3.13 POPULATION AND HOUSING

This section identifies potential impacts to population and housing that would be caused by the proposed Tule Wind Project. The following discussion describes the existing population and housing characteristics in the surrounding area, and an analysis of the potential impacts that may result from the construction, operation, maintenance, and decommissioning of the proposed project and alternatives.

3.13.1 Affected Environment/Environmental Setting

The project area is located north of the community of Boulevard in the eastern portion of the unincorporated area of San Diego County within the Mountain Empire Subregional Planning Area. The project area is primarily undeveloped and rural in nature and is characterized by its very low-density population with single-family homes located on large parcels in the southern portion of the project area. Small-scale agriculture operations are scattered throughout the surrounding areas, typically dry land farming or grazing. Portions of the project area have extremely steep, rocky terrain with minimal access.

Mountain Empire Subregion

The Mountain Empire Subregion is the third largest planning area in the unincorporated County, covering approximately 303,900 acres. This subregion is bounded by Mexico to the south, Imperial County to the east, the Jamul/Dulzura planning area to the west, the Alpine planning area to the northwest, and the Central Mountain and Desert subregions to the north.

The Mountain Empire Subregion is represented by the Boulevard, Campo/Lake Morena, and Potrero Planning Groups and the Jacumba and Tecate Sponsor Groups. The remaining area not included in one of these communities is sparsely populated and includes few privately owned parcels.

Population and Housing Characteristics

The Mountain Empire Subregional Planning Area includes the communities of Boulevard, Manzanita, Live Oak Springs, Tierra Del Sol, Crestwood, Jewel Valley, McCain Valley, Miller Valley and a portion of Bankhead Springs. Each of these areas has their own unique identities, but they are similar in many natural characteristics such as topography, water resources, and environment. The project area is just north of the community of Boulevard, and north of Interstate 8 (I-8) in the Mountain Empire Subregion. The Boulevard area is characterized by large lot single-family residences; large and small ranches historically used for cattle grazing, livestock production and horses, fruit trees, and dry land farming.

The San Diego Association of Governments (SANDAG) provides estimates of population and housing with limited demographic characteristics. **Table 3.13-1** depicts the most recent estimates for the Mountain Empire Subregion of unincorporated San Diego County.

As shown in **Table 3.13-1**, the population in the Mountain Empire Subregion is decreasing while the number of actual housing units is on the rise. The persons per household rate has decreased from 2.74 in 2000 to 2.43 in 2009. The distribution of the population in the immediate vicinity of the project is generally very low-density residential properties located on large parcels.

Table 3.13-1. Mountain Empire Subregion Population and Housing (2000 and 2009)

	April 1, 2000	January 1, 2009	2000 to 2009 Change	
			Numeric	Percent
Total Population	6,402	6,134	-268	-4.2%
Household Population	5,998	5,731	-267	-4.5%
Group Quarters Population	404	403	-1	-0.2%
Total Housing Units	2,632	2,779	147	5.6%
Single Family – Detached	--	2,559	--	--
Single Family – Multiple-Unit	--	0	--	--
Multi-Family	--	74	--	--
Mobile Home and Other	--	146	--	--
Occupied Housing Units (Households)	2,187	2,359	172	7.9%
Single Family – Detached	--	2,151	--	--
Single Family – Multiple-Unit	--	0	--	--
Multi-Family	--	74	--	--
Mobile Home and Other	--	134	--	--
Vacancy Rate	16.9%	15.1%	-1.8%	-10.7%
Persons per Household	2.74	2.43	-0.31	-11.3%

Source: SANDAG 2009

Population and Household Growth Projections

SANDAG conducted a Regional Growth Forecast in 2008. The Mountain Empire area represents a low percentage of overall population of the unincorporated San Diego County. The current and projected person per household for 2030 is 2.8. As shown in **Table 3.13-2**, the population growth forecast indicates that the Mountain Empire Subregion is expected to grow from approximately 6,472 to 16,340 persons by the year 2030. The population growth may be lower than forecasted due to the limited amount of groundwater resources in the area. Due to the areas dependency on groundwater resources, the County of San Diego Draft General Plan proposes new land use designations with decreased densities to limit the amount of land subdivision, and thus future development. However, the households and housing unit growth forecasts for the area is still expected to rise from 2,359 to 5,629 for households, and 2,779 to 5,971 for housing units over the next 20 years, as shown in **Table 3.13-3**.

Table 3.13-2. Population Growth Forecasts (2008)

Subregion/Area	2008	2010	2020	2030
Mountain Empire Subregion	6,472	7,530	9,453	16,340
Unincorporated County (Total)	491,764	504,719	627,142	723,392

Source: SANDAG 2009

Table 3.13-3. Households and Housing Unit Growth Forecasts (2000)

	2009*		2010		2020		2030	
	Mtn. Empire	County (total)	Mtn. Empire	County (total)	Mtn. Empire	County (total)	Mtn. Empire	County (total)
Households	2,359	156,112	2,645	163,272	3,326	202,557	5,629	226.992
Housing Units	2,779	167,769	3,092	172,443	3,613	213,141	5,971	235,861

Source: SANDAG 2000
* Current estimates as of 2009 shown in Table 3.13-1.

Housing Surrounding the Project Area

In order to determine the potential effects on surrounding residences, a count of residential units in the surrounding area was gathered. The information was gathered with a check of the aerials for buildings, and a spot check of all buildings in the surrounding areas of the project. After a layer was created using a Geographic Information System (GIS), a local contact verified some buildings that were questioned as being homes or not. However, an actual residential survey was not completed. The project boundary does include Rough Acres Ranch which includes approximately 25 small ranch staff housing and six other residential and storage-type buildings. The project does not propose the removal or alteration of any of these existing buildings due to the construction of the wind turbines. Approximately 45 homes were identified within one mile of the project area, not including tribal land residences. The closest home (Rough Acres Ranch) is estimated to be approximately 884 feet away from a proposed turbine. One house is approximately 330 feet to the edge of the 5-acre O&M Facility Location #1 Alternative (Rough Acres Ranch owned parcel) site. One house is approximately 30 feet to the Alternate Transmission Line #1. The closest house to proposed access road improvements is about 13 feet.

Temporary housing such as hotels and inns are limited in the general vicinity of Jacumba and Boulevard. Three hotels are located in the general vicinity with a total of approximately 40 rooms.

3.13.2 Regulatory Setting

The project does not include any housing as part of the proposed project. A substantial increase in population is not anticipated to occur as a result of the proposed project. The project will not displace a substantial number of people, necessitating the construction of replacement housing elsewhere. Therefore, there are no regulations applicable to the proposed project.

3.13.3 Environmental Consequences/Impact Analysis

California Environmental Quality Act Significance Criteria

To satisfy the *California Environmental Quality Act (CEQA) Guidelines* Appendix G (VII), the following significance criteria addresses population and housing impacts. The significance criteria listed below were used to come to conclusions regarding impacts caused by the project to population and housing. Impacts to population and housing are considered significant if any of the following occur:

- The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

- The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction

The project is expected to employ up to 325 employees during the peak construction period, with approximately 125 employees to be on-site and 200 workers for deliveries daily over the time period of 18 to 24 months. The project does not propose development, such as residential housing which would directly impact the surrounding area. The project will require the construction of wind turbines and associated infrastructure, including new roads and upgrades to existing roadways to accommodate large delivery trucks for the delivery of construction equipment and cranes and for a haul route to the project area. Construction workers are anticipated to commute from outside the vicinity of the project area. The construction phase of the project will not induce substantial population growth to the surrounding area. Therefore, the construction of the project will result in a less than significant impact.

Operation and Maintenance

The operation and maintenance of the project would not induce substantial population growth in the area, either directly or indirectly. The project will employ approximately 12 permanent full-time employees to maintain and operate the turbines. It is assumed that the employees will reside in the surrounding vicinity, although this low number of employees is considered minimal and would not impact the housing demands of the area. The operation and maintenance phase of the project would not induce substantial population growth. No impact is identified.

Decommissioning

The decommissioning of the proposed wind project would not affect population and housing in the area. The area would revert back to prior land uses and would be subject to the federal, state, and local guidelines regarding development and usage. No impacts are identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

The project does not propose the demolition of existing buildings which would displace people residing in the area which would require replacement housing to be built elsewhere. No impacts are identified due to the displacement of housing.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

The project does not propose the demolition of existing residences or structures. The construction, operation and maintenance, and decommissioning of the proposed project would not directly or indirectly impact area residents requiring the construction of replacement housing elsewhere in the area. No impacts are identified for this issue area.

3.13.4 Cumulative Impacts

According to the Cumulative Projects identified in Section 2, the projects do not include the types of projects that would impact population and housing in the general vicinity. According to the SANDAG projections for the Mountain Empire area, the available housing will be sufficient for the project population growth. Cumulative impacts to population and housing are considered less than significant.

3.13.5 CEQA Levels of Significance Before Mitigation

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance, and Decommissioning

The project will not induce substantial population growth in the area due to the construction, operation and maintenance, and decommissioning phases of the project, either directly or indirectly. A less than significant impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

The project will not displace housing in the area due to the construction, operation and maintenance, and decommissioning; therefore, no impacts are identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

The project will not displace people requiring the construction of replacement housing; therefore, no impacts are identified.

3.13.6 Mitigation Measures

No mitigation measures are required as there are no impacts to population and housing from the proposed project.

3.13.7 CEQA Levels of Significance After Mitigation

No impacts are identified, thus no mitigation measures are required.

3.13.8 Comparison of Alternatives

In developing the alternatives to be addressed in this environmental document, the potential alternatives were evaluated in terms of their ability to meet the basic objectives of the project, while reducing or avoiding the environmental impacts of the project. The alternatives will contain the same components and construction corridor as the proposed project except they may vary in number and location.

No Project/No Action Alternative

Selection of the No Project/No Action Alternative would mean that that Tule Wind Project as proposed would not be implemented. The 200 MW of electricity that would be generated by the project would not occur. Consequently other renewable energy projects would need to be developed to meet the national, state, and local goals for renewable energy development.

Alternate Transmission Line Alternative #1

The Alternate Transmission Line Alternative #1 (T-line Alternative #1) would include all of the same components as the proposed project except for an alternate overhead 138 kV transmission line (T-line Alternative #1), as shown in **Figure 2.0-12**. The T-line Alternative #1 would be located parallel to, but in-lieu of, the proposed transmission line. T-line Alternative #1 would be located further west and run from either the proposed or deviant collector substation approximately 5.5 miles south to the Rough Acres Ranch (south of turbine G-19). From Rough Acres Ranch, the line would continue west to Ribbonwood Road. The line would continue south on Ribbonwood Road to Old Highway 80, and east along Old Highway 80 to the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by approximately 7.6 acres, from 772.7 acres to 780.3 acres, utilizing the deviant collector substation. The 138 kV transmission line would increase in distance from 9.7 miles to 11.7 miles and would increase the amount of transmission line poles from 116 poles to 152 poles, utilizing the deviant collector substation. The 34.5 kV overhead collector lines would remain the same distance of 9.4 miles, and would require the same amount of collector line poles (250), and the underground collector lines would also remain the same distance of 29.3 miles, utilizing the deviant collector substation.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose any new housing and will not generate substantial population growth in the area. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing housing that would necessitate the construction of new housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing people that would necessitate the construction of replacement housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.
This alternative has the same level of impacts to population and housing as the proposed project.

Alternate Transmission Line #2 and Collector Substation Alternative

The Alternate Transmission Line #2 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #2 (138 kV), as well as an alternate overhead collector system, as shown in **Figure 2.0-13**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation location. All other elements of the project including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #2 would run from the alternate collector substation south along McCain Valley Road, and then west along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by1.9 acres, from 772.7 acres to 774.6 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose any new housing and will not generate substantial population growth in the area. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing housing that would necessitate the construction of new housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing people that would necessitate the construction of replacement housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. Therefore, no impact is identified.

This alternative has the same level of impacts to population and housing as the proposed project.

Alternate Transmission Line #3 and Collector Substation Alternative

The Alternate Transmission Line #3 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #3 (138 kV), as well as an alternate overhead collector system as shown in **Figure 2.0-14**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #3 would run from the alternate collector substation west to Ribbonwood Road, continue south along Ribbonwood Road, and then east along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the land disturbance by 7.3 acres, from 772.7 acres to 780.0 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 5.4 miles and would decrease the amount of transmission line poles from 116 poles to 60 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose any new housing and will not generate substantial population growth in the area. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing housing that would necessitate the construction of new housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

This alternative does not propose to displace any existing people that would necessitate the construction of replacement housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

This alternative has the same level of impacts to population and housing as the proposed project.

Operation and Maintenance Facility Location #1 Alternative

The O&M Facility Location #1 Alternative would be located on private property (T17S R7E Sec4), north of the alternate collector substation and located west of McCain Valley Road, as shown in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation; however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same land disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative. However, by relocating the O&M building site to the northern portion of Rough Acres Ranch, this alternative would require an approximate 650-foot new access road to be constructed on the west side of McCain Valley Road, thus necessitating an approximate 0.07 acres of permanently impacted area and a temporary impact of 0.55 acres. In comparison to the proposed project, this alternative would decrease the land disturbance by approximately 2.5 acres, from 772.7 acres to 775.2 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose any new housing and will not generate substantial population growth in the area. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing housing that would necessitate the construction of new housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing people that would necessitate the construction of replacement housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

This alternative has the same level of impacts to population and housing as the proposed project.

Operation and Maintenance Facility Location #2 Alternative

The O&M Facility Location #2 Alternative would be located on private property (T17S R7E Sec 16), south of the alternate collector substation and located west of McCain Valley Road, as illustrated in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation; however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same land disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative. However, by relocating the O&M building site to the southern portion of Rough Acres Ranch, this alternative would result in a very slight difference of 1.0 acres of permanent impacts and 0.08 acres of temporary impacts resulting from the construction of new access roads than those described in **Table 2.0-10**. In comparison to the proposed project, this alternative would increase the land disturbance by approximately 2.0 acres, from 772.7 acres to 774.7 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

The project induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

Construction, Operation and Maintenance

This alternative does not propose any new housing and will not generate substantial population growth in the area. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere

Construction, Operation and Maintenance, and Decommissioning

This alternative does not propose to displace any existing housing that would necessitate the construction of new housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

The project displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere

This alternative does not propose to displace any existing people that would necessitate the construction of replacement housing elsewhere. This alternative would not have a greater impact on population or housing than the proposed project. No impact is identified.

This alternative has the same level of impacts to population and housing as the proposed project.

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