

19.0 CUMULATIVE IMPACTS

INTRODUCTION

As defined in CEQA Guidelines Section 15355, a "cumulative impact" is an environmental effect that may result from the combination of two or more environmental effects associated with a proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. Cumulative impacts may also result when a project's environmental effects compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines Section 15130 provides that an EIR must discuss the cumulative environmental impacts of a project "when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" effects occur when the incremental effects of an individual project are significant when viewed in connection with the effects of other closely related projects, including past projects, current projects and probable future projects (CEQA Guidelines Section 15065[a][3]). If the project does not involve a cumulatively considerable contribution to a significant cumulative impact, the project's effect need not be considered significant, and discussion in the EIR can be limited to the basis for that conclusion.

Projects that do involve cumulatively considerable contributions may involve significant cumulative impacts. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. As provided in *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996), a project's cumulatively considerable contribution to a significant cumulative impact can be reduced to a less than considerable level with mitigation measures. Mitigation measures may include contribution of a project's fair share toward an established mitigation program designed to mitigate the cumulative effect, such as the payment of traffic mitigation fees and habitat conservation fees.

The analysis of cumulative impacts may be based on either 1) a list of past, present, and probable future projects producing related or cumulative impacts, or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified environmental document which described or evaluated regional or area-wide conditions contributing to the cumulative impact (CEQA Guidelines Section 15130[b][1]). Where significant cumulative impacts are identified, the EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution to a less than considerable level. In some cases, the only feasible mitigation may involve the adoption of ordinances or regulations. The potential cumulative impacts of the proposed project have been examined pursuant to the direction provided by the CEQA Guidelines, using the list approach.

When using a project list, the cumulative impact analysis should account for the nature of each environmental resource to be impacted, as well as the location of the project and its type. This reflects the fact that the context for cumulative impacts varies from one environmental discipline to another. For example, cumulative ozone impacts are reasonably considered in the context of an air basin, cumulative hydrologic impacts would be meaningfully addressed at a watershed level, and aesthetic impacts would ordinarily be addressed only at a local level.

CUMULATIVE IMPACT ANALYSIS

The following cumulative impact analysis determines for each environmental discipline 1) the geographic context for the analysis, 2) whether there exists the potential for a significant cumulative impact in that environmental discipline, 3) whether the project would make a cumulatively considerable contribution to a significant cumulative impact, or make significant an impact that was otherwise less than significant, and 4) whether and how a significant cumulative impact or a considerable contribution can feasibly be reduced to a less than significant or less than considerable level.

This cumulative impact analysis employs the list approach, as provided for by CEQA Guidelines Section 15130(b)(1). The list of past, present, and probable future projects used for this analysis is limited to those projects that are related to the Lodi Electric Utility Department (EUD) electrical system. Since the project objective is to improve the reliability of the electrical system, independent of any development occurring in the EUD service area, this is a reasonable limitation. These related approved and/or pending projects are described below:

1. Lodi Energy Center: This is a proposed power plant project by the Northern California Power Agency (NCPA). The project would be located on 4.4 acres adjacent to and west of the City of Lodi White Slough Water Pollution Control Facility (WPCF), west of Interstate 5. The project would be a 255-megawatt power generation facility consisting of a "Rapid Response" General Electric Energy Frame 7FA combustion turbine-generator, powered by natural gas. Other components would include a single condensing steam turbine, a seven-cell cooling tower, and associated plant equipment. Most of the electricity generated by the proposed plant would be transmitted to the electrical grid through an existing 230-kilovolt line adjacent to an existing NCPA plant (see below). In September 2008, NCPA filed an application for construction with the California Energy Commission. On April 21, 2010, the Energy Commission approved the project. Construction of the power facility from site preparation, demolition, and grading to commercial operation is expected to take approximately 24 months (Central Valley Business Times, 2010).
2. NCPA Combustion Turbine Project: This is an existing 49-megawatt power plant located west of the City's WPCF. NCPA operates this plant. Power is generated by a steam turbine injected gas turbine, with a natural gas line supplying the fuel. The plant has a 230-kilovolt switchyard and an interconnect, which allows power

generated by the plant to enter the electrical grid. The Lodi Energy Center project, which would be located adjacent to and east of the existing plant, proposes to share this switchyard, along with other existing plant facilities.

3. Westside Substation: The EUD is considering the construction of a substation that would be located at the eastern terminus of the proposed project's Primary Route. The tentative location of the substation is adjacent to and south of Kettleman Lane (SR 12), west of Lower Sacramento Road. The purpose of the substation would be to convert electricity from the City's 60 kV backbone system, and the proposed project, to a lower voltage that can be distributed to EUD customers. Although the substation would tie into the eastern end of the Primary Route, the substation is not necessary for operation of the proposed project (pers. comm. Gary Mai, LEU). At present, EUD has not prepared any final plans for the substation site, but has prepared tentative plans in order to identify how components within the substation site could be positioned.

19.1 Aesthetics

For the purposes of this analysis, the geographic context for cumulative aesthetic analysis is defined as the project area and vicinity. The project area is predominantly rural and agricultural in visual character. The proposed project would extend approximately eight miles through this rural landscape. Most of the power line would be located along public rights-of-way, in which power lines currently exist. Along most of this route, the proposed project would share poles carrying distribution and communication lines of other utilities. However, on some segments of the route, new poles carrying just the proposed 60 kV Power Line would be installed. These segments would include Tredway Road from DeVries Road to Neeley Road, and along Thornton Road from Kingdon Road to the WPCF's southern entrance. Therefore, power poles and lines would be added to the landscape, giving an incrementally more "urban" appearance to a rural area. In addition, the project would connect to the existing power plant and to the proposed Lodi Energy Center, which proposes the construction of a cooling tower and other facilities in a rural area. The proposed Westside Substation, although it would be within Lodi city limits, would be located within a planned urban commercial development, adjacent to a rural area. As a result, the project's contribution to aesthetic impacts is deemed "cumulatively considerable" as all three projects will introduce mechanical (non-agricultural) systems in a rural environment. There are no mitigation measures available that would reduce aesthetic impacts to less than significant.

Contribution to Significant Cumulative Impacts: Considerable and Significant

Mitigation Measures: None available

Contribution After Mitigation: Considerable and Significant

19.2 Agricultural Resources

Potential cumulative impacts on agricultural resources may be appropriately addressed at the regional or local level. The significance of project contributions would be potentially higher in a local context. For the purposes of this EIR, the geographic context for cumulative analysis of agricultural resource impacts is defined as San Joaquin County.

Project development would not result in the conversion of Important Farmland, or any other type of agricultural land. The project would mostly be located in existing rights-of-way of local roads. No additional right-of-way would need to be acquired, and the project would not encroach on adjacent agricultural lands. The one segment of the project that would not be located adjacent to a public road or within an existing utility easement is the segment that parallels the eastern boundary of I-5 (west of Thornton Road). This segment is located along an existing dirt road that provides access to an adjacent agricultural field. No agricultural fields would be taken out of use to install or operate this segment of the Primary Route. This is also true for the Westside Substation and Lodi Energy Center, no existing agricultural fields would be taken out of use to install or operate these uses. The project would not contribute to the cumulative loss of Important Farmland and other agricultural lands in San Joaquin County.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.3 Air Quality

Cumulative impacts on air resources may be assessed at both a regional and local level. The project would involve contributions to potential air quality impacts at the regional level (San Joaquin Valley Air Basin), as well as the local level. For the purposes of this EIR, the geographic context for cumulative analysis of air quality impacts is defined as the San Joaquin Valley Air Basin. Local impacts are considered only in the context of regional impacts.

Chapter 6.0, Air Quality, notes that the air basin, which includes San Joaquin County, is in nonattainment of federal and state standards for ozone and PM_{2.5}, and nonattainment of state PM₁₀ standards. As discussed in Chapter 6.0, project operations would likely generate few emissions of criteria pollutants. The only emissions associated with the project would be from construction and maintenance vehicles and equipment. Construction vehicle emissions would cease upon completion of project work, and mitigation measures listed in Chapter 6.0 would reduce emissions from construction activities. Maintenance vehicles would be used for routine inspections and maintenance and for repairs, which are expected to occur relatively infrequently. Also, California has adopted a Climate Change Scoping Plan that in part proposes a reduction in greenhouse gas emissions in vehicles and a reduction in the carbon content of vehicle fuels. Implementation of these proposals would further reduce vehicle pollutant emissions. The

project's contribution to the air basin's existing nonattainment status for ozone and particulate matter would be minimal.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.4 Biological Resources

The geography of biological resources impact can be defined by region, by political subdivision or by the geography of the biological resources present in an area, where sufficient inventory data is available to define it. The cumulative context for the biological resources analysis for the proposed project is the study area defined in the Biological Assessment, available in Appendix D of this document.

As development in the cities of Lodi and Stockton, and in the San Joaquin County region continues, habitat for plant and wildlife species native to the region is lost through conversion to urban development. Although more mobile species may be able to survive these changes in their environment by moving to new areas, less mobile species would simply be extirpated. With continued conversion of natural habitat to human use, the availability and accessibility of remaining foraging and natural habitats in this ecosystem would dwindle and those remaining natural areas would not be able to support additional plant or animal populations above their current carrying capacities through increased competition for resources, displacement and development-induced introduction of non-native species. The conversion of plant and wildlife habitat on a regional level would therefore result in a cumulatively significant impact to biological resources.

The Primary Route of the 60 kV power line is located adjacent to agricultural land that provides suitable foraging habitat for Swainson's hawk and other raptors, some potential raptor nesting trees, and a limited amount of potential jurisdictional waters of the United States. Installation and operation of the 60 kV power line is not anticipated to cause the loss and/or degradation of potential Waters of the U.S., loss or degradation of special status species and their potential habitat, and loss of foraging and nesting habitat for Swainson's hawk and other raptors. Also, the related projects would be built on fallow, previously disturbed areas, thus would not contribute to the loss of regional biodiversity.

Construction of the proposed project, in combination with the other electrical projects in the vicinity, would not contribute to a fragmentation and loss of regional biodiversity through the incremental conversion of foraging habitat for special-status species to human use. Plant and wildlife habitat in the vicinity of the Primary Route and related projects have been altered due to the introduction of agricultural uses and public facilities (NCPA power plant and WPCF), and supports only those special-status species that are fairly widespread in the region. The proposed project's contribution to the loss of plant and wildlife habitat in the region would be less than considerable. In addition, since local projects within San Joaquin County have the option of participating within the SJMSCP, provisions of which would help offset any cumulative effect of the projects. These

provisions include Incidental Take Minimization Measures for special-status species and compensation for loss of specific habitats.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.5 Cultural Resources

The geography of cultural resources impact can be defined by region, by political subdivision or by the geography of the cultural resources present in an area, where sufficient inventory data is available to define it. Cultural resource information, however, is ordinarily available only for small percentages of a given area, i.e. those areas that have been intensively surveyed, and this is true for the project area as well. However, the project area has geographical, land use and agricultural history in common with other lands in the vicinity of the City of Lodi. For the purposes of this EIR, then, the geographic context for cumulative analysis of cultural resources is defined as the vicinity of the City of Lodi.

As described in Chapter 8.0, Cultural Resources, the project area did not have any known prehistoric sites. It has one known historic-era site, the Western Pacific Railroad. However, the project would not encroach on the railroad's right-of-way. The project, therefore, would have no impact on known cultural resources. It is possible that undiscovered cultural resources may be found beneath the ground surface, both in the project area and throughout the vicinity of Lodi. However, mitigation measures described in Chapter 6.0 would reduce the potential impacts of the project to a level that is less than significant. Since the project would have a less-than-significant impact on cultural resources, it would have a cumulative impact that is less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.6 Geology and Soils

Impacts related to geology and soils are not inherently cumulative. Geology and soils concerns are related to risks, hazards or development constraints that are largely site-specific. However, seismic hazards are regional, and management of seismic hazards is vested with the local planning and building authority. For this reason, the potential for cumulative geology and soils impacts are considered in the context of the project area and vicinity.

The proposed project would add power poles that could be exposed to potential seismic hazards such as ground shaking and settlement, as well as soil hazards such as expansive soils. Potentially adverse environmental effects associated with these hazards usually are site-specific and generally would not combine with similar effects that could occur with

other projects in the vicinity. Also, as discussed in Chapter 9.0, Geology and Soils, the potential project-specific impacts are not considered significant. Consequently, impacts would not be cumulatively considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.7 Global Climate Change

As mentioned in Chapter 10.0, Global Climate Change, climate change associated with land development is considered as a potential cumulative effect. While GHGs are generated locally, the impacts of these emissions occur on a larger scale. Therefore, the analysis in Chapter 10.0 is applicable to the analysis of cumulative impacts in this chapter.

The proposed project would result in a temporary increase in GHG emissions from construction activities. These emissions are a very small percentage of the total GHG emissions generated in California, and these emissions would cease once construction work ends. Project operations would generate no GHGs, other than from maintenance vehicles conducting routine inspections and maintenance and repairs, if necessary. As mentioned in Chapter 10.0, the adopted Climate Change Scoping Plan proposes various measures that would reduce the amount of GHGs generated by these sources, including GHG emission standards for vehicles and lower carbon content for fuels.

A development project typically has indirect impacts on climate change through the generation of electricity needed to supply the project. This presumes that the development project would have activities requiring the use of electricity. As this project would transmit electricity only, it would not require an increase in electricity supply for its operations. As discussed in Chapter 15.0, Population and Housing, electricity generation for Lodi Electric Utility customers is affected by many factors and would occur independently of the project. Therefore, the project would not have an impact on electricity production, which is a main source of GHG emissions.

The purpose of the project is to increase the reliability of Lodi's city-wide electrical infrastructure system. As discussed in Chapter 3.0, Project Description, the city-wide system is currently connected by one line to PG&E's regional power grid, and this line has experienced several failures leading to city-wide blackouts. While procedures for restoring power to a blacked-out area vary by the cause and extent of the blackout, many procedures for a widespread blackout typically require additional electricity, the generation of which may increase output of GHGs. Moreover, many activities that require a constant source of electricity (e.g., hospitals, emergency agencies) must use backup generators during blackouts. Some of these generators may be fueled by diesel or gasoline, and their operation would lead to GHG emissions. A more reliable electric system would reduce the blackout incidents, thereby reducing the potential need for actions that may increase GHG emissions.

No thresholds of significance have yet been established for GHG emissions. Nevertheless, based on the anticipated project emissions and on compliance with the applicable provisions of the Climate Change Scoping Plan, the project is not likely to have a cumulatively considerable impact on GHG emissions and global climate change.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.8 Health and Safety

Impacts related to health hazards are not inherently cumulative. Health hazards concerns are related to risks, hazards or development constraints that are largely site-specific. However, hazard incidents could occur in, or have impacts over, a broad area. Management of health hazards is vested with the local environmental health and other appropriate authorities. Therefore, for the purposes of this EIR, the cumulative context for the analysis of cumulative hazards and human health impacts is the project area and vicinity.

As discussed in Chapter 11.0, project operations would use hazardous materials contained in maintenance vehicles and in existing transformers. Based on information in the environmental analysis submitted by NCPA, the Lodi Energy Center would use hazardous materials required for facility operation and maintenance, such as lubrication of equipment, or would be contained in transformers and electrical switches (NCPA, 2008). Although no plans are currently available for the Westside Substation, it is expected that the substation would use transformers and switches, which would contain hazardous materials.

All hazardous materials used by these projects are subject to strict federal, State and local regulations of their transport, storage, use and disposal. Most releases of hazardous materials used by the projects would be confined to the immediate area of release and generally would not affect the vicinity. The project would not use any quantities of hazardous materials that could spread beyond the release area. Implementation of applicable hazardous materials management laws and regulations adopted at the federal, State, and local levels would ensure impacts related to hazardous materials use would not be cumulatively considerable.

Other hazards, such as airport operations and transportation hazards, are site-specific. The project would not place workers at a permanent site subject to transportation hazards, including airport zones. As discussed in Chapter 11.0, the EMF hazards from power lines have not been found significant. Moreover, most of the project would be located in a rural area, away from residences. Therefore, project impacts related to other hazards are not cumulatively considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.9 Hydrology and Water Quality

Potential cumulative issues associated with surface waters can be addressed on a watershed basis, or in the context of a groundwater basin for groundwater issues. As described in Chapter 12.0, Hydrology, drainage patterns on the project area have been extensively modified as a result of the relatively flat topography and agricultural activities. The project would have a minimal effect on the hydrology of the San Joaquin River and Delta. Therefore, the geographic context for cumulative surface hydrology impacts is defined in this EIR as the project area and vicinity. However, cumulative groundwater impacts are considered in the context of the Eastern San Joaquin Subbasin.

The proposed project would not have a significant impact on either surface or groundwater resources. As discussed in Chapter 12.0, the project would not add any significant amount of impervious surface to the project area, which means that very little additional stormwater runoff would be generated. Most of the project area would be located in public rights-of-way that are unpaved. Therefore, precipitation would continue to percolate into the ground. As discussed in Chapter 11.0, Health and Safety, very little hazardous materials would be used by the project, and releases of hazardous materials would be minor. Therefore, percolation of pollutants to the aquifers beneath the project area would be unlikely to occur.

The proposed project is located outside the 100-year floodplain. Therefore, the proposed project would not contribute to a cumulative increase in flood elevations through the removal of areas from the 100-year floodplain. As previously mentioned, the project would not generate any additional stormwater during flood events. In other words, the project would not contribute any significant cumulative impacts that might be caused by related projects, including the Lodi Energy Center and the Westside Substation.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.10 Land Use and Planning

The Land Use analysis in an EIR does not typically include a discussion of cumulative impacts, because impacts involving land use plans or policies and zoning generally would not combine to result in cumulative impacts. The determination of significance for impacts related to these issues, as considered in Appendix G of the State CEQA Guidelines, is whether a project would conflict with any applicable land use plan or policy adopted for the purpose of reducing or avoiding environmental impacts. Such a conflict is site-specific; it is addressed on a project-by-project basis. Because the project-specific analysis considers both existing and future planned land uses, impacts resulting from the additive effect of other proposed or speculative land use plans would not differ from those identified in the above impact discussions. Similarly, because the analysis of applicable land use

goals and policies considers both existing and planned land uses, cumulative land use compatibility impacts are not considered independently.

As described in Chapter 12.0, Land Use and Planning, implementing the proposed project would not result in significant land use planning impacts, and the project would be consistent with all applicable local land use plans, policies and ordinances. The project is also consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, a regional-scale planning document. Furthermore, related projects are, to the extent that proposed land uses have been identified, apparently consistent with environmental plans and policies.

Because no land use impacts would occur on a project-specific basis, the project would not contribute to any potential cumulative land use impacts.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.11 Noise

Noise impacts are typically localized. The impacts of noise are reduced with distance, and unless there is a very significant existing or proposed noise source, the potential for cumulative noise impacts will ordinarily be limited to a few hundred yards from the source. Other than the Union Pacific Railroad line, Kingdon Airpark, Interstate 5 and SR 12, there are no major noise sources in the project area. For the purposes of this EIR, the geographic context for cumulative noise analysis is defined as the project area and vicinity.

As analyzed in Chapter 14.0, Noise, the project would not have a significant noise impact. The only noise associated with project operations would be the use of maintenance vehicles, which would be used relatively infrequently. No increases in traffic would occur, and the power line would not generate any significant noise. Construction activities may generate significant noise, but such noise would cease once work ends, and mitigation measures in this EIR would reduce construction noise impacts. Project construction is not anticipated to occur simultaneously with related projects, so construction noise would not be cumulatively significant. Therefore, the project would not make a cumulatively considerable contribution to noise impacts.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.12 Population and Housing

Population growth, by itself, is not considered a significant cumulative effect because it is not an environmental impact. However, population growth, and the housing and infrastructure to support it, does lead to conversion of land to other uses. The proposed

project, along with related electrical infrastructure projects, would provide greater reliability regarding the city-wide electrical system to the current users. As discussed in Chapter 15.0, Population and Housing, these infrastructure improvements represent only one of many factors considered when identifying sites for new development. Decisions on development projects in and around Lodi would occur independently of project implementation. Therefore, the project would not have any cumulative impact on population or housing.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.13 Public Services

The appropriate service providers are responsible for ensuring adequate provision of public services within their jurisdictional boundaries. For the project area, this would include the City of Lodi, San Joaquin County and special districts. For the purposes of this EIR, the geographic context for cumulative public service analysis is defined as the project area.

An analysis of the potential impacts conducted in Chapter 16.0, Public Services, concluded that the project by itself would not generate an additional demand for services such as police protection, schools, libraries and other public services. There may be an increase in potential demand for fire protection service, due to the greater possibility of downed lines or sparks. However, the Woodbridge Fire Protection District can handle any fire incidents in the project area without requiring new or expanded facilities, which would create environmental impacts. The Lodi Energy Center and the proposed Westside Substation may increase the risk of fire hazard in the area. However, such incidents would generally be confined to the sites, and the Lodi Fire Department can handle such incidents without the need for new or expanded facilities, especially with the Woodbridge Fire Protection District providing mutual aid. The Lodi Fire Department would also provide mutual aid for fires caused by the power line, if necessary. Therefore, the proposed project would not generate an incremental impact on public services that is cumulatively considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.14 Transportation/Circulation

An analysis of cumulative transportation impacts typically focuses on motor vehicle traffic. This analysis usually establishes a "cumulative base," which describes traffic conditions in a specific area in a selected future year. The general plan of a jurisdiction generally determines the area and the year for which the cumulative base is developed, as a general plan specifies the time for which it applies. Once the cumulative base is established, then the analysis applies the amount of estimated traffic the project would generate to the cumulative base, and notes the potential impact on road segments or intersections within

the study area designated by the analysis. The traffic analysis is usually quantitative in its character. However, no such analysis was conducted for this project, as the amount of traffic the project would likely generate is minimal. Therefore, what follows is a qualitative summary of potential cumulative impacts on transportation. The geographic context for the cumulative analysis is defined as the project area and vicinity.

The project would not lead to new employees or residents being attracted to the project area, or to the City of Lodi (see Chapter 15.0, Population and Housing). Population growth is connected to traffic increases, so the project would not generate traffic on the local road system. The only vehicle traffic anticipated as a result of the project would be maintenance vehicles conducting inspections or performing emergency repairs. This traffic would occur infrequently and would not noticeably affect traffic flow in the area. Some vehicles may need to encroach on the roadway to perform inspection or repair work. However, traffic controls would be installed in these situations to maintain traffic flow. Overall, the project would have little influence on traffic flow in the project area and vicinity, and therefore would not make a cumulatively considerable contribution to traffic impacts in the area.

As previously noted, the project would not lead to a significant addition of residents or employees. Therefore, the project would not increase demand for alternative modes of transportation, such as public transit, bicycling and walking. The project would not make a cumulatively considerable contribution to demand for these modes of transportation.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

19.15 Utilities and Energy Systems

Cumulative utility impacts are appropriately considered at the level of the service area of the utilities potentially affected by a project. Often, different utility companies serve a particular area. Therefore, the geographic context for the analysis of utility impacts is the project area and vicinity.

As discussed in Chapter 18.0, Utilities and Energy, the proposed project would not generate demand for water and wastewater services, stormwater conveyance, or solid waste services. The project also would not generate demand for services provided by non-electrical utilities such as natural gas, telephone or cable television.

As noted in Chapter 15.0, Population and Housing, the project would not by itself generate an increase in residents or employees. Therefore, it would not generate an increase in the demand for services needed by them. Since the project would not generate a demand for these utilities, it would not make a significant contribution to cumulative impacts on them.

The project would have an impact on Lodi's electrical system, as the objective of the project is to increase the reliability of the system. However, the project would not have an effect on the supply or demand for electricity, nor on any potential physical expansion of

the system beyond the installation of the project. As explained in Chapter 18.0, electricity demands are dictated by overall rates of urban and other growth factors, and marginal cost and reliability improvements offered by the project are not expected to result in any substantial changes in growth rates. The supply of electricity is dictated by market demand. While the project would make delivery of electricity more reliable, it would not by itself increase the demand for electricity, which would drive any need for additional facilities such as power lines and substations. Therefore, the project would not significantly contribute to cumulative impacts on the electrical system.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

20.0 ALTERNATIVES TO THE PROPOSED PROJECT

20.1 INTRODUCTION

CEQA requires that an EIR describe and analyze the relative environmental effects of alternatives to a proposed project and evaluate their comparative merits. The EIR must consider a range of reasonable alternatives that can feasibly attain most of the basic objectives of the project while avoiding or substantially lessening one or more of the significant effects of the project, even if the alternative would impede to some degree the attainment of the project objectives or would be more costly. The environmentally superior alternative must be identified among the alternatives considered.

The alternatives analysis must identify the potential alternatives and include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative is not feasible, or does not provide an opportunity to avoid or substantially reduce environmental effects, the alternative need not be analyzed in detail. If this is the case, the reasons for limiting the analysis should be identified. Similarly, if an alternative would cause one or more significant environmental effects, in addition to those that would be caused by the project, the significant effects of the alternative shall be discussed, but in less detail than the analysis of the project.

The alternatives analysis must always include evaluation of a "no project" alternative. "No project" is defined as no action with respect to the proposed project and continuation of existing circumstances without approval of the project. As a result, the "no project" alternative may also consider what could reasonably occur on or near the project site if existing development trends continue, to the degree that current general plans, zoning, infrastructure, services or other relevant conditions permit.

This chapter evaluates alternatives to the proposed Lodi 60 kV Power Line project. The following sections describe the process used to select alternatives for evaluation in this chapter; the sections identify the alternatives to the project that were considered but that were not subjected to detailed analysis as well as the alternatives to the project that were analyzed in detail. The alternatives considered in this chapter include:

- No Project Alternative
- Alternate Route 1
- Alternate Route 2
- Combinations of Primary Route and Alternative Routes
- Alternative Eastern Terminus Tie-in

The analysis of alternatives conforms to the guidelines of CEQA and the CEQA Guidelines and represents the best professional opinion of the EIR preparer, City of Lodi staff and their technical reviewers. However, it must be recognized that the authority for the approval of the proposed project, the selection of or rejection of alternatives, and the feasibility or infeasibility of alternatives rests with the decision-makers of the City of Lodi.

Selection of Alternatives

Alternatives to the project meet the criteria set forth in the CEQA Guidelines Section 15126.6. These criteria include: 1) ability of the alternative to meet most of the basic objectives of the project, 2) feasibility of the alternative, and 3) ability of the alternative to avoid or substantially reduce one or more of the significant environmental effects of the project.

Ability of the Alternative to Meet Most Project Objectives

Potential alternatives to the project were evaluated with respect to project objectives, as identified in Chapter 3.0, Project Description. The objective of the project is to increase the reliability of the City's electrical system by providing a second point of supply from the regional power grid. The existing power line, which connects to a PG&E substation east of Lodi, has experienced failures in the past years, resulting in the loss of power to the entire city. An additional power line would provide an alternate electric supply in case of an accidental interruption of the existing line.

Feasibility of the Alternative

Alternatives to the project were evaluated with respect to the "rule of reason" and general feasibility criteria suggested by the CEQA Guidelines. The general criteria include the suitability of the site or alternative site; the economic viability of the alternative; the availability of infrastructure; the consistency of the alternative with general plan designations, zoning or other plans or regulatory limitations; the effect of applicable jurisdictional boundaries; and whether the proponent can reasonably acquire, control or otherwise have access to an alternative site, including consideration of whether or not the site is already owned by the applicant.

Avoidance or Substantial Reduction of Significant Effects

The evaluation of alternatives must take into account the potential of the alternative to avoid or substantially lessen any of the significant effects of the proposed project, as identified in Chapters 4.0 through 18.0 of this EIR. The potentially significant environmental effects of the project are summarized in Chapter 2.0, Summary of this EIR, and very briefly highlighted below.

Air Quality. The project would involve potentially significant particulate matter emissions due to construction activities only. Mitigation measures would reduce potential impacts to a less-than-significant level.

Biological Resources. The project would not involve any large-scale habitat conversion and impacts on associated sensitive species use. Of the special status

wildlife species identified, Swainson's hawk, burrowing owl, and tricolored blackbird are the only species that have potential to occur along the primary route on more than a transitory or very occasional basis. Construction activities could potentially disturb these species. Mitigation measures would reduce potential impacts to these species to a less-than-significant level. The 60 kV Power Line Primary Route would not involve impacts on wetlands and Waters of the U.S.; these issues are not considered in detail in the alternatives analysis.

Cultural Resources. Although it is possible that undiscovered resources may be encountered during construction, the project would not impact any known archaeological sites, historical structures, or other resources of significance. This issue is not considered in detail in the alternatives analysis.

Noise. The project would involve potential exposure of rural residences to construction noise. Mitigation measures would reduce this impact to a less-than-significant level.

20.2 ALTERNATIVES NOT CONSIDERED IN DETAIL

The following alternatives were not addressed in detail, as they did not meet the criteria for detailed analysis defined above. That is, the following alternatives 1) would not meet the basic objective of the project, 2) were infeasible, or 3) did not have the ability to avoid or substantially lessen the significant environmental effects of the project. Alternatives that might conceivably meet the analysis criteria were subject to detailed analysis, as documented in Section 20.3. The "No Project" alternative is not among the following alternatives, as CEQA requires that this alternative be addressed in detail.

Undergrounding Alternative

This alternative would involve installing the power line underground, rather than on power poles as proposed by the project. As conceived, this alternative would be consistent with the basic objective of the project, which is to provide a second connection to the regional power grid. However, placing 60 kV and larger power lines underground is a practice generally used only when there is no viable overhead corridor. Underground lines present significant challenges due to the environmental disturbances, additional repair time and the much-higher installation and repair costs. All electric lines produce heat and therefore have a limit on the amount of power they can carry to prevent overheating. Underground lines cannot dissipate heat as well as overhead lines. Factors such as the type or surrounding soil conditions, adjacent underground utilities and the depth of installation all affect the wire's ability to dissipate heat. Lower thermal ratings for underground power lines mean they do not have as much flexibility as overhead lines to carry heavy volumes of power on hot summer days. Once lines are constructed underground, there is little or no flexibility to upgrade the facilities to respond to changes on the system.

Moreover, this alternative would lead to some greater environmental impacts than the proposed project. The placement of power lines underground requires specific engineering construction measures to ensure the safe and reliable operation of the line.

Because a single power line circuit requires three wires, each must be installed in an individual pipe. The three pipes are encapsulated in thermal concrete and surrounded by special thermal backfill materials. These facilities require significant trenching of at least five feet in depth and width. Because the repair of failed underground lines can be costly, environmentally disruptive and time-intensive, underground construction design includes the installation of a spare pipe that can be used to replace a damaged cable or pipe without reopening the entire trench. The underground design also must accommodate a dedicated fiber-optic cable for operation of line protection and control devices, which protect the system during faults and other anomalies.

These design elements would require significantly more space than the proposed project. This could remove some land from its previous uses, including agriculture. Trenching also would increase construction dust emissions and may directly impact biologically sensitive lands. The longer construction time may expose rural residences in the area to construction noise for a longer period. There would even be some temporary aesthetic impacts, as construction would leave an exposed area at the surface that would be readily visible in a predominantly rural area.

In summary, while the undergrounding alternative is consistent with the proposed project objective and may reduce specific impacts, it may be infeasible from an engineering perspective and it would substantially increase some environmental effects over those of the proposed project. Therefore, this alternative was not subjected to a detailed alternatives analysis.

Alternative Locations For The Project

CEQA Guidelines Section 15126.6(f)(2) indicates that alternative locations for the proposed project should be considered if any of the significant effects of the project would be avoided or substantially lessened at an alternative location. Only locations that have the potential to avoid or substantially reduce any of the significant effects of the project need be considered for inclusion in the EIR. As with all potential alternatives, project location alternatives must be reasonable, feasible and able to meet most of the basic objectives of the project.

Prior to settling on the two alternative routes analyzed in this chapter, the Lodi Electrical Utility Department (EUD) evaluated three other alternative routes. Two of these alternative routes were similar to the proposed route and the alternatives analyzed in this EIR, so they were not selected for further analysis. The third alternative would have the power line go along SR 12 from the proposed substation to the Flag City development. It would go behind Flag City, following Debroggi Road, until it reached Thornton Road. From there, the route would follow a similar alignment to the proposed project until it ended at the NCPA power plant site.

This route would meet the project objective, however, it would have aesthetic impacts along SR 12, as well as agricultural impacts due to the placement of the poles. This impact is significant, as the City of Lodi has made enhancement of the SR 12 "gateway" a policy of its General Plan (City of Lodi, 1991, p. 10-4). In addition, proposed improvements along SR 12, including widening of the roadway, could lead to a need to acquire easements from

adjacent property owners to implement this alternative, which would add more expense to the project. Work in these additional easements would have environmental impacts, including loss of agricultural land, disturbance of ground surface with attendant air quality and erosion impacts, and potential traffic safety issues. Therefore, this alternative is potentially economically infeasible; this alternative would increase some environmental impacts over those of the proposed project, and it will not be analyzed in this EIR.

20.3 ALTERNATIVES CONSIDERED IN DETAIL

The alternatives to the proposed project that have been considered in detail are addressed in the following sections. The overall analysis is summarized in Table 20-1.

TABLE 20-1
COMPARISON OF ALTERNATIVES

Impact	Primary Route (Proposed Project)	No Project	Alternate Route #1	Alternate Route #2	Combination of Primary and Alternate Routes	Alternate Eastern Terminus Tie-In
<i>Air pollutant emissions from construction</i>	Potentially significant without Mitigation	Avoided	Potential increase without mitigation	Potential increase without mitigation	Potential increase without mitigation	No reduction
<i>Impacts to special status wildlife species</i>	Potentially significant without Mitigation	Avoided	No reduction	No reduction	No reduction	No impact
<i>Undiscovered cultural resources</i>	Potentially significant without Mitigation	Avoided	No reduction	No reduction	No reduction	No reduction
<i>Exposure of residences to construction noise</i>	Potentially significant without Mitigation	Avoided	Impact reduced	Impact reduced	Impact reduced	No impact
<i>Conversion of agricultural lands</i>	No impact	No impact	Potential loss of agriculture	No impact	Potential loss of agriculture	No impact
<i>Conflict with airport compatibility zones</i>	No impact	No impact	Potential conflict	Potential conflict	No impact	No impact
<i>Effect Scenic Routes and Scenic Vistas</i>	No impact	No impact	Potentially significant	Potentially significant	Potentially significant	Potentially significant

20.3.1 No Project Alternative

The No Project Alternative is defined as the continuation of existing conditions in the project area. Under the No Project Alternative, no 60 kV Power Line would be installed between the NCPA power plant site and the future Westside Substation site. No new power poles would be installed, and existing power lines would remain in place, subject to occasional repair or replacement as conditions warrant. The City of Lodi would continue to rely on its existing connection to the regional power grid at the substation east of Lodi.

The continuation of existing uses would not result in any change to existing physical environmental conditions in or near the project area. Existing earth, water, biological and cultural resources would be unchanged. This alternative would involve no change in land use, no disturbance of land, and no interference with existing land use activities. This alternative would not result in any impacts associated with project construction, including increased traffic, increased dust generation, and increased noise at construction sites.

Selection of the No Project Alternative would eliminate all of the potentially significant environmental effects described in Section 20.1, including:

- Air pollutant emissions from construction
- Biological disturbance of special status wildlife species
- Undiscovered cultural resources
- Exposure of residents to construction noise

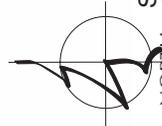
However, the No Project Alternative would not fulfill the objective of the proposed project, which is to increase the reliability of the City's electric system. The electric system would remain vulnerable to potential failures, which may continue to cause citywide blackouts. The City currently has no alternative to the proposed project to increase the system's reliability, other than alternate western routes to the regional power grid. Also, the No Project Alternative would not allow the City to directly connect to the proposed NCPA power plant, in which the City is a participant through its membership in the NCPA.

20.3.2 Alternate Route #1

Description of Alternative

This alternative would be similar to the proposed project, in that it would begin at the proposed Westside Substation and end at the NCPA power plant site. However, the route alignment would be different than the Primary Route. Figure 20-1 shows the Primary Route alignment and the two alternate route alignments, including Alternate Route #1.

The following is a detailed description of each segment of Alternate Route #1. As with the proposed project, each straight, linear run of line corresponds to a segment. A descriptive title has also been given each segment. Unless steel pole locations are specifically identified in the detailed description, all other poles should be assumed to be wooden.



SOURCE: USGS TERMINOUS AND LODI SOUTH
NORTH QUADRANGLE 7.5 MINUTE SERIES

INSITE ENVIRONMENTAL, INC.

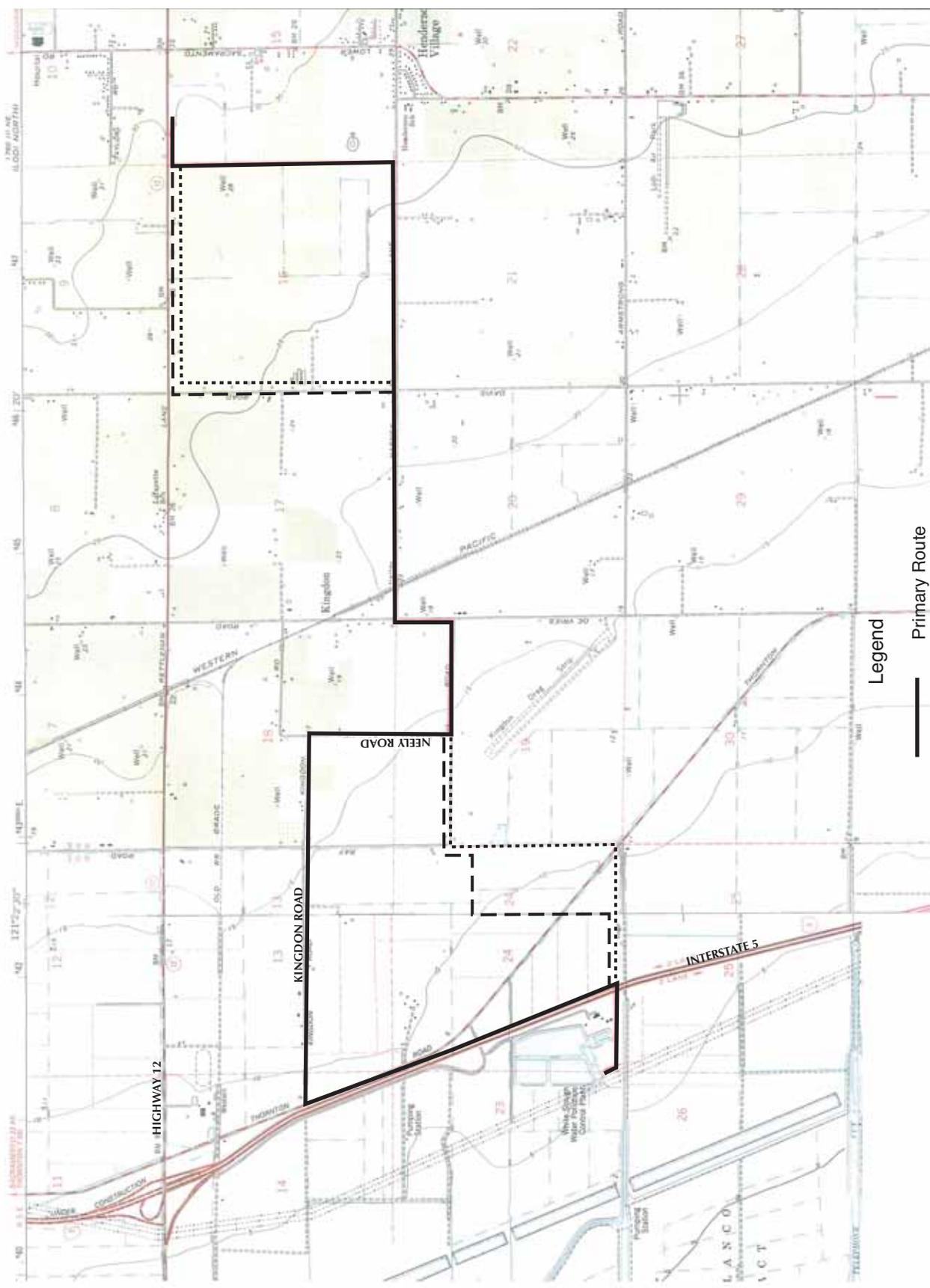


Figure 20-1
ALTERNATIVE ROUTES 1&2

Segment A (Future Westside Substation)

- The power line begins at the easternmost interconnection point, the future Westside Substation. The 60 kV Power Line exits the proposed Westside Substation at the southwest corner of the substation and crosses SR 12 to a point on the north side of the SR 12 right-of-way.
- The first power pole across SR 12 would be steel.

Segment B (SR 12)

- The power line turns west and continues along SR 12 to Davis Road. The entire segment would be constructed jointly with PG&E distribution and existing communication lines.
- This east-west trending section ends with a steel pole at the northeast corner of SR 12 and Davis Road.

Segment C (Davis)

- The power line turns south along the east side of Davis Road and continues to the intersection with Harney Lane. For approximately one-third of this segment, the power line would be constructed jointly with PG&E distribution lines. For the remaining two-thirds, the line would be constructed jointly with PG&E distribution and existing communication lines.
- This north-south trending section ends with a steel pole near the northeast corner of Davis Road and Harney Lane. This power pole would be constructed with PG&E distribution lines only (no communication lines).

Segment D (Harney)

- The power line turns west along the north side of Harney Lane and continues approximately 12,000 feet to DeVries Road, same as the proposed. This section of line will be constructed jointly with PG&E distribution and existing communication lines. The last 1,000 feet before DeVries Road would joint use with PG&E distribution only (no communication).
- This east-west trending segment ends with a steel pole at the northeast corner of DeVries Road and Harney Lane.

Segment E (DeVries)

- This segment is the same as the one for the proposed project. Refer to Chapter 3.0, Project Description, for a description of this segment (called Segment D).

Segment F (Tredway)

- The line heads west on the north side of Tredway Road to Ray Road. The line would leave the joint pole at DeVries Road and consist of a solo attachment (the 60 kV power line only) along this segment.
- This east-west trending segment ends with a joint steel pole at the northwest corner of Tredway Road and Ray Road.

Segment G (South of Ray)

- The power line turns south and crosses private property from the steel pole along Ray Road to its intersection with Thornton Road. Existing power poles are located along this segment, but the power line would be carried solo on its own poles.
- This north-south trending segment ends with a steel pole on the south side of Thornton Road.

Segment H (White Slough)

- The power line turns west and follows an entrance road to the White Slough WPCF area, including the NCPA power plant. It crosses I-5 in the same location as an existing PG&E 12kV distribution line crossing. This section of power line would be constructed jointly with PG&E distribution. The section of line east of the I-5 crossing would be constructed jointly with PG&E distribution and existing communication lines.
- The power line continues west on City of Lodi property to the proposed connection point inside the NCPA facility. A part of this section of power line would be constructed jointly with PG&E distribution, but the end pole would consist of a solo attachment.
- Steel poles would be used at both ends of this segment.

Analysis of Alternative

This alternative would fulfill the objective of the project, which is to provide a second connection to the regional power grid, thereby improving the reliability of the City's electric system. Alternate Route #1 would be a more direct route between the eastern terminus and the NCPA power plant site than would the proposed project, so less power line and fewer poles would be needed. Since the route would mostly use existing public rights-of-way and City property, no additional easements would need to be acquired in those areas. However, an easement may need to be acquired for the segment south of Ray Road, especially if there are no plans to construct poles for joint use with the transmission line currently in the area. The existing power line is a PG&E 60 kV facility. The feasibility of acquiring an adjacent easement and the physical requirements to have two similar lines located in such close proximity would require additional evaluation.

Many of the impacts of Alternate Route #1 would be similar to those of the proposed project. This route would avoid some of the rural residences along Harney Lane, Neeley Road, Kingdon Road and Thornton Road that would be affected by the proposed project, thereby avoiding the potentially adverse air quality and noise impacts on these residences from construction activities. However, these impacts would only be transferred to residences and businesses along SR 12 and Davis Road.

Construction on the segment south of Ray Road may lead to greater dust emissions, as construction would occur on mostly undeveloped land; a construction access road would need to be developed, and a greater land area would be disturbed. Mitigation measures to control dust would reduce impacts, especially since there would be no residences or other sensitive uses south of Ray Road. Air quality impacts of construction on other segments of this route would be similar to those of the proposed project.

If the segment south of Ray Road adds poles next to those currently in that location, this could have a slight impact on land use in that area. With poles running parallel, the land area beneath the lines would in general become less available for existing agricultural use. The amount of land area that would be lost to agricultural production would be minimal compared to the available agricultural land in the vicinity. Nevertheless, there may be some conversion of land classified as Important Farmland by the California Department of Conservation.

The segment along Tredway Road would cross over safety zones designated for Kingdon Airpark by the County's Airport Land Use Compatibility Plan (see Chapter 11.0, Health and Safety). In particular, the alignment passes through the Runway Protection Zone (Zone 1), the Inner Approach/Departure Zone (Zone 2), and the Inner Turning Zone (Zone 3). Structures in Zone 1 require ALUC review for any height. In Zone 2, structures of a height taller than 35 feet above ground level would require ALUC review. In Zone 3, objects taller than 70 feet require ALUC review. Any poles set in Zone 1 would require ALUC review, while poles in Zone 2 would likely require review, as most poles likely would be taller than 35 feet. Depending on the results of the ALUC review, pole sizes may need to be shortened, or poles may not be allowed in the zones. This may affect the feasibility of this alternative.

Table 20-1 compares the potential impacts of Alternate Route #1 with those of the proposed project.

20.3.3 Alternate Route #2

Description of Alternative

This alternative would be similar to the proposed project, in that it would begin at the proposed Westside Substation and end at the NCPA power plant site. However, the route alignment would be different. Figure 20-1 shows the proposed alignment under Alternate Route #2.

The following is a detailed description of each segment of Alternate Route #2. Segments A through F are the same as described under Alternate Route #1, above. Refer to Subsection

20.3.2 above for a description of these segments. The following segments differ Alternate Route #1:

Segment G (South of Ray)

- The power line turns south and traverses private property for the length of two power pole spans. Existing power poles are located along this segment, but the power line would be carried solo on its own poles.
- This north-south trending segment ends with a steel pole.

Segment H (Southwest of Ray and Tredway)

- The power line turns west from the steel pole ending Segment G and traverses private property for the length of two pole spans. The power line would consist of a solo attachment along this segment.
- This east-west trending segment ends with a steel pole.

Segment I (South to Thornton)

- The power line turns south and crosses private property from the steel pole ending Segment H. It crosses Thornton Road and continues south until it encounters an entrance road to the WPCF area. The power line would consist of a solo attachment along this segment.
- This north-south trending segment ends with a steel pole on the north side of the entrance road.

Segment J (White Slough)

- The power line turns west and follows an entrance road to the White Slough WPCF area. It crosses I-5 in the same location as an existing PG&E 12kV distribution line crossing. This section of power line would be constructed jointly with PG&E distribution. The section of line east of the I-5 crossing would be constructed jointly with PG&E distribution and existing communication lines.
- The power line continues west on City of Lodi property to the NCPA facility. A part of this section of power line would be constructed jointly with PG&E distribution, but the end pole would consist of a solo attachment.
- Steel poles would be used at both ends of this segment.

Analysis of Alternative

This alternative would fulfill the proposed project objective. Alternate Route #2 would be a more direct route between the eastern terminus and the NCPA power plant site than would the proposed project, so less power line and fewer poles would be needed. Since

the route would mostly use existing public rights-of-way and City property, no additional easements would need to be acquired in those areas. However, an easement may need to be acquired for Segments G, H and I. Segment G does have existing transmission lines, but these may not be placed on the new poles. Segments H and I currently have no power poles, so utility easements would likely have to be acquired in the areas where they cross private property.

Many of the impacts of Alternate Route #2 would be similar to those of Alternate Route #1. This route would avoid many of the rural residences along Harney Lane, Neeley Road and Kingdon Road that would be affected by the proposed project, thereby avoiding the adverse air quality and noise impacts on these residences. As with Alternate Route #1, these impacts may be transferred to residences and businesses along SR 12 and Davis Road.

Construction on Segments G, H and I may lead to greater dust emissions, as construction would occur on mostly undeveloped land and a greater land area would be disturbed. Mitigation measures to control dust would reduce impacts, especially since there would be no residences or other sensitive uses along these segments. Air quality impacts of construction on other segments of this route would be similar to those of the proposed project.

The segment along Tredway Road would cross over safety zones designated for Kingdon Airpark by the County's Airport Land Use Compatibility Plan (see Chapter 11.0, Health and Safety). The potential impacts would be the same as those described in Alternate Route #1. Refer to Subsection 20.3.2 for a discussion of these impacts.

Table 20-1 compares the potential impacts of Alternate Route #2 with those of the proposed project.

20.3.4 Combination of Primary and Alternate Routes

Description of Alternative

This alternative would be similar to the proposed project, in that it would begin at the proposed eastern terminus and end at the NCPA power plant site. However, the alignment would be a combination of the Primary Route and the Alternate Routes. Essentially, this alternative would utilize Alternate Routes #1 and #2 segments along SR 12 and Davis Road and then follow the remaining segments of the Primary Route to the western terminus at the NCPA power plant.

Analysis of Alternative

This alternative would fulfill the proposed project objective while avoiding potential conflicts with the Kingdon Airport compatibility zones along Tredway Road and Ray Road that the Alternate Routes encounter. This alternative alignment would have many of the same potential impacts identified under the Primary Route.

Although this alternative route would avoid some of the rural residences along Harney Lane, thereby avoiding the potential short-term air quality and noise impacts on these

residences from construction activities, these potential impacts would only be transferred to residences and businesses along SR 12 and Davis Road. Mitigation measures described in this EIR would reduce these construction impacts to less than significant levels.

As noted, this route would meet the project objective, however, it would have aesthetic impacts along SR 12, as well as agricultural impacts due to the placement of the poles. This impact is potentially significant, as the City of Lodi has made enhancement of the SR 12 “gateway” a policy of its General Plan (City of Lodi, 1991, p. 10-4). In addition, long range planning improvements along SR 12, including widening of the roadway, could lead to a need to acquire easements from adjacent property owners to implement this alternative, which would add more expense to the project and possibly result in the loss of agricultural land. These issues would be confined to the segment of SR 12 between Davis Road and the future Westside Substation (the project’s eastern terminus).

20.3.5 Alternate Eastern Terminus Tie-In

Description of Alternative

This alternative would entail by-passing the future Westside Substation site and connecting the 60 kV Power Line into existing 60 kV power lines closer to Lower Sacramento Road. The Primary Route’s eastern terminus would need to be extended east to the future extension of Westgate Drive. The power line would then travel north to SR 12. It would then proceed east to Lower Sacramento Road and tie into the existing system. Steel poles would be used at each 90-degree turn. Approximately six poles would be required to extend this alternative from Westgate Drive to Lower Sacramento Road.

Analysis of Alternative

This alternative would fulfill the proposed project objective without the construction of the Westside Substation site. This alternative would have many of the same potential impacts identified under the proposed project, however, it would have additional aesthetic impacts along SR 12 due to the placement of the poles between Westgate Drive and Lower Sacramento Road. This impact is potentially significant, as the City of Lodi has made enhancement of the SR 12 “gateway” a policy of its General Plan (City of Lodi, 1991, p. 10-4).

20.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project alternative would have the least environmental impact of the alternatives considered in detail. This would be considered the “Environmentally Superior Alternative.” However, this alternative does not meet the objective of the proposed project.

In the event that the No Project Alternative is considered the environmentally superior alternative, CEQA Guidelines Section 15126(d)(3) requires the identification of an environmentally superior “build alternative.” The Combination of the Primary and

Alternate Routes Alternative would be the Environmentally Superior Build Alternative, assuming the propose power poles on SR 12 between Davis and the eastern terminus were located within the existing right-of-way and replaced existing poles, could this alternative be considered the Environmentally Superior Build Alternative. This Alternative would keep the entire alignment within existing public right-of-way and land controlled by the City of Lodi.

21.0 GROWTH-INDUCING IMPACTS

The CEQA Guidelines require that an EIR discuss the ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this required discussion are projects that would remove obstacles to population growth. These impacts are called "growth-inducing impacts."

Growth can be induced in a variety of ways. Some new development may create demands for other types of development – a large new industrial facility that creates numerous new jobs may increase or accelerate demands for housing. In an area of relative housing shortage, this effect could induce growth. However, the same project in a labor surplus area may have no growth-inducing effect at all. Development of significant new amenities may also encourage development of other land uses nearby. An example would be the development of major new shopping or entertainment facilities that spur development of new residential areas.

Growth can also be induced by removing obstacles to development or by reducing development costs. New or additional development can result from new infrastructure that expands capacity (e.g., a new sewage treatment facility or potable water system) or the extension of street or utility infrastructure or other facilities. These facilities may stimulate development of previously underserved areas or areas lacking service. However, the construction of new infrastructure in conjunction with proposed development that would be served by the new facilities may not have a distinguishable growth-inducing effect, other than supporting the proposed development.

Government actions that permit or promote additional development may induce growth. Such actions may include a general plan amendment or re-zoning that favors additional development, issuance of permits or approvals that establish new precedents for land development, and changes in policy that have the same result.

This chapter analyzes the potential growth-inducing impacts of the project. This analysis includes discussion of the potential characteristics of the project that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. The CEQA Guidelines note that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

GROWTH INDUCEMENT ANALYSIS

The project area has a rural setting due to the predominantly agricultural use of the area. Rural residences are scattered throughout the project area, along with a few commercial activities predominantly related to agriculture and the Kingdon Airport. The project area is accessible by SR 12 and several local roads. Interstate 5 forms a portion of the western boundary of the project area, but access from Interstate 5 is limited to the SR 12

interchange. Electrical lines are found throughout the project area, mainly along the public roads. The poles on which the electrical lines are carried also carry lines for telephone and cable television service. No local water or wastewater lines serve the project area – residents and businesses are served by private wells and septic systems. A large sewer main line does cross portions of the project area as it connects the City of Lodi to the WPCF site, west of I-5.

The project would involve the installation of a 60 kV Power Line from the NCPA power plant site to the western city limits of Lodi, near Lower Sacramento Road and SR 12. This power line would convey electricity from the existing power plant site to a proposed substation, which in turn would distribute the electricity to Lodi Electric Utility's (LEU's) service area in existing facilities. No other power or distribution lines would be installed as part of the project, either within the project area or in LEU's service area. The project does not propose the construction of any housing or other buildings.

The project would not introduce new infrastructure that would provide service to an underserved area or an area that lacks service. Electrical service is currently available throughout the project area and Lodi, and its availability is not a constraint to new development. Moreover, the portion of the project area in the County receives electrical service from PG&E. Therefore, the proposed Lodi West 60 kV Power Line would have no impact on service in the County area.

The project is expected to provide more reliable electrical service in the LEU service area. As discussed in Chapter 9.0, Population and Housing, while additional reliability is expected to be of tangible benefit to new and existing LEU customers, this improvement is not expected to result in any substantial or measurable influence on the rate or amount of population growth or community development. Development and population growth are a function of environmental, economic and social conditions, and regulation of growth is the province of local government. While infrastructure is one factor in new growth and development, it is only one of many factors considered. Moreover, electricity is typically supplied in response to demand, which is dictated by overall rates of urban and other growth in the City of Lodi and surrounding regions. While electrical facilities deliver electricity, they have no effect on electricity supply or demand. Consequently, the proposed project is not expected to induce any substantial development, which in turn would induce population growth.

In summary, the project provides a conveyance for electricity to be supplied to LEU's service area only. While it would increase the reliability of the electrical supply, it would not have an impact on growth in the City of Lodi or in the area through which the project would pass. Therefore, the project would have no growth-inducing impacts.

22.0 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA requires that an EIR address any significant irreversible environmental changes that would be involved in the 60 kV Power Line Project if it were implemented. Significant irreversible environmental changes could include conversion or use of substantial amounts of nonrenewable resources during the construction or operation of the project, or the commitment of resources to other uses, or to their permanent non-use. Resources that may be considered subject to irreversible change may include materials, land, energy or state of development/non-development. Consumption, use or commitment of resources is considered irreversible when it is likely that future generations will be committed to similar uses. Irreversible damage can also result from environmental accidents associated with the project. CEQA suggests that irremediable commitments of resources be evaluated to assure that such current consumption is justified.

The 60 kV Power Line Project would involve the irreversible commitment of construction materials and energy consumption to install the power poles and associated infrastructure. Construction materials would involve sand and gravel, concrete, asphalt, plastics and metals, along with various renewable resources. Energy use would occur as a result of operation of equipment used in installation of project components. These materials would not be used in highly significant or unusual quantities and would be obtained from existing commercial sources.

Implementation of the project would not involve significant irreversible environmental changes. The purpose of the project is to increase the reliability of Lodi's city-wide electrical infrastructure system. As discussed in Chapter 3.0, Project Description, the city-wide system is currently connected by one line to PG&E's regional power grid, and this line has experienced several failures leading to city-wide blackouts. While the project would make delivery of electricity more reliable, it would not by itself increase the demand for electricity, which would drive the need for additional facilities such as transmission lines and substations and cause significant irreversible environmental changes.

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Jensen, Sean. Principal, Genesis Society.

Kapahi, Ray. Air Permitting Specialists.

Kloeb, Kim. Senior Regional Planner, San Joaquin Council of Governments.

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