxide, nitrogen oxides, and particulate matter emissions would also increase.

Therefore, greater long-term air pollution impacts would result from the No Project Alternative as compared to the proposed Project.

Biological Resources

According to biological surveys performed at the Project site, numerous sensitive plant and animal species have the potential to be located on the Project site. Under the No Project Alternative, no new construction and/or operational activities would occur. Therefore, implementation of the No Project Alternative would avoid project-level impacts to biological resources by minimizing the potential loss of sensitive species habitat on-site.

Cultural and Tribal Cultural Resources

Field surveys indicate the presence of several historic and prehistoric resources on the Project site. Mitigation measures are provided to reduce impacts to these resources to below a level of significance. Under the No Project Alternative, the Project site would remain as is, and no ground-disturbing activities would occur. Therefore, unlike the proposed Project, the No Project Alternative would not have the ability to accidentally uncover potentially significant cultural, archaeological, or paleontological resources which may be located beneath the surface Project site. There would be no impact to cultural resources, and no mitigation measures would be necessary.

Geology, Soils and Paleontological Resources

Implementation of the No Project Alternative would result in the closure of Cell 3 once capacity is reached. No change in geology or soils conditions would occur with this alternative. Therefore, the

geology and soils impacts associated with potential impacts to paleontological resources would be avoided under the No Project Alternative.

GHG Emissions

While the No Project Alternative would not involve construction activities, operation or maintenance at the Project site, transporting non-hazardous geothermal waste to Arizona would substantially increase GHG emissions by 2,725 tons per year. This impact would be significant and unmitigable. The No Project Alternative would not assist the County or the State in meeting California's emission reduction targets.

Therefore, the No Project Alternative would result in greater impacts to GHGs during the proposed Project's operational lifespan.

Hazards and Hazardous Materials

Under the No Project Alternative, the proposed Project would not be implemented. Therefore, no hazards or use of hazardous materials is expected.

Hydrology and Water Quality

The No Project Alternative would not result in either construction or operation of the proposed Project. The No Project Alternative would not result in alteration of the Project site's drainage patterns from current conditions and neither a SWPPP nor a drainage plan would be required. Accordingly, there would be fewer water quality and hydrology-related impacts from the No Project Alternative than the proposed Project.

Land Use and Planning

According to the County of Imperial General Plan, the Project site's land use is designated as "Recreational/ Open Space" and is zoned S-2 (Open Space/Preservation). Under the No Project Alternative, monofill operations would continue until Cell 3 reaches capacity. Similar to the proposed Project, the No Project Alternative would not physically divide an established community. Unlike the proposed Project, the No Project Alternative would not require CUPs. The Project site is not within the boundaries of any adopted HCP or natural community conservation plan; therefore, no impact would occur. Similar to the proposed Project, there would be no impacts to land uses under No Project Alternative.

Noise

Under the No Project Alternative, short-term construction activities and long-term operation of the proposed Project and post closure maintenance would not occur, and the associated noise levels would not be generated. Therefore, the No Project Alternative would avoid the short-term construction and long-term operation noise impacts discussed in Chapter 5.10.

Transportation and Traffic

In contrast to the proposed Project, there would be no development associated with the No Project Alternative. Therefore, the No Project Alternative would not have the potential to increase traffic volumes on nearby roadways during construction. However, transporting the non-hazardous waste to a landfill that accepts Class II wastes would be required, once cell 3 reaches capacity the nearest Class II Landfill is located in Arizona. This alternative would increase the round-trip haul route from 76 miles to 258 miles, an increase of 182 miles per trip.

Given the 2,417 loads of waste that were delivered to the monofill in 2019, (i.e., 6 waste transport trucks per day) and the increase in VMT of 182 miles, the No Project Alternative would result in an increase of 1,092 vehicle miles traveled (VMT) per day, compared to the proposed Project. This amounts to an increase of 398,580 VMT per year, which translates to an increase of 22,320,480 VMT over the 56-year combined lifespan of Cells 4A and 4B. This increase in VMT would be significant, unmitigable and would not occur with the proposed Project.

Transportation and traffic impacts associated with implementation of the No Project Alternative would be greater than impacts associated with the existing undeveloped site. Therefore, the No Project Alternative would result in greater VMT impacts as compared to the proposed Project.

Utilities/Service Systems

If the No Project Alternative is implemented, the proposed Project would not be constructed, operated, or maintained; therefore, there would be no impact related to Utilities and Service Systems.

Conclusion

Avoid or Substantially Lessen Project Impacts

The No Project Alternative would avoid the significant and potentially significant impacts of the proposed Project related to biological resources, cultural and tribal resources, geology/soils (paleontological resources); and hydrology and water quality each of which have been mitigated to below the level of significance. However, the No Project Alternative could also result in greater long-term impacts associated with air quality, GHG emissions and traffic/transportation due to the increased waste haul route.

Attainment of Project Objectives

Under the No Project Alternative, the none of the Project objectives would be met.

Comparative Merits

None of the impacts identified for construction, or decommissioning of the proposed Project would occur. While most of the operational impacts of the proposed Project would be avoided by the No

Project Alternative, transporting geothermal wastes to a permitted landfill would result in significant air quality and transportation impacts that would not occur with the proposed Project. Additionally, all of the objectives of the project objectives would remain unfulfilled under the No Project Alternative. This means that the Project's contribution to meeting California's renewable generation goals would not occur.

Significant Impacts of Alternative

The No Project Alternative would result in significant impacts to air quality, greenhouse gas emissions and transportation/ traffic.

9.7.2. Alternative Project Site (Section 27) (Alternative 2)

Section 27, a site owned by CalEnergy, was considered as an alternate candidate location for Cell 4 of the Desert Valley Company Monofill (**See Figure 9-2**). During the siting process, both Sections 27 and 33 were screened for multiple factors, including geology, biology, drainage, cultural resources, access, groundwater, water supply, location, and operations, to assess their viability as a future landfill site. One candidate site in each Section was identified for possible development. After review, the candidate site in Section 33 was selected as the preferred location. The candidate site in Section 27 is not considered a feasible alternative for development for the following aesthetic, economic, and environmental reasons.

Impacts Compared to Project Impacts

The following compares environmental impacts associated with the Alternative Project Site (Section 27) (Alternative 2) as compared to the impacts of the proposed Project.

Aesthetics

The candidate site in Section 27 is located close to Highway 86 and is likely to result in a greater impact on views from Highway 86. Development of Cell 4 in Section 33 would not be visible from Highway 86 as it would be located behind the existing DVC monofill.

Jurisdictional Drainage

Development of a landfill cell in either Section 33 or in Section 27 would result in permanent and temporary impacts to jurisdictional drainages. Runoff from storm events would need to be diverted around the new waste disposal cells through the construction of a berm and swale system. Storm runoff would be discharged back into jurisdictional drainages on the downgradient side of the cell. Within Section 33, flood flows directed around Cell 4 would be returned to the disrupted jurisdictional drainages on the downstream (north) side of the cell. These drainages have sufficient capacity to convey the redirected flood flows since they are currently functioning in that manner under existing conditions. Due to the configuration of the drainages within Section 27, it may not be feasible to reconnect the diverted flows back into the disrupted drainages. Instead, the flows

would be diverted to different jurisdictional drainages. As a result, constructing the new cell in Section 27 may cause storm runoff flow rates to increase in some drainages, while flows in the disrupted drainages would be permanently diminished. This diversion method could exceed the capacity of the adjacent jurisdictional drainages and potentially result in erosion within those features. Therefore, with regards to jurisdictional drainages, Section 33 is the environmentally preferred option.

Operational Costs

Development of Section 33 would allow existing facilities at DVC to be reused. Development of Section 27 could require the development of additional support structures (offices, roads, septic systems, material storage areas, etc.) which would result in greater ground disturbance that are already present at the existing monofill in Section 33.

Permitting

If selected as a new landfill site location, Section 27 would likely be classified as a new facility, requiring additional permitting. Development of Cell 4 adjacent to the existing Cells 1 through 3 on Section 33 would likely be viewed as an expansion to the existing monofill. Modification of the existing landfill permitting is expected to be faster and therefore and less expensive than obtaining a new permit.

9.7.3. Reduced Project Footprint Alternative (Alternative 3)

This alternative evaluated the environmental impact of developing only half of the area of the proposed expansion. Cell 4 is proposed to be developed in two phases, as Cell 4A and Cell 4B; this alternative would allow for development, use and closure of either Cell 4A or Cell 4B, but not both.

Under Alternative 3, Reduced Project Alternative, the same expansion of the monofill would occur as described for the proposed Project; however, it would only include the construction of one waste disposal cell, either Cell 4A or 4B (e.g., a maximum of total of 46.2 acres, a capacity of 1.3 million CY and a lifespan of 28.6 years. As a result, there would be less site disturbance compared to the proposed Project. Other features of the proposed project (water use, chemical use, etc.) would be reduced proportionally. All environmental protection features described in Chapter 4.0 would be similar to those of the proposed Project.

The Reduced Project Alternative was considered as a means to minimize the environmental impacts overall as compared to the proposed Project. It should be noted however, that the Reduced Project Alternative would only provide one-half of the disposal capacity of the proposed Project, and therefore would have one-half the lifespan.

Impacts Avoided and/or Reduced

The following discussion evaluates the potential environmental impacts associated with the Reduced Project Alternative (Alternative 3), when compared to the impacts of the proposed Project.

Air Quality

The Reduced Project Alternative could also violate an air quality standard and result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment, although also like the proposed Project, these potentially significant impacts would be mitigated below the level of significance. During construction, fugitive dust emissions would likely be less than the proposed Project because of the smaller footprint, but daily combustion emissions would likely remain the same. During operations, air pollutant emissions from the Reduced Project Alternative would be similar to the proposed Project because the daily number of waste haul trips and the amount of waste disposed would not be reduced.

Biological Resources

Like the proposed Project, the Reduced Project Alternative has some potential to result in impacts to burrowing owls, Le Conte Thresher, flat-tailed horned lizards, migratory birds and jurisdictional waters of the state. However, with the mitigation measures outlined for the proposed Project these impacts would be reduced to a level of less than significant for both the proposed Project and the Reduced Project Alternative. Nonetheless, because the Reduced Project Alternative would develop less of the Project site as compared to the proposed Project, impacts from this alternative would be slightly less than the proposed Project.

Cultural and Tribal Resources

Under the Reduced Project Alternative, a reduced amount of grading and excavation would be required for construction, although potential impacts to previously unknown cultural and tribal resources associated with disturbance of undiscovered resources would be similar to the proposed Project because of the uncertainty about what might be uncovered. The same mitigation measures would apply to the Reduced Project Alternative as to the proposed Project.

Geology and Soils

Under the Reduced Project Alternative, similar, although slightly less, impacts associated with geologic hazards and soils would occur as under the proposed Project. Similar ground-working activities would occur that would result in soil erosion and potential paleontological resource impacts; however, the area of disturbance would be less for the Reduced Project Alternative. development of only Cell 4A or Cell 4B would decrease the amount of grading required. Seismic-related hazards would not change. The same mitigation measures would apply to the Reduced Project Alternative as to the proposed Project.

Hazards and Hazardous Materials

The Reduced Project Alternative would have similar, although slightly less, impacts associated potential for hazards to the public and the environment through the routine transport, use, or disposal of hazardous materials. The Reduced Project Alternative would require the same precautions to be implemented as would be required for the proposed Project. Overall, impacts regarding hazards and hazardous materials would be slightly less for this alternative as for the proposed Project.

Hydrology and Water Quality

The Reduced Project Alternative would disturb less land than the proposed Project, but would still result in changes to and drainage patterns of the Project site. Preparation of a SWPPP and drainage plan would still be required for the Reduced Project Alternative. Impacts to hydrology and water quality from the Reduced Project Alternative would be slightly reduced as compared to the proposed Project.

Land Use and Planning

According to the County of Imperial General Plan, the Project site's land use is designated as "Recreational/ Open Space" and is zoned S-2 (Open Space/Preservation). Similar to the proposed Project, the Reduced Project Alternative would require modification of the existing CUP, and general plan amendment and zone change. Likewise, the Reduced Project Alternative, would not conflict with any existing plans or ordinance and would not physically divide an established community or conflict with any applicable land use plans. The Project site is not within the boundaries of any adopted HCP or natural community conservation plan. Similar to the proposed Project, no impacts to land use would occur.

Noise

Under the Reduced Project Alternative, short-term construction/post-closure maintenance and long-term operations would be similar to the proposed Project. Therefore, the Reduced Project Alternative would result in the same maximum noise levels to surrounding areas proposed Project.

Traffic and Transportation

Although the Reduced Project Alternative may involve fewer construction and operational worker vehicle trips, potential impacts to traffic volumes on nearby roadways would not differ substantially in comparison to the proposed Project. Short-term construction-related traffic impacts would be similar to the proposed Project under the Reduced Project Alternative, as would long-term increases in vehicle traffic associated with material deliveries and employee trips.

Utilities

The Reduced Project Alternative would have similar potable water and wastewater systems as the proposed Project, thus similar impacts would occur regarding wastewater treatment, water supply, or wastewater capacity. Solid waste disposal needs and compliance with regulations related to solid waste would likely be proportionately reduced from the proposed Project if this alternative is implemented. Therefore, the Reduced Project Alternative impacts to utilities would be similar to or slightly less from the Reduced Project Alternative as compared to the proposed Project.

Greenhouse Gas Emissions

Construction-related GHG emissions from the Reduced Project Alternative would be proportionately reduced compared to emissions from the proposed Project. However, because the daily of amount of waste received at the monofill would be the same as that under the proposed Project, operational GHG emissions would be the same. The Reduced Project Alternative would also assist in meeting AB 32 which would decrease the need for fossil-fueled energy generation plants, although to a lesser extent than the proposed Project.

Conclusion

Avoid or Substantially Lessen Project Impacts

Compared to the proposed Project, the Reduced Project Alternative would result in very similar, though slightly reduced, impacts to many environmental resources (aesthetics, agriculture resources, air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation and GHGs).

Attainment of Project Objectives

Alternative 3, the Reduced Project Alternative, would meet all project objectives to a slightly lesser degree than the proposed Project. Because the alternative would be approximately half the size of the proposed Project, it would only provide half of the waste disposal capacity and therefore only half of the lifespan of the Proposed Project.

Comparative Merits

The Reduced Project Alternative would reduce impacts associated with air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation, utilities and GHGs, when compared to the proposed Project. The Reduced Project Alternative would have equivalent or no impacts associated with land use and planning and noise when compared to the proposed Project.

Therefore, the Reduced Project Alternative would slightly reduce impacts in most environmental issue areas as compared to the proposed Project. Additionally, under Alternative 3 the Project would have a reduced capacity and lifespan.

9.8. Environmentally Superior Alternative

As required by CEQA Guidelines, Section 15126.6, an EIR must identify an "environmentally superior alternative," which is the alternative that has the least impact on the environment or would be capable of avoiding or substantially lessening any significant impacts of the project. Table 9-1, Summary of Alternatives Compared to the Proposed Project, shows each alternative's environmental impacts compared to the impacts of the proposed Project.

The alternative that results in the least environmental impact, considering both the frequency and magnitude of the impact, is the environmentally superior alternative. In cases where the No Project Alternative is environmentally superior, the EIR is required to identify the next environmentally superior alternative among the others evaluated. Alternative A (No Project/No Development) is the alternative that results in the least environmental impact.

As shown in **Table 9-1**, Alternative 1 (No Project/No Expansion Alternative), would be environmentally superior to the proposed Project for 7 resource areas analyzed in the EIR. As required by CEQA, the next environmentally superior alternative is Alternative 3 (Reduced Footprint) Alternative. Therefore, Alternative 3 would be environmentally superior to the proposed Project under 4 resource areas and environmentally similar to the Project under 6 resource areas. However, Alternative 3 would not substantially lessen the significant air quality, biological, paleontological or hydrological resource effects of the Project; therefore, decision-makers are not obliged by CEQA to select this alternative.

TABLE 9-1: SUMMARY OF ALTERNATIVES COMPARED TO THE PROPOSED PROJECT

Environmental Resource	Proposed Project	No Project/ No Expansion (Alternative 1)	Alternative Project Site, Section 27 (Alternative 2)	Reduced Footprint Alternative (Alternative 3)
1. Air Quality	LTS-MM	SI / -	LTS-MM / =	LTS-MM / -
2. Biological Resources	LTS-MM	NI / +	LTS-MM /+	LTS-MM / -
3. Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
4. Geology and Soils	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
5. Greenhouse Gas Emissions	LTS	SU / -	LTS / =	LTS / -
6. Hazards and Hazardous Materials	LTS	NI / +	LTS / =	LTS / =
7. Hydrology and Water Quality	LTS-MM	NI / +	LTS-MM / =	LTS-MM / =
8. Transportation and Traffic	LTS	SU / -	LTS / =	LTS / =
9. Tribal Cultural Resources	LTS-MM	NI / +	LTS-MM / =	LTS-MM / -
10. Utilities and Service Systems	LTS	NI / +	LTS-MM / +	LTS / =
TOTALS		+ 7 - 3 = 0	+ 2 - 0 = 8	+ 0 - 6 = 4
Meets Most of the Basic Project Objectives?	Yes	No	Yes	Yes

Notes:

NI Finding of no environmental impact.

LTS Finding of less than significant environmental impact.

LTS-MM Finding of less than significant environmental impact with mitigation measure.

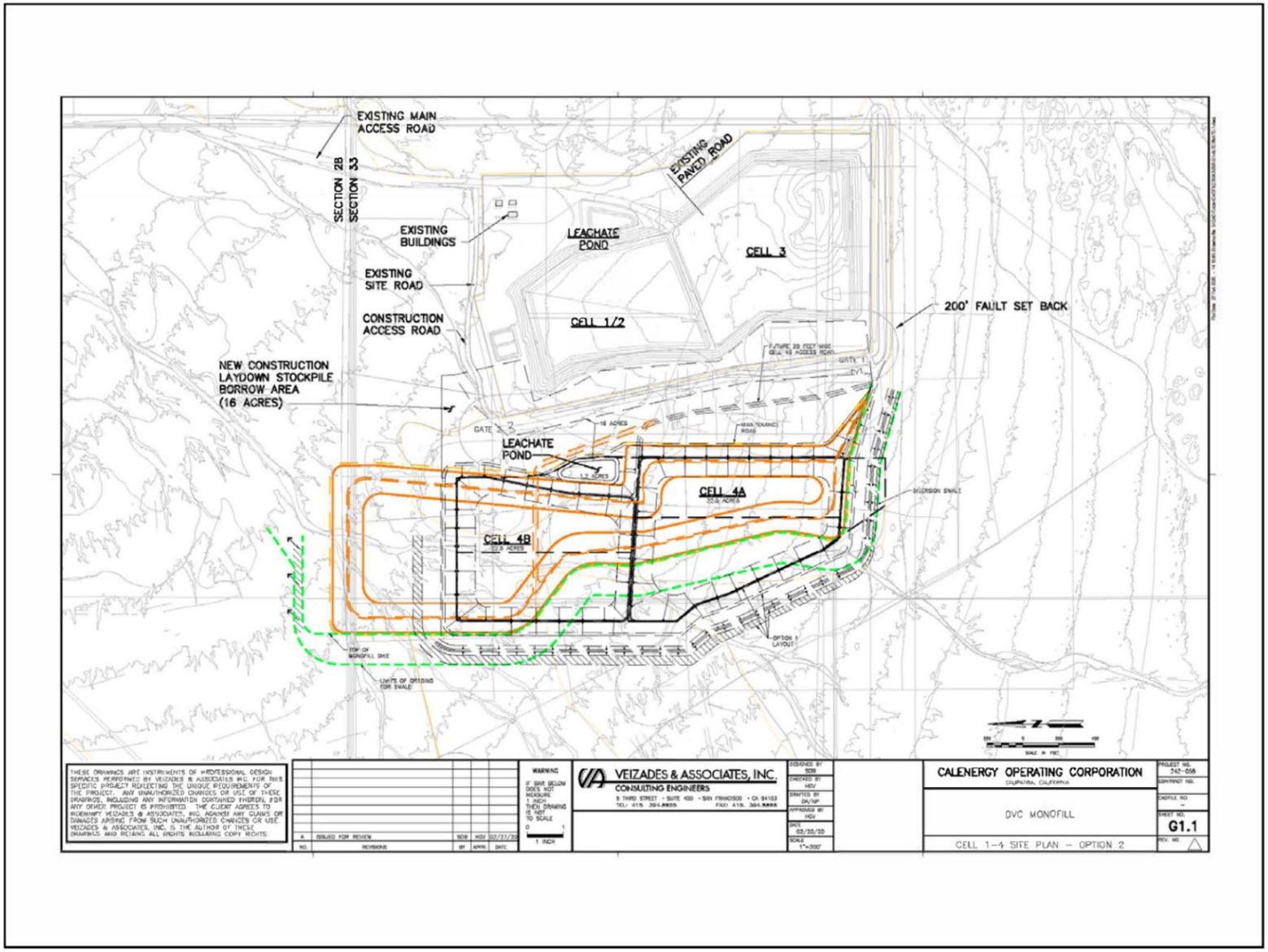
SU Finding of significant and unmitigable impact.

\+ Alternative is superior (reduced impacts compared) to the proposed Project.

\- Alternative is inferior (greater impacts compared) to the proposed Project.

= Alternative is environmentally similar to the proposed Project or there is not enough information to make a superior or inferior determination.

1



SOURCE: Terraphase Engineering Inc., 2020

Modified Footprint
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 9-1

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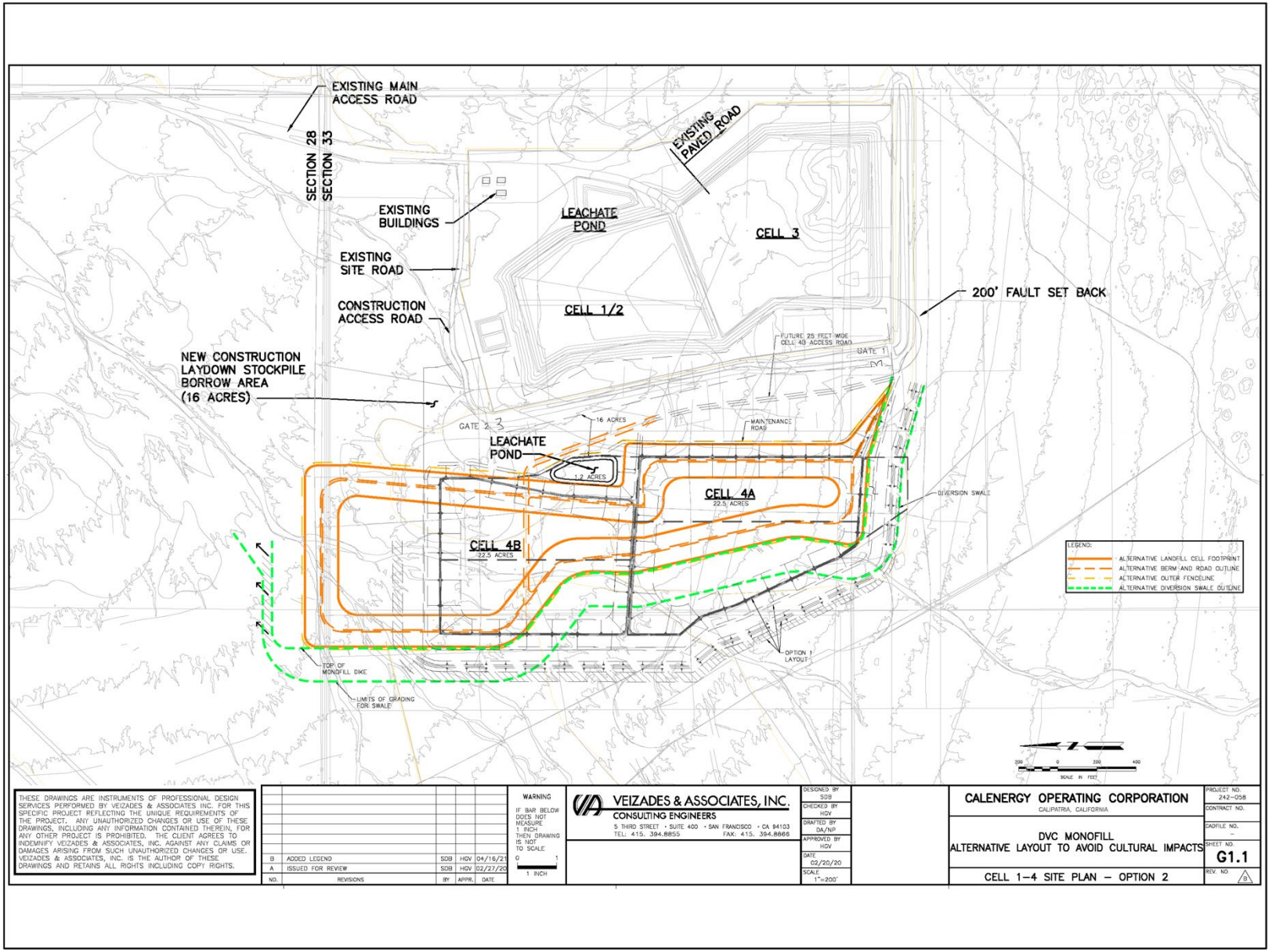
1



SOURCE: Terraphase, 2021.

BRG CONSULTING, INC.

Modified Footprint
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 9-1

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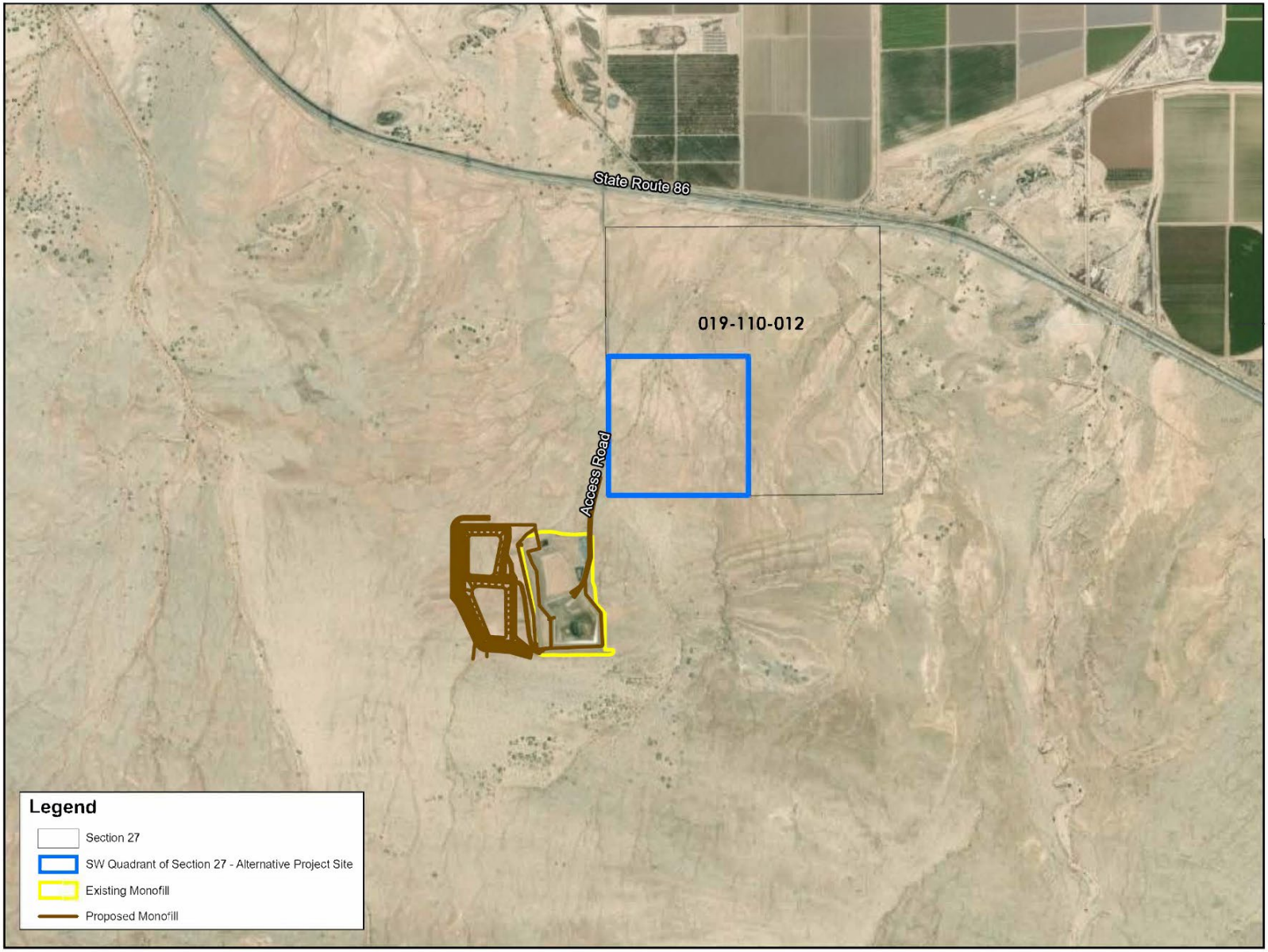

SOURCE: Basemap-ESRI; ICPDS, 2015, 2018; Terraphase Engineering Inc., 2020

Alternative Project Site - Section 27
Desert Valley Company Monofill Expansion Project, Cell 4
Figure 9-2

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