VI. CEQA-REQUIRED ANALYSIS

A. CUMULATIVE IMPACTS

Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. 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." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those that are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), while "[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact."

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project in combination with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the proposed project.
- When the combined cumulative impact from the incremental effect associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The following cumulative impact analysis relies on these principles as the basis for determining the significance of the Next Gen System's contribution to various impacts. As part of the analysis, the proposed project's impacts were considered in conjunction with similar proposed facilities and projects in the immediate vicinity of the Next Gen sites (Table VI-1).

Table VI-1: Additional Projects at MERA Next Gen Sites

SEIR Section	Site Name	2000 EIR	Existing Facilities	MERA Next Gen Proposals	% of Visible Components Owned by MERA (with Next Gen)	Additional Proposed Projects
A	Prime Site EOF	No	Sherriff's communications equipment on lattice structure	Limited upgrades	~ 10%	None
B	Civic Center	Yes	Communications equipment on roof	One Microwave Dish on Rooftop	< 5%	Roof replacement. Remove and replace existing antennas
C	Big Rock Ridge	Yes	State communications facility on same ridge	Upgrades	< 5%	Potential antenna additions by GGBHTD
D	Mt. Tamalpais	Yes	Eight towers and 28 microwave stub supports	Upgrades on one tower and five stubs	< 5%	None known; No response from Owner
E	Mt. Barnabe	Yes	Fire lookout, one tower, numerous antennas	Upgrades	~ 35%	None
F	Point Reyes Hill	Yes	FAA VORTAC antenna, existing MERA facility	Upgrades	~ 60%	None
G	Dollar Hill	Yes	Triangular tower with cellular equipment on same hill	Upgrades	~ 70%	None
H	San Pedro Ridge	Yes	Communications antennas on same ridge with more equipment	Upgrades	~ 15%	Potential future changes by cell carrier
I	Mt. Tiburon	Yes	Two MMWD water tanks	Upgrades	100%	None
J	Sonoma Mountain	Yes	Two 100-foot towers co-located on the same site	Upgrades	< 5%	None known; No response from Owner
K	Stewart Point	Yes	One monopole with 11 antennas reaching to 45 feet	Upgrades	100%	None
L	Tomales	No	Equipment building and two small cell towers	New shelter and 75' monopole	~ 70%	Unconfirmed new AT&T equipment
M	Coyote Peak	No	Two small water well heads with solar power	New shelter and 75' monopole, Improved access	~ 98%	Possible MCOE future communications leases
N	Skyview Terrace Water Tank	No	MMWD water tank	New shelter and 35' monopole	~ 80%	None
O	Muir Beach	No	Existing water tank; GGNRA parking lot and bathroom	New shelter and 60' monopole	~ 40%	Potential future fire station on old tank site
P	Wolfback Ridge	No	Three 100-foot towers and array of equipment	Upgrades to existing equipment	< 5%	None
Q	Mt. Burdell OTA	No	Underutilized equipment building, nearby active communications site	Upgrades to existing structure and tower	< 10%	None
R	Mill Valley Water Tank	No	Large 5MG water tank, generally concealed by trees, and nearby reservoir	New shelter and 75' monopole	< 20%	None

Projects Considered in the Cumulative Impacts Analysis

For each Next Gen project site, MERA contacted local agencies (city and county) and the owners of non-MERA infrastructure to determine if other projects were planned or proposed, and therefore were likely to be constructed, in the near future. Table VI-1 summarizes the additional proposals identified.

MERA analyzed the projects in Table VI-1 along with MERA's proposed Next Gen system to determine if any cumulative environmental impacts might exist, and if MERA's contribution to those impacts via implementation of the Next Gen project would be cumulatively considerable as defined by the CEQA Guidelines described above.

Analysis of Cumulative Impacts

As shown in Table VI-1, there are 18 sites included in the operational phase of the MERA Next Gen System, ten of which (in green) already have radio equipment installed by MERA and other operators. Of the eight sites new to MERA (in blue), all have been previously developed with other infrastructure, such as utility connections, existing communication towers, water tanks, equipment buildings, etc. Ground-disturbing activities (installation of monopoles and equipment shelters) would occur at five of the eight new Next Gen sites: Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Milly Valley Water Tank.

The impacts of the MERA Next Gen System at each site are described in Chapter V, but the following discussion focuses on whether the cumulative impact associated with the MERA Next Gen System in combination with other projects causing related impacts is significant, and whether the Next Gen's incremental contribution to any significant cumulative impact is cumulatively considerable. Cumulative impacts were analyzed in five resource areas: Aesthetics, Cultural and Tribal Cultural Resources, Biological Resources, Land Use Consistency, and Radio Frequency Exposure.

Aesthetics

The analysis of cumulative impacts to aesthetics considers the viewsheds visible from each of the 23 MERA sites listed in Chapter III (Project Description). The viewsheds include much of Marin County and southern Sonoma County. The existing conditions at each site establish the baseline for the analysis, and take into account all existing MERA facilities, other existing visible communications equipment, and other infrastructure such as water tanks and power lines that are currently visible. In Table VI-1, the column 'Visible MERA Components' describes MERA's relative contribution (shown as a percentage) to the total visible communications infrastructure at each site after completion of the Next Gen project, as some sites are leased to other operators with additional communications equipment on the towers. The 'Additional Proposals' column describes other known non-MERA projects proposed to be developed at each site in the foreseeable future. At leased sites, each site operator was contacted to prepare the list of proposals in Table VI-1. Table VI-1 reflects all currently known and related proposals for future projects at each of the Next Gen sites.

MERA's proposed project as analyzed in this SEIR was found to have significant and unavoidable aesthetic impacts at five of the eight sites new to MERA. These include Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank. Aesthetic impacts at the other 18 sites were found to be less than significant or could be mitigated to a less-than-significant level. Next Gen proposals at the Tomales site include a new equipment shelter and a new 75-foot-tall monopole, which would create a significant and unavoidable impact to aesthetics (as analyzed in Chapter IV.A and Chapter V of this SEIR). In contacting local agencies and other operators at the site, the only other facilities identified as likely to be installed at the site were some non-specified cellular provider equipment; however, it is reasonably foreseeable to assume that building a new monopole will draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. The effect on aesthetic resources from the Next Gen System proposal in combination with this additional equipment would have a significant cumulative impact at the Tomales site, and the contribution of the proposed project to this significant cumulative impact would be ***cumulatively considerable***.

Next Gen proposals at the Coyote Peak site include a new equipment shelter and a new 60-foot-tall monopole, along with an improved access road and new power line, which would create a significant and unavoidable impact to aesthetics (as analyzed in Chapter IV.A and Chapter V of this SEIR). With enhanced access and the addition of electric power, the site owner, Marin County Office of Education (MCOE), could lease space for other communications equipment on Coyote Peak. It is also reasonably foreseeable to assume that building a new monopole could draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. The effect on aesthetics from the Next Gen System proposals in combination with this additional equipment would have a significant cumulative impact at the Coyote Peak site, and the contribution of the proposed project to this significant cumulative impact would be ***cumulatively considerable***.

Next Gen proposals at the Skyview Terrace site include a new equipment shelter and a new 35-foot-tall monopole, which would create a significant and unavoidable impact to aesthetics (as analyzed in Chapter IV.A and Chapter V of this SEIR). Local agencies and other operators at the site did not identify any additional planned or proposed projects to be built at the site; however, it is reasonably foreseeable to assume that building a new monopole could draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. The effect on aesthetics from the Next Gen System proposals in combination with this additional equipment would have a significant cumulative impact at the Skyview Terrace site, and the contribution of the proposed project to this significant cumulative impact would be ***cumulatively considerable***.

Next Gen proposals at the Muir Beach site include a new equipment shelter and a new 60-foot-tall monopole, which would create a significant and unavoidable impact to aesthetics (as analyzed in Chapter IV.A and Chapter V of this SEIR). In contacting local agencies and other operators at the site, the only other project identified as proposed for construction was a new fire station, to be built in the footprint of the old water tank. Concept drawings show the fire station at a base elevation similar to the existing grade, which is six feet lower than the existing GGNRA parking

lot. The MERA tower and equipment structure are also proposed to be located at the lower elevation in the southwest corner of the property, adjacent to the existing water tank and behind the existing public restrooms. Apart from the fire station, it is reasonably foreseeable to assume that building a new monopole could draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. The effect on aesthetics from the Next Gen System proposals in combination with the fire station and this additional equipment would have a significant cumulative impact at the Muir Beach site, and the contribution of the proposed project to this significant cumulative impact would be ***cumulatively considerable***.

Next Gen proposals at the Mill Valley Water Tank site include a new equipment shelter and a new 55-foot-tall monopole, which would create a significant and unavoidable impact to aesthetics (as analyzed in Chapter IV.A and Chapter V of this SEIR). In contacting local agencies and other operators at the site, no additional planned or proposed projects were identified; however, it is reasonably foreseeable to assume that building a new monopole could draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. The effect on aesthetic resources from the Next Gen System proposals in combination with this additional equipment would have a significant cumulative impact at the Mill Valley Water Tank site, and the contribution of the proposed project to this significant cumulative impact would be ***cumulatively considerable***.

The MERA Next Gen System as a whole would contribute to a significant cumulative impact to regional aesthetics because work will take place on numerous hills or ridgelines throughout Marin County. While most sites will have only minor equipment adjustments that would be undetectable by most observers, five sites will cause significant and unavoidable impacts to local aesthetics because of the addition of new towers and equipment that are visible within a near to medium distance range. Most of the towers that MERA uses as part of the existing MERA system currently hold equipment from other entities, and numerous other towers are also visible throughout Marin County, such as airport communications towers, cell towers, and power transmission towers, which all contribute to the cumulative impact of above-ground infrastructure on aesthetics. With this in mind, aesthetics impacts from the new MERA Next Gen System as a whole, in combination with other projects causing related impacts, would result in significant cumulative aesthetics impacts and the project's contribution to such impacts would be ***cumulatively considerable***.

Cultural and Tribal Cultural Resources

The study area of the cumulative cultural resources analysis is the immediate vicinity at each work site proposed as part of the MERA Next Gen System. Typically, cultural resource impacts are localized because the integrity of any given resource depends on activity only in the immediate vicinity of the resource, such as disruption of soils during foundation improvements. Based on the results of the background research and survey, no archaeological resources were identified within the Area of Direct Impacts, although three historic resources are within close proximity to the Next Gen project; a historic road atop Mt. Barnabe (P-21-000482/CA-MRN-551H), the Burdell rock wall (associated with Rancho Olompali), and the Marin Civic Center (listed on the National Register of Historic Places). Each of these has been previously documented.

In the course of Tribal consultation the Federated Indians of Graton Rancheria (FIGR) identified the potential to unearth tribal cultural resources at 13 MERA Next Gen sites. In order to ensure avoidance of any impact to these cultural and tribal cultural resources, Mitigation Measures CULT-1, CULT-2, TRIBE-1, TRIBE-2, and TRIBE-3 were developed. These measures call for work to stop, for qualified archaeologists and Tribal monitors to be contacted when resources or remains are discovered as a result of ground disturbance, and for those experts to develop an appropriate plan for treatment in consultation with relevant agencies. With the implementation of these measures, the proposed project would have less than significant impacts to cultural and tribal cultural resources; therefore, the proposed project's contribution to cumulative impacts would be ***less than cumulatively considerable***.

Biological Resources

The study area of the cumulative biological resources analysis is the region immediately surrounding each MERA Next Gen site. Each of the 23 sites has been previously developed with existing radio and cell tower communications equipment, water towers, solar panels, etc., creating a baseline condition for biological resources impacts evaluation at which much of the habitat has been cleared or previously disturbed. Even so, proposed work at the Point Reyes Hill, Dollar Hill, Mt. Tiburon, Stewart Point, Tomales, Coyote Peak, Muir Beach, and Mill Valley Water Tank Sites was found to have the potential to impact biological resources due to the possible presence of special-status species and sensitive communities. The analysis in Chapter IV.C and Chapter V of this SEIR identified that biological resources impacts would be less than significant with mitigation at each of these eight sites, but they are briefly discussed below in combination with other projects causing related impacts.

Next Gen improvements at the Dollar Hill and Mt. Tiburon Sites include minor upgrades to equipment on existing infrastructure. The Point Reyes Hill Site would require replacement of a supporting structure via installation of a 40-foot monopole in place of an existing 29-foot wooden utility pole. The Muir Beach Site would require a new 60-foot tall monopole with an associated shelter, fence, and generator. Special-status species are not anticipated to occur at any of these sites; however, due to tree cover in the nearby vicinity of the work, there is some potential for nesting birds to be impacted. These impacts would be less than significant when mitigated by nesting bird surveys and avoidance measures in Mitigation Measure BIO-2. No additional proposals by other operators at the Point Reyes Hill, Dollar Hill, or Mt. Tiburon Sites were identified to analyze in combination with the proposed project's biological resource effects, therefore no significant cumulative impact would occur at these sites. Additional known proposals by other operators that may occur at the Muir Beach Site include a fire station located on top of the old tank site, which is not anticipated to result in significant biological resources impacts due to its previously disturbed nature. With impacts to biological resources found to be less than significant with mitigation, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Next Gen improvements at the Stewart Point Site are limited to minor modifications to existing equipment. No impacts to biological resources are anticipated, but one special-status plant individual (a Marin Manzanita) was observed along the road leading to the site. This impact would

be less than significant when mitigated by avoidance flagging required in Mitigation Measure BIO-1. No additional proposals by other operators at the Stewart Point Site were identified to analyze in combination with the proposed project's biological resource effects, therefore no significant cumulative impact was found. With impacts to biological resources found to be less than significant with mitigation, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Next Gen improvements at the Tomales Site include ground disturbing activities for installation of a new equipment shelter and monopole, which could impact American badger, burrowing owl, grasshopper sparrow, Bryant's savannah sparrow, northern harrier, and California red-legged frog. These impacts would be less than significant when mitigated by work windows, surveys, biological monitoring, and no-disturbance buffers required in Mitigation Measures BIO-2 through BIO-5. Additional known proposals by other operators that may occur at the Tomales Site include only minor equipment modifications and additions, which are not anticipated to result in significant biological resources impacts. Therefore, no significant cumulative impact would occur. With impacts to biological resources found to be less than significant with mitigation, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Next Gen improvements at the Coyote Peak Site include ground disturbing activities for installation of a new equipment shelter and monopole, which could impact American badger, golden eagle, grasshopper sparrow, white-tailed kite, Bryant's savannah sparrow, and California red-legged frog. These impacts would be less than significant when mitigated by work windows, surveys, biological monitoring, and no-disturbance buffers required in Mitigation Measures BIO-6 through BIO-8. Additional known proposals by other operators that may occur at the Coyote Peak Site include only minor equipment modifications and additions, which are not anticipated to result in significant biological resources impacts Therefore, no significant cumulative impact would occur. With impacts to biological resources found to be less than significant with mitigation, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Next Gen improvements at the Mill Valley Water Tank Site include ground disturbing activities for installation of a new equipment shelter and monopole. Due to the degree of tree cover in proximity to these activities, nesting birds have the potential to be impacted. Furthermore, 10 Oakland star-tulip individuals were observed south of the project site. These impacts would be less than significant when mitigated by nesting bird surveys and avoidance measures in Mitigation Measure BIO-2 and avoidance flagging required in Mitigation Measure BIO-9. No additional proposals by other operators at the Mill Valley Water Tank Site were identified to analyze in combination with the proposed project's biological resource effects, therefore no significant cumulative impact would occur. With impacts to biological resources found to be less than significant with mitigation, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9 were formulated to ensure less-than-significant impacts to biological resources using a combination of surveys, biological monitoring, required work periods, no-disturbance buffers, fencing, and avoidance flagging. With the implementation of these mitigation measures, the proposed project

would have a less-than-significant impact on special-status plant and animal species. Project-related biological resources impacts are considered and mitigated in accordance with local, state and federal regulations. This includes compliance with "no net loss" of wetland acreage and values, as well as policies of the state and federal regulatory agencies.

The required mitigation would reduce all effects to biological resources from the proposed project to a less-than-significant level, and any additional proposals identified from other operators were minimal and unlikely to impact biological resources. Therefore, no significant cumulative impacts would occur when considering the effects of the proposed project in combination with other projects causing related impacts. Furthermore, even if cumulative impacts were found to be significant, the incremental contribution of the proposed project's less-than-significant impacts would be ***less than cumulatively considerable***.

Land Use Consistency

As a joint powers authority, MERA is exempt from compliance with the local planning and building codes of the towns, cities, and counties in which its facilities are located, except where its immunity has been expressly waived by the State Legislature. MERA is required to comply with state and federal land use regulations.

As noted in Chapter IV.D (Land Use Consistency), applicable federal and state land use plans and regulations include the Marin County Local Coastal Program (LCP) (Units 1 and 2), the California Streets and Highways Code Sections 660-695, the Federal Aviation Administration Height Requirements, the Golden Gate National Recreation Area (GGNRA) General Management Plan (GMP), and the Point Reyes National Seashore General Management Plan. Sites subject to the land use plans listed above include the Point Reyes Hill, Stewart Point, Wolfback Ridge, Tomales, and Muir Beach Sites.

As analyzed in detail in Chapter V, land use impacts at all five of the above sites were found to be less than significant. The Point Reyes Hill Site is subject to the Marin County LCP Unit II, the Point Reyes National Seashore GMP, and the NPS Natural Resources Management Plan. The Stewart Point Site is subject to the Marin County LCP Unit I. The Tomales Site is subject to the Marin County LCP Unit II. The Muir Beach Site is subject to the Marin County LCP Unit I, as well as the GGNRA GMP. The Wolfback Ridge Site is subject to the GGNRA GMP.

Next Gen proposals at the Point Reyes Hill, Stewart Point, and Wolfback Ridge Sites include only minor modifications and upgrades within the existing infrastructure footprint, which do not conflict with the general resource and recreation conservation goals of the Point Reyes National Seashore and GGNRA GMPs. Proposals would be required to meet the design standards and permit conditions set forth by the LCP and the Marin County zoning code provisions incorporated therein. No additional proposals by other operators at any of these sites were identified to analyze in combination with the proposed project's land use effects, therefore no significant cumulative impact would occur. With impacts to land use found to be less than significant, the Next Gen's contribution to any cumulative impact would be less than cumulatively considerable.

Next Gen proposals at the Tomales and Muir Beach Sites include new monopoles with heights of 75 feet and 60 feet, respectively, and new equipment shelters. These improvements were not

found to conflict with any applicable land use plan or regulation in the Chapter V analyses, as the proposal designs comply with LCP guidelines to minimize aesthetic, noise, and biological effects, and work would be subject to a Coastal Development Permit. Furthermore, future development brought forth by these improvements (i.e., addition of equipment by other operators on the new MERA poles) would not increase the physical footprint of the project or thereby create a new conflict with these plans. Additional facilities planned or proposed by other operators include minor equipment adjustments and additions at the Tomales Site and a potential new fire station at the Muir Beach Site. These future proposals are still with the development footprint at both sites, and are unlikely to have adverse impacts on the aesthetic, noise, or biological goals of the LCP. Additional development would also be required to obtain a Coastal Development Permit. Therefore, no significant cumulative impacts were found when considering the effects of the proposed project in combination with other projects causing related impacts. Furthermore, even if cumulative impacts were found to be significant, the incremental contribution of the proposed project's less than significant impacts would be ***less than cumulatively considerable***.

Radio Frequency Exposure

The study area of cumulative impacts from radio frequency (RF) exposure is the area in the immediate vicinity of each MERA site where new transmitters and antennas would be installed, as discussed in Chapter V. All MERA sites were surveyed to inventory all transmitting antennas currently at each site, to measure the existing electromagnetic fields relative to Maximum Permissible Exposure (MPE) limits, and to determine the site's current compliance with applicable RF regulations. Three conditions of RF exposure were then modeled: the existing condition with all systems operational at the same time, the theoretical worst-case scenario assuming the Next Gen system is operational while all other existing systems are operating including the current MERA system, and the long-term 'proposed condition' after the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are on. On-site electromagnetic measurements and a series of conservative assumptions about duty cycle, system implementation, and existing emissions from other nearby RF sources on the same tower were used to calibrate models of projected RF emissions.

The analysis showed that RF emissions outside the perimeter security fences, including those by other operators at each site, are currently below public MPE limits, and they would remain so after project implementation. Within some controlled areas (limited locations where only workers have access), the total theoretical maximum emissions could exceed the public MPE limits, but not the occupational MPE limits (5x public MPE), particularly during the transition period, but only if all transmitting devices were to operate simultaneously at full power, which is not typical. As proposed, the project would lead to only small changes in total RF emissions. The Prime Site EOF, Civic Center Site, and Tiburon Site are the only MERA Next Gen sites that required mitigation to reduce impacts to less-than-significant levels. This mitigation includes warning signage to comply with FCC standards, and with this mitigation all sites were found to have less-than-significant impacts in regard to RF exposure.

Five Next Gen sites require new monopoles to be built: Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank. It is reasonably foreseeable to assume that building a

new monopole could draw other operators to install additional equipment in the future, as open space on the pole could invite such facilities. These future developments would be subject to the same FCC standards guiding RF emissions, which would therefore cap the number of antennas or other RF-emitting equipment at each location. Therefore, no significant cumulative impacts were found when considering the effects of the proposed project in combination with other projects causing related impacts. Furthermore, even if cumulative impacts were found to be significant, the incremental contribution of the proposed project's less than significant impacts would be ***less than cumulatively considerable***.

B. SIGNIFICANT, UNAVOIDABLE IMPACTS

Introduction

Section 15126.2(c) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided. Specifically, Section 15126.2(c) states:

> "*Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described."*

Analysis of Significant, Unavoidable Impacts

Significant, unavoidable impacts identified in the original EIR (MERA 2000) included impacts to aesthetic resources associated with the installation of towers at the Bolinas Fire Station, Forbes Hill, and Dollar Hill sites. The proposed Next Gen improvements would result in significant and unavoidable aesthetic resource impacts at five sites new to the MERA network: Tomales, Coyote Peak, Skyview Terrace, Muir Beach Water Tank, and Mill Valley Water Tank. These impacts and their relation to the Next Gen System are described by site number below.

Site 6. Bolinas Fire Station

Although the original EIR identified significant, unavoidable aesthetic impacts at the Bolinas Fire Station, the proposed MERA tower at this site was never installed. Instead, the Stewart Point (Martinelli) Site was authorized with a CEQA Addendum and a Coastal Development Permit, and was constructed without significant environmental impacts.

Site 9. Forbes Hill

A 60-foot tall lattice tower that is visible above the ridgeline from many public streets, parks and neighborhoods was constructed at the Forbes Hill site in San Rafael. Mitigation measures described in the original EIR included painting the base of the new tower a dark color in order to blend with existing trees, and adding landscaping to screen views of the equipment building from the nearby open space. However, these mitigation measures did not completely eliminate, or adequately reduce, the visual impacts to a less-than-significant level, and the impacts remained significant and unavoidable.

The MERA equipment at the Forbes Hill site would be decommissioned as part of the Next Gen Project. Since removal of the existing tower and communications equipment would reduce the

visual impact at this site to less-than-significant, additional mitigation measures would not be necessary. The complete removal of the tower and all equipment at Forbes Hills would be a cumulative benefit to aesthetic resources.

However, two local sanitation districts may require continued use of the Forbes Hill communications site after the implementation of the proposed project. If so, the equipment building, utility connections, and the 60-foot tall lattice tower, the source of the previous significant and unavoidable visual impact, would remain. If these were to remain, their impact would continue to be significant and unavoidable and the continuation of the mitigation measures previously described in the original EIR would be required.

Site 10. Dollar Hill

The Dollar Hill site located above downtown San Rafael was originally built with a 60-foot tall three-legged lattice tower that is visible from downtown, from nearby neighborhoods, and from Highway 101. The original EIR found that the 60-foot lattice tower, microwave dishes, and antennas would result in a significant unavoidable visual/aesthetic impact even after implementation of recommended mitigation measures. The improvements resulting from the Next Gen System will not reduce the visibility of the Dollar Hill site and the visual/aesthetic impact resulting from the proposed project will remain ***significant and unavoidable.***

Site 20. Tomales

MERA's proposed facilities at the Tomales Site would be visible from only certain angles in the near-view but would be more highly visible from distant points along State Route 1. State Route 1 is eligible as a state scenic highway, and is considered as such in this analysis. Because the site is visible from State Route 1, and because proposed improvements call for a prominent 75-foot-tall monopole, impacts are found to be significant. Mitigation Measure AES-1, AES-2, and AES-3 call for limited nighttime lighting, certain paint colors for structures and screening schemes in order to reduce the site's visibility, but even with these mitigation measures the impacts are still found to be ***significant and unavoidable***.

Site 22. Skyview Terrace

The proposed MERA facility at Skyview Terrace would obstruct the scenic vistas available from some locations on the ridgeline site, such that the project would have a substantial adverse effect on a scenic vista from a public open space. In addition, the 35-foot monopole would be prominent from several vantage points, and the fenced equipment structure and monopole would affect the existing visual character and quality of the hilltop open space.

Notwithstanding the implementation of Mitigation Measures AES-5 and AES-6, calling for screening and the reconstruction of the pedestrian trail by the site toward a more unobstructed view, impacts would remain ***significant and unavoidable***.

Site 23. Muir Beach Water Tank

The Muir Beach site is located adjacent to the Muir Beach water tank and the GGNRA Muir Beach Scenic Overlook. While views of the ocean would not be affected by installation of the proposed

Next Gen facility, inland views of Mt. Tamalpais would be affected by the presence of the new 60-foot monopole.

Notwithstanding the implementation of Mitigation Measure AES-7, recommending landscaping, fencing, and other screening techniques, the impacts of the proposed project would remain ***significant and unavoidable***.

Site 26. Mill Valley Water Tank

A large water tank is already located on the Mill Valley Tank Site. The most prominent visual change created by the proposed project is the addition of a 55-foot monopole and the 2-inch diameter whip antennas that rise 11-feet above the monopole. The existing water tank is slightly over 30-feet tall, and the trees surrounding the site are nearly 60-feet tall. Therefore, the antennas from the proposed facility would rise above the tree line by approximately ten to fifteen feet, and would be partially visible from nearby vantage points.

Despite implementation of Mitigation Measure AES-8, which calls for blending the colors of the improvements with the environment, impacts would remain ***significant and unavoidable***.

C. SIGNIFICANT, IRREVERSIBLE IMPACTS

Introduction

Section 15126.2(d) of the CEQA Guidelines states that significant, irreversible environmental changes associated with a proposed project shall be discussed, including the following:

1. *Uses of nonrenewable resources during the initial and continued phases of the project that may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely;*
2. *Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area), which generally commit future generations to similar uses; and*
3. *Irreversible damage that could result from environmental accidents associated with the project.*
4. *Irreversible commitments of resources.*

Analysis of Significant, Irreversible Impacts

The Original 2000 EIR did not identify any significant, irreversible environmental impacts from development of the original MERA system. More specifically, it found that while the project would use minor amounts of non-renewable resources during construction, this would not occur in sufficient quantities to result in substantial depletion of any such resource or increase overall usage rates.

The construction phase of the Next Gen System would require the use of non-renewable construction materials, such as fuel and steel for grading and fabrication of towers. Construction vehicles would burn fossil fuels to access each site and

install the various equipment, and these diesel-powered vehicles have the potential to create environmental accident conditions (e.g., spills).

In the operational phase of the Next Gen System, each site would use generators powered by diesel fuel, and water would be used for irrigation activities. The diesel fuel would be stored on-site, providing some potential for accidental spills of hazardous materials. Further, proposals at the Coyote Peak Site require a 1.5-mile-long road to be regraded, improving ease of access to this remote location.

The amount of energy, water, and raw materials consumed during construction and operation of the Next Gen System would continue to be minimal, and energy would continue to be purchased from Marin Clean Energy, a Community Choice Aggregator under the California Public Utilities Code Section 366.2, which relies on renewable energy resources for generation. Access road improvements to the Coyote Peak site would commit present or future generations to using the site in a certain way more so than it is already committed; however, some existing infrastructure improvements such as well pump heads are already present at the site. Further, it would be possible to decommission and remove the proposed communications equipment at some point in the future if it is no longer needed. Lastly, the fuel containment and hazardous materials Best Management Practices (BMPs) listed in Chapter III (Project Description) would be implemented to ensure impacts related to the use of such fuels would be less than significant. Given the above, significant irreversible impacts are not anticipated.

D. GROWTH-INDUCING IMPACTS

Introduction

Section 15126.2(e) of the CEQA Guidelines requires a discussion how a proposed project could directly or indirectly induce growth in the surrounding area. Section 15126.2(e) of the CEQA Guidelines reads as follows:

> "*Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are project which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some project which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

Analysis of Growth-Inducing Impacts

The proposed project would update MERA's current communications network in order to improve communications among dispatch operators, emergency responders, and other public agencies throughout Marin County. The project would not improve communications systems available to the general public, nor would it provide or extend infrastructure that would accommodate or

facilitate economic or population growth. The proposed project would not permanently attract new residents to the area served by the proposed radio communications system. Furthermore, the operational phase would not require additional staff beyond those who currently to maintain the existing system. Thus, the proposed project would not induce growth in the local region.

E. IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

Introduction

Section 15128 of the CEQA Guidelines states:

> *"An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study."*

An Initial Study (IS) was prepared for the 2000 MERA Emergency Communications Radio System Environmental Impact Report (EIR). The detailed analysis contained in the IS and summarized in Section I.E (Environmental Effects Found Not to be Significant) of the 2000 EIR determined that implementation of the proposed 2000 MERA Emergency Communications Radio System project would not result in significant environmental impacts within the categories listed below. Therefore, the possible effects of the project in these areas was not analyzed in detail in the 2000 EIR:

1. Agricultural Resources
2. Air Quality*
3. Cultural Resources*
5. Geologic Problems*
6. Water*
7. Land Use and Planning**
8. Energy and Mineral Resources
8. Noise*
9. Population and Housing
10. Public Services
11. Recreation
12. Transportation and Circulation
13. Utilities and Service Systems

***MERA is exempt from local agency regulation and is only subject to state and federal regulatory provisions.*

**Five topics listed above required mitigation measures in the IS to ensure impacts would be less than significant, including: Air Quality, Cultural Resources, Geologic Problems, Water, and Noise.*

The impacts in these areas continue to be less than significant, as explained below. As a result, and with the exception of Cultural Resources, they are not discussed in detail in Chapter V (Existing Conditions and Impacts at Each Site), but associated mitigation measures and their applicability to the Next Gen Project are discussed below. Mitigation measures are incorporated in Table II-2 (Summary of Significant Environmental Impacts and Mitigation Measures) and will also be included in the Final SEIR under the project's Mitigation Monitoring and Reporting Program (MMRP). A detailed discussion of Cultural and Tribal Cultural Resources has been

added in Chapters IV.B (Cultural and Tribal Cultural Resources) and V of this SEIR to comply with the provisions of Assembly Bill 52 (AB-52), which was passed after certification of the original EIR in 2000.

The topics of Greenhouse Gas Emissions and Forestry Resources were not included in the original IS and EIR since they were introduced to Appendix G of the CEQA Guidelines after the IS and EIR were certified. These topics are included below.

Analysis of Impacts Found to be Less Than Significant

1. Agricultural and Forestry Resources

The CEQA Guidelines require analysis of whether the project would:

a.) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency?

The latest Farmland Monitoring and Mapping Program's (FMMP) survey of Marin County (2016), shows that none of the 23 sites included in the proposed project are located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. All sites are located on land currently designated as grazing land, urban/built up land, or "other" land. Consequently, there would be no conversion of any such lands to non-agricultural uses and the proposed project would have ***no impacts.*** No further consideration of this issue is required.

b.) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

MERA is generally exempt from compliance with the zoning codes of the cities and counties in which Next Gen facilities will be constructed. However, MERA is not exempt from the requirements of the California Coastal Act and must obtain a coastal permit if the Next Gen project involves construction within the coastal zone.

The Big Rock Ridge, Mt. Barnabe, Point Reyes Hill, Stewart Point, Tomales, Coyote Peak, and Mt. Burdell OTA sites are zoned for agricultural use, but Tomales is the only site with an agricultural conservation easement (Marin County, 2012), that was granted to the Marin Agricultural Land Trust (MALT). Big Rock Ridge, Mt. Barnabe, Point Reyes Hill, and Stewart Point are existing sites where operational MERA facilities currently exist, and the proposed project would not encroach upon any additional agricultural land. Similarly, the Mt. Burdell OTA site is an existing communications facility and will not expand to remove agricultural land. Consequently, these sites would not result in any impacts related to conflicts with existing zoning for agricultural use.

The proposed Tomales Site would be directly adjacent to an existing communications facility, and MERA would utilize the existing unpaved private access road that serves the cellular site. When Marin County approved the coastal permit for the existing cellular site, that communication facility was found to be compatible with and accessory to the existing agricultural uses of the property. In July 2012, Marin County made a similar finding and approved a coastal permit for a MERA

communications facility. MALT also found that both the cellular facility and the MERA facility would not interfere with the agricultural use of the property.

The Coyote Peak Site is improved with well heads and water pumps to serve the Walker Creek Ranch education facility. The proposed MERA site is close to the existing well-heads site and will make grading and some alignment changes to the existing unpaved road for access.

The Tomales Site is zoned as a Coastal Agricultural Production Zone (C-APZ-60) and Coyote Peak is zoned as Agricultural Residential Planned (ARP-60). For both of these zoning designations, the Marin Countywide Plan lists telecommunications facilities as an allowed use with a permit, and in the case of ARP, a master plan/precise development plan. The Coastal Plan also permits telecommunications facilities in the Coastal Zone as a conditional use. The proposed changes at these sites would not conflict with agricultural use on the remainder of the property or on adjacent lands, and the placement of improvements directly adjacent to existing infrastructure ensures that minimal land would be removed from its current grazing use.

Based on these conclusions, and that no sites are under a Williamson Act contract, the proposed project will not conflict with agricultural zoning or Williamson Act Contracts, and impacts would be ***less than significant***. No further consideration of this topic is required.

c.) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

MERA is generally exempt from compliance with the zoning codes of the cities and counties in which Next Gen facilities will be constructed. Further, none of the sites proposed for the Next Gen system are zoned as forestland or timberland, and the majority of the sites are located within the boundaries of existing communications facilities, governmental buildings, or other public infrastructure facilities such as water tanks.

There would be ***no impact*** related to conflict with forestland and timberland zoning. No further consideration of this topic is required.

d.) Result in the loss of forest land or conversion of forest land to non-forest use.

Eight Next Gen sites are located in forested areas: Mt. Tamalpais, Dollar Hill, San Pedro Ridge, Mt. Tiburon, Stewart Point, Muir Beach, Mt. Burdell OTA, and Mill Valley Water Tank. However, trees were previously cleared from each of these sites for construction and safety purposes related to the existing development. The installation of Next Gen Improvements will not require additional loss of forest land. Therefore, there would be ***no impact*** related to the loss or conversion of forestland.

e.) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The purpose of the project is to enhance communications. As discussed in sections (a) through (c) above, none of the proposed Next Gen sites will disrupt or cause the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use, nor does the proposed project involve any other changes in the existing environment which could result in the conversion of Farmland or forest land. Therefore, there would be ***no impact*** on agricultural or forestland.

2. Air Quality and Greenhouse Gas Emissions

The CEQA Guidelines require analysis of whether the project would:

a.) Conflict with or obstruct implementation of the applicable air quality plan?

The Air Quality Management Plan (AQMP) prepared by the Bay Area Air Quality Management District (BAAQMD) applies to all projects proposed within the San Francisco Bay Area Air basin. BAAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

BAAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources, and it has responded to this requirement by preparing a series of AQMPs, with the most recent issued in April 2017 (the 2017 Clean Air Plan). AQMPs are prepared with the cooperation of the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The plans outline goals and control measures to reduce emissions of criteria pollutants and greenhouse gases in the Bay Area, including fine particulate matter (PM2.5), for which the Bay Area is classified as a federal non-attainment region. The 2017 Clean Air Plan strives to improve Bay Area air quality and protect public health by defining a control strategy to reduce emissions and ambient concentrations of air pollutants, reducing exposure to air pollutants the pose the greatest health risk, and reducing greenhouse gas emissions to protect the climate.

Projects that are consistent with the population forecasts identified by ABAG are considered consistent with the 2017 Clean Air Plan's growth-related goals and policies, since ABAG's projections form the basis of the land use and transportation control strategies of the Plan. The Plan also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation and bases estimates of future emissions taking into account State policies and regulations already adopted or likely to be adopted and implemented over the next 10-15 years.

The proposed Next Gen Project would not attract new permanent residents to the area, and is therefore consistent with the 2017 Clean Air Plan's employment and population forecasts. While it is possible that construction jobs could temporarily attract individuals to the area, this impact would be temporary and would not occur in sufficiently high quantities to violate applicable plans. The Project is also consistent with the transportation control strategies of the Plan, as it would not increase demand for motor vehicle travel, and Mitigation Measure AIR-1 (below) would reduce the potential impacts of vehicle emissions during construction.

In total, there are 26 MERA sites within the BAAQMD's jurisdiction discussed in this SEIR. Among these sites, ten are pre-existing MERA facilities that would undergo modification as part of the Next Gen System, eight were either excluded from the original system or would be decommissioned as part of the Next Gen System, and eight would be new to the system. Project construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and minor construction traffic. Project construction would produce fugitive dust (PM_{10} and $PM_{2.5}$) during ground disturbance and would generate carbon monoxide, ozone precursors, and other emissions from vehicle and equipment operation.

The duration of construction at any given site would vary according to the nature and extent of the proposed facilities. Most sites have only minor equipment changes, such as new antennas or microwave dishes on existing towers or monopoles. Construction duration at these sites would range from a few days to a few weeks. Removal of original equipment would take another few weeks. Other sites, shown in Table III-2 (Chapter III, Project Description) would require monopole or tower foundation improvements to meet seismic safety standards. These sites could require deeper excavations directly adjacent to the existing monopole or tower and construction duration may take up to 8 weeks to complete the foundation work.

Five new sites, which do not have existing communications infrastructure, would have more extensive construction requirements. These five sites include: Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank (the two other new sites to MERA, Wolfback Ridge and Mt. Burdell OTA, are existing communications facilities with towers and equipment that MERA would lease). These five sites would require grading of the immediate area around the proposed tower, a deep foundation for a new monopole and shallow slab foundations for the small equipment building, fuel tank, and generator. Small laydown areas at the generally flat sites would receive shallow grading to remove grass and shrubby vegetation to provide a clean assembly space for tower construction, materials, and equipment.

Coyote Peak is the one site that would require more extensive grading of two overly steep sections of the existing 1.5-mile graded dirt access road. Access road construction would necessarily precede any site construction. Underground power lines would also be installed to serve the Coyote Peak site. At Coyote Peak, the site construction would last six months during the dry summer season.

At the time of the 1999 IS, mitigation measures were suggested to reduce impacts regarding potential conflicts with applicable air quality management plans to less-than-significant levels. While construction emissions would be relatively limited and temporary, implementation of the construction-related mitigation measures detailed below in Mitigation Measure AIR-1 shall be required to ensure potential conflicts with the 2017 Clean Air Plan's pollutant control strategy are reduced to less-than-significant levels.

During the operational phase of the proposed project there would be no change to the emissions of the ten existing facilities. New facilities would see a slight increase in existing air pollutant emissions and decommissioned facilities would experience a slight decrease, but these changes

would be negligible, as the communication facilities proposed emit very few pollutants. Air pollutants associated with facility operations include vehicle emissions from periodic maintenance visits to each site and exhaust from the use of on-site emergency generators. Emergency generators are periodically cycled for preventative maintenance purposes in addition to being occasionally used during power outages. Propane and diesel-fueled generators have the potential for minor contributions to regulated emissions, which would be further reduced with the use of modern pollution control equipment.

As these emissions are minimal, and very sporadic in nature, long-term project emissions would not conflict with or obstruct implementation of the applicable air quality plan. However, Mitigation Measure AIR-2 is required below to ensure that operational emissions would be less-than-significant.

Overall, with implementation of Mitigation Measures AIR-1 and AIR-2, the Next Gen Project would not conflict with or obstruct implementation of the applicable measures in the 2017 Clean Air Plan, and this impact would be ***less than significant with mitigation incorporated***. No further consideration of this topic is necessary.

The Construction Project Manager shall be responsible for following requirements in Mitigation Measures AIR-1 and AIR-2, and MERA shall be responsible for ensuring this compliance.

Mitigation Measure AIR-1

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications, and all equipment will be checked by a certified vehicle emissions evaluator.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints shall be posted in or near the project site. The contact person shall respond to complaints and take corrective action within 48 hours. The Air District‘s phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-2

Emergency power generators shall be equipped with emission control devices.

b.) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

As discussed above, during operations the project would generate negligible emissions. During the construction phase, some criteria pollutants may be emitted, but implementation of the Mitigation Measures discussed above would ensure that the project would not result in long-term or cumulatively considerable increases in criteria pollutants for which the Bay Area is currently in non-attainment (ozone and particulate matter). . Impacts in this area would therefore be ***less than significant*** and no further consideration of the topic is required.

c.) Expose sensitive receptors to substantial pollutant concentrations?

There are no noxious fumes associated with the long-term operation of the proposed communications system with the exception of the emergency generator during its limited time of operation. During the operational phase, the project would therefore not expose any sensitive receptors to substantial pollutant concentrations.

Short-term construction-related operations may generate a small amount of dust and diesel particulate matter at those sites where there is new construction. Adherence to the BAAQMD-recommended construction measures discussed in Mitigation Measure AIR-1 would reduce the impacts associated with potential generation of fugitive dust and particulate matter to a less-than-significant level. Given that the operational project would not generate substantial pollutant concentrations and the construction phase's pollutant concentrations would be minimized by implementation of Mitigation Measure AIR-1, the project would not expose sensitive receptors to substantial pollutant concentrations and the impact would be ***less than significant.*** No further consideration of the topic is required.

d.) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Operation of the existing MERA sites has not resulted in any complaints related to objectionable odors, nor would complaints be anticipated at new or modified sites. However, there is potential for temporary, localized odors associated with construction activities and the use of emergency generators during power outages.

Because no permanent odors are anticipated and temporary odors would be minimized through implementation of BAAQMD standards and regulations and of manufacturer's recommendations, impacts would be ***less than significant.*** No further consideration of this topic is necessary.

When it comes to GHG emissions, the CEQA Guidelines also require analysis of whether the project would:

a.) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

According to the BAAQMD CEQA Guidelines issued in 2017, public land uses and facilities would result in a cumulatively significant impact to global climate change if more than 1,100 metric tons per year of carbon dioxide equivalent (CO_{2e}) are emitted during the operational phase. BAAQMD has not established a threshold of significance for greenhouse gases during the construction phase, but advises lead agencies to quantify and disclose GHG emissions from construction and make a determination on their significance in relation to meeting Assembly Bill (AB) 32 GHG reduction goals.

The proposed project would generate minimal greenhouse gases (GHG) during the operational phase. Direct GHG emissions associated with the operation of the proposed project would be caused by periodic visits to each site by vehicles transporting maintenance personnel to service equipment and the occasional use of on-site emergency generators. Indirect GHG emissions would be the result of the consumption of electricity used to operate the equipment at each project site. Based on MERA energy consumption rates, and the fact that MERA obtains electricity generated by renewable sources through Marin Clean Energy, all GHG emissions for the Next Gen Project during the operational phase would be well below 1,100 metric tons of CO_{2e} annually.

Construction activities would be short-term for each site, and are not anticipated to last for greater than one year for the overall project. Implementation of Mitigation Measure AIR-1 to minimize idling times and ensure that construction equipment is properly maintained will also serve to reduce the generation of greenhouse gas emissions during construction. Collectively, the temporary emissions from construction activities would not be sufficiently large to impede the achievement of AB 32 GHG reduction goals.

As construction and operational impacts would generate minimal quantities of greenhouse gases, impacts would be ***less than significant***. No further consideration of this topic is required.

b.) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

GHG emissions from off-road equipment and utility electrical usage are identified and planned for in the BAAQMD's 2017 Clean Air Plan, a primary objective of which is to reduce greenhouse gas emissions to 1990 levels by 2020 and 40% below 1990 levels by 2030, in keeping with the targets set by Assembly Bill 32 (2006) and Senate Bill 32 (2016). Many of the control strategies and measures laid out in the 2017 Clean Air Plan support and complement the land use and transportation strategies outlined in the Sustainable Communities Strategy (SCS), a document jointly produced by ABAG and MTC in 2013. The California Air Resources Board determined that the SCS will achieve the Bay Area's SB 375 target, which called for a per-capita GHG reduction from cars and light-duty trucks by seven percent by 2020 and by 15% by 2035. Plan Bay Area's SCS sets forth changes in land use and transportation investments, and includes a number of complementary policies and programs designed to reduce vehicle travel and GHG emissions from on-road vehicles.

As previously discussed, the proposed project would generate small quantities of greenhouse gases during construction and operation, but these quantities are planned for in the 2017 Clean Air Plan estimates and would not be sufficiently large as to conflict with the plans, policies, or

regulations mentioned above. Consequently, the proposed project would have impacts that are ***less than significant*** and no further consideration of the topic is required.

3. Geology and Soils[1]

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a-i.) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

All of the proposed project's 23 sites are outside of Alquist-Priolo special study fault zones, and the risk of ground rupture during an earthquake is expected to be low. Nonetheless, all the sites are subject to the effects of seismic-induced ground shaking. Given the relatively high magnitude of earthquakes that can occur on the San Andreas, Hayward, and other smaller faults in the San Francisco Bay area, the potential exists for fault rupture and significant ground shaking in the region. None of the sites are located in areas identified as susceptible to liquefaction.

Based on a review of geologic data available from Marin County, there are no unusual geologic conditions present at any of proposed sites, such that there is no increased risk of damage from seismic shaking beyond what is common to the region. Although future large earthquakes could damage structures and towers, adherence to California Building Standards Code and earthquake engineering standards is considered adequate to attenuate impacts to less-than-significant levels. As a result, the proposed project would not expose people or structures to any increase in the adverse effects from earthquake and the project's impacts would be ***less than significant***. No further consideration of this topic is required.

a-ii.)Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Due to their location in seismically active areas, all of the proposed project sites are subject to the effects of seismic-induced ground shaking which could potentially be significant, and the IS provided mitigation measures to reduce the risks associated with seismic groundshaking to less-than-significant levels. These include requirements for geotechnical reports and conformance with the California Building Standards Code. Geotechnical reports have been completed for the proposed new MERA sites, and no special conditions were identified that would present increased vulnerability to seismic groundshaking.

Although future large earthquakes could damage structures and towers, adherence to the California Building Standards Code and earthquake engineering standards is considered adequate to attenuate impacts to less-than-significant levels. As no sites' risks extend beyond those present throughout the Bay Area, and all structures would be constructed according to the California Building Standards Code and applicable earthquake engineering standards, people

[1] *This subsection addresses the topic of Geologic Problems included in the Initial Study prepared for the 2000 EIR.*

and structures would not be exposed to substantial adverse effects involving strong seismic ground shaking; impacts would be ***less than significant with mitigation incorporated*** and no further discussion of this issue is required.

Mitigation Measure GEO-1

A design-level geotechnical report shall be prepared for the facilities proposed at each of the communication sites. A qualified geotechnical engineer and engineering geologist shall prepare the document, and this design-level report shall provide criteria for site preparation, pavement, and foundations. Site-specific earthquake forces shall also be identified and incorporated into the design of structures. All structures, including towers and earthworks, shall conform to the applicable earthquake design standard such as the California Building Standards Code.

a-iii.)Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

According to geologic data available for download on the Marin County Geographic Information Systems website, all of the proposed project sites are categorized as either low or very low hazard for liquefaction. Given all proposed sites have been classified as low or very low risk for liquefaction and no other risk factors have been identified at any site, the proposed project would not expose people or structures to substantial adverse effects involving seismic ground failure; therefore impacts would be ***less than significant***. No further consideration of this topic is required.

a-iv.)Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

According to the United States Geological Service (USGS), the best available predictor of where landslides and earthflows might occur is the distribution of past slides and movements. USGS historical landslide data categorizes the distribution of landslides and earth flows in Marin County as follows: Mostly Landslide, Many Landslides, Few Landslides, and Flat Land. The first two categories are areas with the most severe landslide risk. The “Mostly Landslide” area “consists of mapped landslides, intervening areas typically narrower than 1500 feet, and narrow borders around landslides; defined by drawing envelopes around groups of mapped landslides”. The “Many Landslides” area “consists of mapped landslides and more extensive intervening areas than in ‘Mostly Landslide’; defined by excluding areas free of mapped landslides; outer boundaries are quadrangle and county limits to the areas in which this unit was defined”.

Although much of Marin County is mapped as the “Mostly Landslides” category, the majority of the proposed changes to the MERA system involve modifications to existing structures, rather than construction of new structures. At existing facilities, proposed modifications include minor changes such as foundation reinforcement and installation of antennas and dishes on existing structures. Such changes would not directly or indirectly cause any additional landslide risk than currently exists at these sites. At eight sites, existing tower foundations would be improved, decreasing these structures’ susceptibility to landslides.

Six sites would require the construction of new structures: Tomales, Coyote Peak, Skyview Terrace, Muir Beach, Wolfback Ridge, and Mill Valley Water Tank. Wolfback Ridge, Mill Valley Water Tank, Skyview Terrace, and Tomales are within zones classified as "Few Landslides." Coyote Peak is within a "Many Landslides" zone, but the facility is a ridgetop site significantly set back from the eroding hillsides. Similarly, Muir Beach is classified as "Mostly Landslides", but proposed improvements will also be set back from eroding coastal bluffs by several hundred feet. Landslide risk at both the Muir Beach and Coyote Peak sites would be reduced by building all structures in accordance with current building codes and regulations, which would reduce impacts related to landslide to less-than-significant levels.

Because the proposed new structures within the Next Gen System would be compliant with all applicable building codes and regulations, and are in locations that are less likely to slide, the project would not directly or indirectly cause potential substantial adverse effects involving landslides. Thus, impacts would be ***less than significant***. No further consideration of this topic is required.

b.) Result in substantial soil erosion or the loss of topsoil?

Few of the proposed project sites or facilities would involve disturbance of substantial quantities of soil, removal of vegetation, or other actions which might result in substantial soil erosion or loss of topsoil. Ten Next Gen sites (Big Rock Ridge, Mt. Tamalpais, Mt. Barnabe, Point Reyes Hill, Dollar Hill, San Pedro Ridge, Mt. Tiburon, Stewart Point, Wolfback Ridge, and Mt. Burdell OTA) require ground disturbance to reinforce existing tower foundations, which would disturb soil only in the immediate vicinity of the tower. Five sites (Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank) require construction of new towers, equipment shelters, and fencing.

Regional geologic mapping indicates that all seventeen sites included in the original EIR are derived from sandstone with smaller amounts of shale and mudstone, excepting the Novato Police Department Site, which is underlain by alluvial soils. For the most part, these rocks weather to sandy or silty soils that are easily eroded and do not tend to accumulate in thick unstable masses. In most ridge locations the soil is eroded away as fast as it forms, and bedrock is at or within a foot of the surface. All of the original sites are relatively flat, except the Bolinas Ridge Site, which was excluded from the MERA system after completion of the original EIR. As a result, the original EIR concluded that the 17 sites did not appear to have the geologic or soils characteristics that would make future improvements subject to changes in erosion patterns or unstable soil conditions. Based on this determination, the modifications proposed by the Next Gen project to the existing sites will result in less-than-significant impacts related to soil erosion or loss of topsoil.

For the proposed new sites, the Tomales, Skyview Terrace, Muir Beach, and Mill Valley Water Tank sites would require grading and other earth-disturbing processes as part of the construction of towers, equipment shelters, utilities, and perimeter fences. As construction of these facilities requires a small land area, there would be an insufficient area of land disturbance and vegetation removal to present a significant risk of substantial soil erosion or loss of topsoil.

The Coyote Peak Site requires improvements to the access road that would necessitate grading, with cuts of three to eight feet deep in short sections, and some additional vegetation removal within the boundaries of an existing 1.5-mile dirt road. These improvements have the potential to expose soils to wind and water erosion, but the project would not alter the existing drainage pattern of the area or cause a long-term substantial change to erosion and accretion patterns. Temporary construction impacts related to run-off from any cut soil could occur, but the project would be required by the County to submit and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes appropriate water pollution control and dust control BMPs. This would ensure the project would not result in substantial erosion or loss of topsoil, and impacts would be ***less than significant***. No further consideration of this topic is required.

c.) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As mentioned previously, the soils present at the proposed project sites do not tend to accumulate to great depths. Regional geologic mapping indicates that all seventeen sites included in the original EIR are derived from sandstone with smaller amounts of shale and mudstone, excepting the Novato Police Department site, which is underlain by alluvial soils. For the most part, these rocks weather to sandy or silty soils that are easily eroded and do not tend to accumulate in thick unstable masses. In most ridge locations the soil is eroded away as fast as it forms, and bedrock is at or within a foot of the surface. As a result of this, the proposed project sites do not appear to have the geologic or soil characteristics that would make future improvements subject to landslide, lateral spreading, subsidence, liquefaction, or collapse. At all sites, structures would be constructed in accordance with applicable building codes and regulations to minimize risks from unstable geologic units and unstable soils. Therefore the proposed project would result in impacts that are ***less than significant***. No further consideration of this topic is required.

d.) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Soil characteristics, such as the potential presence of expansive soils, are a primary factor in the engineering designs required for tower foundation retrofitting. All soil characteristics, including those defined in Table 18-1-B of the Uniform Building Code (1994) are incorporated into the engineering designs required for tower foundation retrofitting that are part of the Next Gen Project.

Given that no special soils risks have been identified at any of the project sites, meaning that none of the sites are on expansive soils, and all structures would be built according to applicable building codes, the proposed project would not be adversely affected expansive soil. Thus, the proposed project would result impacts that are ***less than significant***. No further consideration of this topic is required.

e.) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Waste water and septic tanks are not part of the Next Gen project design, therefore the proposed project would have ***no impact.*** No further consideration of this topic is required.

f.) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.[2]

There are no known paleontological sites or resources or unique geological features within or near the identified Areas of Direct Impact (ADI) for the project sites, and the likelihood of unearthing any such resources during ground disturbance is very low. The majority of the sites' ADIs are underlain by exposed bedrock and at the remaining sites the ground disturbance would be limited to depths ranging from zero to a maximum of eight feet below the surface in a single location. Ten Next Gen sites (Big Rock Ridge, Mt. Tamalpais, Mt. Barnabe, Point Reyes Hill, Dollar Hill, San Pedro Ridge, Mt. Tiburon, Stewart Point, Wolfback Ridge, and Mt. Burdell OTA) require ground disturbance to reinforce existing tower foundations, which would disturb soil only in the immediate vicinity of the tower. Five sites (Tomales, Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank) require construction of new towers, equipment shelters, and fencing. Nonetheless, Mitigation Measure GEO-2 calls for the contractor to stop work within 100 feet of any accidentally discovered paleontological or unique geologic resources.

Based upon the lack of known resources, the low likelihood of accidental discovery, and the implementation of Mitigation Measure GEO-2, the project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, and impacts would be ***less than significant with mitigation incorporated***. This finding applies uniformly across all sites, and this issue is therefore not examined further.

Mitigation Measure GEO-2

If buried paleontological resources or unique geologic features are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified registered geologist or paleontologist can assess the significance of the find and, if necessary, develop appropriate procedures for its treatment or avoidance.

4. Hazards and Hazardous Materials

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Diesel and propane fuels are the primary hazardous materials that will be used at the proposed project sites. The proposed project would result in the operation of 18 unoccupied communications facilities, and propane and diesel fuel are necessary for construction and operations of these facilities.

During project construction, minimal quantities of hazardous materials would be necessary. Materials classified as hazardous would be handled in accordance with the construction BMPs described in Chapter III (Project Description) Section G, the proper safety protocols as recommended by the materials' manufacturers, and the health and safety requirements enforced

[2] *Paleontological Resources was moved in 2019 from Cultural Resources to Geological Resources.*

by the Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA).

During operations, the proposed project would utilize propane and diesel fuels to power proposed and existing emergency generators at the project sites. Replenishment of fuel in on-site tanks would occur periodically (quarterly) in order to maintain adequate supplies for emergency generator demand. Propane and diesel are relatively safe when handled, stored, and used for their intended purpose. With the project's compliance with fuel containment and other BMPs included in Chapter III (Project Description), impacts related to the routine transport, use, or disposal of hazardous materials would be ***less than significant***.

b.) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

This topic is addressed in Chapter IV, Section E (Hazards and Hazardous Materials).

c.) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The only site included in the proposed project that is located within one-quarter mile of an existing or proposed school is the Coyote Peak Site, which is part of the Walker Creek Ranch campus of the Marin County Office of Education's Outdoor Education School. The site is not within or near Walker Creek Ranch's educational or conference facilities. While chemicals used to operate construction equipment such as fuels and lubricants would be used at this site, this use would be temporary and in small quantities. Following a brief construction period, there would be no handling or emissions of hazardous materials, except for the generation of small quantities of air pollutants during occasional generator use. Consequently, impacts would be ***less than significant*** and no further consideration of this topic is required.

d.) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

The 2000 Final EIR consulted an array of authoritative databases to analyze the proximity of the 17 original MERA sites to hazardous materials sites. The EIR concluded that none of the proposed communication sites were located on a hazardous materials site and that no impact would occur. According to data downloaded from the EnviroStor (DTSC 2018) and GeoTracker (CAvState WRCB 2018) databases, none of the sites in the proposed Next Gen Project are located on a hazardous materials site. The Muir Beach, Mill Valley Water Tank, and Civic Center sites are located near hazardous materials sites.

The Mill Valley Landfill is located at the intersection of Cypress and Edgewood, which is 0.1 mile west of the Mill Valley Water Tank site. Its status was last updated with the California Department of Toxic Substances Control (DTSC) in 2002, when it was placed in the evaluation stage under the oversight of Marin County, but no contaminants of concern were found. The Muir Beach Site is approximately 0.07 mile northeast of a Formerly Used Defense Site (FUDS), but in 2013 DTSC

and the Water Board wrote a letter of concurrence with the U.S. Army Corps of Engineers' finding of No Department of Defense Actions Indicated (NDAI). The Civic Center Site has four Leaking Underground Storage Tank (LUST) cleanup sites in its nearby vicinity (ranging from adjacent to the building to 0.25 mile southeast of the building). All four sites were fuel-contaminated, having an unauthorized leak of diesel or gasoline, but all were cleaned up and the cases were closed as of 1992, 1998, 2009, and 2010.

Because none of the proposed project sites are located on a hazardous materials site, impacts would be ***less than significant*** and no further consideration of this topic is required.

e.) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would not result in a safety hazard or excessive noise for people residing or working in the project area?

None of the MERA sites are located within an airport land use plan or within two miles of a public airport or public use airport. As such, there would be ***no impact.*** No further consideration of this topic is required.

f.) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Most Next Gen facilities would be located away from population centers, and those facilities located in populated areas would be within the boundaries of existing communications facilities or other existing infrastructure. Construction of the sites could cause temporary increases in traffic for the transportation of construction equipment, but these impacts would be negligible in remote areas, and very minor and temporary in urban site locations. Further, as the Next Gen facilities would be unoccupied the majority of the time, they would not result in any permanent increases in traffic. Therefore, they would not impair implementation of or physically interfere with any emergency response or evacuation plans.

The Next Gen System would not result in physical structures or changes to traffic patterns that would interfere with emergency response or evacuation plans and, in the long-term, would benefit such systems. The main purpose of the proposed project is to upgrade emergency response communications, enhancing the ability of dispatchers and first responders to carry out adopted emergency plans. Impacts would be beneficial and therefore ***less than significant***. No further consideration of this topic is required.

g.) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

This topic is addressed in Chapter IV, Section E (Hazards and Hazardous Materials).

5. Hydrology and Water Quality[3]

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The proposed project is a communications system, and the communications facilities would include few new impervious surfaces. Project operations would not result in the use of chemicals or wastewater discharges, or generate measurable amounts of water runoff, such that violations of water quality standards or waste discharge requirements might occur.

Although the operational phase of the project would not impact water quality, construction-related activities have the potential to do so. Fuel, oil, grease, solvents, and other chemicals used in construction operations could potentially enter a waterway. Concrete is a potential source of pollutants, through possible spillage, and washing or cleaning equipment within the proposed project areas. Construction activities are also a source of various other unwanted materials including trash, soap, and sanitary wastes.

The degree of construction-related impacts to water quality is partially determined by the duration of the various construction activities in conjunction with rainfall distribution. Summer construction activities, for example, would decrease the potential for sediment and other pollutants impacting water quality.

In order to reduce potential erosion and water quality impacts, the contractor will be required by the County to submit and implement a Stormwater Pollution Prevention Plan (SWPPP) that includes appropriate water pollution control and dust control BMPs. Surface water quality and groundwater quality impacts during project construction and operation would therefore be ***less than significant***. No further consideration of this topic is required.

b.) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed project facilities do not contain de-watering or draw-down elements or contour changes that would affect the groundwater or result in changes to the quantity of groundwater through withdrawal or loss of recharge capacity, therefore there are ***no impacts*** from the proposed project. No further consideration of this topic is required.

c-i.) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or offsite.

The proposed project sites exist within the boundaries of existing developments. At any given site, few impervious surfaces would be created. The largest impervious surfaces to be constructed are equipment shelters and fuel tanks, which would not be large enough to alter

[3] *This subsection addresses the topic of Water included in the Initial Study prepared for the 2000 EIR.*

area drainage patterns. At the Coyote Peak Site, the proposed project includes improvements to the existing access road serving the existing equipment on the ridge, but this road would remain unpaved and would not impact drainage differently than the current condition of the road. There would be no significant change in currents or the course or drainage of water movements as a result of the proposed project. Because the project would not alter the existing drainage pattern of the area, it would therefore not cause a substantial change to the erosion and accretion patterns long-term. Erosion and siltation from construction-related ground disturbance would be minimized via compliance with the County-required SWPPP for the project. As there would be no alterations to drainage patterns, and the project would not result in substantial erosion or siltation on- or off-site, impacts would be ***less than significant***. No further consideration of this topic is required.

c-ii.)Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

As previously discussed in c-i, the proposed project elements are located within the boundaries of existing developments and existing drainage patterns would not be significantly altered. The only impervious surfaces involved in the project are equipment towers, equipment shelters, and fuel tanks, which would not be large enough to alter area drainage patterns, and regrading of an existing unpaved access road at the Coyote Peak Site, which would not change drainage from its current condition. For the same reasons addressed in c-i above, surface runoff would not increase and the proposed project would not result in flooding on or off site; therefore there would be ***less than significant*** impacts. No further consideration of this topic is required.

c-iii.)Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As described under thresholds c-i and c-ii above, development at each of the 23 sites where project installations or decommissioning would take place would not create substantial additions to impervious surface, and would therefore not generate substantial additional surface water runoff. Any runoff would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Temporary construction-related runoff could occur, but the project will be required by the County to submit and implement a SWPPP that includes appropriate water pollution control and dust control BMPs. Therefore impacts would be ***less than significant*** and no further consideration of this topic is required.

c-iv)Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

All 26 MERA and proposed MERA sites discussed in this SEIR are located outside of flood hazard zones. A portion of the Marin Civic Center property lies within a 100-year flood hazard area, but the building complex itself is at a higher elevation outside the area susceptible to flooding. As such there would be ***no impact*** with regard to the restriction or redirection of 100-year flood flows. No further consideration of this topic is required.

d.) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Most sites proposed as part of the Next Gen System are located inland, away from large bodies of water. These sites are inherently not at risk of inundation by seiche or tsunami. The Muir Beach Water Tank and Tiburon Sites are proximate (less than half a mile) to the Pacific Ocean and the San Pablo Bay, respectively. While this may present some risk of tsunami, both sites are located at sufficiently high elevation as to minimize this risk. All sites are located outside of flood hazard zones, in areas of undetermined flood risk (Point Reyes Hill Site) or of minimal flood risk (all other sites). Given all sites are located away from large water bodies and/or at a relatively high elevation, the project would not be susceptible to releasing pollutants due to inundation by flood, seiche, tsunami, or mudflow, resulting in impacts that are ***less than significant***. No further consideration of this topic is required.

e.) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project would not have other water quality or groundwater sustainability impacts beyond those discussed under items a) through c) above. Project activities would leave the area similar to its existing condition, given that most development would occur in existing development footprints, and the project would be required by the County to submit and implement a SWPPP that includes appropriate water pollution control and dust control BMPs. Impacts would be ***less than significant***. No further consideration of this topic is required.

6. Energy

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

During the construction phase, trucks and other equipment will use fuels that by nature utilize energy resources. These impacts will be short-term, and the BAAQMD BMPs listed in Mitigation Measure AIR-1 would reduce any wasteful use of these energy resources by minimizing idling times and requiring the tuning and maintenance of all equipment. During the operational phase, with the exception of the Prime Site EOF, Next Gen facilities would be unoccupied and energy demands would remain relatively constant. When technicians are not present, energy at each site is consumed only by communications equipment and, in summer months, by air conditioning units that prevent the overheating of equipment. As part of the project, the air conditioning units at six existing sites will be replaced with new, quieter, and more efficient units. While the proposed MERA Next Gen System will have a greater total number of communications sites,

communications equipment and air conditioning units that use electricity more efficiently will result in approximately the same overall consumption for the system as a whole as the baseline condition. Thus, impacts related to energy consumption would be ***less than significant*** and no further consideration of this topic is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed project would use electric power, except in the case of outages, when on-site generators powered by either propane or diesel fuel would be used. Electricity at all MERA sites is provided by Marin Clean Energy, a Community Choice Aggregator that acquires electricity from commercial suppliers of renewable energy. As all aspects of the project except the emergency generators would be powered by renewable energy, impacts with regard to state or local plans for renewable energy or energy efficiency would be ***less than significant***. No further consideration of this topic is required.

7. Mineral Resources

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Result in the loss of availability of a known mineral resources that would be of value to the region and the residents of the state?

None of the proposed project sites are located within known mineral resource sites presented in the U.S. Geological Survey Mineral Resources Data System, nor are they located on active mines identified by the California Department of Conservation, Division of Mine Reclamation. The project would therefore not use rare, non-renewable mineral resources, nor would it preclude future excavation of oil or minerals should such extraction become viable. The proposed project would not result in the loss of availability of known mineral resources that would be of value to the region and the residents of the state. This results in ***no impact*** and no further consideration of this topic is required.

b.) The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

As discussed above, there are no known mineral resource sites or mine sites in the vicinity of the project. The proposed project would therefore not result in the loss of availability of locally-important mineral resource recovery sites and consequently, would have ***no impact.*** No further consideration of this topic is required.

8. Noise

The CEQA Guidelines require that impacts are analyzed relating to whether the project would result in:

a.) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. For residential uses, environmental noise levels are generally considered low when the CNEL (Community Noise Equivalent Level, a 24-hour average accounting for additional noise sensitivity in the evening and nighttime) is below 60 dBA (A-weighted decibel scale, which approximates human ear sensitivity). Noise levels are considered moderate in the 60–70 dBA range and high when they reach above 70 dBA.[4] Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for stationary or point-source noise, such as that from construction, is that for every doubling of distance from the source, the noise level is reduced by about 6 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 7.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.[5]

Construction activities associated with the proposed project would create noise typical of small-scale development. Examples of construction-generated noise would be from construction equipment usage, such as hand power tools, construction vehicles, and construction equipment such as a tower crane, and back-up warning "beepers". Construction equipment would generally generate a maximum noise level of approximately 101 dB at 50 feet and would be reduced by 6 dBA per doubling of distance.

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[4] Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services).

[5] National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.

As discussed in the Land Use/Planning Sections of Chapters IV (Environmental Impact Analysis) and V (Existing Conditions and Impacts at Each Site), MERA is not subject to certain local land use plans and ordinances under the doctrine of intergovernmental immunity. Therefore, the noise level standards established in local plans and ordinances are not necessarily applicable to the proposed project. Nevertheless, as provided in Mitigation Measure NOISE-1 below, construction activities would be required to comply with local noise standards and hours of construction.

Operation of the 18 proposed communications sites that would make up the Next Gen system would result in less-than-significant long-term ambient noise level impacts. Potential sources of noise at new sites are 1) air conditioning units attached to exterior walls of the equipment shelters, and 2) the periodic operation of the emergency generators. These noise sources exist today at MERA's current sites and will not increase as a result of the project. Any new equipment would meet adopted noise level requirements, and Mitigation Measure NOISE-1 requires air conditioners and generators located nearby the general public be equipped with noise reduction features.

Given that construction noise impacts will be temporary in nature and that Mitigation Measure NOISE-1 ensures local noise standards be followed for construction noise and noise reduction features be used to minimize the already minimal operational impacts to sensitive receptors, the project would not expose people to or generate noise in excess of established standards and impacts would be ***less than significant with mitigation incorporated***. No further consideration of this topic is required.

Mitigation Measure NOISE-1

1) The Contractor shall comply with local standards regarding noise generation and hours of construction during all phases of the project construction. The Construction Project Manager or designated representative shall provide the Contractor with the applicable restrictions.

2) At all newly constructed sites and at sites where the general public would be regularly exposed to the sound of air conditioning units and emergency power generators (Prime Site EOF, Civic Center, Mt. Tiburon, Mill Valley Water Tank, and Muir Beach), those units and generators shall be equipped with noise reduction features.

3) The Construction Project Manager or designated representative shall verify that all workers on-site are aware of and understand applicable noise restrictions. This will be accomplished by on-site meetings with each contractor and their employees prior to the start of construction.

4) The Construction Project Manager shall verify that project documents specify the use of equipment that meets the requirements of this mitigation measure and shall maintain a written record of compliance.

b.) Generation of excessive groundborne vibration or ground borne noise levels.

Construction activities can generate groundborne vibration that is capable of being felt (causes annoyance) and in extreme cases, causes physical damage to nearby buildings. However, groundborne vibration and noise is typically associated with blasting operations, the use of pile drivers, and large-scale demolition activities, none of which are required for the construction or operation of the proposed project. Any groundborne vibration and noise that does result would be minimal and temporary, and would only occur during site construction activities. Consequently, impacts would be ***less than significant***. No further consideration of this topic is required.

c.) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No MERA sites are located within two miles of a public airport. However, private airstrips in Marin County include the Commodore Center Heliport and Seaplane Base, located approximately two miles from the Wolfback Ridge site, and San Rafael Airport, north of San Rafael, which is within two miles of four MERA sites: Skyview Terrace Water Tank, Prime Site EOF, Civic Center, and San Pedro Ridge. Periodic maintenance of the project sites could potentially result in workers being exposed to noise from air operations at these airstrips, but site visits are limited in duration and work will primarily be indoors. None of the other project sites are within two miles of a private airstrip. Based on the location of the sites and limited exposure to airport noises, the impacts to people working in the proposed project would be ***less than significant***. No further consideration of this topic is required.

9. Population and Housing

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Induce substantial unplanned population growth in an area, either directly or indirectly?

None of the proposed project sites would have a direct or indirect impact on growth in Marin or Sonoma Counties. The proposed project is an emergency telecommunications system that would serve the existing population in Marin County and would not require or prompt growth. The project is intended to improve emergency communication coordination and dispatch capabilities, and would not increase mobile units or patrols. The proposed project would benefit the community population through more efficient use of the existing law enforcement, fire, and emergency capabilities. Given the project would simply improve Marin County's emergency communications system and would not induce population growth in the area directly or indirectly, there would be ***less than significant impacts***. No further consideration of this topic is required.

b.) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction and operation of the proposed project would not require the displacement or removal of people since there are no existing on-site residential units on any of the 23 sites. Construction

would not displace any existing housing, and the proposed project would result in ***no impact***. No further consideration of this topic is required.

10. Public Services

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, polices protection, schools, parks, or other public facilities?

The proposed project would result in the physical development, decommissioning, or alteration of 23 communications sites for public safety communications. The design and operation of the proposed project will benefit the fire and police protection afforded to Marin County businesses, industries, and residents. The proposed project would not accelerate the deterioration of any public services facilities or necessitate the construction or alteration of new facilities. The Coyote Peak site is located on an upland portion of Walker Creek Ranch Outdoor School and Conference Center that is owned by the Marin County Office of Education. However, the proposed MERA facilities are not within or near Walker Creek Ranch's educational or conference facilities. Further, the proposed project would not require any new park development or increase usage of area parks. Consequently, the proposed project's impacts would be ***less than significant***. No further consideration of this topic is required.

11. Recreation

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

All proposed project improvements are located at existing communications or public infrastructure sites. No existing parks or recreational facilities would be adversely affected through increased demand or use as a result of the proposed project. The proposed project does not include any residential component or create any employment opportunities that would potentially increase recreational demands. As the project would not result in any excess population that might increase the use of existing parks and recreational facilities, the project would not result in the substantial deterioration of any such facilities, and would result in impacts that are ***less than significant***. No further consideration of this topic is required.

b.) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project does not include recreational facilities, and, as previously noted, there would be no population increase associated with the project, that would require new or expanded

recreational facilities; thus, the impacts would be ***less than significant***. No further consideration of this topic is required.

12. Transportation and Circulation

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project would have a minimal impact on the circulation system. There may be a short-term increase in area traffic during construction at new and existing sites, and at the sites to be decommissioned, but this would be minimal and temporary. In the long-term, the project would generate one vehicle trip per month for each existing and new site, and delete one existing vehicle trip for each decommissioned site each month. This would not be sufficient to have an impact on regional traffic or interfere with any applicable program, plan, policy or ordinance establishing measures of effectiveness for the transportation system in Marin County.

None of the proposed MERA sites are identified in adopted community plans or programs as sites for public transit, bicycle or pedestrian improvements. Nor will the will proposed improvements at these sites impact or decrease the performance of existing or planned transit, bicycle or pedestrian routes. Further, the proposed communications facilities are generally located atop hillsides, ridges, and buildings or are otherwise set back from existing roadways, bikeways and sidewalks.

Given that there would only be small, sporadic increases in traffic associated with the project, there would be no conflict with applicable plans, policies, or ordinances addressing the circulation system. As such, impacts would be ***less than significant*** and no further consideration of this topic is required.

b.) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines section 15064.3, subdivision (b) sets forth criteria for analyzing transportation impacts using Vehicle Miles Traveled (VMT). Under the CEQA Guidelines, a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including a qualitative analysis.

Construction traffic (equipment and materials transport and daily worker traffic) would slightly increase traffic on local roads during the temporary construction phase of the proposed project. Temporary construction traffic would be limited to equipment delivery and material transport, and a few employee vehicles on a daily basis, which would be parked on-site and out of the way of main streets. The temporary construction-related traffic would not result in a noticeable increase in traffic on local roads.

The proposed project would have minimal impacts on vehicle miles traveled in and around the project sites on an operational level. Each site proposed for inclusion in the Next Gen System would generate approximately one vehicle trip per month. At the 14 sites that are already existing communication sites, this would be no change from the current baseline condition. There are four

sites at which communications equipment will be installed where none currently exists (Coyote Peak, Skyview Terrace, Muir Beach, and Mill Valley Water Tank), adding one vehicle trip each month, but there are also five sites being decommissioned as part of the proposed project, which would reduce one routine maintenance trip per month. The communication sites would require very little maintenance once operational, and that which would be required would be consistent with current baseline conditions.

As VMT during both the construction phase and the operational phase of the project would be minimal and similar to the existing condition, transportation impacts would be ***less than significant***. No further consideration of this topic is required.

c.) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The proposed project will not require any public roadway improvements, nor will traffic generated by the project cause any changes in regional, local or neighborhood vehicle traffic patterns. All transportation and circulation design features associated with the proposed project follow standard industry practice, and all portions of the transportation design are compatible with their surroundings.

All proposed project sites are already improved with public infrastructure, and the proposed communications improvements, including roadway access, are compatible with existing public improvements. The project will not introduce any incompatible uses to local roads. As a result the project will not create roadway hazards due to design features or incompatible uses. Therefore project impacts would be ***less than significant***. No further consideration of this topic is required.

d.) Result in inadequate emergency access.

Emergency vehicle access routes already exist at each of the proposed telecommunication sites. At Coyote Peak, the existing access road would be regraded for improved access. In some cases the sites have more than one emergency vehicle access route. Given that the project would not modify emergency access routes, except for improvements at the Coyote Peak Site, the project would not result in inadequate emergency access, and there would be ***less than significant*** impacts. No further consideration of this topic is required.

13. Utilities and Service Systems

The CEQA Guidelines require that impacts are analyzed relating to whether the project would:

a.) Require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project by nature calls for the construction of new communications towers, the environmental impacts of which are identified and analyzed throughout this SEIR, but no additional communications systems infrastructure would be required, since the sites will interconnect using MERA's own microwave network. The Coyote Peak, Mill Valley Water Tank,

Muir Beach, Skyview Terrace, and Tomales sites would require new electrical utility connections. These routine connections will be via new underground cables and do not require substantial alterations to the power infrastructure. None of the proposed project sites will use natural gas. The additional runoff from roofs and other impervious surface areas related to the proposed project are less than significant and will not require construction of new or expansion of existing storm water facilities.

Given that changes to electrical infrastructure would be standard and localized, and there would be no changes to natural gas, storm water drainage, or communications infrastructure, impacts would be ***less than significant.*** No further consideration of this topic is required. .

b.) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The proposed project would not require water service. Therefore, the proposed project would result in ***no impact***. No further consideration of this topic is required.

c.) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As previously discussed, no increase in wastewater treatment would result from the project and none of the proposed facilities would require water service. Accordingly, the proposed project would not result in any increased demand on the treatment capacity of local or regional wastewater treatment providers that would result in an adverse determination, and the proposed project would result in ***no impact***. No further discussion of the issue is required.

d.) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Seventeen of the 18 communications sites are unoccupied facilities and, during the operation phase, small volumes of solid waste would be generated during periodic visits and would be removed by maintenance personnel.

Construction associated with the proposed project would result in a short-term incremental increase in solid wastes, including roofing, wood, metals, plastics, concrete, fabric, and glass. This short-term impact on solid waste disposal is anticipated to conclude in 2020.

The County of Marin is served by one permitted landfill, the Redwood Landfill. As of 2008, Redwood Landfill had 26,000,000 cubic yards of capacity remaining with end-of-operations planned for July 2024. Any materials used during construction would be properly disposed of in accordance with federal, state, and local regulations. As the project would generate little solid waste during the operational phase, the landfill serving the project is projected to have capacity for several years past the conclusion of construction, and State and local standards would be adhered to, impacts would be ***less than significant***. No further consideration of this topic is required.

e.) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As discussed in threshold d), the proposed project would result in small quantities of solid waste, which would be removed from the site and disposed of legally and appropriately, in a landfill permitted to take construction-generated waste. The proposed project would comply with applicable federal, state, and local statutes and regulations, resulting in impacts that are ***less than significant***. No further consideration of this topic is required.