SECTION 5: CUMULATIVE IMPACTS

5.1 - Cumulative Impact Analysis Issues

The CEQA Guidelines (Section 15130) require identification of related projects, both public and private, that together with the proposed project could have cumulative impacts on the environment. CEQA Section 21083 (b), includes the following definition:

"Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

There are two accepted methods when addressing cumulative impacts. The first method is identifying individual projects that may contribute to cumulative impacts. In this manner, each project's impact is considerable when viewed in connection with the effects of past, current, and probable future projects. The second method is identifying the potential cumulative impacts from a universal standpoint in comparison with the proposed project. Universal comparison is considerable when viewed in connection with the effects of past, current, and probable future projects within an area-wide region (i.e., County or State).

For purposes of this analysis, the universal method will be used as guidance in evaluating the cumulative impacts of past, present, and probable future projects similar to the proposed project in the County of Riverside and the contributing impacts from the proposed project. Information in this section was derived from the County of Riverside General Plan (March 2003). The following analysis is consistent with the recent CEQA court case "Communities for a Better Environment vs. California Resources Agency" (2002) which also relied on "San Franciscans for Reasonable Growth vs. County and City of San Francisco" (1984) for guidance.

5.2 - Cumulative Impacts Analysis

5.2.1 - Aesthetics

The area of consideration for this issue is the County of Riverside. There are thousands of telecommunication towers throughout the County of Riverside. The types of towers can range from cell towers, two-way radio towers, broadcast towers (i.e., television and radio), amateur radio towers, and others. These facilities have been developing over many decades. Until another form of technology provides these types of services, it is likely that development of these facilities will continue well into the foreseeable future. However, over the last decade, efforts have been made to reduce the visually intrusive nature of some of these towers, cellular telephone facilities in particular. Stealth treatments have been successfully implemented in some areas, and these types of treatments have

are not feasible for the types of facilities required for the proposed project. See Section 4.1, *Aesthetics*, for a discussion of feasibility.

As discussed in Section 4.1, *Aesthetics*, many of the proposed tower sites are not consistent with their surrounding visual environments. Therefore, the project contributes to a significant impact according to the "universal" approach. Further, no feasible mitigation was identified that could potentially lower the project's cumulative impact to a less than significant level. Any future sites that might also be developed as part of the proposed project will likely have similar impacts as well. Therefore, the project must be considered a significant cumulative impact in regards to aesthetics. Should the County desire to approve and implement the project, a Statement of Overriding Considerations will be required.

5.2.2 - Agriculture

The area of consideration for this issue is the County of Riverside, which has historically supported a variety of agricultural uses. When the General Plan was implemented in 2003, the amount of land actively utilized for agricultural production in Riverside County totaled 266,926 acres. Of this acreage, 132,183 acres, 42,096 acres, and 37,726 acres were designated as "Prime," "Statewide Important," or "Unique" farmland, respectively. The 212,005 acres designated under these three farmland categories represented 79 percent of the land presently utilized for agricultural production. If the County General Plan is implemented as planned, the amount of land in agricultural production will be lessened by 62,084 acres over the coming decades. This represents a 23 percent reduction in the amount of land that is currently farmed. The development of dedicated agricultural land into various suburban uses is considered a cumulatively significant impact to agriculture in this region. However, the majority of the proposed tower sites are located on mountaintops, ridgelines, or in urban areas where site characteristics are not favorable for agricultural production. The proposed project will not develop on farmland, and it is very unlikely that any future sites be developed on farmland. Even though the loss of farmland is cumulatively considerable throughout the County, the proposed project will not contribute to this impact. Therefore, development of the proposed project is not considered a cumulative impact in regards to agricultural resources.

5.2.3 - Air Quality

The area of consideration for this project is the greater southern California region composed of Imperial, Los Angeles, Orange, San Diego, and San Bernardino counties. The South Coast Air Basin and the Mojave Desert Air Basin are in nonattainment for PM_{10} , $PM_{2.5}$, and ozone. The Salton Sea Air Basin is in nonattainment for ozone and PM_{10} . That means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (i.e., elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population will experience health effects. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the

length of time exposed, and the response of the individual are factors involved in severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

The DEIR determined that PM_{10} emissions during construction of the sites within the MDAQMD would exceed the regional significance thresholds before mitigation. Therefore, the project could result in a significance cumulative contribution to PM_{10} . However, mitigation was recommended that would lower the project's impact to less than significant levels, and the project will not contribute to the region's nonattainment status. Therefore, development of the proposed project is not considered a cumulative impact in regards to air quality.

5.2.4 - Biological Resources

The area of consideration for this issue is the County of Riverside and peripheral areas around the County. Any potential impacts must be viewed in the context of available natural areas and habitat, and planned regional habitat preservation programs such as the numerous habitat management plans that govern the bulk of the project sites. The two MSHCPs within the project area represent a regionally coordinated effort for habitat conservation planning, as does the HCP for Stephen's kangaroo rat. More than half of the project will be required to comply with those plans and will therefore be consistent with the regional habitat planning efforts in the larger area. Other management plans and directives for sites outside of the HCP planning areas also provide direction for management of biological resources within a broader regional context. Eighteen additional sites fall under the management of a federal land management agency, and any projects proposed on those lands must also be considered within the context of the regional planning efforts of the applicable federal agency.

The principal consideration in regards to cumulative impacts to biological resources is the small size of each of the project sites. The typical size of a PSEC project site will be approximately 65 feet by 65 feet, or about half the size of a small residential lot. Cumulatively, the approximately 50 sites being proposed adds up to only about 5 acres total across the 4.6 million-acre County. While several of the sites will require additional infrastructure (roads, power lines, etc.) that will require additional disturbance outside of the actual project sites, even a worst-case scenario for those impacts would be unlikely to exceed more than a few more acres spread across the entire County. Considering the benefits that would derive from the project (public safety radio coverage to 95 percent of the County), this impact to such a cumulatively small area of the County is truly negligible. In this context, the cumulative impacts of the project in this regard are less than significant.

5.2.5 - Cultural Resources

The area of consideration for this issue is the County of Riverside, which contains a wide variety of archaeological and historical resources. In the past, these resources were lost due to careless development, theft, or ignorance. However, significant strides have been made in recent decades to

protect these resources and provide for their long-term conservation. State and federal laws and regulations provide guidance in these efforts, and the proposed project sites have undergone a thorough analysis in regards to cultural resources that occur upon them or may be impacted by the project. Any future site that might be proposed as part of the proposed project will be required to undergo the same processes. With the exception of two sites (Margarita (MWD) and Spring Hill), all impacts to cultural resources have been mitigated to a level of less than significant and these resources will be protected to the extent required by applicable laws and regulations. In addition, the impact to the cultural resources near the Margarita site is an indirect impact only, and the project will not directly damage or harm the nearby archaeological resource.

5.2.6 - Geology and Soils

The area of consideration for this issue is the County of Riverside. This region is dominated by the geophysical effects of the San Andreas Fault, the San Jacinto Fault, and other earth-related constraints. The presence of regional faults and other geologic constraints creates the potential for damage caused by major earthquakes and other factors. These constraints increase the general risk to communication towers and structures in general within the County. However, proper building design can reduce potential property damage and human safety risks to less than significant levels. Anticipated development in the proposed project and future development in general will not have a cumulatively considerable impact on the proposed project or cumulative projects in Riverside County, so long as proper design and engineering are implemented based on available seismic and other geotechnical data. The proposed project represents a negligible portion of this potential impact, so the project will not have cumulatively considerable impact a cumulatively considerable impact, so the project is not considered a cumulative impact in regards to geology and soils.

5.2.7 - Hazards and Hazardous Materials

The area of consideration for this issue is the County of Riverside. As development of the proposed project occurs, the area will experience an incremental increase in the use of hazardous materials, mainly from construction materials (i.e., fuels, oils, mechanical fluids, and other chemicals). However, transportation, storage, use, and disposal of hazardous materials during construction activities and operation would be required to comply with applicable federal, State, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. While the proposed project represents an incremental portion of this potential impact, the project will not have cumulatively considerable impacts in this regard.

Similarly, human exposure to RFR also represents a less than significant impact. As analysis within Section 4.7 demonstrated, impacts from RFR, even using a worse case scenario, are well below thresholds established by the federal government. So long as they are operated according to applicable laws and regulations, this finding of insignificance can be extended to all communication

towers throughout the County. Therefore, development of the proposed project is not considered a cumulative impact in regards to hazards and hazardous materials.

5.2.8 - Hydrology and Water Quality

The area of consideration for this issue is Southern California, which is largely dependent upon imported water to support existing development and planned growth. As development occurs, local surface and groundwater resources will be increasingly impacted as native soils are covered over, which will decrease percolation and increase runoff and urban pollutants. These impacts will be significant as long as overdraft conditions occur in the underlying aquifers. The County continues to require developers to decrease onsite runoff and to properly plan flood control improvements for new developments. As growth continues, there will be cumulatively considerable impacts to water resources, mainly water quantity, flood control, and water quality. However, the proposed project will not include the use of water resources during operation, so there is no impact in regards to water quantity. In regards to water quality, the proposed sites will be essentially non-polluting in regards to urban runoff, and impacts to local drainages will be minimized by the incorporation of BMPs. Any future sites that might be developed as part of the project will be held to the same standards. Therefore, development of the proposed project is not considered a cumulative impact in regards to hydrology and water quality.

5.2.9 - Land Use and Planning

The area of consideration for this issue is the County of Riverside. Substantial development within Riverside County is likely to occur over the coming decades. As the area develops, a greater intensification may result in cumulative land use compatibility impacts. However, public safety is of paramount concern to governments within the County, and the provision of a reliable public safety communication network to serve the current and future citizens of the County is consistent with the goals of government and planning in general. Therefore, development of the proposed project is not considered a cumulative impact in regards to land use and planning.

5.2.10 - Mineral Resources

The area of consideration for this issue is the County of Riverside. Future development within the County will contribute to the continuing loss of mineral resources. This loss will result from urban development and conversion of MRZs to urban uses. However, none of the project sites are located in areas that have been designated as MRZ-2. The majority of the tower sites are located on mountaintops or ridgelines, where the soil composition, depth-to-bedrock, and other factors make the sites unattractive for sand and gravel operations. These types of extraction operations are better suited to valley bottoms and arroyo channels, not topographic highpoints, where most of the tower sites are located in urban areas where mining resource extraction is typically not practical. Any future sites that might be developed as part of the project will likely be developed in similar areas where mineral resource extraction is neither desirable nor feasible.

Therefore, development of the proposed project is not considered a cumulative impact in regards to mineral resources.

5.2.11 - Noise

The area of consideration for this issue is the County of Riverside. As more areas of the County develop, noise levels in general will increase. However, new development will be required to develop within the constraints of applicable laws and regulations, so the overall impact of future development will be less than significant. In regards to the proposed project, temporary noise impacts during construction will be unavoidable, but the tower facilities will be essentially noise-free once they are operational. Long-term noise impacts as a result of the proposed project will be negligible, and will not contribute to overall noise increases within the County. Therefore, development of the proposed project is not considered a cumulative impact in regards to mineral resources.

5.2.12 - Population and Housing

The area of consideration for this issue is the County of Riverside. Upon build out of the current General Plan, the population of unincorporated Riverside County will total approximately 1.67 million persons residing in approximately 557,849 residential dwelling units. Additional population growth will also occur in incorporated cities within the County. The proposed project, however, does not include the development of new housing or businesses as part of its implementation. The proposed communication towers will provide emergency services to an existing population, but they will not necessarily encourage persons to move into previously undeveloped areas. Therefore, the proposed project represents no incremental portion of this potential impact, and the project will not have cumulatively considerable impacts in regards to population and housing.

5.2.13 - Public Services

The area of consideration for this issue is the County of Riverside. Continued population growth in the County will put additional pressure on fire and police protection services by adding residents and structures to the County. Upon development of the proposed project, the County's Police and Fire Department will have adequate facilities and communication to accommodate the continued growth in the County. Therefore, the long-term impacts of the project on fire and police services will not be cumulatively considerable.

The proposed towers will not create new housing or businesses or induce a significant or substantial direct or indirect impact on existing schools. Therefore, the proposed project represents no incremental portion of this potential impact, so the project will not have cumulatively considerable impacts in regard to public services.

5.2.14 - Recreation

The area of consideration for this issue is the County of Riverside. As the County grows, so to does the need for additional parks and recreational facilities and opportunities. However, the proposed project will not create new housing or businesses or induce a significant or substantial direct or indirect impact on existing recreational facilities. Therefore, the proposed project represents no incremental portion of this potential impact, so the project will not have cumulatively considerable impacts in regard to recreational facilities.

5.2.15 - Transportation

The area of consideration for this issue is generally the County of Riverside. As population growth continues in the County, the pressures on area roadways will increase. The proposed project, however, will not contribute in any meaningful sense to increased traffic volumes. Once construction is completed, the number of trips that will be generated by the proposed project will be negligible. The development of any future sites associated with this project will also present negligible impacts to area roadways. Therefore, development of the proposed project is not considered a cumulative impact in regards to transportation.

5.2.16 - Utilities

The area of consideration for this issue is generally the County of Riverside. Continued growth of the County may require expansion of existing water, sewer, stormwater, and solid waste facilities. The project sites, however, will not connect to these facilities, and the amount of solid waste generated at the sites once they are operational will be negligible. The development of any future sites associated with this project will also present either no impact at all, or at most, negligible impacts in this regard. Therefore, development of the proposed project is not considered a cumulative impact in regards to utilities.

5.2.17 - Global Climate Change

The area of consideration for this issue is the Earth itself. Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: Either: a) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or b) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Even a very large individual project cannot generate enough greenhouse gas emissions to measurably influence climate change. It is a project's incremental contribution combined with the cumulative increase of all other sources of greenhouse gases that together form anthropogenic climate change impacts. However, the theory that an increase of one molecule of an air pollutant constitutes a significant increase (one-molecule theory) should not be the basis of a de-facto significance threshold, as discussed in the decision for *Community for a Better Environment v. California Resources Agency* [103 Cal. App. 4th 98 (2002)], "this does not mean, however, that any additional effect in a

nonattainment area for that effect necessarily creates a significant cumulative impact; the 'one [additional] molecule rule' is not the law."

An individual project contributes to cumulative greenhouse gas emissions through construction, increased vehicular travel, and increased energy consumption. Each project can reduce its own greenhouse gas emissions through project-level review and mitigation. However, the cumulative impact of greenhouse gas emissions, and therefore climate change, cannot be mitigated on a piecemeal, case-by-case basis. It is the regional development pattern, land use, and transportation policies that determine the cumulative impact in which a project participates.

Large-scale assessments and emission reduction strategies must be formulated to evenly address greenhouse gas emissions on a regional level that includes land use patterns, energy generation and consumption, transportation, water transport, waste disposal, and the other major sources of greenhouse gas emissions. A region-specific plan would be a platform for a cumulative analysis.

According to CEQA Guidelines 15145, if a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate the discussion of the impact. The assessment of cumulative climate change impacts, which are project impacts plus all the other "cumulative" projects, is speculative at this time for the following reasons:

- The list of cumulative projects for climate change is unknown, in that it could conceivably include all projects around the globe. Guidelines for establishing the radius for climate change have not yet been adopted. Without such guidelines, it is impossible to know how big the impact study area is supposed to be. For example, does the list of projects include those only within a one-mile radius of the project, or does it include projects within the entire air basin, or the state of California? For this reason, the "Project List" approach for conducting a CEQA cumulative impacts analysis is not feasible.
- There is no approved plan that covers the jurisdiction of the project that discusses climate change or greenhouse gases; therefore, the plan approach is not viable at this time. State and local agencies are currently trying to develop strategies to reduce greenhouse gases in their jurisdictions; however, these strategies are not complete at this time. Without a region-specific plan that addresses the cumulative nature of greenhouse gases and creates a framework for comprehensive greenhouse gas emission reductions, a project's cumulative impacts to climate change through greenhouse gas emissions "when added to closely related past, present, and reasonably foreseeable probable future projects" (CEQA Guidelines Section 15355) is speculative at this time.
- There are no adopted legal, regulatory, or advisory thresholds for measuring project or cumulative impacts of greenhouse gases.

In summary, potential cumulative impacts are speculative at this time and no significance determination can be made.

5.2.18 - Summary

Planned growth in the County of Riverside is considerable. The proposed project represents the demand for additional emergency support from increased development of the County. Growth will continue the transition from rural, open space, mining, and agricultural uses to mixed-use suburban residential communities. While this is a fundamental change to the historical land use patterns of the County, this change need not be adverse (i.e., cumulatively considerable) as long as development complies with local land use and planning standards. The proposed project will not create cumulatively considerable impacts relative to agricultural resources, air quality, biological resources, cultural resources, geology and soil, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, or utilities.

However, due to the locations and nature of the various project sites, the project will contribute in a cumulatively significant manner to aesthetic impacts in the area. No feasible mitigation has been identified to lessen this impact. Therefore, the project must be considered a significant cumulative impact in regards to aesthetics. Should the County desire to approve and implement the project, a Statement of Overriding Considerations will be required.