V. EXISTING CONDITIONS AND IMPACTS AT EACH SITE

V. EXISTING CONDITIONS AND IMPACTS AT EACH SITE

A. INTRODUCTION

This chapter describes existing conditions and site-specific impacts at each MERA Next Generation site. The evaluation of the significance of each environmental impact is based on the *CEQA Guidelines* Appendix G thresholds that were introduced in Chapter IV. The environmental resource impacts that apply universally to the Next Gen Project are addressed in Chapter IV, and those resource impacts that are dependent on specific site conditions are addressed here in Chapter V.

The five environmental resources areas that are dependent on site-specific conditions are aesthetics, cultural and tribal cultural resources, biological resources, land use, and potential hazards. The impacts to these five environmental resources are evaluated at each of the 23 sites that comprise the Next Gen Project. Of those 23 sites, ten are used in the existing MERA system and will continue to be used, eight are new to the MERA Next Gen System, and five are sites in the existing system that will be decommissioned. For convenience, the discussion below of site conditions and impacts in this chapter follows the same order as in the original Initial Study (MERA, 1999) and Environmental Impact Report (MERA, 2000). The five resource areas addressed in this chapter are:

Aesthetics – The evaluation of Aesthetics impacts is based on four aesthetics thresholds introduced in Chapter IV.A. Thresholds (a) – (c) are considered in this chapter, and threshold (d) (potential for light and glare impact) was addressed system-wide in Chapter IV.A. The site-by-site aesthetic impact evaluation was based on site visits, visual simulations, and the proximity of a site to public open space. The visual simulations show before and after view of each site from both near and distant perspectives.

Threshold (a) requires an evaluation of the proposed project's impact on a [publicly accessible] scenic vista. Five sites in the Next Gen Project could be classified as a publicly accessible scenic vista: Mt. Barnabe, Dollar Hill, Mt. Tiburon, and Skyview Terrace, which are all existing sites, and Muir Beach, which is a new site. Thresholds (a) through (c) are evaluated in this chapter, based upon site evaluations. Threshold (d) (added potential for light and glare) is addressed system-wide in Chapter IV.A, where Mitigation Measure AES-1, which applies to all sites, is defined. Overall the analysis found the impact to aesthetic resources to be significant and unavoidable at five sites: Tomales, Coyote Peak, Skyview Terrace, Mill Valley and Muir Beach.

Cultural and Tribal Cultural Resources – Given the close relationship between tribal and cultural resources, the two are discussed concurrently in this SEIR. No Next Gen sites were determined to have archaeological resources or human remains present. As such, these impacts (Cultural Resource thresholds b and c) are discussed globally for all sites in Chapter IV.B. While no historical resources were identified within any sites, three sites were identified as having historical resources within 0.25 miles of the area of direct impact (ADI). Accordingly, potential impacts on historical resources are analyzed on a site-by-site basis here. To determine the

potential for significant impacts on tribal cultural resources, MERA consulted with the Federated Indians of Graton Rancheria (FIGR). FIGR identified the potential for significant impacts at 13 sites. The potential impacts and mitigation measures for each site are analyzed here.

Biological Resources –The Biological Resources thresholds of significance designated (a) through (f) were introduced in Chapter IV.C. Thresholds (a) through (e) could not be discussed on a project-wide level, given the diversity of biological settings across the MERA sites, and are discussed here on a site-by-site basis. Analysis of threshold (f) in Chapter IV.C showed less-than-significant impacts for all sites and is, therefore, not discussed further in this chapter.

Land Use Consistency – Chapter IV.D introduces thresholds (a) through (c) for Land Use impacts. Analysis of thresholds (a) and (c) in Chapter IV.D found no impacts or less-than-significant impacts, respectively, across all sites. As a result, these two thresholds are not discussed further in this chapter. Potential impacts associated with threshold (b) are discussed below on a site-by-site basis.

Potential Hazards – Chapter IV.E contains a discussion and analysis of thresholds (a) through (h) for Potential Hazards. The analysis found that the proposed project would result in less-than-significant impacts across all sites.

MERA adopted threshold (a) that relates specifically to compliance with Federal Communications Commission (FCC) regulations for exposure to Radio Frequency (RF) emissions. Due to the current relevance of RF exposure in public discussions, this topic is evaluated in detail here on a site-by-site basis, and graphics depicting worst case RF emissions are included. MERA adopted threshold (a), which requires an analysis of the proposed project's compliance with FCC regulations regarding RF exposure. The analysis of RF exposure found that all publicly accessible spaces around all MERA sites are within radio frequency exposure limits established by the Federal Communications Commission (FCC).

The following site-by-site analysis addresses only those environmental resources that could not be fully discussed for the project as a whole in Chapters IV.A through IV.E but are dependent on existing site-specific conditions. The mitigation measures contained in this Chapter are in addition to the system-wide mitigation measures called for in Chapters IV.A through IV.E.

B. SITE-BY-SITE ANALYSIS

A. Prime Site EOF (Site 1)

The Prime Site EOF is located at the existing Marin County Emergency Operations Facility (EOF) at the southwest corner of the intersection of Lucas Valley Road and Highway 101 in San Rafael. The EOF is a three-story office building in northern San Rafael as shown in Photo III-1 (Chapter III, Project Description). To the east is State Highway 101 and Smith Ranch Road, which is lined with similar institutional and commercial office buildings surrounded by parking lots. To the west is Lucas Valley Road and a grassy hillside that forms a backdrop to the EOF and three other commercial facilities west of Highway 101.

The proposed work at the Prime Site EOF is detailed in Chapter III Project Description, and a summary is provided below in Table V-1. The proposed project improvements include minor modifications of existing communications equipment on the lattice structure above the rooftop of the EOF and installation of equipment inside the building. There is no existing lighting on the structure and no additional lighting is proposed.

At the Prime Site EOF, an estimated 10% of the visible components would be owned by MERA after project completion. This site is owned by Marin County and was not a MERA site previously. The Marin County Sheriff owns most of the existing communications equipment at the site, but some of the antennas are for emergency use by local amateur radio operators.

Table V–1. Prime Site EOF, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Prime Site EOF (Emergency Operations Facility)	Existing rooftop communications equipment at EOF with 19 existing antennas on lattice structure supporting existing dispatch systems.	New Prime Site for MERA Next Gen System. 12 Yagi-type (small horizontal) antennas would be removed and replaced with 19 vertical pole antennas. New 3' diameter and one new 6' diameter microwave dish would be placed above lattice structure.

1. Aesthetics

The primary aesthetic resource in the area is the grassy hillside just to the west of the EOF, which is part of a City of San Rafael Open Space. There are no scenic vistas available from the Prime Site EOF, and, there would be ***no impact*** under threshold (a). The hillside to the west provides a natural backdrop to the EOF and other buildings in the area when viewed from Highway 101 or Smith Ranch Road, the most accessible vantage points. Since neither of these points are designated or eligible as scenic highways, there would be ***no impact*** under threshold (b).

With these key points in mind, the primary aesthetics threshold to consider at the Prime Site EOF, given that it is in an urbanized area along State Highway 101 in the City of San Rafael, is:

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

MERA is not subject to the City of San Rafael's land use regulations. Accordingly, instead of analyzing the project's potential to conflict with land use regulations governing scenic quality, the following discussion of aesthetics impacts assesses whether the project would degrade the existing visual character or quality of public views of the site and its surroundings.

Figure III-23, Existing and Proposed Elevations, shows the physical changes at the site resulting from the proposed project. The existing approximately 20-foot wide lattice structure on which all antennas are mounted rises approximately 20 feet above a mechanical penthouse on the three-story building's rooftop to which numerous vertically oriented antennas are attached in an orderly fashion. The lattice structure, with one small microwave dish, and to a lesser degree the antennas, are currently visible from nearly all vantage points. A three-foot diameter microwave dish is also visible above the lattice structure. The Next Gen System would slightly modify the positon of the three-foot diameter dish, and it would add a second six-foot diameter dish that would also be visible above the lattice structure.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site can be seen. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.A-1. Subsequent Figures V.A-2 through V.A-7 show the anticipated before and after conditions at the Prime Site EOF from the three selected KOPs.

Smith Ranch Road is on the east side of Highway 101, and it is aligned so that individuals approaching from the east (including those driving from McInnis Park, a Marin County regional park that is further east and out of sight) face the Prime Site EOF, although it is relatively distant. The lattice structure on the roof is visible, but the changes to individual antennas resulting from the proposed project would not be obvious. There are no other park areas, scenic highways, or notable visual resources in the area.

The additions of new antennas and a new larger microwave dish on the existing lattice structure would not be obvious on the existing tower designed for such features, but would be detectable upon closer inspection. Figures V.A-2 through V.A-7 show the antenna changes and particularly the addition of the larger microwave dish. These visual changes would be slightly adverse as the new dish would be the highest, largest, and most visible component of the structure. However, the addition of the two new microwave dishes on the existing antenna lattice structure would not substantially degrade the visual character or quality of the site or the surroundings.

Using the simulated views from the KOPs in conjunction with proximate protected scenic resources, such as parks, and scenic highways, impact determinations are made, and, in the case of the Prime Site EOF, the impact would be ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project incorporated records searches and site visits. The report found no known historical resources pursuant to Section 15064.5 within or near the Prime Site EOF. Improvements proposed for this site mostly include minor modifications to existing infrastructure, such as removal and replacement of antennas and microwave dishes, as well as the replacement of equipment inside the EOF building. As shown in Figure V.A-8, which depicts the Area of Direct Impact and a surrounding 100-foot buffer, this site is located on the roof of or within the EOF building. Accordingly, no ground disturbance would occur and there is no chance of accidentally discovering historical resources. Because there are no known historical resources present, and accidental discovery is not a possibility, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Prime Site EOF, and ***no impact*** would occur.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites. Since the Prime Site EOF was not among these 13 sites, it is assumed that there are no significant tribal cultural resources present. Further, no ground disturbance would occur at this site, so there is no possibility of accidentally discovering tribal resources. Thus, ***no impact*** would occur.

3. Biological Resources

a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?*

The EOF property is completely developed and landscaped and does not contain habitat that could support candidate, sensitive, or special-status species. Thus, the proposed improvements would have ***no impact*** on candidate, sensitive, or special-status plant or wildlife species.

b,c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The Prime Site EOF is located within a completely developed and landscaped area. No sensitive biological communities are present, including riparian habitat or federally protected wetlands, and the proposed improvements would have ***no impact*** on sensitive biological communities.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

As previously discussed, the Prime Site EOF does not contain habitat that could support special-status species. It is not part of a migratory wildlife corridor or a native wildlife nursery site, and improvements at the Prime Site EOF would not impede the use by native wildlife of any such sites. As the Prime Site EOF is developed and is not a migratory corridor or nursery site, therefore, the project would not impede the use of any such corridors or sites, and there would be ***no impact***.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As noted, the Prime Site EOF is located entirely within a developed area, and proposed changes include modifications to a pre-existing communications complex. As the area is already developed for communication purposes, and proposed changes are minor, the Next Gen Project at the Prime Site EOF would have no impact on biological resources and, consequently, would not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that may be under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?*

The Next Gen EOF Site is located in the City of San Rafael, and does not lie within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. MERA is not subject to San Rafael land use regulations and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold of significance (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for or the general public?

Evaluation of exposure limits for radio frequency (RF) emissions at the Prime Site EOF is based on an analysis conducted by SiteSafe, LLC, an independent RF exposure and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 21, 2018, SiteSafe surveyed the Prime Site EOF to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 20 locations at the Prime Site EOF. The highest emissions recorded during this process were well below the FCC's MPE limits, at less than 1% of the occupational limit and less than 5% of the public limit. The maximum recorded level at all 20 locations was below 1% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but used the public MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit. Their findings are discussed below:

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing conditions at the Prime Site EOF is 553.6% of the public MPE limit.

b) Figure V.A-9 depicts modeled exposures relative to applicable MPE limits during the worst case scenario during the transition period, the "all systems on" scenario, when all currently existing and the new transmitting devices could function simultaneously as the new system is being tested.

   Within the controlled area of the Prime Site, the EOF rooftop (which is locked and not accessible to the public), there would be 53 antennas capable of operating during the transition period (for a full inventory, see Page 24 of Appendix D), although this condition would be rare based upon the intermittent nature of voice communications. In one specific

area of the controlled-access rooftop environment, surrounding the antenna mount, these antennas have the capacity to cumulatively create a theoretical maximum exposure of 577.1% of the public MPE limit. The transition period is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

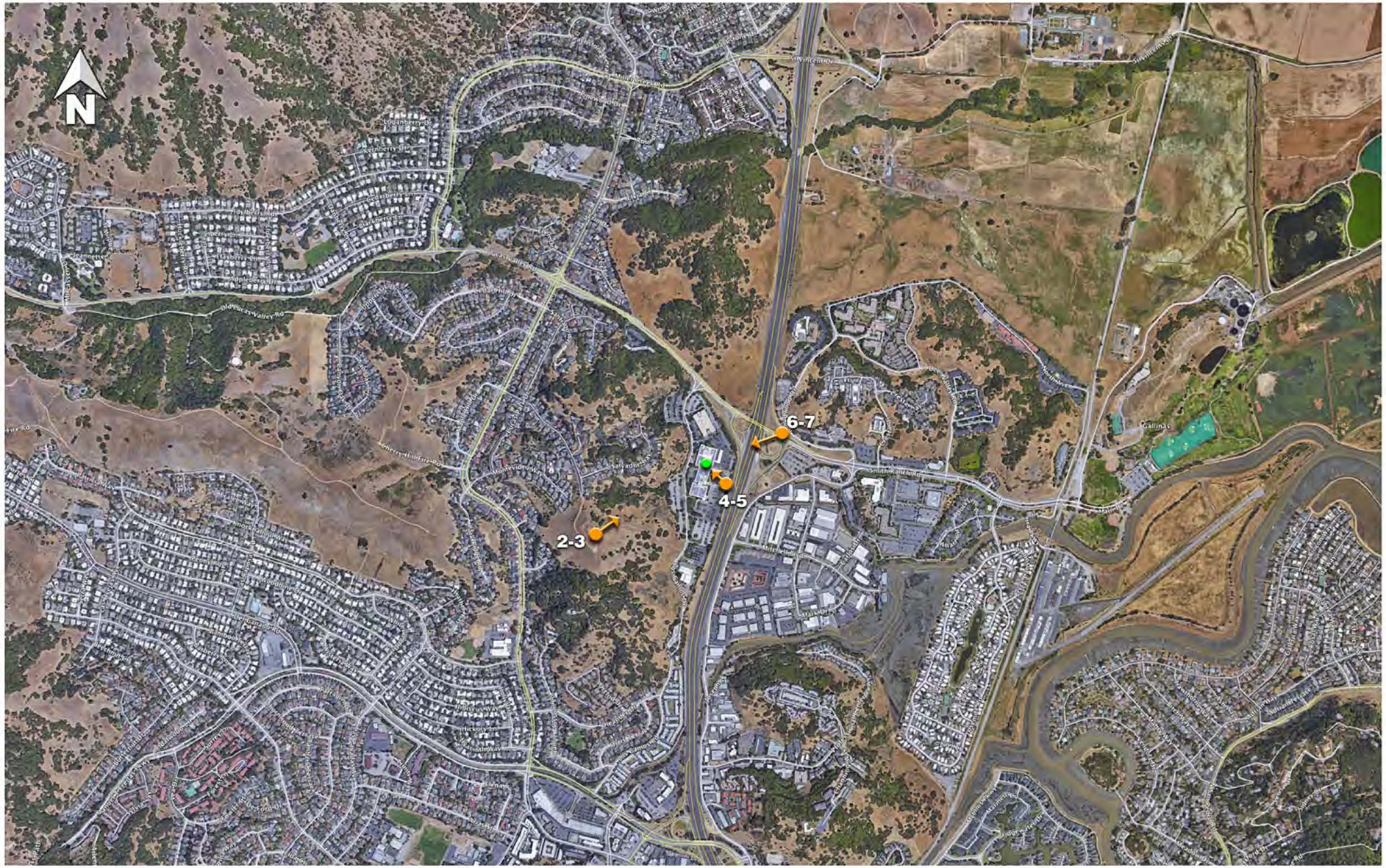
c) Looking to the long term "proposed condition" with the new system fully in place and the project complete, maximum controlled-area rooftop-level exposure would decline only slightly (due to the number of non-MERA antennas on site) to 553.2% of the public MPE limit. This represents a negligible change from the existing baseline theoretical maximum emission values, which are currently 553.6% of the public MPE limit. Uncontrolled areas that are accessible to the public, however, would remain at less than 5% of the public MPE limit, as there are no publicly accessible spaces in close proximity to the roof-top antennas.

Based on SiteSafe's measurements and models, SiteSafe concluded that all uncontrolled areas with public access were well within the public MPE limit, but that a notice sign to workers should be posted at the main access point to the area, at the northeast corner of the rooftop penthouse. Recommended signage locations can be seen in Appendix D (SiteSafe Report) pages 19-20, and examples of signs meeting FCC Guidelines can be viewed in Chapter III (Project Description), Section G.

MERA's proposed operations at the Prime Site EOF would comply with FCC public exposure regulations, as all publically accessible spaces would be subject to less than five percent of the MPE limit for public exposure. The SiteSafe Report found that existing ground level RF emissions at the Prime Site EOF are less than 5% of the FCC's MPE limits for uncontrolled/general public environments, and that ground level RF exposure will remain at less than 5% of the MPE limits during the transition phase and upon completion of the proposed MERA Next Gen Project. Consequently, the impacts to the public from RF emissions at the Prime Site EOF would be ***less than significant***. However, within the controlled/occupational rooftop area of the Prime Site EOF, current RF emissions exceed 100% of the MPE limits at specific points, and they will continue to exceed 100% of the MPE during the transition phase and upon completion of the proposed project. The controlled/occupational rooftop environment can be brought into compliance with applicable FCC regulations by posting warning signage at the rooftop entrance and at selected antenna mounts. Mitigation Measure RF-1 below requires the posting of such signage. As a result, controlled/occupational area RF exposure impacts at the Prime Site EOF during all stages of the project would be ***less than significant with mitigation incorporated***.

<u>Mitigation Measure RF-1</u>

MERA shall install exposure warning signs at rooftop entries and selected antenna mounts in the controlled access rooftop area according to SiteSafe's individual report for the Prime Site EOF (pages 10-30 of the SiteSafe Report, which is Appendix D to the SEIR) and the SiteSafe Report's General Safety Recommendations (pages 313-315 of Appendix D to the SEIR). In summary, MERA shall install a NOTICE sign at antennas 11-27 and a CAUTION sign at antennas 28-32. Signage location details can be viewed on pages 19-20 of Appendix D to the SEIR.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.A - 1 Prime Site EOF Aerial with Photo Locations

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking northeast from the Skyview Terrace water tank.

Source: Previsualists Inc.

Figure V.A - 2 Existing Prime Site EOF from Skyview Terrace

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking northeast from the Skyview Terrace water tank.

Source: Previsualists Inc.

Figure V.A - 3 Proposed Prime Site EOF from Skyview Terrace Water Tank

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ENVIRONMENTAL CONSULTANTS

Current photograph of an up close view from the parking lot in front of the Sheriff's Office.

Source: Previsualists Inc.

Figure V.A - 4 Existing View from Prime Site EOF Parking Lot

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Photosimulation of an up close view from the parking lot in front of the Sheriff's Office.

Source: Previsualists Inc.

Figure V.A - 5 Proposed View from Prime Site EOF Parking Lot

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Current photograph of the view looking west from Smith Ranch Road across Hwy 101.

Source: Previsualists Inc.

Figure V.A - 6 Existing Prime Site EOF from Smith Ranch Road

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking west from Smith Ranch Road across Hwy 101.

Source: Previsualists Inc.

Figure V.A - 7 Proposed Prime Site EOF from Smith Ranch Road

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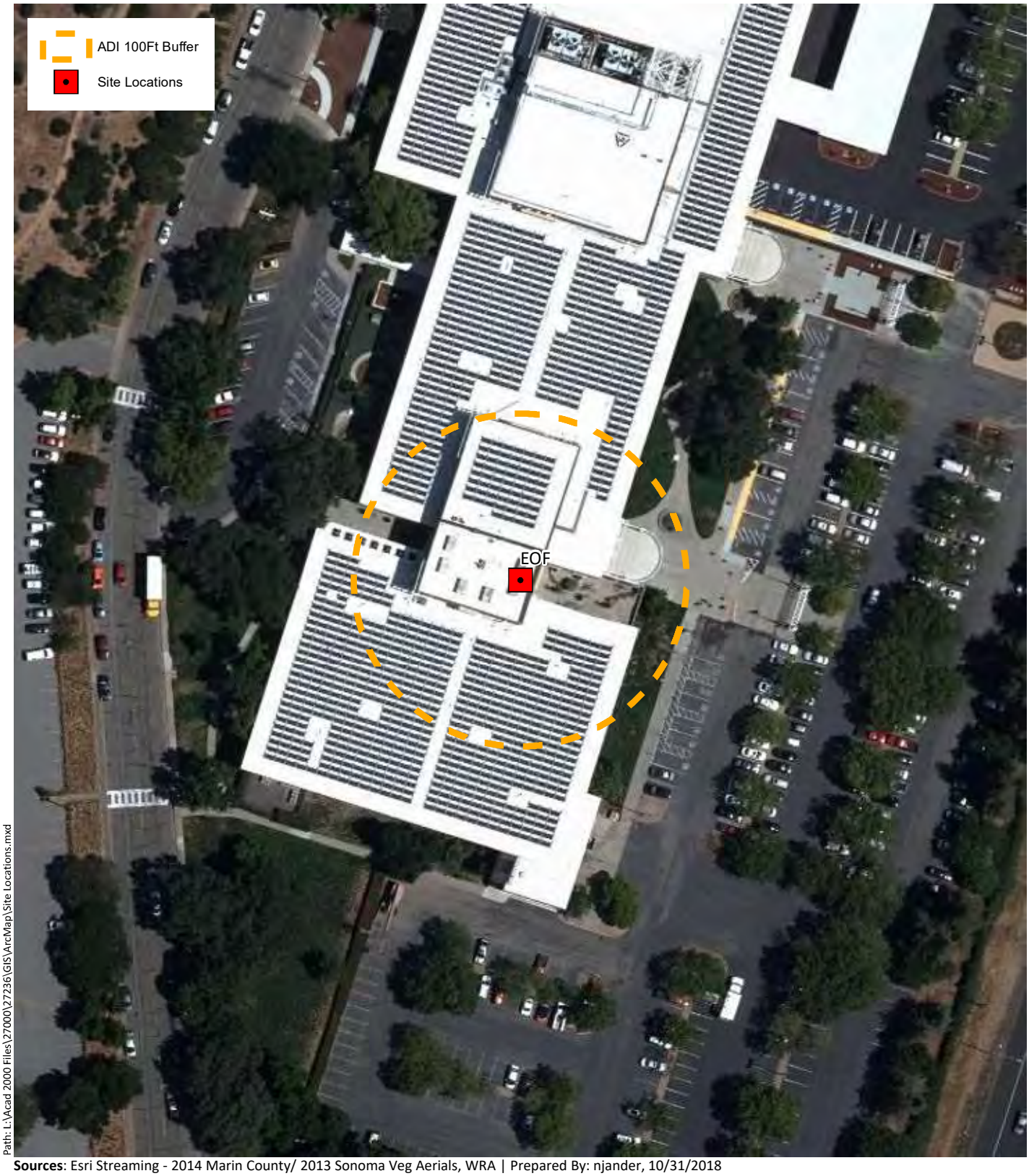

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.A - 8 Prime Site EOF

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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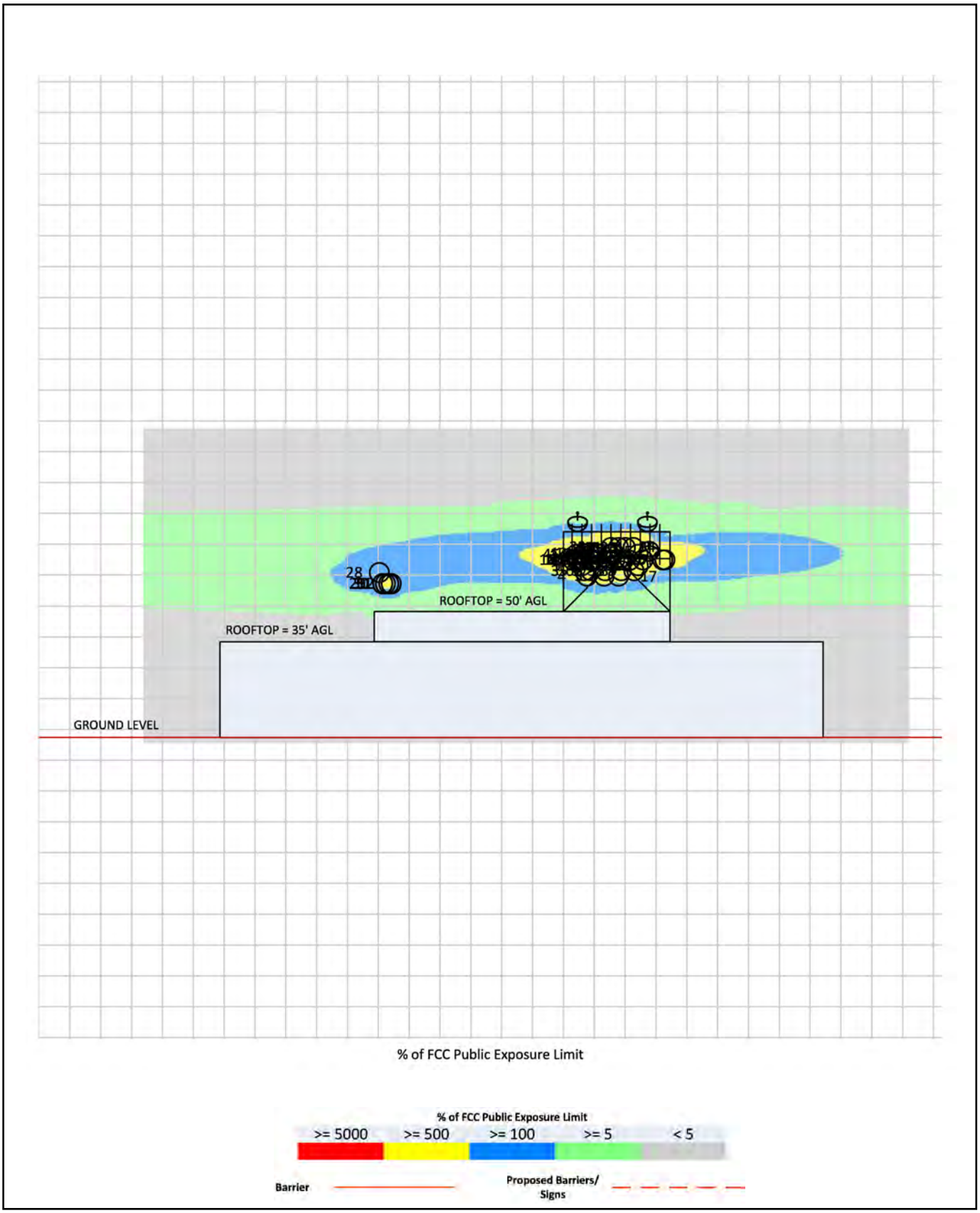

Figure V.A - 9 Prime Site EOF Simulated All-On RF Exposure - Elevation View

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B. Civic Center (Site 2)

Details of the proposed work for the Next Gen System at the Civic Center Site are outlined in Chapter III, the Project Description. In summary, the proposed work includes the addition of one new dish to existing communications equipment on the rooftop of the Marin County Civic Center, located at 3501 Civic Center Drive in San Rafael, as well as replacing equipment within the building interior. As the Civic Center is listed on the Federal Register of Historic Places, external modifications to the building must comply with a set of design guidelines, which are described in further detail in Section V.B-2 (Civic Center – Cultural Resources). There is no existing lighting as part of the telecommunications infrastructure atop the Civic Center, and none is proposed.

The Civic Center consists of the three-story, 580-foot long Administration Building, the four-story 880-foot long Hall of Justice, and the County Library as shown in Photo III-2 (Chapter III, Project Description). Additional land uses within the Civic Center Complex include a parking lot, a post office, an auditorium, a 20-acre park, and an 11-acre lagoon. Surrounding land uses outside the Civic Center Complex are mostly residential, but also include schools, hotels, and a Sonoma-Marin Area Rail Transit (SMART) station. The area is zoned as public/quasi-public (P/QP).

The proposed exterior modifications, summarized below in Table V-2, would take place on the roof of the Civic Center's main structure. Less than 5% of the visible components on the Civic Center roof, after proposed project modifications, would be owned by MERA, which will own one new microwave dish; the other 34 rooftop antennas are owned by Marin County or the State of California.

Table V–2. Civic Center Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Civic Center	Existing antennas on roof, no tower. Building is on Federal Register of Historic Places and has design guidelines to be considered.	Add one new 3' diameter microwave dish on roof, no tower.

1. Aesthetics

There are several aesthetic resources within the viewshed of the Civic Center Site, including the Civic Center itself. The Civic Center is listed on the National Register of Historic Places due to its unique design elements conceived by the acclaimed architect Frank Lloyd Wright. Distinctive design elements include pink stucco walls, scalloped balconies, a blue roof, and a golden tower. The grounds of the Civic Center are a public open space with gardens and a large lagoon. Views of the center are available from Highway 101 to the west and from adjacent residential neighborhoods and roadways to the north, south, and east. Additional aesthetic resources near the Civic Center Site include the wooded hillsides to the south of the center and the grassy, partially wooded hillsides to the north. Although the San Rafael General Plan calls for the protection of hillside views in general, these hillsides are not specifically designated scenic resources.

Key Observation Points (KOPs) were selected to represent the array of viewpoints from which the site can be seen. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.B-1. Subsequent Figures V.B-2 through V.B-5 show the anticipated before and after conditions at the Civic Center Site from the three selected KOPs.

An impact determination is made using the views from the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista;

The Civic Center Master Design Guidelines (Design Guidelines, RHAA 2005) limit modifications to the Civic Center Structure. The *Design Guidelines* identify ten different view corridors (section 3.2), looking to and from the Civic Center. The proposed microwave dish is only visible from the elevated southwestern parking lot, and the rooftop site at the Civic Center has no public access to a scenic vista. The proposed microwave dish would not be visible from any of the view corridors identified in the *Design Guidelines* and would not have a substantial adverse effect on a scenic vista, therefore, the impact is ***less than significant***.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

The Civic Center Site is near State Highway 101, but this segment of the highway is not eligible for designation as a state scenic highway. The single microwave dish to be installed is relatively small and would generally not be visible from Highway 101. There is no potential to substantially damage scenic resources, including an historic building such as the Civic Center, near a state scenic highway and, as a result, there is ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

MERA is not subject to the City of San Rafael's land use regulations. Accordingly, instead of analyzing the project's potential to conflict with land use regulations governing scenic quality, the following discussion of aesthetic impacts assesses whether the project would degrade the existing visual character or quality of public views of the site and its surroundings.

Figure III-24, Existing and Proposed Elevations, shows the proposed physical changes at the site as described below. Existing telecommunications structures on the roof of the Marin County Civic Center include nine omni antennas, one tripod mount, one satellite dish, and one microwave dish, none of which are owned or operated by MERA. Several of these antennas are visible from various vantage points, including the Civic Center parking lot and Highway 101.

As part of the project, one three-foot diameter, grey-colored microwave dish would be mounted on an existing tripod. This new dish would be visible from elevated viewpoints in the southwest parking lot, and would be among other rooftop communications and ventilation equipment currently visible on the roof.

One specific visual impact guideline found in Section 4.3 of the *Civic Center Master Design Guidelines* addresses the desire to limit rooftop equipment.

- Incorporate the need for mechanical and electrical equipment into the building design to avoid placing such items onto the roof.

While the addition of another piece of communications equipment is clearly not a part of the design intent of the Civic Center and not in keeping with the visual impact guideline to avoid placing equipment on the roof, the microwave dish is small, does not include any outdoor lighting, is typically not visible (particularly in designated view corridors), and, relative to the other non-compliant equipment already installed, represents a minor adverse change. Therefore, its environmental impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Marin County Civic Center is an American cultural resource and is listed in the National Register of Historic Places (NR #91002055). It is also a National and State Historic Landmark (CA Historical Landmark 999), making it a significant historical resource pursuant to Section 15064.5 of the *CEQA Guidelines*.

The *Civic Center Master Design Guidelines* prepared in 2005 outline specific architectural policies for the Civic Center, and define the boundary of the 81-acre historic property. Proposed work at the Civic Center Site includes a single new microwave dish to be installed among other existing communications equipment. Figure V.B-6 shows the Area of Direct Impact and a surrounding 100-foot buffer. Although the *Design Guidelines* state that equipment should be incorporated into the building design to avoid placing such items on the roof of the Civic Center building, the proposed modifications are consistent with existing communications infrastructure that is already present on the roof, and will not adversely affect the aesthetic appearance of the Civic Center as a historical resource; thus, a ***less-than-significant*** impact would occur.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites. Since the Civic Center Site was not among these 13 sites, no significant tribal cultural resources are present. Further, no ground disturbance would occur at this site, so there is no possibility of accidentally unearthing tribal cultural resources or Native American remains. Consequently, ***no impact*** would occur.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Civic Center Site is located within a completely developed and landscaped setting and does not contain habitat that could support candidate, sensitive, or special-status plant or animal species. Thus, the proposed improvements would have ***no impact*** on candidate, sensitive, or special-status plant or wildlife species.

b,c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The Civic Center Site is located within the completely developed and landscaped setting of the Marin County Civic Center. Potential impacts to biological resources associated with the Civic Center Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The EIR determined that no sensitive biological communities were present, and the proposed improvements would have no impact on sensitive biological communities. Conditions have not changed since the site was analyzed in the EIR, so the proposed project work would have ***no impact*** on sensitive biological communities, including federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As previously discussed, the Civic Center Site does not contain habitat that could support special-status species. It is not part of a migratory wildlife corridor or a native wildlife nursery site; and improvements at the Civic Center Site would not impede the use by native wildlife of any such sites. Therefore, there would be ***no impact***.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Civic Center Site is located at the developed Marin County Civic Center, which does not support any biological resources protected by local policies or ordinances. Proposed modifications at this site are minor and would have no impact on locally-protected biological resources. Proposed changes at the Civic Center Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Civic Center Site is located at the Marin County Civic Center in the City of San Rafael. The Civic Center Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. The Civic Center building is, however, on the Federal Register of Historic Places, so any modifications required by the proposed project must be consistent with the requirements set forth under Section 106 of the National Historic Preservation Act. The Cultural Resource impact analysis found that the addition of one 3-foot diameter microwave dish to the roof of the Marin County Civic Center building is consistent with existing communications infrastructure on the roof, and, therefore, will not affect the aesthetic appearance of the Civic Center as a historical resource, thus the impact would be ***less than significant***.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Civic Center Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 21, 2018, SiteSafe surveyed the Civic Center Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 35 locations at the Civic Center Site. The highest emissions recorded during this process were well below the FCC's MPE limits, at 1% of the occupational limit and 5% of the public limit. The maximum recorded value at 34 of

35 locations was less than 1% of the occupational threshold. At the remaining location, the maximum recorded value was equal to 1% of the occupational MPE limit.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the public MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit. Their findings are discussed below:

a) Maximum rooftop level exposures with all existing equipment on were modeled above 100% of the public MPE at 2,677.3% of the public MPE. The Civic Center rooftop, however, is locked and inaccessible to the general public. Publicly accessible areas are located away from the rooftop antennas and were modeled to have a maximum emission level less than 5% of the public MPE.

b) Figure V.B-7 depicts modeled exposures relative to applicable MPE limits during the theoretical worst case scenario during the transition period, the "all systems on" scenario, when all currently existing and new transmitting devices could function simultaneously as the new system is being tested.

   Within the controlled area of the Civic Center rooftop, there would be 36 antennas capable of operating at one time during the transition period (for a full inventory, see Page 37 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. In one specific area of the controlled-access rooftop environment, surrounding the antenna mount, these antennas have the capacity to cumulatively create a theoretical maximum exposure level of 2,677.3% of the public MPE limit. This presents no change from baseline levels and is not located within an area that is accessible to the public. Maximum theoretical emissions during the transition period would remain unchanged from baseline levels (below 5% of MPE) during the transition period. The transition period is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At that point, currently installed equipment that is no longer needed will be removed.

c) Because the impact of the MERA antenna will be small compared with the other transmitters, with the new system fully in place and the project complete, maximum rooftop-level exposure would remain at 2,677.3% of the public MPE limit. This represents <u>no change</u> from baseline theoretical maximum emission values on the roof.

   Uncontrolled areas accessible to the public would remain at less than 5% of the public MPE limit, as there are no publically accessible spaces in close proximity to the rooftop antennas. Based on SiteSafe measurements and models, as well as the site's layout, SiteSafe concluded that all uncontrolled areas with public access were well within the

public MPE limit, but that signage should be posted for the controlled access areas on the rooftop to comply with FCC regulations after implementation of the project changes.

In summary, the SiteSafe Report found that existing ground level RF emissions at the Civic Center Site are less than 5% of the FCC's MPE limits for uncontrolled/general public environments, and that ground level RF exposure will remain at less than 5% of the MPE limits during the transition phase and upon completion of the proposed MERA Next Gen Project. Consequently, the impacts to the public from RF emissions at the Civic Center Site would be ***less than significant***.

However, within the controlled/occupational rooftop area of the Civic Center Site, current RF emissions exceed 100% of the MPE limits at specific points, and they will continue to exceed 100% of the MPE during the transition phase and upon completion of the proposed project, The controlled/occupational rooftop environment can be brought into compliance with applicable FCC regulations by posting warning signage at the rooftop entrance and at selected antenna mounts. Mitigation Measure RF-1 below requires the posting of such signage. As a result, controlled/occupational area RF exposure impacts at the Civic Center Site during all stages of the project would be ***less than significant with mitigation incorporated***.

<u>Mitigation Measure RF-2</u>

MERA shall install exposure warning signs at rooftop entries and at identified antenna mounts in the controlled access rooftop area according to SiteSafe's individual report for the Civic Center Site (pages 31-46 of the SiteSafe Report, which is Appendix D to the SEIR) and the SiteSafe Report's General Safety Recommendations (pages 313-315 of Appendix D to the SEIR). In summary, MERA shall install a NOTICE sign at antennas 31-35 and a CAUTION sign at antennas 18-30 and 8-12. Signage location details can be viewed on page 37 of Appendix D to the SEIR.

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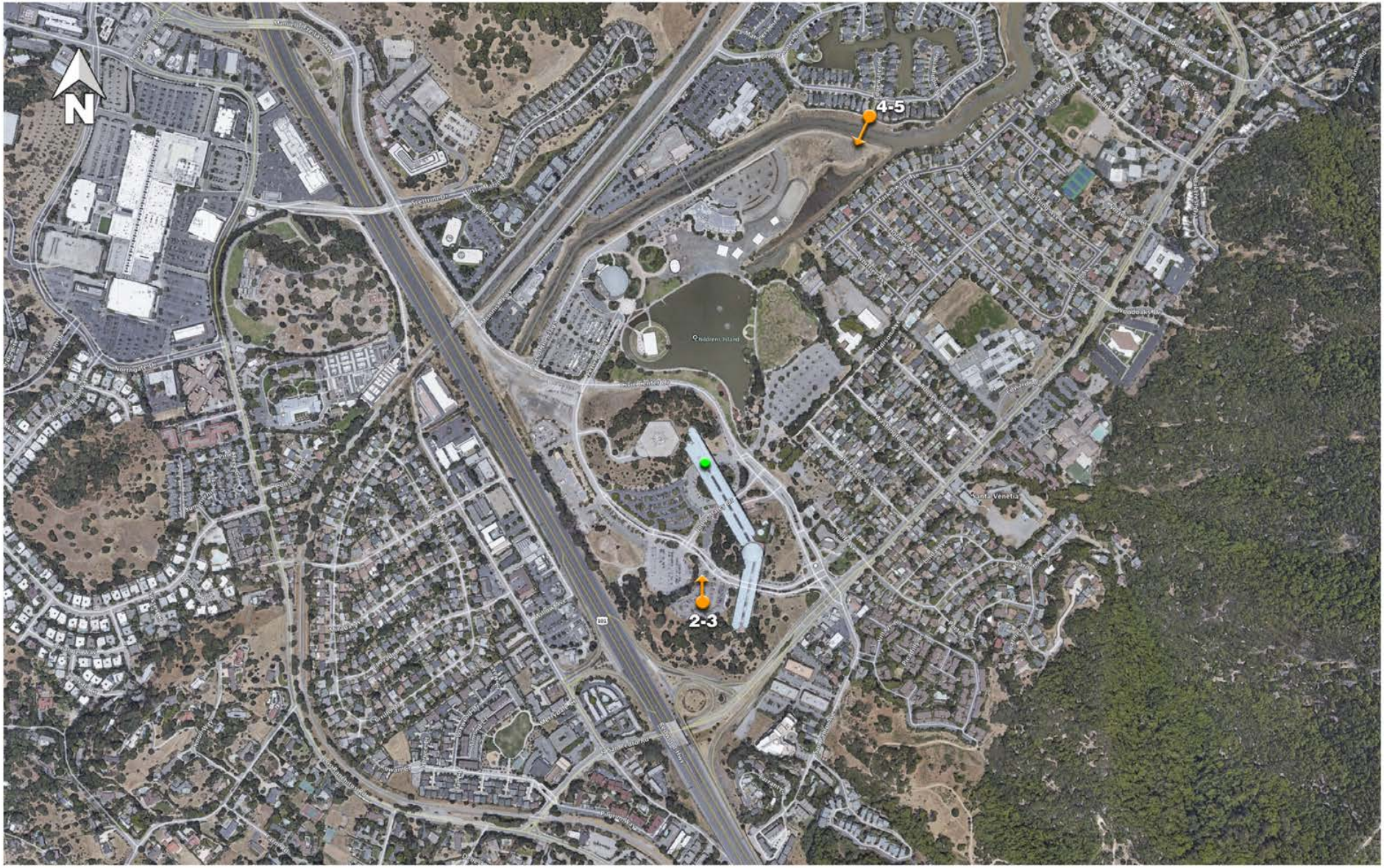

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.B - 1 Civic Center Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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Current photograph of the site as seen looking north from the parking lot on the Hwy 101 side of the building.

Source: Previsualists Inc.

Figure V.B - 2 Existing Civic Center from Parking Lot

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the site as seen looking north from the parking lot on the Hwy 101 side of the building.

Source: Previsualists Inc.

Figure V.B - 3 Proposed Civic Center from Parking Lot

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ENVIRONMENTAL CONSULTANTS

Current photograph of the site as seen looking southwest from behind the homes on Waterside Circle.

Source: Previsualists Inc.

Figure V.B - 4 Existing Civic Center from N. Fork of Las Gallinas Creek

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the site as seen looking southwest from behind the homes on Waterside Circle.

Source: Previsualists Inc.

Figure V.B - 5 Proposed Civic Center from N. Fork of Las Gallinas Creek

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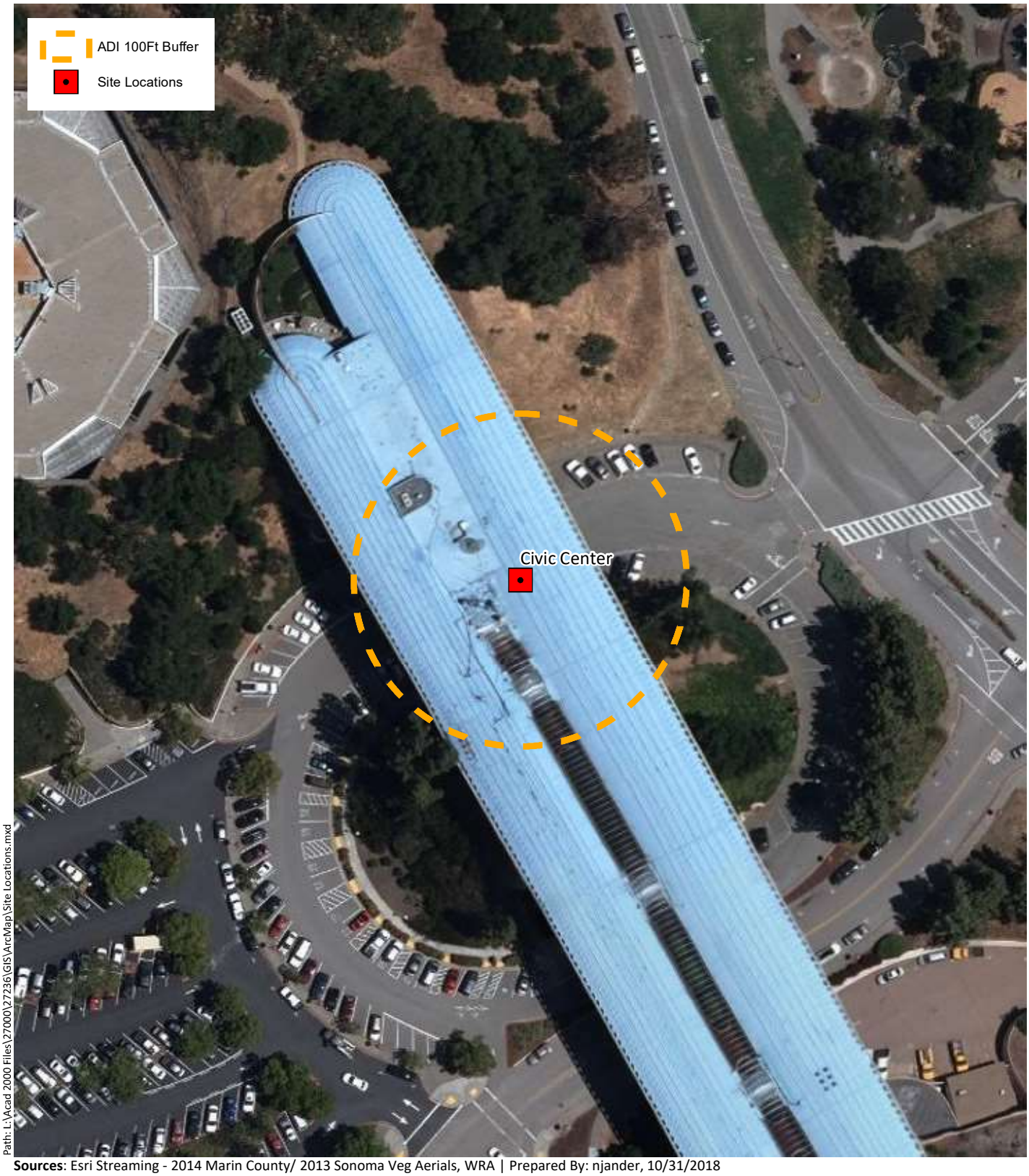
ENVIRONMENTAL CONSULTANTS



Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.B - 6 Civic Center

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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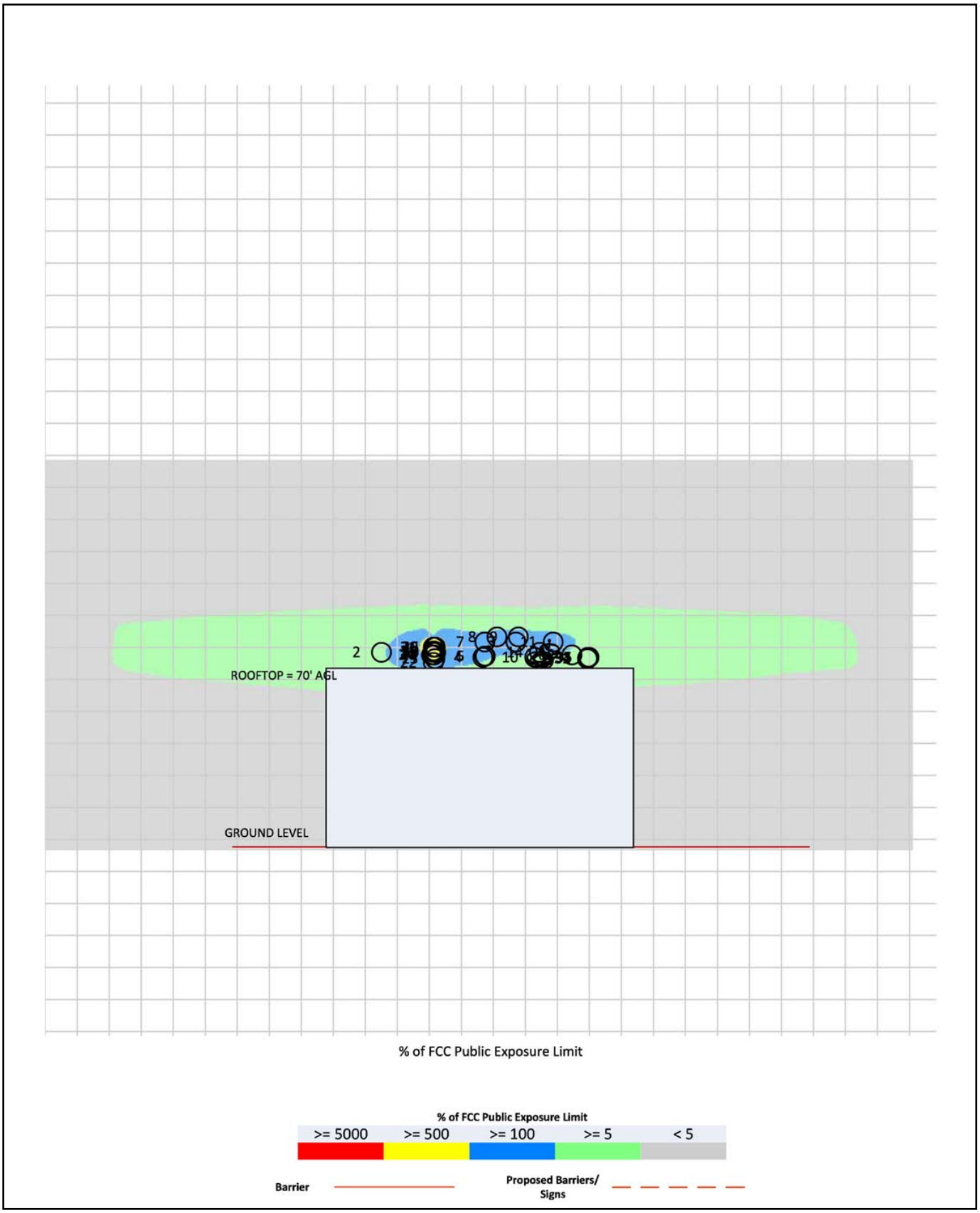

Figure V.B - 7 Civic Center Simulated All-On RF Exposure - Elevation View

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C. Big Rock Ridge (Site 3)

The proposed work for the Next Gen System at the Big Rock Ridge Site is explained in detail in Chapter III, Project Description. As summarized below in Table V-3, it includes minor modifications of the existing communications tower and reinforcement of tower foundations as well as adding equipment to the building interior. The Big Rock Ridge Site is located at the summit of Big Rock Ridge and at an elevation of 1,895 feet, it is the second highest point in Marin County. The site is adjacent to Big Rock Ridge Fire Road at APN 164-300-04, within the Big Rock Ridge Open Space located between Lucas and Indian Valleys, south of Novato, as shown in Photo III-3 (Chapter III, Project Description). Areas immediately surrounding this site are undeveloped, with cleared hilltops and a mix of grassy and forested downhill areas. There are a few residential developments in the valleys below the Big Rock Ridge Site, within approximately 1.3 miles to the southwest and to the east.

Less than 5% of the visible components at the Big Rock Ridge Site would be owned by MERA after project modifications. This is a leased site with multiple tenants. The lessor owns two buildings, two towers, and one emergency generator. MERA currently owns one additional generator and several of the 98 existing antennas on the tower. In addition, one cell carrier has recently made changes to replace their antennas, and a second cell carrier is currently seeking permits to add equipment at this site. Another communications site, approximately 450 feet away from the Big Rock Ridge Site, has its own equipment shelter, tower, and emergency generator.

Table V–3. Big Rock Ridge Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Big Rock Ridge	Existing 100' tower w 4 legs, with 12' sides. 2 existing buildings, each 20'x20'x9' high.	Existing Tower: Remove four microwave (MW) dishes. Reinforce foundation. Add four vertical pole antennas; remove one pole and two panel antennas. Add one new 20' pipe mount to the existing building with two microwave dishes, one 6' diameter and one 3' diameter, and one 6' microwave dish on the side of the existing building. Alternative Mounting Locations for three MW Dishes: 1 - Remount all dishes on existing tower (preferred); 2 - Mount one dish on the side of the existing building. Mount two dishes on a 30' tall tapered monopole near the base of the existing tower.

1. Aesthetics

The Big Rock Ridge Site is a large existing communications facility and the proposed Next Gen modifications are minor changes. Big Rock Ridge is a non-urbanized ridgeline with two separate, existing communications tower installations overlooking an open space area above Lucas Valley Road.

Figure III-26, Existing and Proposed Elevations, shows the proposed physical changes at the site as described below. Existing infrastructure at the site includes a 100-foot tower with four 12-inch

legs and two communications buildings. As part of the Next Gen System, the tower's foundation would be reinforced and minor equipment changes would be made to the tower, including removing four dishes and three antennas. A new 20' tall pipe would be fastened to the existing building with two microwave dishes, one 6' diameter and one 3' diameter, and one 6' microwave dish would be mounted on the side of the existing building. One alternative configuration allows for remounting all three of the microwave dishes back on the existing tower, which would be most similar to the existing condition. In another alternative configuration, one microwave dish would be mounted on the side of the existing equipment building, and two other new dishes would be mounted to a new 30-foot tall tapered monopole placed next to the existing 100' tower. These modifications would be minor relative to the scale of the existing Big Rock Ridge facility and would result in little visual change to the intensively used site.

Key Observation Points (KOPs) have been selected to represent the broader set of viewpoints from which the site can be seen. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.C-1. Subsequent Figures V.C-2 through V.C-5 show the anticipated before and after conditions at the Big Rock Ridge Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista?*

Currently, the site's surroundings are largely open space. The ridgeline is mostly devoid of vegetation while areas on the northern face of the hill are densely wooded and the southern face has a mix of grassy and wooded vegetation. Existing towers atop the ridge are visible from a variety of vantage points due to their high elevation, including roadways and residential areas on both the north and south side of the hill. The existing communications facility on the site already has a substantial adverse effect on any scenic vistas available and the proposed modifications are relatively minor in comparison. Consequently, the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project has no potential to adversely affect scenic resources "within a state scenic highway" given that there are no scenic highways nearby, and, therefore, there is ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The visual character of Big Rock Ridge is dramatic as it is visible from much of central Marin County. The existing communications towers on Big Rock Ridge are just as visible and punctuate the highest points along the ridge. Proposed changes to the towers are minor and would be imperceptible from the distances that most viewers maintain. Hikers and mountain bikers would

be able to get closer views, but the differences between existing and proposed configurations would be nearly imperceptible. Therefore, the impact to the visual character of the site and surroundings would be ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Big Rock Ridge Site. Improvements proposed for this site include minor modifications to existing infrastructure such as removal and replacement of antennas and microwave dishes and reinforcement of the existing tower. Ground disturbance would be limited to the vicinity of the tower foundations and would extend as deep as approximately 24 inches below ground level. Figure V.C-6 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Big Rock Ridge Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures to follow in the event of an accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Big Rock Ridge Site, and impacts would be ***less than significant with mitigation incorporated***. With implementation of mitigation measure CULT-1, the impacts would be reduced to less than significant.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Big

Rock Ridge Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource identified by the lead agency, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Big Rock Ridge Site is located within a developed/disturbed compound adjacent to disturbed, grazed grassland, which provides only marginal habitat for candidate, sensitive, and special-status plant and wildlife species. The proposed improvements consist of minor modifications to an existing tower in a previously developed area and would have ***no impact*** on candidate, sensitive, and special-status plant or wildlife species.

b,c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Big Rock Ridge Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The project area is on a developed/disturbed site adjacent to disturbed grazed grassland that typically supports a low diversity of plant and wildlife species. The EIR determined that no sensitive biological communities were present, and the proposed improvements would have less than significant impacts on biological resources. There have been no substantial changes to the site since the certification of the original EIR. As a result, no sensitive biological communities are present and the proposed project work would have ***no impact*** on sensitive biological communities.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that provides core habitat areas for wildlife species, this site is located in a previously developed area with an existing communications facility. The proposed improvements are limited to upgrades of the existing facility, including removal and replacement of antennas and microwave dishes and reinforcement of the existing tower. The proposed improvements are not anticipated to significantly impede wildlife movement compared to existing conditions, and is not a nursery site. Consequently, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Big Rock Ridge Site is located within an existing communications facility. Proposed changes are minor and would have no impact on locally-protected biological resources. Proposed changes at the Big Rock Ridge Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Big Rock Ridge Site is located in unincorporated Marin County. The Big Rock Ridge Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. As a result; there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Big Rock Ridge Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 22, 2018, SiteSafe surveyed the Big Rock Ridge Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determined the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 25 locations at the Big Rock Ridge Site. The highest spatially averaged emissions recorded during this process were well below FCC MPE limits, at approximately 1% of the occupational limit and 5% of the public limit. The maximum spatially averaged value recorded at 17 of 25 locations was below 1% of the occupational threshold, with the remaining eight locations' maximum values at roughly 1% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-tern "proposed condition" in which the existing system's antennas are removed and the remaining

antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the Big Rock Ridge Site is 786.2% of the public MPE limit. This maximum theoretical emission level would occur in a gated off area that is not accessible to the public. Ground-level emissions are presently below 5% of the public MPE in publicly accessible areas near the site.

b) Figure V.C-7 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Big Rock Ridge Site, there would be 105 antennas capable of operating at one time (for a full inventory, see Page 54 of Appendix D), although this condition would be very rare given the intermittent nature of voice communications. These antennas would have the capacity to cumulatively create a theoretical maximum exposure level of 786.2% of the public MPE limit at specific heights along the communications towers. These maximum emissions mostly occur at heights over 50 feet off the ground. Ground-level exposure in the controlled, fenced off area would be under 100% of the public MPE limit. Ground-level exposure outside of the fence encompassing the equipment would be below 5% of the public MPE. Although conditions outside this fence-line are assessed to be conservative, the entire site is accessed via a gated access road, and is not accessible to the general public.

   The transition period, in which testing of the new system occurs while the other system is operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational, at which point currently installed equipment that is no longer needed will be removed.

c) Because the MERA antenna is a small component in relation to the other transmitters, with the new system fully in place and the project complete, maximum exposure levels would remain consistent with existing and transition conditions at 786.2% of the public MPE limit. Ground-level exposure faced by workers would remain less than 100% and uncontrolled areas accessible to the public would produce a theoretical maximum of 8.7% of the public MPE limit.

Based on these measurements and models, as well as the site's layout and signage (depicted in Chapter III, Project Description), SiteSafe concluded that all uncontrolled areas with public access were well within the public MPE limit. Because fences around the perimeter of the communication equipment and at the beginning of the site's access road preclude public access and ground-level

exposure faced by workers at the site would be less than 100% of the MPE, no additional signage is required.

In summary, MERA's operations at the Big Rock Ridge Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments and would remain less than 100% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground level RF emissions within the fenced controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Big Rock Ridge Site would be ***less than significant***. No mitigation is required.

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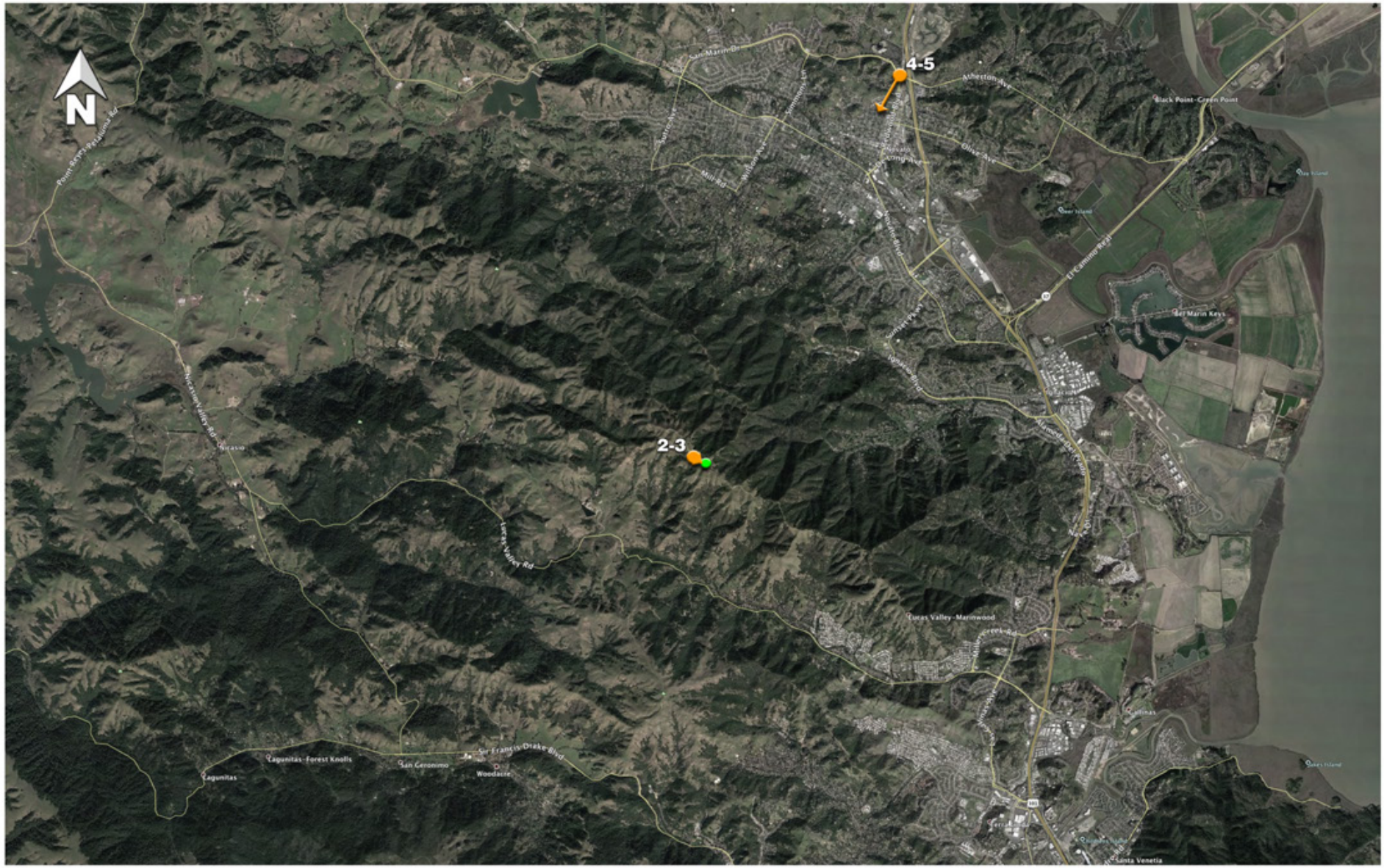

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.C - 1 Big Rock Ridge Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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Current photograph of the view looking southeast from the adjacent tower installation.

Source: Previsualists Inc.

Figure V.C - 2 Existing Big Rock Ridge Near View

MERA Next Generation Communications System SEIR

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Photosimulation of the view looking southeast from the adjacent tower installation.

Source: Previsualists Inc.

Figure V.C - 3 Proposed Big Rock Ridge Near View

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Current photograph of the view looking southwest from the Atherton Ave offramp from Hwy 101.

Source: Previsualists Inc.

Figure V.C - 4 Existing Big Rock Ridge Distant View

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Photosimulation of the view looking southwest from the Atherton Ave offramp from Hwy 101.

Source: Previsualists Inc.

Figure V.C - 5 Proposed Big Rock Ridge Distant View

MERA Next Generation Communications System SEIR

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ENVIRONMENTAL CONSULTANTS

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.C - 6 Big Rock Ridge

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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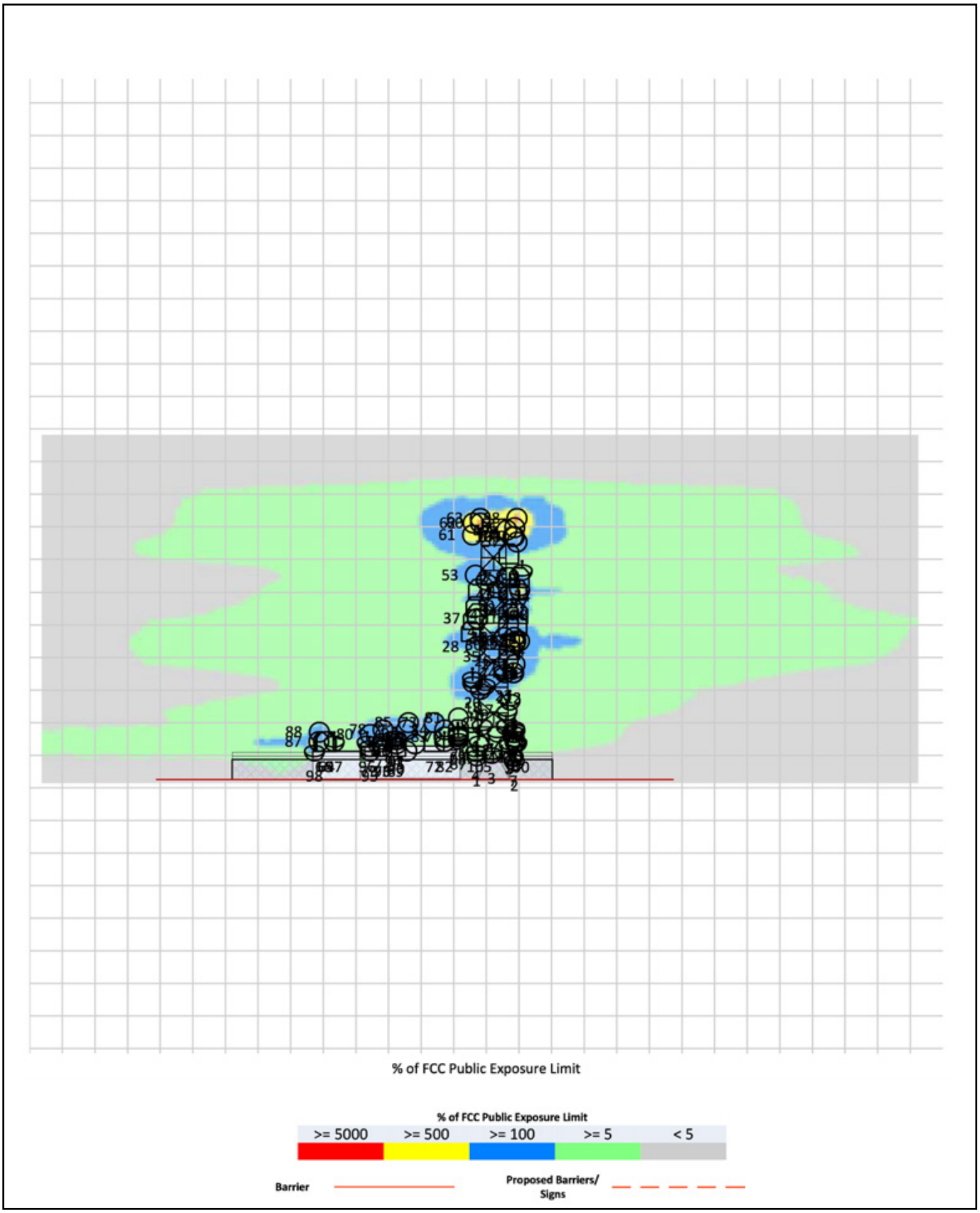

Figure V.C-7 - Big Rock Ridge Simulated All-On RF Exposure - Elevation View

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D. Mt. Tamalpais (Site 4)

The Mt. Tamalpais Site is within a highly developed communications compound on Middle Peak behind a locked gate and perimeter fence. The majority of the site contains existing structures, and vegetation management within the existing fence limits the potential for sensitive biological resources to be present on-site, as shown in Photo III-4 (Chapter III, Project Description). Existing structures include a large domed equipment shelter structure, eight 60-foot monopoles, 28 small microwave dish towers, ground-mounted air conditioning units, an emergency generator and fuel tank, and a paved driveway. The existing facilities at the Mt. Tamalpais Site and the physical changes proposed by MERA's Next Gen Project are summarized below in Table V.4.

MERA leases space for two antennas on one monopole. In total, there are 129 antennas on eight monopoles at the Mt. Tamalpais Site. There are also twenty-eight 12-foot stub towers around the perimeter, and MERA owns five microwave dishes on various stub towers. Upon project completion, MERA's ownership will increase by two microwave dishes. Ultimately, it is estimated that less than 5% of the visible components at the Mt. Tamalpais Site would be owned by MERA after project modifications.

Table V–4. Mt. Tamalpais Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Mt. Tamalpais	Existing 60' tall monopole, 12" diameter, is among eight other monopoles and numerous antennas at fully developed mountain top radio operations site surrounded by approximately 28 microwave dishes on 8-10' poles. 2 existing concrete buildings: MERA building is H9', W15', L20'. Second building is 30' diameter with dome shaped roof.	Propose minor equipment changes on existing monopole; 4 antennas added, 2 antennas removed. Reinforce existing tower foundation. New MERA generator, propane tank, replace existing HVAC in existing MERA building. Replace five 8'-10' tall lattice towers radiating around monopole with 20' tall lattice towers. 7 dishes added, 5 dishes removed.

1. Aesthetics

Mt. Tamalpais has the three highest peaks in Marin County and is an iconic symbol for the County. Most of Mt. Tamalpais is protected public land under the jurisdiction of Mount Tamalpais State Park, the Marin Municipal Water District (MMWD), and the National Park Service. Mt. Tamalpais is also the origination of the MMWD watershed lands which provide water to all of Marin County. Mt. Tamalpais and its three peaks, including that of the project site, are visible from the North Bay, San Francisco, and the East Bay, although the equipment at the Mt. Tamalpais Site is not readily discernible from such distances. The Mt. Tamalpais Site has controlled gated access, and, while the site does provide scenic vistas of the Marin watershed lands and San Pablo and San Francisco Bays, these views are not publicly accessible. Nearby roadways and trails around the East and West Peaks offer similar views to the general public.

Key Observation Points (KOPs) have been selected to represent the most visible viewpoints of the site, and a map showing the site and the representative vantage points is provided as Figure

V.D-1. Subsequent Figures V.D-2 through V.D-5 show the simulated before and after conditions at the Mt. Tamalpais Site from two selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista;*

The Mt. Tamalpais Site is a large regional communications facility as seen in Figures V.D-2 and V.D-3. Proposed Next Gen modifications represent less than 5% of the visible equipment at the site, so proposed changes to existing equipment are minor. In response to criterion (a) (project's effect on scenic vistas) the existing communications facility on the site already has an adverse effect on scenic vistas available, and the proposed modifications are relatively minor in comparison. Therefore, the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

Facilities on the Mt. Tamalpais Site have no potential to adversely affect scenic resources within a state scenic highway, since the nearest state scenic highway, State Highway 1, is approximately 3 ½ miles away. Panoramic Highway and East Ridgecrest Boulevard are both closer to the site and are also known for scenic vistas of the Bay Area, the Pacific Ocean and Mt. Tamalpais, but are not state scenic highways. Figures V.D–4 and V.D–5 show the facility from the closest available vantage point on East Ridgecrest Boulevard, and from that nearby perspective it is difficult to identify the proposed project modifications. As a result, the impact to state and other local scenic highways is ***less than significant***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figures III-28 through III-30 show existing and proposed elevations and plans for the site as described below. Proposed changes include reinforcement of one existing monopole foundation, addition of four antennas and removal of two antennas from the monopole, installation of a new emergency generator and propane fuel tank, replacement of the building air conditioner, and replacement of five 8-10-foot lattice towers with 20-foot tall stub-towers. Antenna replacement includes the addition of seven microwave dishes and removal of five dishes. These changes would lead to a two-foot decrease in the height of the highest antenna on the monopole (to 69 ½ feet) and a ten-foot increase in each stub-tower's height.

The visual character of the site is one of a very active communications site with a perimeter fence, a dome-shaped building, numerous poles, antennas and microwave dishes pointed in various directions. Vegetation has been trimmed to limit interference with signals. In this setting, the MERA Next Gen Project proposes minor modifications to existing equipment, and the project would not substantially degrade the existing visual character or quality of the site or its surroundings. Consequently, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Mt. Tamalpais Site. Improvements proposed for this site include removal and replacement of antennas and microwave dishes, addition of new equipment within an existing building, tower foundation reinforcement, and replacement of five 8-10 foot lattice towers with 20 foot towers. Ground disturbance would be limited to the area around the existing tower foundation and the five towers to be replaced, and would reach a maximum depth of five feet below the surface. Figure V.D-6 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Mt. Tamalpais Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10) , which includes procedures to follow in the event of the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Mt. Tamalpais Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Mt. Tamalpais Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause

a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Structures at the Mt. Tamalpais Site are flanked on the lower south-facing slopes by a disturbed mixed chaparral community dominated by Eastwood manzanita (*Arctostaphylos glandulosa*), whereas the lower north-facing slopes are dominated by mixed hardwood forest dominated by Canyon live oak (*Quercus chrysolepis*). Vegetation within the perimeter of the site appears to be routinely disturbed by a vegetation management regime that either trims or removes trees and shrubs to maintain a relatively open tree and shrub layer and to prevent obstruction of microwave links to distant, lower elevation communications facilities.

Project improvements within the Mt. Tamalpais Site are limited to minor modifications to existing equipment in previously developed portions of the site, and are not anticipated to impact special-status species or their habitat. However, due to the presence of native vegetation communities within the site and proximity to several documented occurrences of special-status plant species within less than 0.5 mile, a focused protocol-level rare plant survey was conducted within the site on April 30, 2018, as a conservative measure. The following special-status species were assessed as having a moderate or high potential to be present within undeveloped portions of the site, although none were observed: Napa false indigo (*Amorpha californica* var. *napensis*), Brewer's calandrinia (*Calandrinia breweri*), Oakland star-tulip (*Calochortus umbellatus*), thin-lobed horkelia (*Horkelia tenuiloba*), small groundcone (*Kopsiopsis hookeri*), Mt. Diablo cottonweed (*Micropus amphibolus*), and Tamalpais oak (*Quercus parvula* var. *tamalpaisensis*).

Several reference sites were visited to confirm blooming periods for candidate, sensitive, and special-status plant species which might be present prior to surveying the Mt. Tamalpais Site, resulting in the following observations: Napa false indigo (observed April 26, 2018 at Las Posadas State Forest, Napa County), Brewer's calandrinia (observed April 8, 2018 along Rocky Ridge Trail, Mt. Tamalpais), and Oakland star-tulip (observed March 21, April 8, and May 8, 2018 at various reference sites across southern Marin County). No candidate, sensitive, or special-status plant species were observed in the study area. The study area referred to in this report includes each project site (with all temporary and permanent impacts) and an approximate 100-foot radius surrounding the project site which was analyzed for the potential to support special-status species, sensitive biological communities, and wildlife movement corridors. As no candidate, sensitive, or special-status plant species are present, the project would not adversely affect any such species; and ***no impact*** to candidate, sensitive, or special-status plant species would occur.

American badgers and nesting birds, including oak titmouse and Nuttall's woodpecker, might be present in the vicinity of the project area. Birds including Nuttall's woodpecker and oak titmouse may nest in woodland adjacent to the project area. Badgers are occasionally found within the region in drier open stages of most scrub, forest, and herbaceous habitats where friable soils and

prey populations are present. While these species may be present in the vicinity, project improvements within the Mt. Tamalpais Site are limited to minor modifications to existing equipment in previously developed portions of the site, with no planned vegetation removal. The modifications would have ***no impact*** on candidate, sensitive, or special-status wildlife species, either directly or through habitat modification.

In summary, project improvements within the Mt. Tamalpais Site are limited to minor modifications to existing equipment in previously developed portions of the site and are not anticipated to impact vegetation or wildlife. The proposed improvements would have ***no impact*** on sensitive biological communities or special-status species.

b,c)Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Mt. Tamalpais Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). Due to the presence of natural vegetation communities surrounding the developed portions of the site, WRA conducted an updated biological survey at the Mt. Tamalpais Site on April 30, 2018, to observe whether existing conditions had changed significantly since the project's original EIR. The site is located near Middle Peak of Mt. Tamalpais, on lands owned by the Marin Municipal Water District (MMWD).

The site is within a previously developed telecommunications facility with a locked gate and paved driveway, adjacent to relatively disturbed Eastwood manzanita (*Arctostaphylos glandulosa*) chaparral. This is not considered a sensitive biological community. Moreover, evidence of routine, recurring vegetation trimming and/or removal was observed during the site visit. The project's original EIR determined that no sensitive biological communities were present, and the then-proposed improvements would have less than significant impacts on biological resources. Conditions have not changed significantly since the site was analyzed in the EIR. No sensitive biological communities are present. As a result, the proposed project work would have ***no impact*** on sensitive biological communities, including federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that provides core habitat areas for wildlife species, this site is located in a previously developed area. The proposed improvements are limited to upgrades to the existing facilities, and are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a nursery site for native wildlife. Consequently, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Mt. Tamalpais Site is located within the footprint of an existing communications facility, and project improvements within the site are limited to minor modifications to existing equipment in previously developed portions of the site, with no planned vegetation removal or other activities which may adversely affect locally-protected biological resources. Proposed changes at the Mt. Tamalpais Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Mt. Tamalpais Site is located in unincorporated Marin County. The Mt. Tamalpais Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. As a result; there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold of significance (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for or the general public?

Evaluation of exposure limits for RF emissions at the Mt. Tamalpais Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 24, 2018, SiteSafe surveyed the Mt. Tamalpais Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 43 locations at the Mt. Tamalpais Site. The highest emissions recorded during this process were below FCC MPE limits, at approximately 17% of the occupational limit and 85% of the public limit. The maximum spatial average recorded at 42 of 43 locations was below 5% of the occupational threshold, with one locations' maximum value at roughly 17% of the occupational threshold. Based on these measurements and the site's layout and signage, SiteSafe recommended that two antennas on the site owned by other entities should have their centerlines raised or their power lowered to be

compliant with FCC regulations, but found that all of MERA's facilities at the Mt. Tamalpais Site are currently compliant.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe modeled the maximum ground-level emissions under the all-on condition with existing equipment only to be between 5 and 100% of the public MPE. This condition would theoretically occur immediately adjacent to existing microwave dishes. At some locations off the ground, the maximum theoretical emissions currently possible are roughly 2,418.3% of the public MPE.

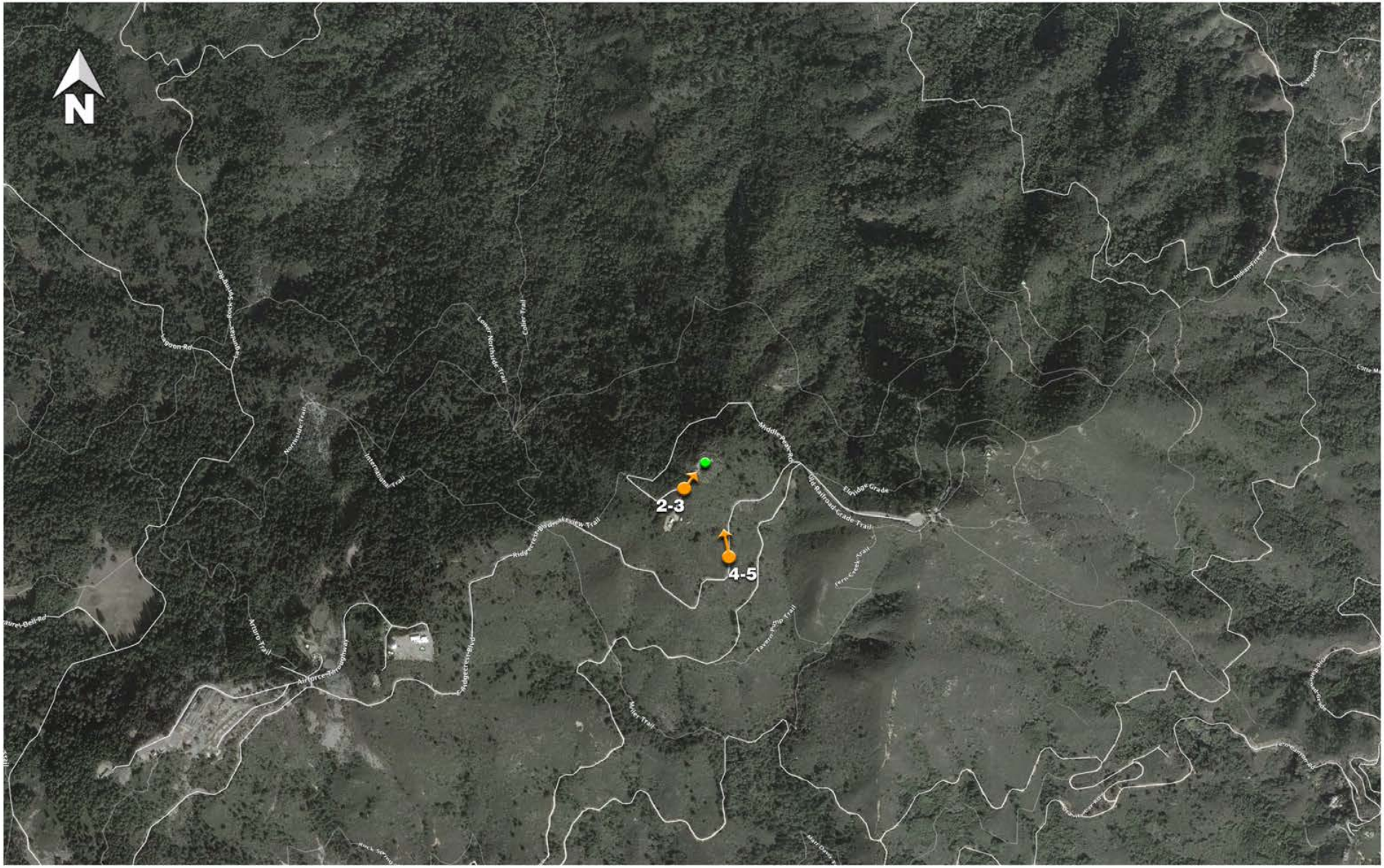
b) Figure V.D-7 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Mt. Tamalpais Site, there would be 133 antennas capable of operating at one time during the transition period (see Page 80 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum theoretical exposure level at specific heights along the communications towers of 2,418.3% of the public MPE limit; however, the ground-level exposure would be less than 100% of the public MPE limit. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed, leaving 131 antennas operational.

c) With the new system fully in place and the project complete, maximum exposure will remain at 2,418.3% of the public MPE limit at select points off the ground, which is no different from the current baseline condition. Ground-level exposure would remain less than 100% of the public MPE limit, and uncontrolled areas accessible to the public are predicted to be subject to less than 5% of the public MPE limit.

Based on these measurements and models, SiteSafe concluded that all uncontrolled areas with public access were well within the public MPE limit. Because the area is physically fenced off from the public and ground-level exposure faced by workers at the site would be less than 100% of the public MPE limit, no additional signage is required.

In summary, MERA's operations at the Mt. Tamalpais Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments and would remain less than 100% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground level RF emissions within the controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Mt. Tamalpais Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.D - 1 Mt. Tamalpais Regional Aerial with Photo Locations

MERA Next Generation Communications System SEIR

wra
ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking northeast from the dirt access road.

Source: Previsualists Inc.

Figure V.D - 2 Existing Mt. Tamalpais Middle Peak Near View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking northeast from the dirt access road.

Source: Previsualists Inc.

Figure V.D - 3 Proposed Mt. Tamalpais Middle Peak Near View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking north from the clearest view along Ridgecrest Blvd.

Source: Previsualists Inc.

Figure V.D - 4 Existing Mt. Tamalpais Middle Peak from Ridgecrest Blvd.

wra
ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking north from the clearest view along Ridgecrest Blvd.

Source: Previsualists Inc.

Figure V.D - 5 Proposed Mt. Tamalpais Middle Peak from Ridgecrest Blvd.

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ENVIRONMENTAL CONSULTANTS

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.D - 6 Mt. Tamalpais

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

N

ENVIRONMENTAL CONSULTANTS

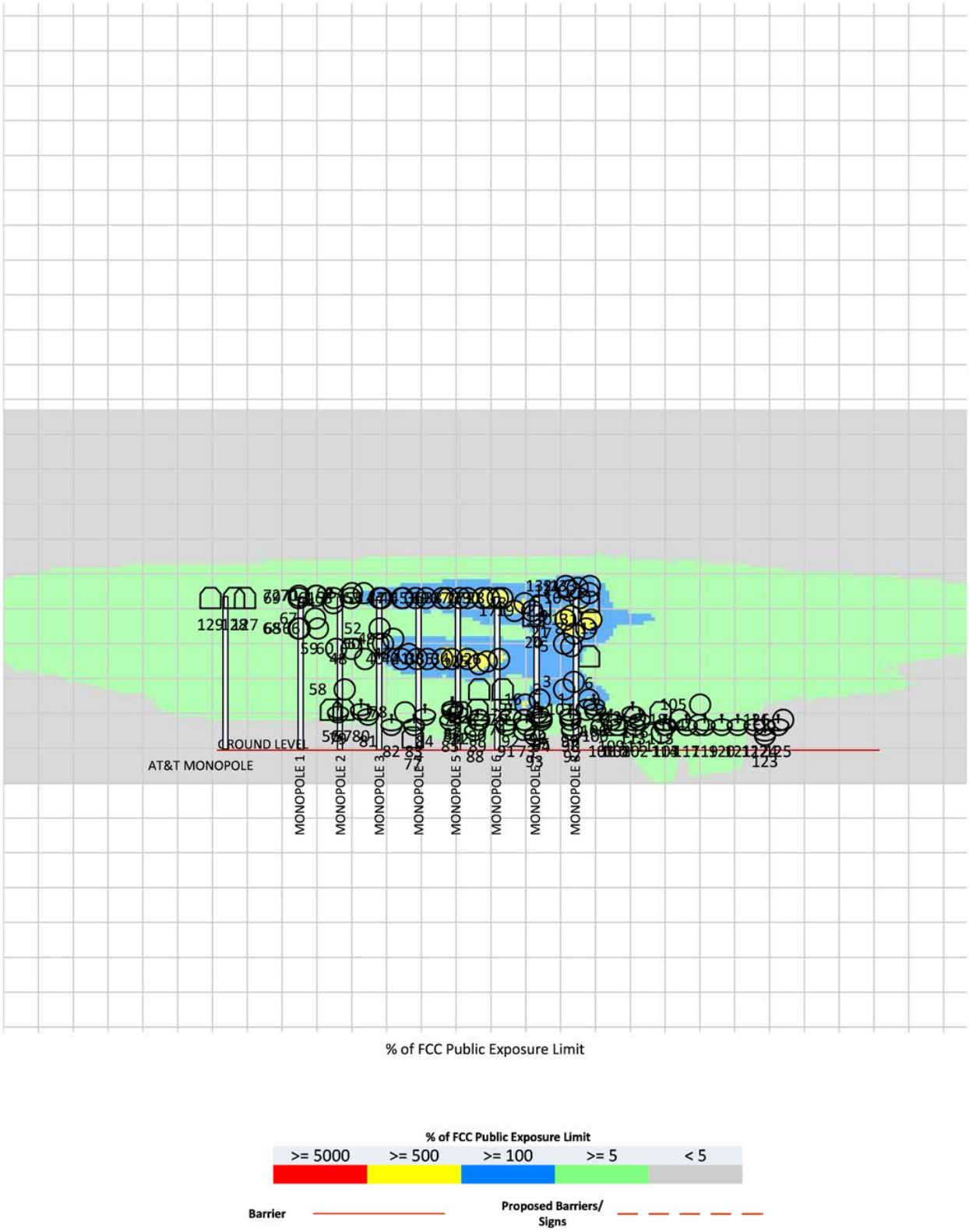

Figure V.D - 7 Mt. Tamalpais Simulated All-On RF Exposure - Elevation View

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E. Mt. Barnabe (Site 5)

The Mt. Barnabe Site is located at the Marin County Mt. Barnabe fire lookout, a one-acre parcel accessed from Sir Francis Drake Boulevard via unnamed dirt roads. MERA leases the space at the facility from Marin County, which owns the lookout tower and 70-foot lattice tower. The County facilities atop Mt. Barnabe (elevation 1,466 feet) are situated among open grassland, as shown in Photo III-5 (Chapter III, Project Description). Apart from other patches of grassland, mostly towards the top of the mountain, the area around the site is densely vegetated. The Mt. Barnabe Site is located approximately 1.75 miles from the community of Forest Knolls.

Details of the proposed work for the Next Gen System at the Mt. Barnabe Site are explained in Chapter III, Project Description and summarized below in Table V-5. Project proposals include minor modifications to existing communications equipment and reinforcement of tower and monopole foundations. An estimated 35% of the visible components at the Mt. Barnabe Site would be owned by MERA after the proposed project modifications. MERA constructed the equipment shelter, emergency generator, propane fuel tank, and a 25-foot monopole. Of the 32 existing antennas at the site, six belong to MERA, all of which will be replaced with the new project. MERA antennas constitute approximately 18% of the total antennas, but with the shelter, monopole, etc., the total percentage of visible MERA equipment is estimated at approximately 35%.

Table V–5. Mt. Barnabe Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Mt. Barnabe	Existing County fire lookout and radio tower. Existing 70' tall 3 leg tower with 12' wide sides. Antennas reach to 83' height. Existing 25' tall x 2' diameter microwave monopole. Existing equipment shelter and emergency generator.	Propose minor equipment changes on existing tower and monopole. 3 antennas added, 2 antennas removed on existing tower. 2 microwave dishes added, 3 microwave dishes removed on existing monopole. Reinforce tower/ monopole foundations, replace HVAC units in ex. building.

1. Aesthetics

The Mt. Barnabe Site is located near the top of Mt. Barnabe. The site is just outside of Samuel P. Taylor State Park and is a popular hiking destination. Visitors can take trails from the park to the fire lookout site to enjoy expansive views of rolling hills, Tomales Bay, Black Mountain, and Point Reyes Station.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.E-1. Subsequent Figures V.E-2 through V.E-7 show the anticipated before and after conditions at the Mt. Barnabe Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista?*

Mt. Barnabe is an existing fire lookout and Marin County communications facility, and as such is highly visible due to its location on a hilltop mostly devoid of trees. Views of the site are available to recreationists at Samuel P. Taylor State Park to the southwest and at residential developments in the communities of Lagunitas-Forest Knolls and San Geronimo to the southeast. The existing communications facility on the site, however, already has an adverse effect on scenic vistas and the proposed modifications are relatively minor in comparison. Modifications to the Mt. Barnabe Site which would be visible to public onlookers include a net loss of one microwave dish, a net gain of one antenna, and minor equipment changes on an existing monopole and tower. Given the minor visual change which would be created by these changes, the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Facilities at the Mt. Barnabe Site have no potential to adversely affect scenic resources within a state scenic highway, given that the nearest state scenic highway, State Highway 1, is approximately 3 miles away and hidden by the intervening coastal ridge. Sir Francis Drake Boulevard, which is not a state scenic highway, is closer, but steep terrain and dense redwood vegetation limit most views of the site from the road. Figures V.E-4 and V.E-5 show the facility from Sir Francis Drake Boulevard at the one elevated location where the site is visible--the Bolinas Ridge trailhead (near Olema) approximately 3 ½ miles away. Proposed project modifications are not visible from that distance and, therefore, the impact to state and other local scenic highways is ***less than significant***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figures III-31 and III-32 Existing and Proposed Elevations and Site Plan, respectively, show the physical changes at the site as described below. Infrastructure at the site currently includes a two-story fire lookout tower; a 70-foot, 3-leg tower with antennas that increase the maximum height to 83 feet; and a 25-foot tall, 2-foot wide microwave monopole. Proposed changes include the addition of three antennas and removal of two antennas to the tower. Visual changes from the project are minor and would not alter the maximum height of, or add large structures to, MERA facilities at the Mt. Barnabe Site. The project would not substantially degrade the existing visual character or quality of the site and its surroundings. As a result, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

According to the Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, historical resources at the Mt. Barnabe Site include a historic road (P-21-0004821/CA-MRN-551) that once traversed the western slope of Mt. Barnabe. This road was associated with a historic logging and paper mill operation in Lagunitas and presently appears to have been modified and converted into a maintained dirt access road that passes through the Area of Direct Impact. Figure V.E-6 shows the Area of Direct Impact and a surrounding 100-foot buffer alongside the historic road.

Proposed changes at this site include minor modifications to existing infrastructure, including removal and addition of antennas and microwave dishes, reinforcement of the existing tower's foundation, and replacement of equipment within an existing equipment shelter. Ground disturbance would be limited to the area surrounding the tower foundation and would extend to a maximum depth of 24 inches below the surface. Given the limited, localized nature of disturbance, the project would not cause a substantial adverse change in the significance of the historic road. Further, the limited nature of the disturbance makes the possibility of accidental discovery of other historical resources low. Nonetheless, work at the Mt. Barnabe Site would comply with the provisions of Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures to follow in the event of accidental discoveries.

By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Mt. Barnabe Site. Consequently, impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California

Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria commenced on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Mt. Barnabe Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource designated by the lead agency, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Mt. Barnabe Site is located within a developed/disturbed area, adjacent to relatively disturbed non-native annual grasslands which provide only marginal habitat for candidate, sensitive, or special-status plant species. The proposed improvements consist of minor modifications to an existing tower in a previously developed area and would have ***no impact*** on candidate, sensitive, or special-status plant or wildlife species.

b,c)Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Mt. Barnabe Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The site is an existing previously developed/disturbed public service communications facility and fire lookout adjacent to non-native annual grassland habitat supporting a low diversity of plant and wildlife species. The EIR determined that no sensitive biological communities were present, and the proposed improvements would have less-than-significant impacts on biological resources. Conditions have not changed significantly since the site was analyzed in the EIR. Thus, no sensitive biological communities are present, and the proposed project work would have ***no impact*** on sensitive biological communities, including federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that represents core habitat areas for wildlife species, this site is an existing public service communications facility and lookout located in a previously developed area . The proposed improvements are limited to upgrades to the existing facilities, and are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a nursery site for native wildlife. As a result, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Mt. Barnabe Site is within the footprint of an existing communications facility. Project improvements are limited to minor modifications to existing equipment in previously developed portions of the site and would not have any adverse impact on locally-protected biological resources. Proposed changes at the Mt. Barnabe Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Mt. Barnabe Site is located in unincorporated Marin County. The Mt. Barnabe Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. Consequently, there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Mt. Barnabe Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 23, 2018, SiteSafe surveyed the Mt. Barnabe Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 30 locations at the Mt. Barnabe Site. The highest spatially averaged emissions recorded during this process were below FCC MPE limits, at approximately 11% of the occupational limit and 55% of the public limit. The maximum value recorded at 27 of 30 locations was below 5% of the occupational threshold, with the remaining three locations' maximum values ranging from 5-11% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the Mt. Barnabe Site is 889.7% of the public MPE limit. Maximum theoretical ground-level exposure produced by the existing condition is less than 5% of the public MPE.

b) Figure V.E-7 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Mt. Barnabe Site, there would be 15 antennas capable of operating at one time during the transition period (see Page 109 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum theoretical exposure level on the rooftop and outside walkway of the fire lookout tower of 967.6% of the public MPE limit; however the ground-level exposure would be less than 100% of the public MPE limit. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum exposure off the ground would be roughly 967.6% of the public MPE limit. Ground-level exposure faced by workers would remain less than 100% of the public MPE, and uncontrolled areas accessible to the public would experience a theoretical maximum of less than 5% of the public MPE.

Based on these measurements and the site's layout and signage (depicted in Chapter III, Project Description), SiteSafe recommended that the operators responsible for the high rooftop and fire lookout tower exposure levels should relocate some antennas to comply with FCC regulations, but concluded that all of MERA's facilities at the Mt. Barnabe Site are compliant. Ground-level exposure does not pose a danger to workers accessing the area. While the maximum theoretical emissions off the ground would increase from 889.7% to 967.6% of the public MPE, any exposure to these increased emissions levels would be rare due to the height at which such emissions may

occur (emissions would not exceed 100% of the public MPE until over 70 feet above ground level) and the low likelihood of occurrence of the all-on condition.

In summary, MERA's operations at the Mt. Barnabe Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during the transition phase and upon completion of the proposed project. Maximum theoretical emissions off the ground in the controlled access area would increase, but would rarely be experienced due to their high location off the ground and the low likelihood of occurrence of the all-on condition. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Mt. Barnabe Site would be ***less than significant***. No mitigation is required.

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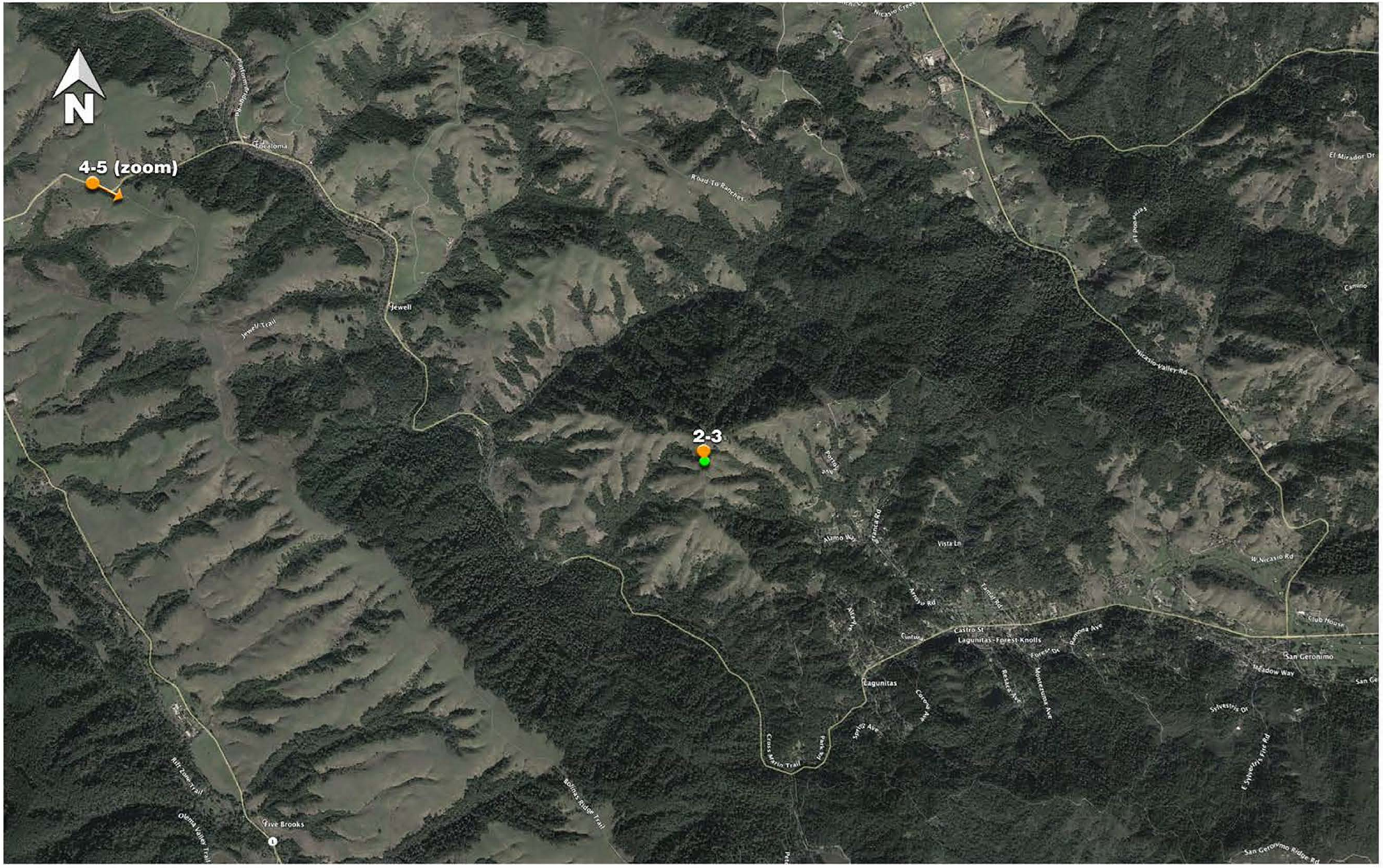

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.E - 1 Mt. Barnabe Aerial with Photo Locations

wra
ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking south from the adjacent cell site, on a private road.

Source: Previsualists Inc.

Figure V.E - 2 Existing Mt. Barnabe Near View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking south from the adjacent cell site, on a private road.

Source: Previsualists Inc.

Figure V.E - 3 Proposed Mt. Barnabe Near View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking southeast along Sir Francis Drake Blvd, using a 250mm telephoto lens.

Source: Previsualists Inc.

Figure V.E - 4 Existing Mt. Barnabe Distant View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking southeast along Sir Francis Drake Blvd, using a 250mm telephoto lens.

Source: Previsualists Inc.

Figure V.E - 5 Proposed Mt. Barnabe Distant View

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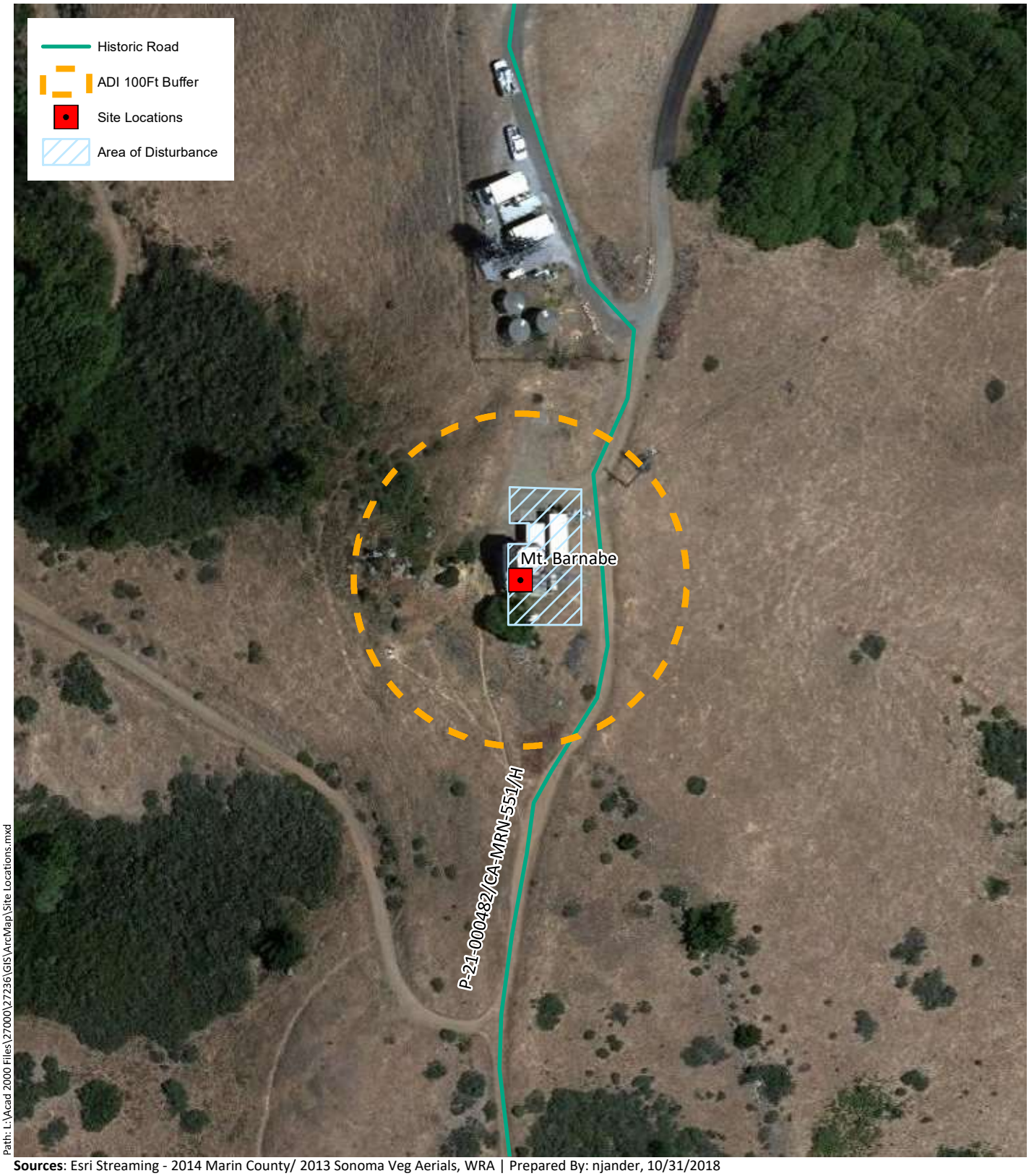

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.E - 6 Mt. Barnabe

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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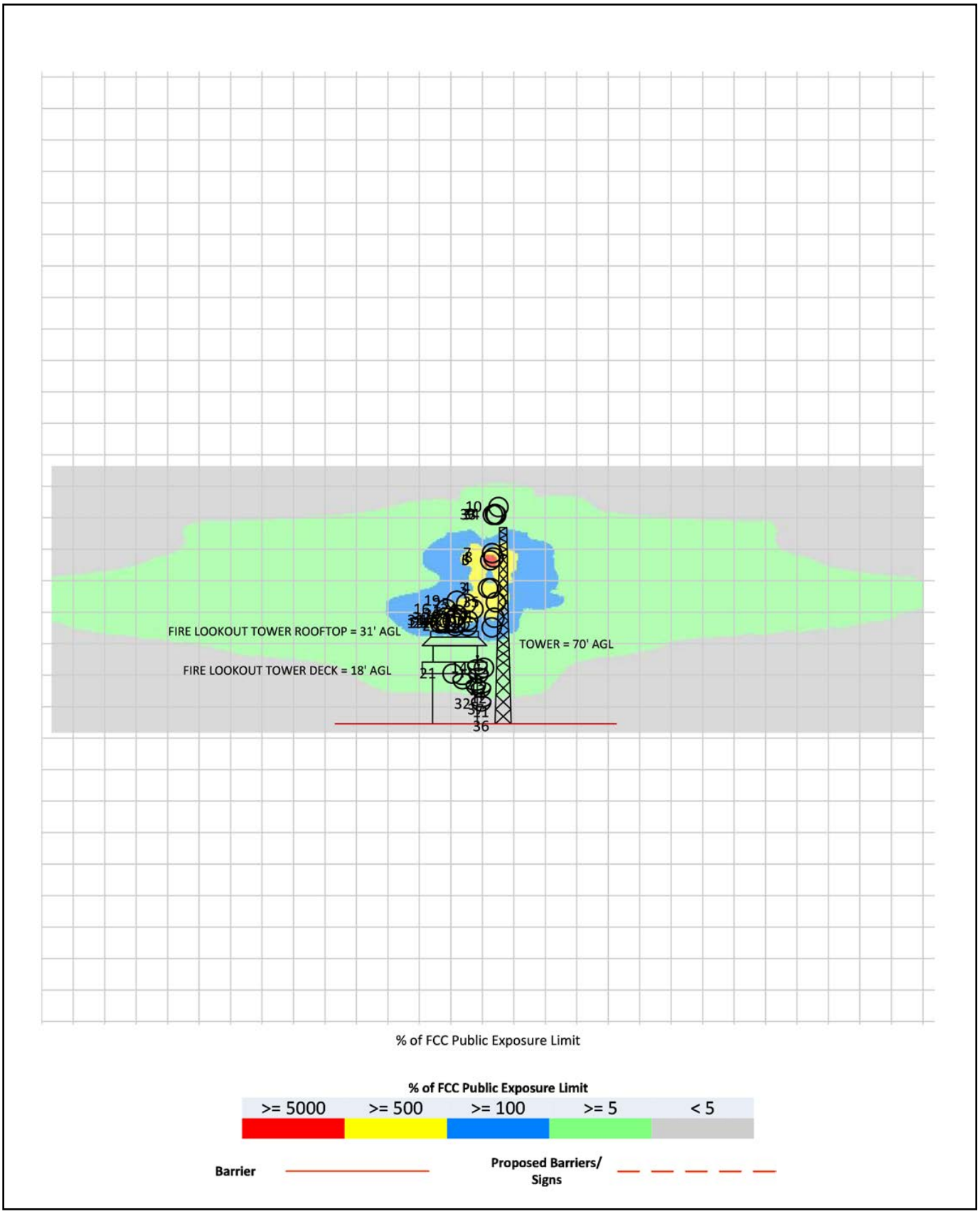

Figure V.E - 7 Mt. Barnabe Simulated All-On RF Exposure - Elevation View

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F. Point Reyes Hill (Site 8)

The Point Reyes Hill Site is located adjacent to the Federal Aviation Administration (FAA) VORTAC radio navigation site atop Point Reyes Hill, where Drake's View Drive ends and meets the Bucklin and Inverness Ridge Trails, as shown in Photo III-6 (Chapter III, Project Description). The fenced FAA site and adjacent gated and locked MERA facility are situated on a 4-acre parcel nestled within Point Reyes National Seashore. As the Point Reyes Hill Site is surrounded on all sides by National Seashore, areas around the site are largely wooded and undeveloped, except for hiking trails. MERA has a "right-of-way permit" to operate the communications facility within the Point Reyes National Seashore. The site is designated as a Coastal Open Area (C-OA) under the Marin County LCP.

Details of the proposed work for the Next Gen System at the Point Reyes Hill Site are explained in Chapter III, Project Description and are summarized below in Table V-6. The proposed work includes minor modifications to existing communications infrastructure on the towers, replacement of equipment inside the MERA equipment shelter, a new 40-foot monopole to replace a 29-foot wooden utility pole, foundation reinforcements, and construction of a new cable bridge.

An estimated 95% of the visible components at the Point Reyes Hill Site (within the MERA enclosure) would be owned by MERA after proposed project modifications. The only equipment not owned by MERA would be a single FAA antenna that is to be placed on the new MERA monopole.

Table V–6. Point Reyes Hill Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Point Reyes Hill	Existing hilltop site occupied by large, visually concealed FAA VORTAC antenna surrounded by Point Reyes National Seashore. 2 existing CBA buildings within FAA-fenced enclosure. One existing shelter in MERA enclosure. Two existing 17' tall x 12" diameter monopoles with multiple antennas, and one 29' wood utility pole with one Yagi-type antenna.	Propose to replace existing 29' wood utility pole with a new 40' monopole to support reinstalled Yagi-type antenna and two new 3' diameter microwave dishes. New cable bridge between E. building and new monopole. Replace HVAC units in existing building. 3 antennas added, and 2 antennas removed on existing monopole. Reinforce existing monopole foundations.

1. Aesthetics

The Point Reyes Hill Site is located within the Point Reyes National Seashore, a public open space popular for its natural coastal scenery. The National Seashore includes wild coastal beaches and headlands, estuaries, and uplands. It is geographically separated from most of Marin County by Tomales Bay, another important aesthetic resource, which the Point Reyes Hill Site overlooks from approximately 1.4 miles away. Views from the site include the forests and beaches of Point Reyes National Seashore, the Pacific Ocean, Tomales Bay, and rolling hills in virtually every direction. These views are easily accessible to the public, as the National Seashore has an extensive trail network, some of which pass directly by the site. For hikers on these trails, the Point Reyes Hill Site is clearly visible.

Key Observation Points (KOPs) have been selected to represent the array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.F-1. Subsequent Figures V.F-2 through V.F-5 show the anticipated before and after conditions at the Point Reyes Hill Site from the two selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista?

Both the existing FAA communications facility and the adjacent MERA facility are nearly invisible on the highly vegetated Point Reyes Ridge, just above Inverness. Due to the topography and vegetation of the region, the Point Reyes Hill Site is generally not visible from the west. From the east, Point Reyes Hill is visible from communities across the Tomales Bay such as Millerton and Bivalve, although from these very distant vantage points, all but the uppermost portions of the highest antenna are screened by trees. The existing MERA and FCC facilities have already impacted available scenic vistas, and the proposed modifications are relatively minor in comparison to what exists. Proposed changes which would be visible to public onlookers include replacement of a wood utility pole with a new monopole, installation of two new microwave dishes, net addition of one antenna, minor equipment changes on an existing monopole, and installation of a new cable bridge between an existing building and new monopole. Given the minor nature of these changes, the impacts of the project are ***less than significant***.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Facilities at the Point Reyes Hill Site have very little potential to adversely affect scenic resources within a state scenic highway, given that the nearest state scenic highway, State Highway 1, is 1.4 miles away and below the site by nearly 1,000 feet. Figures V.F- 4 and V.F-5 show the facility from State Highway 1, and the facility is barely discernable from such a distance. Consequently, the impact to state scenic highways is ***less than significant***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figure III-31 Existing and Proposed Elevations shows the physical changes at the site as described below. Infrastructure at the site currently includes a visually concealed FAA antenna, two 20-foot by 10-foot buildings, two 17-foot tall monopoles with antennas, and one 29-foot wood utility pole with one Yagi (small horizontal) antenna. The wood pole holding the Yagi antenna would be replaced with a 40-foot monopole, yielding an 11-foot height increase to the tallest structure on site. Additional changes that may alter the aesthetics of the site include a new cable bridge between the MERA equipment shelter and the monopole. Due to dense vegetation and hillside configuration as shown in Figures V.F-3 and V.F-4., near views of the site are only available to the few recreationists that hike within the immediate proximity of the site. While the project does raise the height of one antenna by 11-feet, this change does not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

<u>Cultural Resources</u>

a) *Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?*

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Point Reyes Hill Site. Improvements proposed for this site include replacement of an existing pole, reinforcement of monopole foundations, a new cable bridge, and minor equipment changes. Ground disturbance would be limited to the vicinity of the tower foundations and utility pole and would extend as deep as approximately 24 inches below ground level. Figure V.F-6 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Point Reyes Hill Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures to follow in the event of an accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Point Reyes Hill Site, and impacts would be ***less than significant with mitigation incorporated***.

<u>Tribal Cultural Resources</u>

a,b) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local*

register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Point Reyes Hill Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource designated by the lead agency, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Point Reyes Hill Site are limited to minor modifications to existing equipment in previously developed portions of the site, as seen in Figure V.F-6, and are not anticipated to impact vegetation within the site. However, the project's original EIR (MERA, 2000) previously determined that two special-status plant species, Mt. Vision ceanothus (*Ceanothus gloriosus* var. *porrectus*) and western leatherwood (*Dirca occidentalis*), might be present in the Point Reyes Hill Site due to the existence of potentially suitable coastal scrub habitat and relatively close proximity to documented occurrences of these species. In compliance with the original EIR's Mitigation Measure Point Reyes Hill Site BIO-3 (see below), WRA conducted a focused protocol-level rare plant survey for Mt. Vision ceanothus and western leatherwood within the Point Reyes Hill Site on March 30 and May 9, 2018.

In addition to the aforementioned target species, WRA also determined that the following additional special-status plant species have a moderate or high potential to be present at the Point Reyes Hill Site due to the existence of potentially suitable coastal scrub habitat underlain by thin, rocky, sandstone-derived soils, and proximity to documented occurrences: Blasdale's bent grass (*Agrostis blasdalei*), Marin manzanita (*Arctostaphylos virgata*), Brewer's calandrinia, coastal bluff morning-glory (*Calystegia purpurata* ssp. *saxicola*), Point Reyes ceanothus (*Ceanothus gloriosus* var. *gloriosus*), Marin checker lily (*Fritillaria lanceolata* var. *tristulis*), Point Reyes horkelia (*Horkelia marinensis*), Baker's goldfields (*Lasthenia californica* ssp. *bakeri*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), marsh microseris (*Microseris paludosa*), Michael's rein

orchid (*Piperia michaelii*), San Francisco owl's-clover (*Triphysaria floribunda*), and coastal triquetrella (*Triquetrella californica*).

Several reference sites for special-status plant species were visited by WRA botanists prior to surveying the Point Reyes Hill Site, resulting in the following observations: Mt. Vision ceanothus (observed May 6, 2018 in bud and bloom at North Beach, Point Reyes), Point Reyes horkelia (observed May 6, 2018 in bud and bloom at North Beach, Point Reyes), marsh microseris (observed May 6, 2018 in bud and bloom at Abbotts Lagoon, Point Reyes), San Francisco owl's-clover (observed May 6, 2018 in bud and bloom at Abbotts Lagoon, Point Reyes), and Brewer's calandrinia (observed April 8, 2018 along Rocky Ridge Trail, Mt. Tamalpais). However, no special-status plant species were observed at the Point Reyes Hill Site, and the proposed project work would have no impact on candidate, sensitive, or special-status plant species.

The project's original EIR (MERA, 2000) previously determined that nesting raptors might be present in the study area due to the existence of potentially suitable nesting structures. The EIR identified disturbance to nesting raptors as a potentially significant impact to biological resources and provided the following mitigation measures to reduce impacts to less-than-significant levels:

<u>Previous Mitigation Measure Point Reyes Hill BIO-4</u>

a. Prior to project activity, it will be determined whether any construction or tree removal is proposed during the raptor nesting season (February 15 to July 15).
b. If no construction or tree removal will occur during the raptor nesting season, no further mitigation will be necessary.
c. If construction or tree removal is proposed during the raptor nesting season, a focused survey for raptor nests shall be conducted by a qualified biologist during the nesting season to identify active nests in the project area. The survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of construction or tree removal.
d. If nesting raptors are found during the focused survey, no construction or tree removal will occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist).

In addition to nesting raptors, WRA also determined that the following special-status wildlife species have a moderate or high potential to be present in the vicinity of the Point Reyes Hill Site: American badger and nesting birds, including oak titmouse, Nuttall's woodpecker, and Allen's hummingbird. Project improvements within the Point Reyes Hill Site are limited to minor modifications to existing equipment in previously developed portions of the site and no tree removal will occur. Even so, due to the presence of tree cover in close proximity to the site, there is some potential for impacts to nesting birds. Implementation of Mitigation Measure BIO-2 would ensure these impacts are less than significant. No other activities are planned with the potential to harm other candidate, sensitive, or special-status wildlife species.

In summary, improvements within the Point Reyes Hill Site are limited to minor modifications to existing equipment in previously developed portions of the site with very low likelihood to impact special-status wildlife species. No candidate, sensitive, or special-status plant species are

present. With implementation of Mitigation Measure BIO-2, impacts to all candidate, sensitive, or special-status species would be ***less than significant with mitigation incorporated***.

Mitigation Measure BIO-2[1]

Project activities shall, to the extent feasible, occur outside of the nesting season from September 1 – January 31. Where this is infeasible and project activities occur during the nesting season (February 1 through August 31), a nesting bird survey shall be conducted by a qualified wildlife biologist no more than 14 days prior to the start of project activities. If nests are identified, a no-disturbance buffer shall be implemented to avoid impacts to nesting birds. The radius of a surrounding buffer will be determined by a qualified biologist and shall range from 25 feet to 500 feet depending on the species and protection status of that species.

b,c)Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Point Reyes Hill Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The majority of the site is developed and consists of an existing communications facility within a small fenced site adjacent to a Federal Aviation Administration (FAA) VORTAC antenna site.

Due to the presence of natural vegetation communities surrounding the developed portions of the site, WRA conducted an updated biological survey and focused special-status plant survey as required per previous Mitigation Measure Point Reyes Hill BIO-3 from the original EIR, which states that:

Previous Mitigation Measure Point Reyes Hill BIO-3

a. Prior to project activity, a biologist will conduct a focused survey to determine if any Mt. Vision ceanothus or western leatherwood shrubs have established themselves since the Initial Study investigations at the Point Reyes Hill Site and, if present, whether they will be affected by construction activities.
b. If Mt. Vision ceanothus or western leatherwood shrubs are found within the construction impact area, they shall be fenced and flagged by a qualified biologist before construction activity, and the project will be shifted, if necessary, to avoid impacts to the shrubs. If all shrubs are fenced and avoided, impacts to Mt. Vision ceanothus and western leatherwood will be less than significant and no further mitigation is necessary.

Surveys were conducted at the Point Reyes Hill Site on March 30 and May 9, 2018 to observe whether existing conditions had changed significantly since the project's original EIR (MERA,

[1] Mitigation Measure BIO-1 is listed under Site 19, Stewart Point.

2000) and to survey for special-status plant species. In keeping with Mitigation Measure BIO-3, a protocol-level rare plant survey was carried out that verified that there are no special-status plant species present at the Point Reyes Hill Site.

The developed portions of the site are surrounded by coyote brush (*Baccharis pilularis* ssp. *consanguinea*) scrub habitat with occasional Bishop pine (*Pinus muricata*) individuals present. Coyote brush scrub is not considered a sensitive biological community. Moreover, the proposed improvements would be limited to minor modifications to existing equipment and structures within previously developed portions of the site. No sensitive biological communities or federally protected wetlands are present, and the proposed project work would have ***no impact*** on sensitive biological communities.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that provides core habitat areas for wildlife species, this site is located in a previously developed area. The proposed improvements are limited to upgrades to existing facilities and are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a nursery site for native wildlife. Consequently, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Point Reyes Hill Site is located within Point Reyes National Seashore on federal land in the coastal zone and is under the jurisdiction of the California Coastal Commission. The site is also subject to the policies of the Point Reyes National Seashore General Management Plan (GMP) adopted in September 1980. The GMP's Natural Resources Management Section generally calls for the identification, protection, and perpetuation of the diversity of existing ecosystems which are found at Point Reyes National Seashore.

The GMP's Land Management Zoning Section describes various zones within the park and their intended uses, which are designed to be appropriate for each zones' biological resources. The Point Reyes Hill Site is within the "Natural Environment" subzone. The Natural Environment subzone is managed to maintain its natural appearance while allowing compatible visitor use and providing a transition between man-made intrusions and the designated wilderness.

The Point Reyes Hill is also located within the jurisdiction of the Marin County LCP. No policies or ordinances from the LCP adopted for the purpose of protecting biological resources were identified as applicable and relevant to the Point Reyes Hill Site.

As previously discussed, proposed improvements at the Point Reyes Hill Site are confined to the existing MERA compound. No adverse impacts to biological diversity and existing ecosystems within the National Seashore would occur; and there would be no modification of natural resources. As such, proposed modifications to the Point Reyes Hill Site would not conflict with

the General Management Plan or the Marin County Local Coastal Program (LCP); and ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Point Reyes Hill Site is located on National Park Service (NPS) land within the Point Reyes National Seashore, adjacent to the FAA VORTAC Site. This site is subject to the Coastal Zone Management Act, the Point Reyes National Seashore GMP, and the NPS Natural Resources Management Plan.

Adopted in 1980, the Point Reyes National Seashore GMP is primarily concerned with the preservation of areas that have recreational, ecological, cultural, or aesthetic importance. The 1999 Initial Study did not identify any conflicts between the GMP and FAA / MERA facilities at the Point Reyes Site. This conclusion was based on three findings: 1) building height requirements imposed upon MERA by the FAA would preclude any significant visual impacts, 2) the site's location in the footprint of an already developed FAA facility would prevent significant impacts to ecological resources, 3) the site's location in the footprint of an already developed FAA facility would result in a low probability of impacts to archaeological/cultural resources.

Changes proposed as part of the Next Gen System would take place within the existing spatial footprint of the Point Reyes Hill Site, with minor modifications to existing facilities, a pole replacement, and foundation reinforcements proposed. The location is adjacent to the 4-acre FAA VORTAC facility that is designated a Special Use Zone, Radio Range Station in the GMP. As the current project proposes minor modifications within the footprint of the existing facility, the Initial Study's conclusions still apply. The project would, therefore, not significantly conflict with the GMP's goals and policies related to visual, ecological and cultural resources. Further, as the project would be located in a fenced compound that has long been inaccessible to the general public, there would be no conflict with the plan's recreational goals and policies. An existing FAA antenna would be placed atop a new MERA monopole as part of the project, bringing its height to 40 feet and resulting in an 11-foot increase in height from the existing pole at the Point Reyes Site. While the new monopole is taller, it does not produce any new significant visual impacts and therefore would remain consistent with the intent of the GMP policies.

Potential conflicts with the LCP at the Point Reyes Site were not examined at the time of the 1999 IS/EIR; however, Coastal Commission staff have determined that the site is within the Coastal Zone of Marin County and is therefore subject to the Marin County LCP and Chapter 22I of the

Marin County Code, which includes Coastal Zone land use requirements. Because the land is under federal jurisdiction, a federal consistency determination with the Coastal Zone Management Act would be required, which would be satisfied by gaining approval directly from the North Central Coastal Commission office for a Coastal Development Permit for the proposed activity[2].

The Point Reyes Hill Site is located in Unit II of the Marin County Coastal Zone. The site is currently designated for Public and Quasi-Public land use and zoned Coastal Open Area (C-OA) under Marin County's LCP. The C-OA zoning designation is aimed at providing open space, outdoor recreation, and other undeveloped lands. Public utility and public service uses are permitted within the C-OA district with a conditional use permit, provided that such uses are within the purposes and powers of the applying agency; however, MERA is not subject to this County-level permit as a Joint Powers Authority, and they will work directly with the Coastal Commission due to the site's location on federal land in pursuit of a Coastal Development Permit. Excavation and filling are prohibited within the C-OA district, except where the County (as an agent of the State) approves such activities upon the finding that they are necessary in the pursuit of a permitted use.

Additional policies from Unit II of the Marin County LCP that are applicable to the Point Reyes Site include:

- New Development and Land Use
    3. Visual Resources.
        a. The height, scale, and design of new structures shall be compatible with the character of the surrounding natural or built environment. Structures shall be designed to follow the natural contours of the landscape and sited so as not to obstruct significant views as seen from public viewing places.
        b. Development shall be screened with appropriate landscaping; however such landscaping shall not, when mature, interfere with public views to and along the coast. The use of native plant material is encouraged.
        c. Signs shall be of a size, location, and appearance so as not to detract from scenic areas or views from public roads and other viewing points and shall conform to the County's sign ordinance.
        d. Distribution utility lines shall be placed underground in new developments to protect scenic resources except where the cost of undergrounding would be so high as to deny service.

The proposed project component would not introduce a new land use or visual impact to the site, nor would land be removed from open space use. The small scale of work within the existing

[2] *Delaplaine, Mark. California Coastal Commission "Re: Marin County/Point Reyes communications site." Message to MERA, [David Mortimer]. April 19, 2019.*

facility footprint and use of a previously developed communications site would ensure that it does not impact sensitive resources, result in any major land use conflicts with surrounding areas, or conflict with the surrounding natural and built environment. The project component would also be designed to meet the aesthetic, design, safety, and noise standards and other relevant policies and regulations delineated by the Coastal Commission, the NPS GMP, and the FAA, which are provided in Chapter IV.D The proposed facility modifications are consistent with the site's zoning, and the process of obtaining a Coastal Development Permit from the NPS and the Coastal Commission would ensure that they do not conflict with applicable land use plans or policies at the Point Reyes Hill Site. As a result, ***less-than-significant*** impacts would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Point Reyes Hill Site 8 is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 23, 2018, SiteSafe surveyed the Point Reyes Hill Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 26 locations at the Point Reyes Hill Site. The highest emissions recorded during this process were below FCC MPE limits, at approximately 7% of the occupational limit and 35% of the public limit. The maximum recorded value at 23 of 26 locations was below 5% of the occupational threshold, with the remaining three locations' maximum values ranging from 6-7% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) Under the existing condition, SiteSafe modeled the maximum theoretical emissions at approximately 21.3% of the public MPE. This would occur on the ground-level both within and just outside of the fenced off enclosure around the telecommunications equipment.

b) Figure V.F-7 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

At the Point Reyes Hill Site, there would be 35 antennas capable of operating at one time during the transition period (see Page 125 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum ground-level exposure of 21.5% of the public MPE limit in controlled areas. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum ground-level exposure in controlled-access areas would decrease to 16.2% of the public MPE limit. Uncontrolled areas accessible to the public would produce a theoretical maximum of 14.4% of the public MPE limit. Based on these measurements and the site's layout (depicted in Chapter III, Project Description), SiteSafe concluded that the Point Reyes Site is compliant with FCC regulations and that MERA need not take any corrective action.

In summary, MERA's operations at the Point Reyes Hill Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments, would remain less than 100% of the MPE limits during the transition phase, and would slightly decrease from baseline levels upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Point Reyes Hill Site would be ***less than significant***. No mitigation is required.

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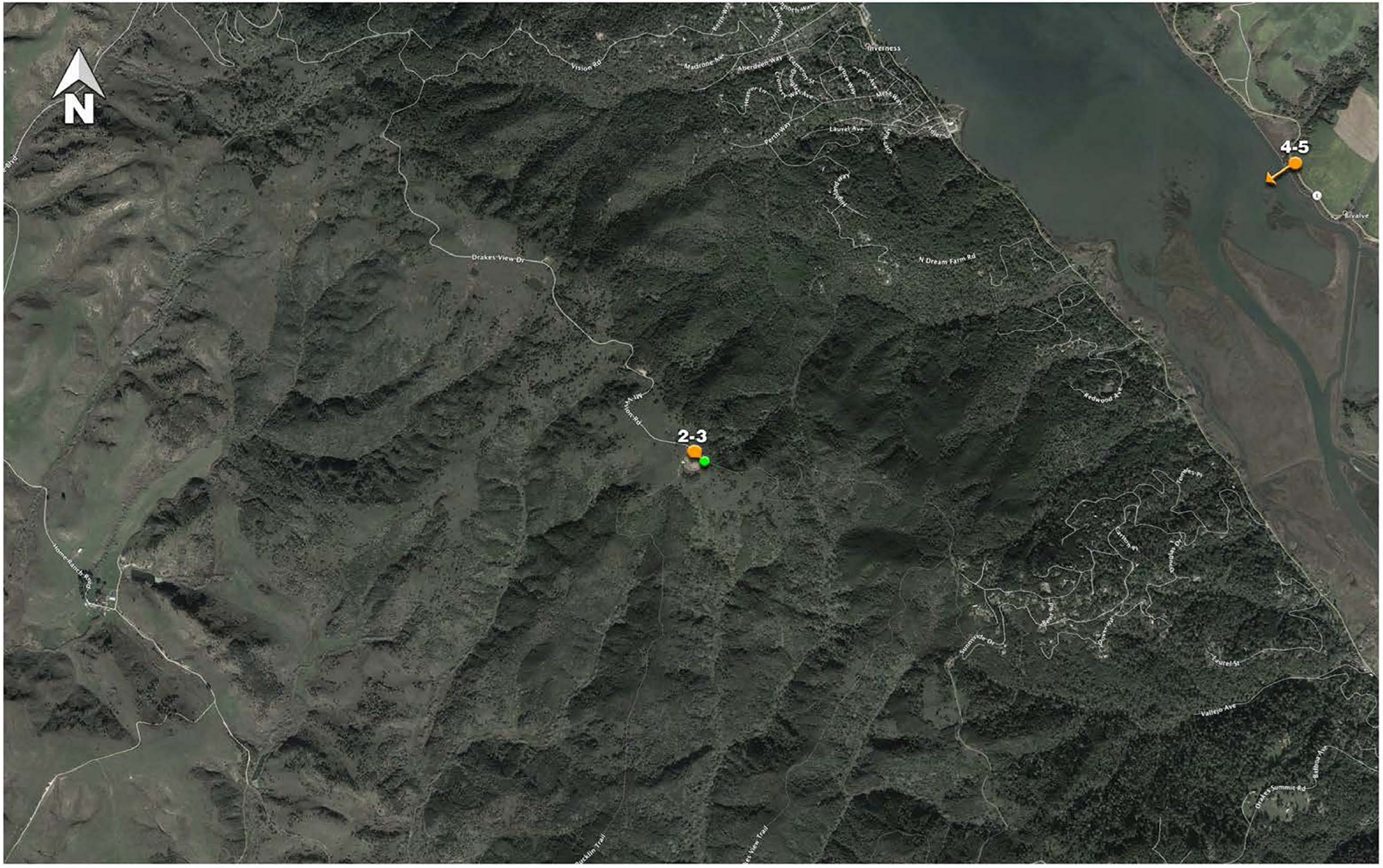

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.F - 1 Point Reyes Hill Aerial with Photo Locations

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Current photograph of the view looking south from the end of the access road.

Source: Previsualists Inc.

Figure V. F - 2 Existing Point Reyes Hill Near View

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Photosimulation of the view looking south from the end of the access road.

Source: Previsualists Inc.

Figure V. F - 3 Proposed Point Reyes Hill Near View

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Photosimulation of the view looking southwest from Hwy 1, across Tomales Bay.

Source: Previsualists Inc.

Figure V.F - 4 Existing Point Reyes Hill Distant View

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Photosimulation of the view looking southwest from Hwy 1, across Tomales Bay.

Source: Previsualists Inc.

Figure V.F - 5 Proposed Point Reyes Hill Distant View

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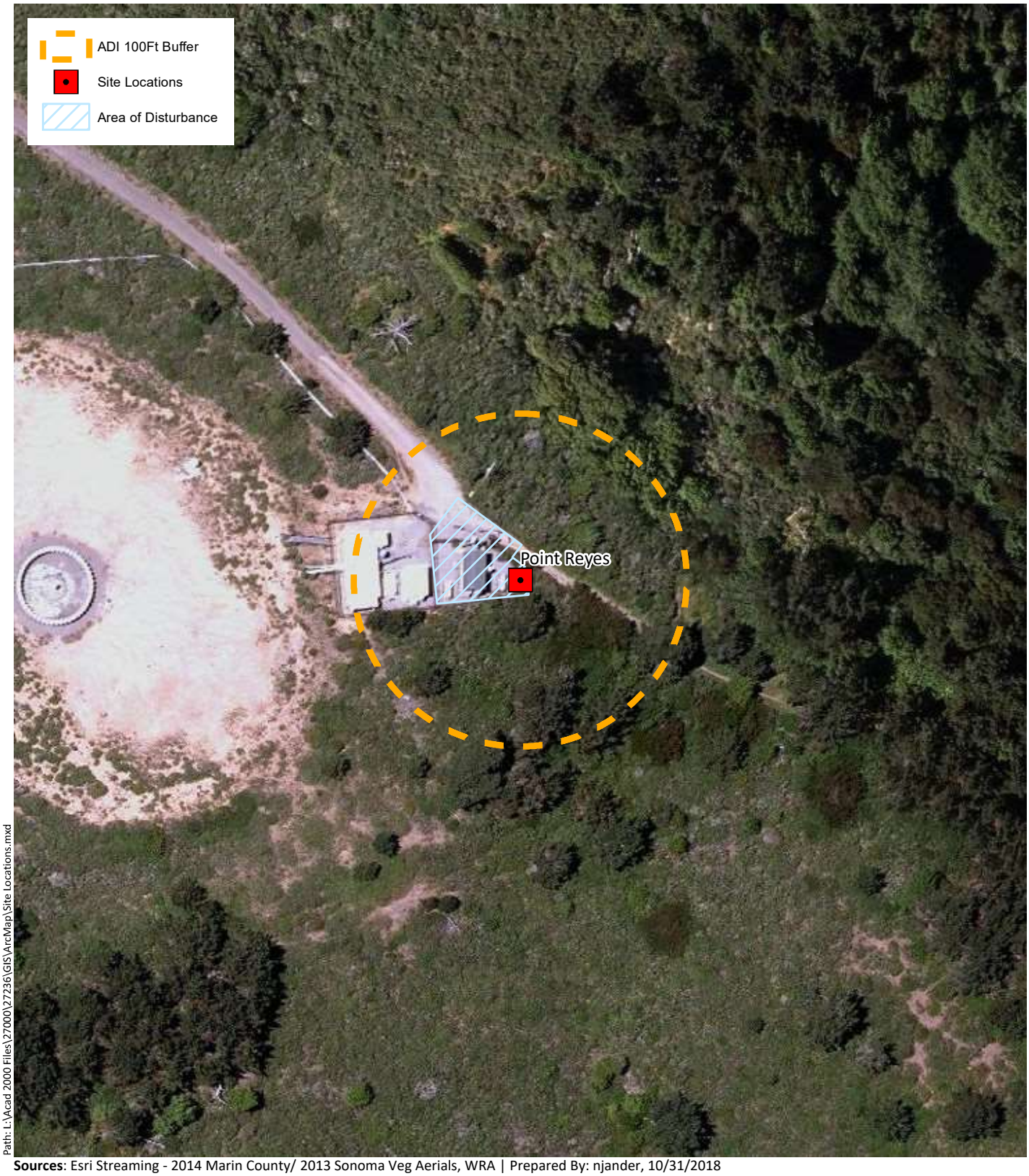

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.F - 6 Point Reyes Hill

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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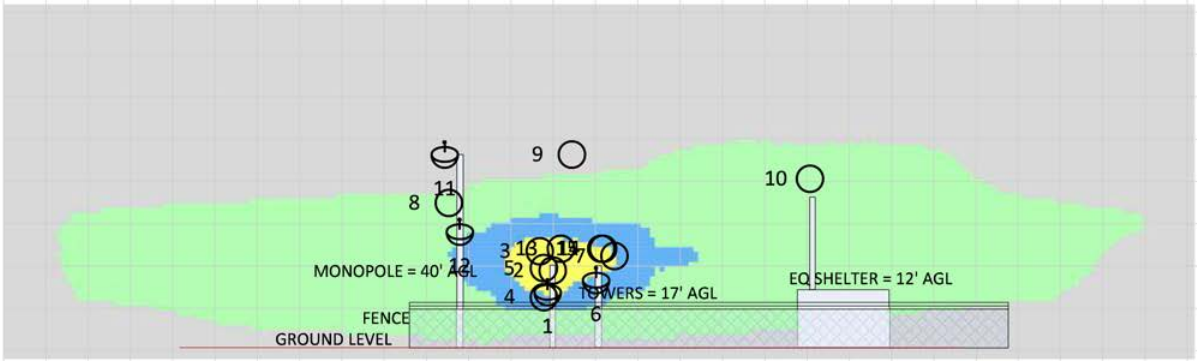

% of FCC Public Exposure Limit

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier ——— **Proposed Barriers/ Signs** — — — — —

Figure V.F - 7 Pt. Reyes Hill Simulated All-On RF Exposure - Elevation View

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G. Dollar Hill (Site 10)

The Dollar Hill Site is located on a hill that forms the backdrop to Downtown San Rafael, as shown in Photo III-8 (Chapter III, Project Description). It is located off of Robert Dollar Drive, just north of downtown and next to the Highway 101 corridor. The site is adjacent to Boyd Memorial Park to the south, Mountain Park to the north, and residential developments to the east and west. The site is zoned Parks/Open Space (P/OS).

An estimated 70% of the visible components at the Dollar Hill Site would be owned by MERA after proposed project modifications. MERA leases the site from the City of San Rafael, and MERA added an equipment shelter, 60-foot tower, emergency generator, and propane fuel tank. The tower now holds additional antennas from other agencies, and there is another building and a water tank on site. There are 23 existing antennas, of which five currently belong to MERA. The Next Gen System will replace some antennas and add others, for a net gain of seven antennas. At completion, MERA will own 40% of the antennas, plus the tower, the equipment shelter, generator, and propane tank (bringing the estimate of visible components to 70%). Next Gen System proposals for the Dollar Hill Site are described further in Chapter III, the project Description. Project proposals include minor modifications of existing communications equipment and foundation reinforcements at the existing MERA facility as described below in Table V-7.

Table V–7. Dollar Hill Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Dollar Hill	60' tall, 3 Leg tower with 12' face width. 2 existing CBA buildings. Existing water tank and pump.	Minor equipment changes on existing tower. 2 microwave dishes and 10 antennas added, 2 microwave dishes and 3 antennas removed. Reinforce existing tower foundation.

1. Aesthetics

Dollar Hill is located within Boyd Memorial Park, a publicly available open space within the City of San Rafael. Boyd Memorial Park is densely vegetated with redwood and eucalyptus trees and has a playground, picnic benches, and hiking trails. The park is accessed from Downtown San Rafael, making it a popular recreational spot for residents of the city. Views from the park and the project site feature Mt. Tamalpais, the City of San Rafael, other neighboring urban communities, Highway 101, and the San Pablo and San Francisco Bays. Additionally, rolling hills are visible in virtually every direction. As it is located in a relatively urban area, the Dollar Hill Site is visible by many. The site can be viewed by park-goers within Boyd Memorial Park, motorists along Highway 101 and by residents of San Rafael at several points throughout the City.

Key Observation Points (KOPs) have been selected to represent the array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.G-1. Subsequent Figures V.G-2 through V.G-7 show the anticipated before and after conditions at the Dollar Hill Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista;*

The existing communications facility on the site already has substantial adverse effect on the scenic vistas available, including views of the Bay available to hikers in Boyd Memorial Park and views of the hilltop visible from nearby neighborhoods, and the proposed modifications are relatively minor in comparison. Modifications which would lead to visual change are limited to minor modifications to equipment on the existing tower and net gain of seven antennas. Presently, a tower with antennas and microwave dishes, two CBA buildings, and a water tank and pump are present. Given the limited nature of visual change relative to the quantity of infrastructure currently present on the hilltop, impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

The project has no potential to adversely affect scenic resources within a state scenic highway, given that there are no scenic highways nearby. Therefore, there is ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figure III-35 and II-36 Existing and Proposed Elevations and Proposed Site Plan respectively, show the physical changes at the site as described below. Infrastructure at the site currently includes a sixty-foot tall tower with antennas that bring it to a maximum height of 75-feet, a water tank and pump, and two 10-foot by 20-foot buildings. Visual changes to this infrastructure would come from addition and removal of antennas and microwave dishes, for a net addition of seven antennas. Also, the microwave dishes would be mounted higher on the tower. Although one of the new antennas would be added to the top of the tower, there would be no change in the maximum elevation of equipment at the site.

Figures V.G-2 and V.G-3 provide a near view of the site under current conditions and with the anticipated project conditions. It is evident that the new microwave dishes will be larger and mounted higher on the tower; this is a slight adverse effect, since it increases the amount of sky that is blocked by the equipment. This effect is particularly noticeable from near views, and it is also noticeable from more distant views. The distant views are typically from below the site, as seen when zooming into Figures V.G-5 and V.G-7. However, this effect does not substantially degrade the existing visual character or quality of public views of the site and its surroundings, as a result, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) CWould the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Dollar Hill Site. Improvements proposed for this site include minor equipment modifications on an existing tower, replacement of equipment inside the equipment shelter, and reinforcement of the tower's foundation. Ground disturbance would be limited to the vicinity of the tower foundations and would extend as deep as approximately 24 inches below ground level. Figure V.G-8 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Dollar Hill Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures to follow in the event of an accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Dollar Hill Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Dollar Hill Site was among these sites. However, by implementing Mitigation Measure TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial

adverse change in the significance of a tribal cultural resource designated by the lead agency, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Dollar Hill Site is located within a previously developed compound adjacent to non-native grassland and coast live oak woodland, which provides only marginal habitat for any special-status plant species with potential to occur in the area. The proposed improvements (Figure V.G-8) consist of minor modifications to an existing tower in a previously developed area and would have no impact on potential habitat for candidate, sensitive, or special-status plant species.

The project's original EIR (MERA, 2000) previously determined that nesting raptors might be present in the study area, due to the presence of potentially suitable nesting structures, and that disturbance of nesting raptors would constitute a potentially significant impact. The EIR provided Mitigation Measure BIO-8 to mitigate these impacts to less-than-significant levels. This mitigation measure states:

<u>Previous Mitigation Measure Dollar Hill BIO-8:</u>

a. Prior to project activity, it will be determined whether any construction or tree removal is proposed during the raptor nesting season (February 15 to July 15)
b. If no construction or tree removal will occur during the raptor nesting season, no further mitigation will be necessary.
c. If construction or tree removal is proposed during the raptor nesting season, a focused survey for raptor nests shall be conducted by a qualified biologist during the nesting season to identify active nests in the project area. The survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of construction or tree removal.
d. If nesting raptors are found during the focused survey, no construction or tree removal will occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist).

Although impacts to nesting raptors were considered potentially significant based upon the scope of work of the original project, the proposed improvements for the Next Gen Project consist of minor modifications to an existing tower in a previously developed area with baseline anthropogenic disturbance. No trees will be removed. These improvements have very low likelihood of disturbing nesting raptors or otherwise adversely affect candidate, sensitive, or special-status wildlife species. Even so, due to proximity of tree cover to the site, Mitigation Measure BIO-2 will ensure that any potential impacts to nesting raptors are reduced to less-than-significant levels. No other activities are planned with the potential to harm other candidate, sensitive, or special-status wildlife species.

In summary, improvements within the Dollar Hill Site are limited to minor modifications to existing equipment in previously developed portions of the site with very low likelihood to impact special-

status wildlife species. No candidate, sensitive, or special-status plant species are present. With implementation of Mitigation Measure BIO-2 (see Site 8, Point Reyes Hill), impacts to candidate, sensitive, or special-status wildlife species will be ***less than significant with mitigation incorporated***.

b,c)Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Dollar Hill Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The majority of the site is developed as approved in the project's EIR, and consists of an existing MERA facility with two buildings with existing communications equipment and a gravel access road. The site is flanked on both sides by non-native annual grassland and coast live oak (*Quercus agrifolia*) woodland. Coast live oak woodland is reported by the CDFW with a rarity ranking of G5, S4 (CNPS 2018a), indicating that it is globally secure, and apparently secure in California. However, certain statewide policies such as the Oak Woodlands Conservation Act consider all native oak woodlands as sensitive regardless of rarity; consequently, for consistency, coast live oak woodland is considered a sensitive natural community in this analysis.

The original EIR had previously determined that initial project construction may have an adverse impact on biological resources, which included the potential to damage surrounding oak woodland habitat. However, these potential impacts were mitigated to less-than-significant levels during project construction by the implementation of Mitigation Measure – Dollar Hill Site BIO-7, which is described below:

<u>Previous Mitigation Measure Dollar Hill BIO-7</u>

a. Prior to project activity, temporary fencing shall be placed around the dripline of mature oaks in the immediate vicinity of the Dollar Hill Site. No vehicles or materials shall be stored or parked inside this fencing. Silt-fencing shall be installed if any excavation or soil disturbance that could impact the oaks results from construction.

Although the original project required mitigation for potential impacts to coast live oak woodland, Next Gen Project upgrades are limited to minor modifications to the existing equipment and structures located within previously developed areas. No vegetation removal is proposed, and the proposed improvements would have ***no impact*** on coast live oak woodland or other sensitive biological communities, including federally protected wetlands.

d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?*

This site is located in a previously developed area within a broad expanse of open space which represent core habitat areas for wildlife species. The proposed improvements are limited to upgrades to existing facilities, and are not anticipated to significantly impede wildlife movement

compared to existing conditions. In addition, the site is not a nursery site for native wildlife. Consequently, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Dollar Hill Site is located within the footprint of an existing MERA facility. Project improvements are limited to minor modifications to existing equipment in previously developed portions of the site and would not have any adverse impact on locally-protected biological resources. Proposed changes at the Dollar Hill Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Dollar Hill Site is located in the City of San Rafael, and not within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, nor the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect; As a result, there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Dollar Hill (Site 10) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 21, 2018, SiteSafe surveyed the Dollar Hill Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 17 locations at the Dollar Hill Site. The highest emissions recorded during this process were below FCC MPE limits, at approximately 2% of the occupational limit and 10% of the public limit. The maximum recorded value at 15 of 17 locations was below 2% of the occupational threshold, with the remaining two locations' maximum values at 2% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the Dollar Hill Site is 71.7% of the public MPE limit.

b) Figure V.G-9 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Dollar Hill Site, there would be 35 antennas capable of operating at one time during the transition period (for a full inventory, see Page 144 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum ground-level exposure of 73.7% of the public MPE limit in controlled areas. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum ground-level exposure in controlled-access areas, which are contained behind a fence which precludes public access, would remain at 73.7% of the public MPE limit. Uncontrolled areas accessible to the public, however, would produce a theoretical maximum of 35.1% of the public MPE limit. Based on these measurements and the site's layout and signage (depicted in Chapter III, Project Description), SiteSafe concluded that all facilities at the Dollar Hill Site are compliant with FCC regulations.

In summary, MERA's operations at the Dollar Hill Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments and would remain less than 100% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Dollar Hill Site would be ***less than significant***. No mitigation is required.

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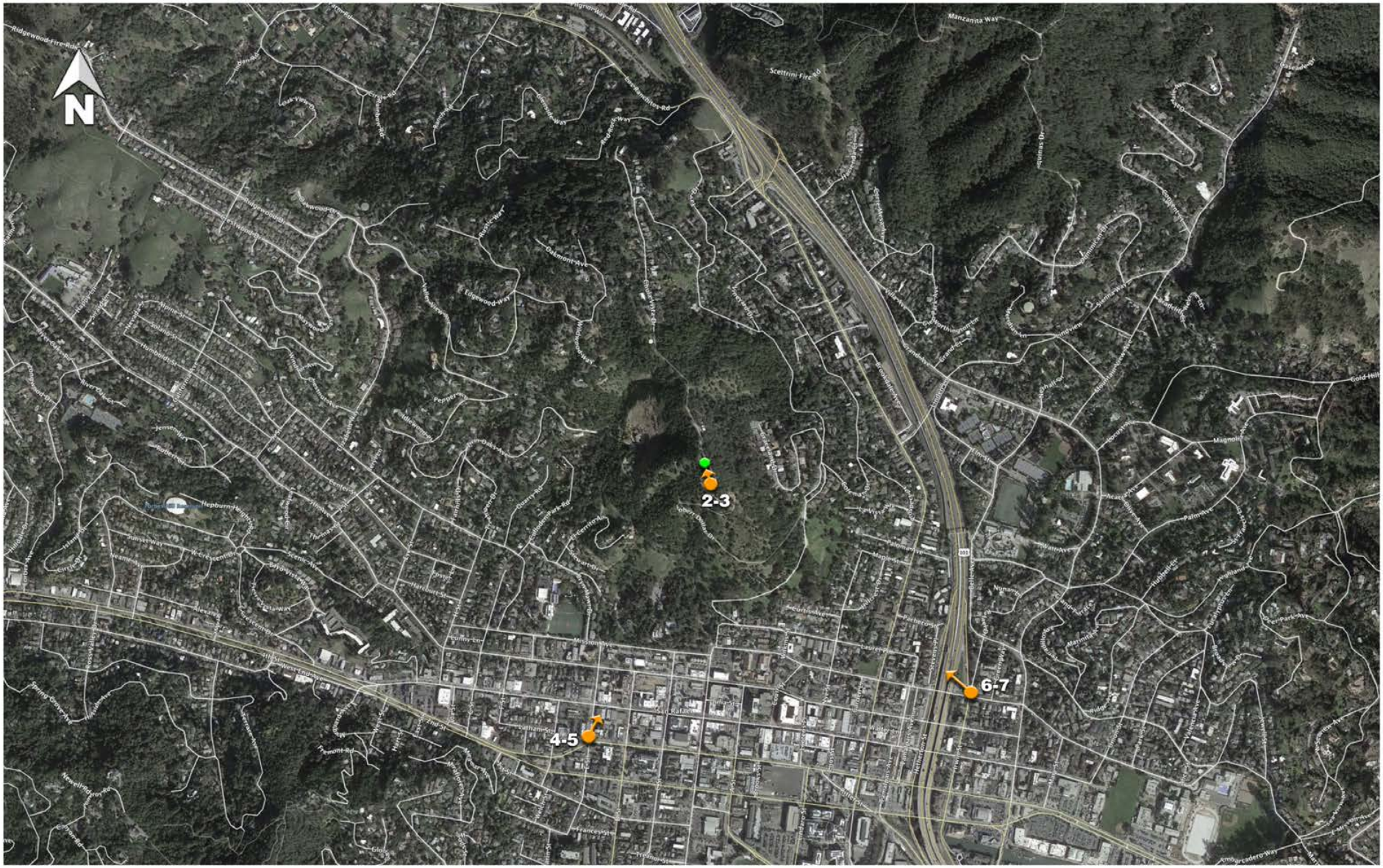

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.G - 1 Dollar Hill Aerial with Photo Locations

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Current photograph of the view looking north from the access road along the hilltop.

Source: Previsualists Inc.

Figure V.G - 2 Existing Dollar Hill Near View

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Photosimulation of the view looking north from the access road along the hilltop.

Source: Previsualists Inc.

Figure V.G - 3 Proposed Dollar Hill Near View

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Current photograph of the view looking north from downtown San Rafael.

Source: Previsualists Inc.

Figure V.G - 4 Existing Dollar Hill from Downtown San Rafael

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Photosimulation of the view looking north from downtown San Rafael.

Source: Previsualists Inc.

Figure V.G - 5 Proposed Dollar Hill from Downtown San Rafael

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Current photograph of the view looking northwest from the onramp to Hwy 101 at Mission Ave. (to match 1999 EIR viewpoint)

Source: Previsualists Inc.

Figure V.G - 6 Existing Dollar Hill from the Hwy 101 onramp.

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Photosimulation of the view looking northwest from the onramp to Hwy 101 at Mission Ave. (to match 1999 EIR viewpoint)

Source: Previsualists Inc.

Figure V.G - 7 Proposed Dollar Hill from the Hwy 101 onramp.

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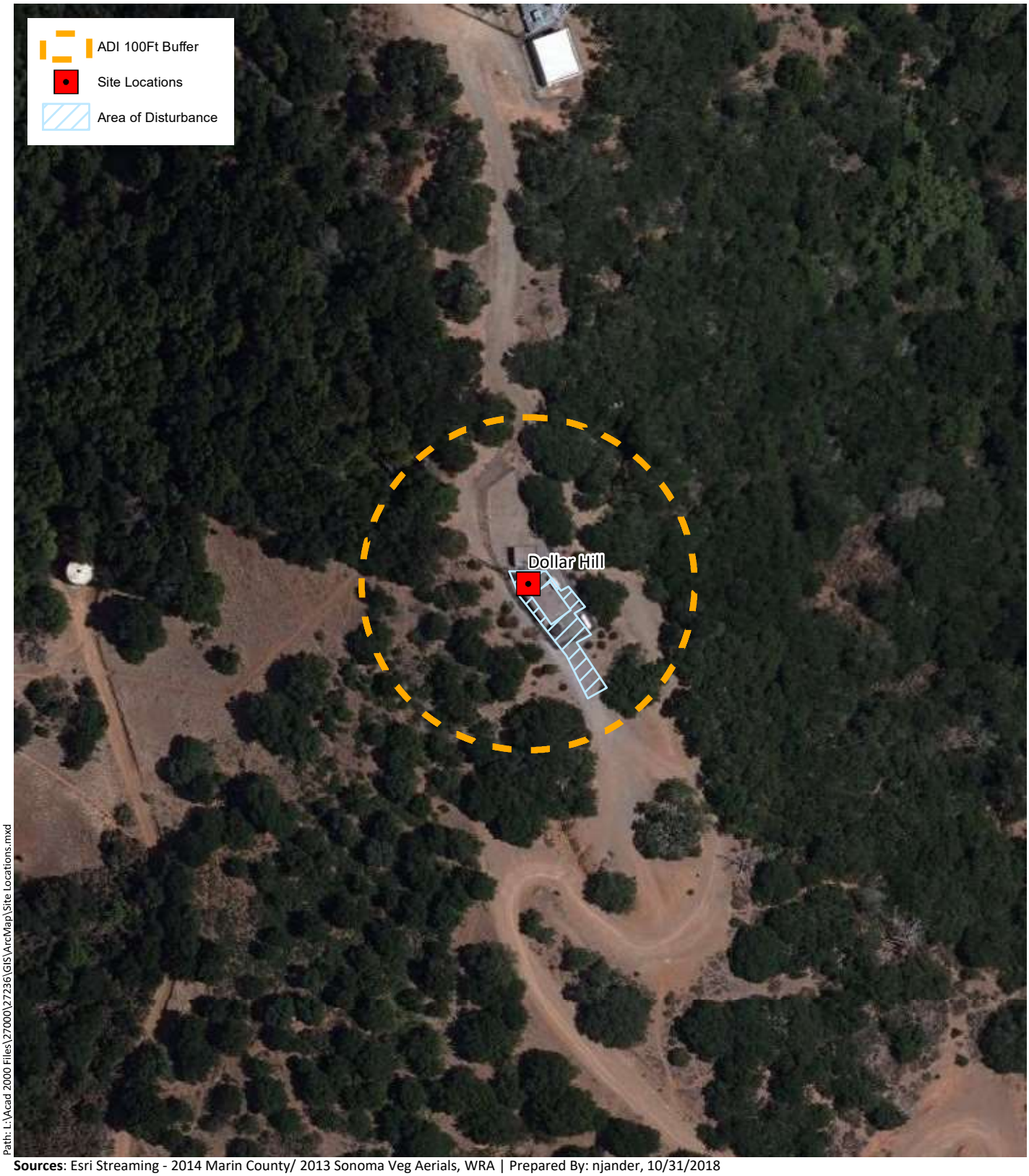

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Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.G - 8 Dollar Hill

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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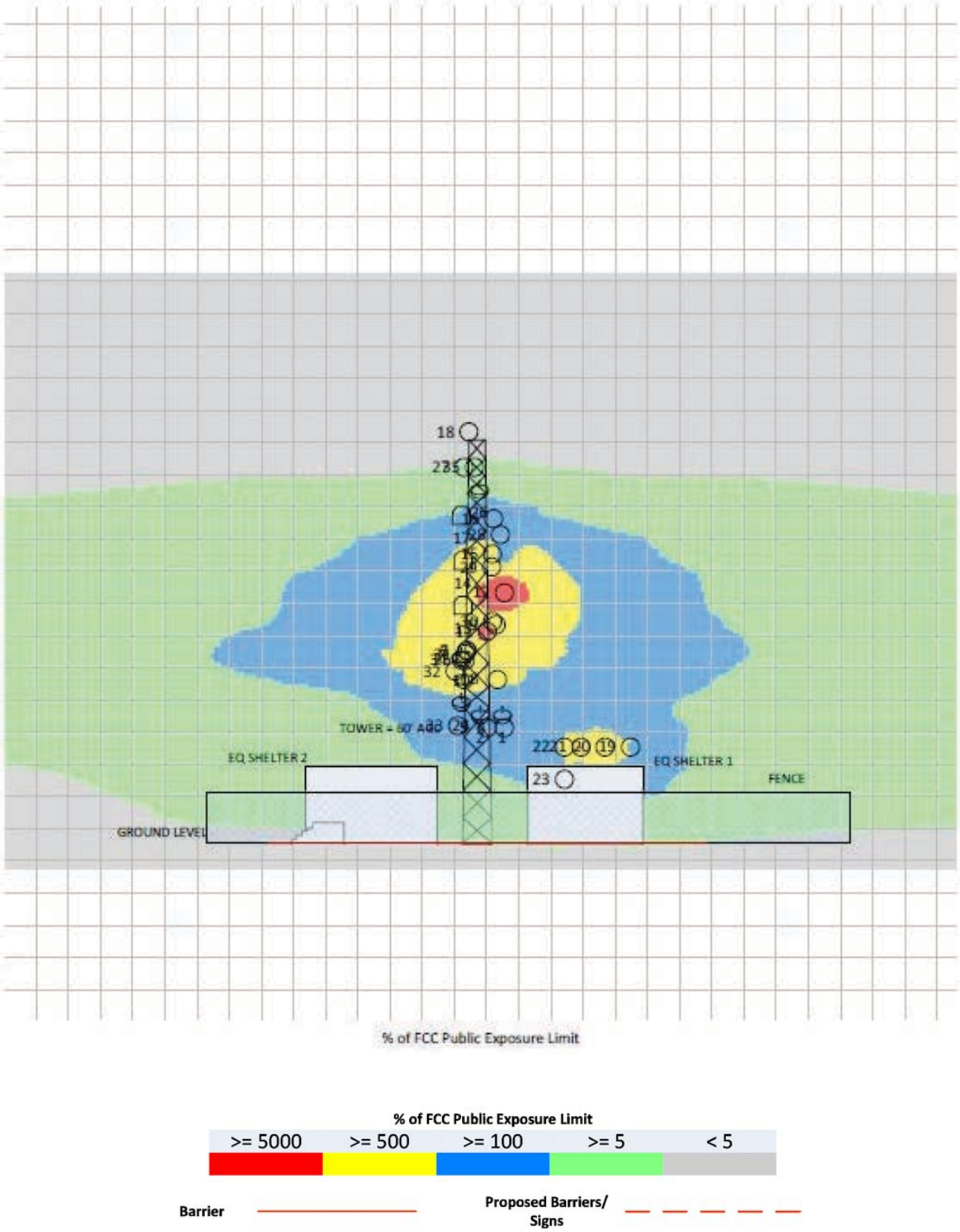

Figure V.G - 9 Dollar Hill Simulated All-On RF Exposure - Elevation View

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H. San Pedro Ridge (Site 11)

Details of the proposed work for the Next Gen System at the San Pedro Ridge Site are explained in Chapter III, the Project Description. In summary, the project proposals include minor modifications of existing communications equipment and tower foundation reinforcement within a pre-existing telecommunications complex. San Pedro Ridge is situated on an otherwise undeveloped hillside that houses several private telecommunications facilities in addition to MERA facilities, as shown in Photo III-9 (Chapter III, Project Description). The site is located at 3000 Bay Hills Drive in San Rafael, near the intersection of Gold Hill Fire Road and Bayhills Drive.

MERA facilities at the San Pedro Ridge Site are bordered by Harry Barbier Memorial Park to the south, the Nike Middle Control Area SF-93C to the north, China Camp State Park to the east, and a small residential neighborhood to the west. The site is surrounded by dense vegetation on all sides, which provides a buffer between the San Pedro Ridge Site and adjacent land uses.

An estimated 15% of the visible components at the San Pedro Ridge Site would be owned by MERA after proposed project modifications. The site is privately owned. MERA leases space on the tower but owns its own emergency generator and propane fuel tank. Of the 52 existing antennas, three currently belong to MERA. Four additional antennas will be added, while three will be removed as described below in Table V-8. The proposed Next Gen modifications would result in 10% of the antennas being owned by MERA, and the generator and propane tank would bring the percentage of visual components owned by MERA to approximately 15%.

Table V–8. San Pedro Ridge Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
San Pedro Ridge	100' tall, 3 leg tower each with 12' face width. Existing concrete building 9' x 15' x 9'.	Propose minor equipment changes on existing tower. 2 microwave dishes and 4 antennas added, 2 microwave dishes and 3 antennas removed from existing tower. Reinforce existing tower foundation.

1. Aesthetics

There are several aesthetic resources present in the vicinity of the San Pedro Ridge Site. The site is located in the San Pedro Mountain Ridge and Upland Greenbelt Area (RUGA) and is an important aesthetic resource where ridgelines are typically protected. The site is surrounded on all sides by Harry A. Barbier Memorial Park, a City of San Rafael open space. San Pedro Mountain Open Space Preserve is adjacent to Harry A. Barbier to the northwest, and China Camp State Park is to the north and east.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided

as Figure V.H-1. Subsequent Figures V.H-2 through V.H-7 show the before and after conditions at the Point Reyes Hill Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista;*

When viewed from southbound Highway 101, the forested slopes of San Pedro Ridge form an impressive backdrop to the Marin County Civic Center. The north-facing slopes of this preserve are heavily forested. Near the top are open patches of grasslands that are dotted with wildflowers each spring. The top of the ridge offers panoramic views of the San Pablo and San Francisco Bays, neighboring urban areas, rolling hills, and Highway 101. The ridgetop is publicly accessible but requires steep uphill climbs. Trails and fire roads throughout the area connect the three adjacent parks, making the ridgeline and its vistas accessible to recreationists visiting all three.

The existing communications facility on the site already has a substantial adverse effect on the scenic vistas available, and the proposed modifications are relatively minor in comparison. Proposed changes which would be visible to public onlookers are limited to minor equipment changes on the existing tower and net addition of one antenna. Given the minor nature of these changes, their visual impact on scenic vistas would be minimal, and the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

The San Pedro Ridge Site is near State Highway 101, which in this section is not eligible for designation as a state scenic highway. There is no potential to substantially damage scenic resources, including an historic building such as the Civic Center, near a state scenic highway and, therefore, there is ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figure III-37 and III-38 Existing and Proposed Elevations and Site Plan respectively, show the physical changes at the site. San Pedro Mountain is relatively forested, limiting views of the project site. However, the existing 100- foot tower extends above the tree line, and is visible to San Rafael residents near the project site and visitors to Barbier Park. Other infrastructure on-site includes a perimeter fence and a 9-foot by 15-foot concrete building, but these are not visible from a distance. Only minor visual changes would result from the equipment changes on the tower. These changes would result in a net increase of one antenna and a four-foot increase in the tower's highest point, but these changes would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Consequently, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the San Pedro Ridge Site. Improvements proposed for this site include minor equipment changes on an existing tower and reinforcement of tower foundations. Ground disturbance would be limited to the vicinity of the tower foundations and would extend as deep as approximately 24 inches below ground level. Figure V.H-8 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the San Pedro Ridge Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures to follow in the event of the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the San Pedro Ridge Site, and impacts would ***be less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the San Pedro Ridge Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The San Pedro Ridge Site is a previously developed communications facility adjacent to coast live oak woodland. The proposed improvements consist of minor modifications to an existing tower in a previously developed area. Disturbance would be entirely limited to the already developed project site, which does not contain any suitable habitat for candidate, sensitive, and special-status species. Thus, these improvements would have ***no impact*** on candidate, sensitive, or special-status plant or wildlife species, either directly or through habitat modifications.

b,c)Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the San Pedro Ridge Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The site contains one existing concrete building in a fenced enclosure with existing communications equipment. There are no federally protected wetlands present at the San Pedro Ridge Site. Coast live oak woodland and forest is considered a sensitive natural community. Although the site is surrounded on all sides by coast live oak forest, the proposed site upgrades consist of minor modifications to existing facilities in a previously developed area. No vegetation removal is proposed, and the project would have ***no impact*** on sensitive biological communities, including federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that provides core habitat for wildlife species, this site is located in a previously developed area. The proposed improvements are limited to upgrades to existing facilities, and are not anticipated to significantly impede wildlife movement or impede the use of nursery sites compared to existing conditions. Therefore, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The San Pedro Ridge Site is located within an existing communications facility. Project improvements are limited to minor modifications to existing equipment in previously developed portions of the site and would not have any adverse impact on locally-protected biological resources. As a result, proposed changes at the San Pedro Ridge Site would not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The San Pedro Ridge Site is located in unincorporated Marin County. The San Pedro Ridge Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Consequently, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. Thus, there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the San Pedro Ridge Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 21, 2018, SiteSafe surveyed the San Pedro Ridge Site to inventory all transmitting antennas on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 22 locations at the San Pedro Ridge Site. The highest spatially averaged emissions recorded during this process were well below FCC MPE limits, at less than 1% of the occupational limit and less than 5% of the public limit. The maximum recorded value at all 22 locations was below 1% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

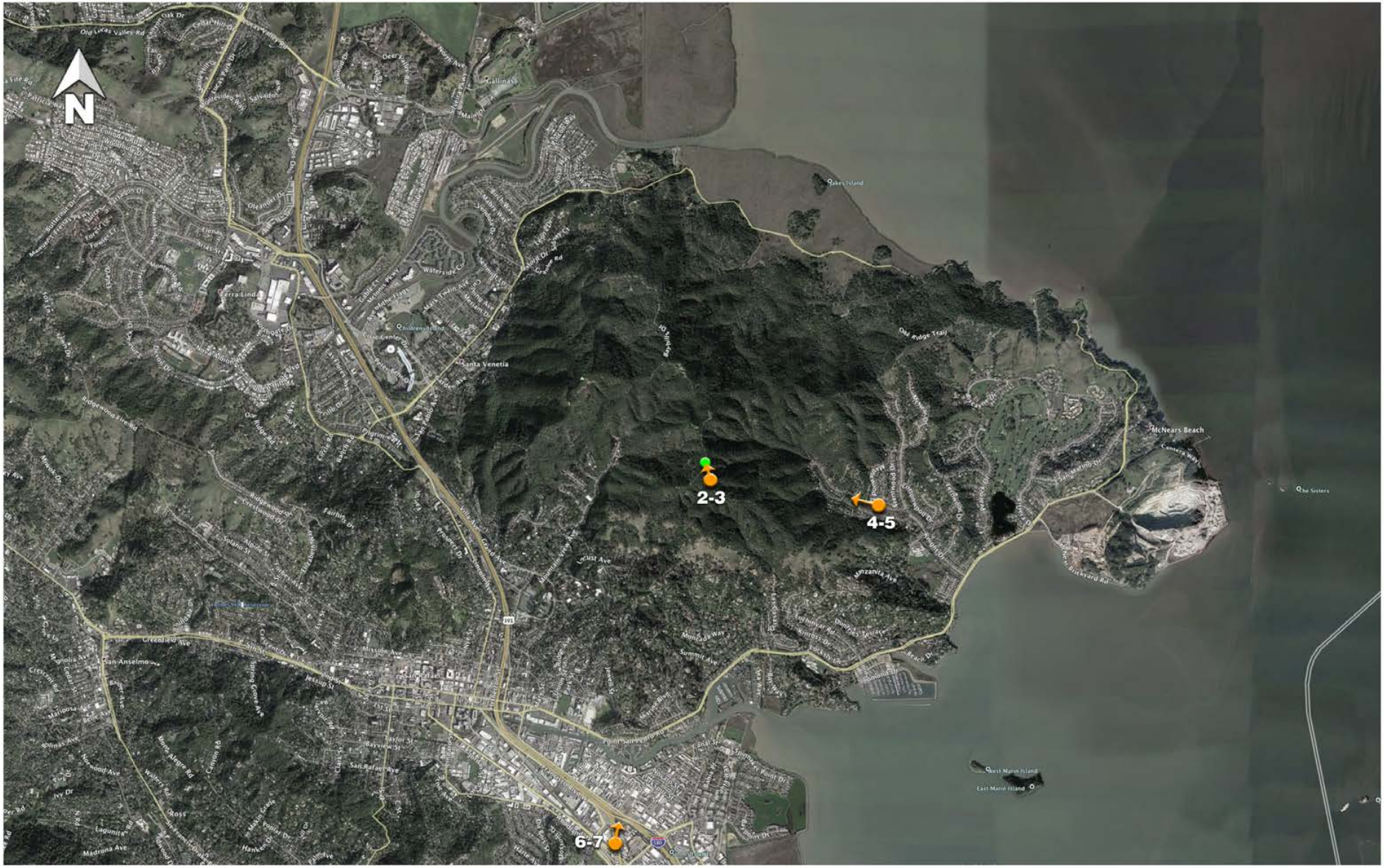
a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the San Pedro Ridge Site is 192.9% of the public MPE limit. This would occur at levels roughly ten feet or higher off the ground. Maximum theoretical ground-level exposures were modeled at less than 5% of the public MPE both within and outside of the controlled access, fenced off area.

b) Figure V.H-9 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the San Pedro Ridge Site, there would be 58 antennas capable of operating at one time during the transition period (for a full inventory, see Page 162 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum ground-level exposure of 192.9% of the public MPE limit in controlled-access areas, the same theoretical exposure level produced by existing conditions. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum exposure in controlled-access areas would remain at 192.9% of the public MPE limit. This would mostly occur at heights about 10 feet or higher off the ground – and maximum ground-level exposure within the controlled access area would be below 5% of the public MPE. Uncontrolled areas accessible to the public would also experience a theoretical maximum of less than 5% of the public MPE limit. Based on these measurements and the site's layout and signage (depicted in Chapter III, Project Description), SiteSafe concluded that all facilities at the San Pedro Site are compliant with FCC regulations, and that MERA need not take any corrective action or adopt additional mitigations.

In summary, MERA's operations at the San Pedro Ridge currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 5% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the San Pedro Ridge Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.H - 1 San Pedro Ridge Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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ENVIRONMENTAL CONSULTANTS

Current photograph of an elevated view looking north along the ridge.

Source: Previsualists Inc.

Figure V.H - 2 Existing San Pedro Ridge Near View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of an elevated view looking north along the ridge.

Source: Previsualists Inc.

Figure V.H - 3 Proposed San Pedro Ridge Near View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking west from Robinhood Drive.

Source: Previsualists Inc.

Figure V.H - 4 Existing San Pedro Ridge from Peacock Gap

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking west from Robinhood Drive.

Source: Previsualists Inc.

Figure V.H - 5 Proposed San Pedro Ridge from Peacock Gap

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking north from Hwy 101 near the 580 interchange. (to match 1999 EIR viewpoint)

Source: Previsualists Inc.

Figure V.H - 6 Existing San Pedro Ridge from Northbound 101

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking north from Hwy 101 near the 580 interchange. (to match 1999 EIR viewpoint)

Source: Previsualists Inc.

Figure V.H - 7 Proposed San Pedro Ridge from Northbound 101

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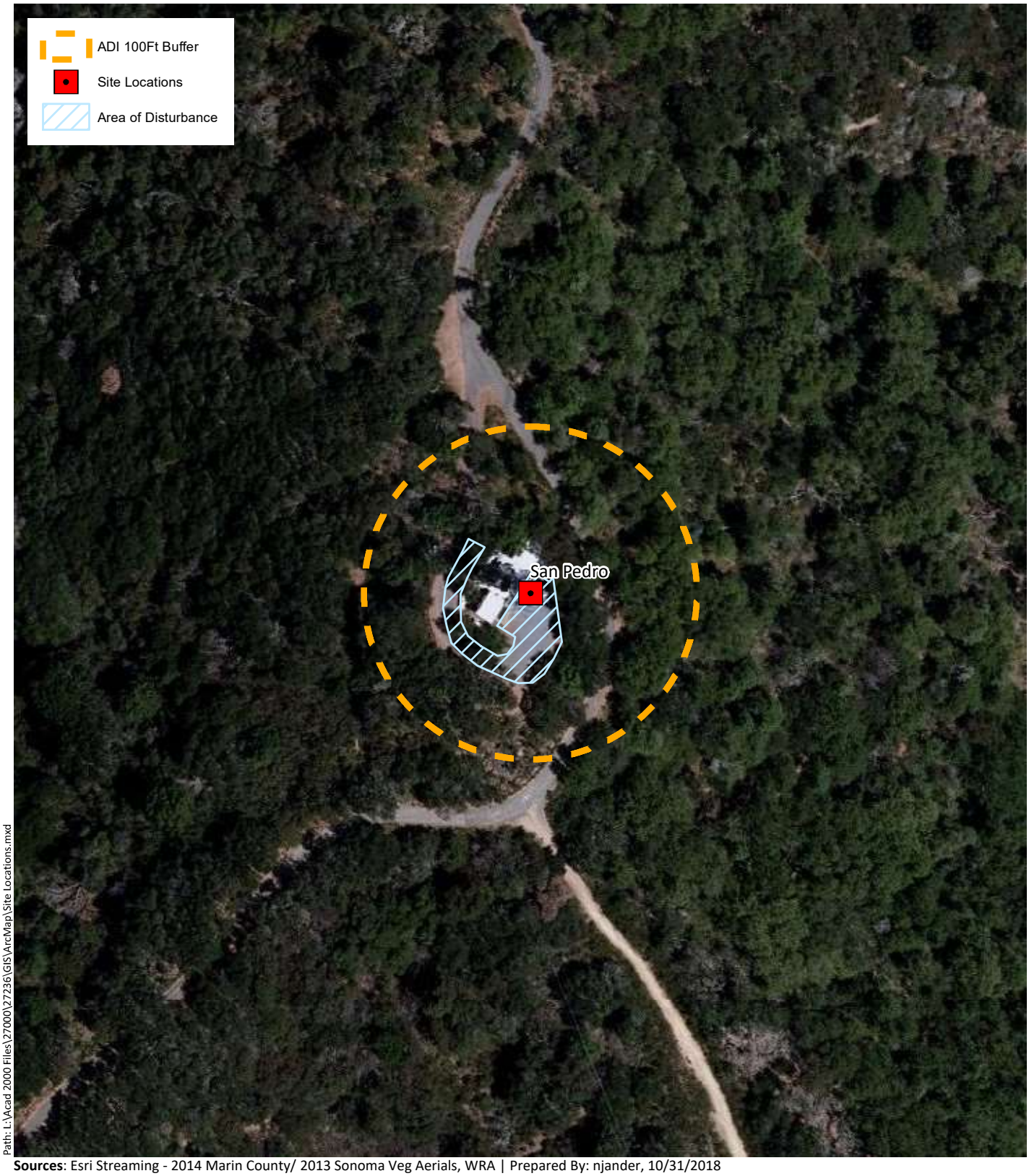

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.H - 8 San Pedro Ridge

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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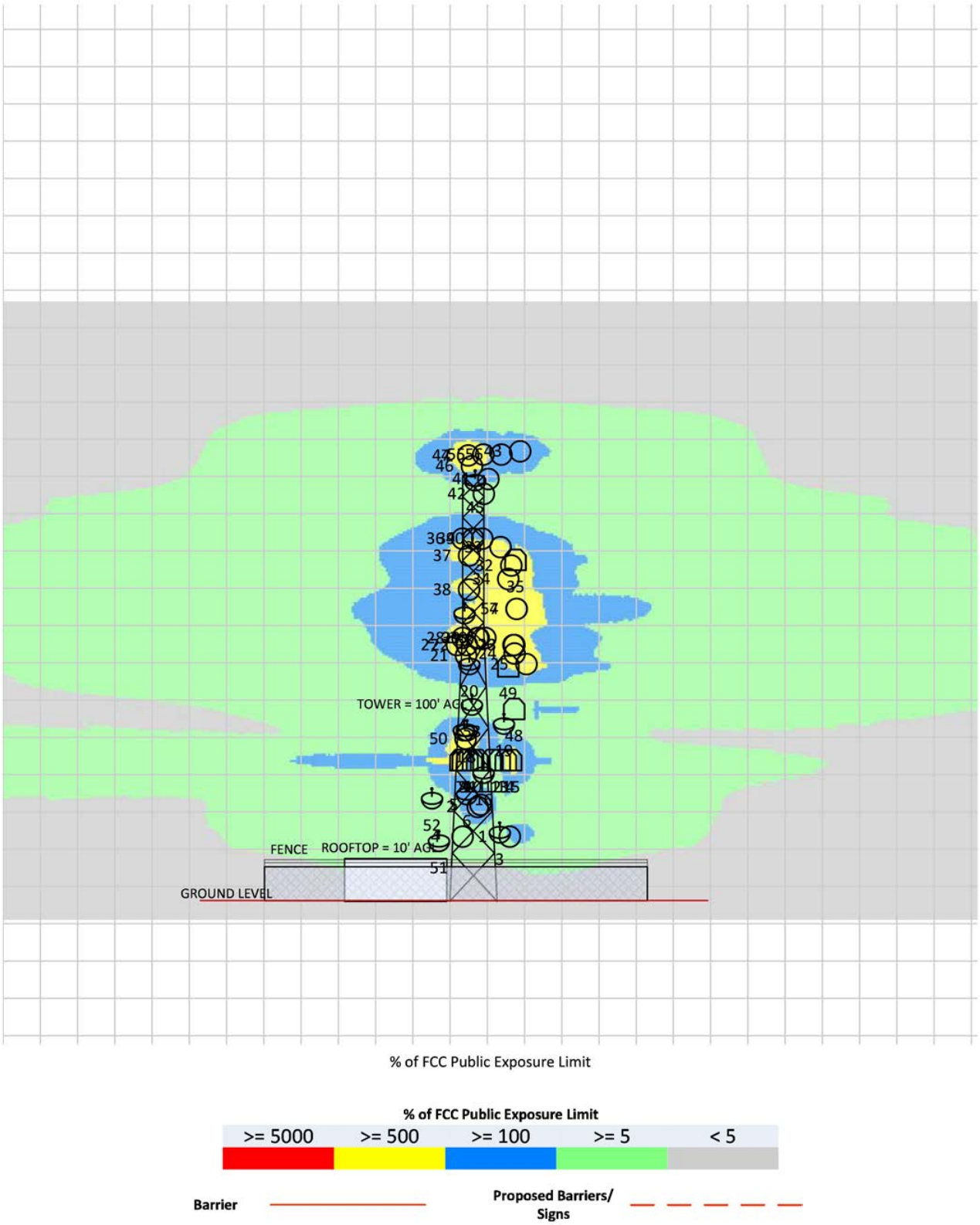

Figure V.H - 9 San Pedro Ridge Simulated All-On RF Exposure - Elevation View

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I. Mt. Tiburon (Site 14)

The Mt. Tiburon Site is within a Marin Municipal Water District (MMWD) compound at the end of a cul-de-sac on Mt. Tiburon Road, as shown in Photo III-10 (Chapter III, Project Description). The existing communications site is located within a large-lot, single-family residential development, and is separated from homes on the west by a row of trees and in all other directions by open space. The Mt. Tiburon Site is located in the Town of Tiburon.

Details of the proposed Next Gen System at the Mt. Tiburon Site are explained in Chapter III, the Project Description. In summary, the proposed work includes minor modifications to existing communications equipment and tower foundation reinforcements as described below in Table V-9. At the Mt. Tiburon Site, 100% of the communications equipment is currently owned by MERA, while the two large water tanks are owned by MMWD.

Table V–9. Mt. Tiburon Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Mt. Tiburon	Existing 60' tall monopole and another 22' tall monopole. Existing equipment shelter and generator. Two 50' diameter water tanks and MMWD equipment shelter	Propose minor equipment changes on existing towers. 2 microwave dishes and 4 antennas added, 2 microwave dishes and 3 antennas removed. Reinforce existing tower foundations and replace existing HVAC in existing shelter.

1. Aesthetics

The Mt. Tiburon Site is located in a residential neighborhood in the Town of Tiburon, immediately adjacent to the Mt. Tiburon Subdivision Open Space. Within one-half mile of the Mt. Tiburon Site, there are eight other open spaces, as well as Paradise Beach Park and Tiburon Uplands Nature Preserve. The site is located just outside the Marin County-designated Tiburon Ridge and Upland Greenbelt Area (RUGA), which is a densely vegetated and largely undeveloped ridge.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.I-1. Subsequent Figures V.I-2 through V.I-7 show the anticipated before and after conditions at the Mt. Tiburon Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista;

The existing Mt. Tiburon Site has two large water tanks, two existing MERA monopoles and an equipment shelter. It is located near public open spaces and private single-family residences, although its visibility to recreationists and area residents is limited by a thick buffer of conifer trees

surrounding the site. In addition, all facilities are painted green to blend with the conifer trees. Few views are available from the site, although the nearby open space does provide views of neighboring residential communities, rolling hills, and Richardson Bay.

The existing communications facility and the MMWD water tank already on the site have an adverse effect on any scenic vistas that may have been available prior to their presence. The proposed modifications are minor in comparison to the existing facilities, and, consequently, the potential for the project to have a substantial adverse effect on a scenic vista is ***less than significant***.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

The project has no potential to adversely affect scenic resources within a state scenic highway given that there are no scenic highways nearby and, therefore, there is ***no impact***.

c) Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Figures III-39 and III-40, Existing and Proposed Elevations and Site Plan respectively, show the physical changes at the site. Current features include a large water tank, a 22-foot monopole, an emergency generator, a fuel tank, and an equipment shelter, which are not visible above the tree line. Additionally, a 60-foot monopole reaches a maximum height of 70 feet with antennas, and extends above the tree line. The monopole is painted green to blend in with the surrounding tree canopy. Proposed changes resulting from minor equipment changes on the tower would result in a net increase of one antenna at the top of the tower and an overall height decrease of the tower's maximum height by roughly one-and-a-half feet. As a result, the project's potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings is ***less than significant***.

2. Cultural and Tribal Cultural Resources

<u>Cultural Resources</u>

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Mt. Tiburon Site. Improvements proposed for this site include minor equipment modifications on an existing tower, reinforcement of the tower's foundation, and equipment replacement within an existing equipment shelter. Ground disturbance would be limited to the vicinity of the tower foundations and would extend as deep as approximately 24 inches below ground level. Figure V.I-8 shows the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Mt. Tiburon Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Mt. Tiburon Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Mt. Tiburon Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource designated by the lead agency, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Mt. Tiburon Site is a previously developed facility surrounded on its perimeter by a stand of non-native Monterey pine trees and ruderal herbaceous vegetation. Although the site is completely developed and previously disturbed, the Mt. Tiburon Site is in close proximity to four special-status plant species including Tiburon paintbrush (*Castilleja affinis* var. *neglecta*), Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*), Tiburon jewelflower (*Streptanthus glandulosus* ssp. *niger*), and Marin western flax (*Hesperolinon congestum*). These species are all closely associated with serpentine substrates not present within the Mt. Tiburon Site and were all initially assessed as unlikely to occur. However, due to the close proximity of these species (within

approximately 0.3 miles of the site), a focused protocol-level rare plant survey was conducted for these species within the site on June 12, 2018, as a conservative measure.

All the aforementioned target species were observed in full bloom at a documented reference site on Gilmartin Drive, approximately 0.3 mile west of the study area. However, these species were not observed within the study area, nor were any other candidate, sensitive, or special-status plant species observed within the study area. Consequently, proposed improvements that consist of minor modifications to existing equipment and structures in a previously developed area would have ***no impact*** on candidate, sensitive, or special-status plant species.

The stand of non-native Monterey pine trees that surround the site may support native nesting birds, including raptors and Allen's hummingbird. Although proposed improvements consist of only minor modifications to existing equipment and structures in a previously developed area, due to the close proximity of tree cover there is some potential for construction activities to disturb nesting birds. Implementation of Mitigation Measure BIO-2 will ensure these impacts are less than significant. No other activities are planned with the potential to harm other candidate, sensitive, or special-status wildlife species.

In summary, improvements within the Mt. Tiburon Site are limited to minor modifications to existing equipment in previously developed portions of the site with very low likelihood to impact special-status wildlife species. No candidate, sensitive, or special-status plant species are present. With implementation of Mitigation Measure BIO-2 (see Site 8, Point Reyes Hill), impacts to all candidate, sensitive, or special-status species will be ***less than significant with mitigation incorporated***.

b,c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The Mt. Tiburon Site is an existing MERA facility analyzed in the original EIR, and the EIR determined that no sensitive biological communities were present, such that the proposed improvements would have no impact on biological resources. Conditions have not changed significantly since the site was analyzed in the EIR with respect to sensitive biological resources, with the exception of the growth of established Monterey pine trees surrounding the site. No sensitive biological communities are present, including federally protected wetlands, and site upgrades consist of minor modifications to existing facilities in a previously developed area. Consequently, the project would have ***no impact*** on sensitive biological communities or federally protected wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

This site is located in a previously developed area surrounded on one or more sides by suburban residential development, and associated roads and hardscapes which do not represent core habitat areas nor vital habitat corridors for wildlife species. The proposed improvements are

limited to upgrades to existing facilities and are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a nursery site for native wildlife. Therefore, the project will have ***no impact*** on wildlife movement corridors and nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Mt. Tiburon Site is located within an existing developed facility. Project improvements are limited to minor modifications to existing equipment in previously developed portions of the site and would not have any adverse impact on locally-protected biological resources. As a result, proposed changes at the Mt. Tiburon Site would not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of these questions are addressed for the MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies is provided to address:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Mt. Tiburon Site is located in unincorporated Marin County. The Mt. Tiburon Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect; there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Mt. Tiburon Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. SiteSafe used an inventory and diagrams of existing and proposed infrastructure at the site to calculate existing electromagnetic emissions levels relative to Maximum Permissible Exposure (MPE) limits and make a determination regarding the site's current compliance with applicable RF regulations.

SiteSafe modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical

worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) Modeled RF emissions at the Mt. Tiburon Site predict that the highest emissions of the site are on the tops of water tanks, which are not accessible to the public. The theoretical maximum exposure produced by the existing condition at the Mt. Tiburon Site is 9.3% of the public MPE limit.

b) Figure V.I-9 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Mt. Tiburon Site, there would be 11 antennas capable of operating at one time during the transition period (for a full inventory, see Page 179 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a theoretical maximum exposure of 10.1% of the public MPE limit in controlled-access areas. Such emissions would occur high off the ground. Maximum ground-level exposure would be less than 5% of the public MPE both within and outside of the controlled-access, fenced off area. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum ground-level exposure in controlled areas would decline to 2.2% of the public MPE limit. Uncontrolled areas accessible to the public would produce a theoretical maximum of less than 5% of the public MPE limit. Based on these models and the site's layout and signage (depicted in Chapter III, Project Description), SiteSafe concluded that all facilities at the Mt. Tiburon Site are compliant with FCC regulations and that MERA need not take any corrective action.

In summary, MERA's operations at the Mt. Tiburon Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 5% of the MPE limit.

However, Based on SiteSafe measurements and models, as well as the site's layout and signage, SiteSafe concluded that controlled access areas on top of the water tank near the monopole should be noticed. This is because within specific controlled access areas on top of the water tank nearest the monopole, RF emissions could exceed 100% of the MPE limits during the transition phase and upon completion of the proposed project. The controlled access top of the water tank area would be brought into compliance with applicable FCC regulations by posting warning signage at the base of the tank ladder and at selected antenna mounts. Mitigation Measure RF-3 below requires the posting of such signage. As a result, controlled/ occupational area RF exposure impacts at the Tiburon Water Tank site during all stages of the project would be less than significant with mitigation incorporated.

Mitigation Measure RF-3

MERA shall install an exposure warning sign at selected locations in the controlled access rooftop area according to SiteSafe's individual report for the Mt. Tiburon Site (pages 172-183 of the SiteSafe Report, which is Appendix D to the SEIR) and the SiteSafe Report's General Safety Recommendations (pages 313-315 of Appendix D to the SEIR). In Summary, MERA shall install a NOTICE sign at the access of the water tank. Signage location details can be viewed on page 178 of Appendix D to the SEIR.

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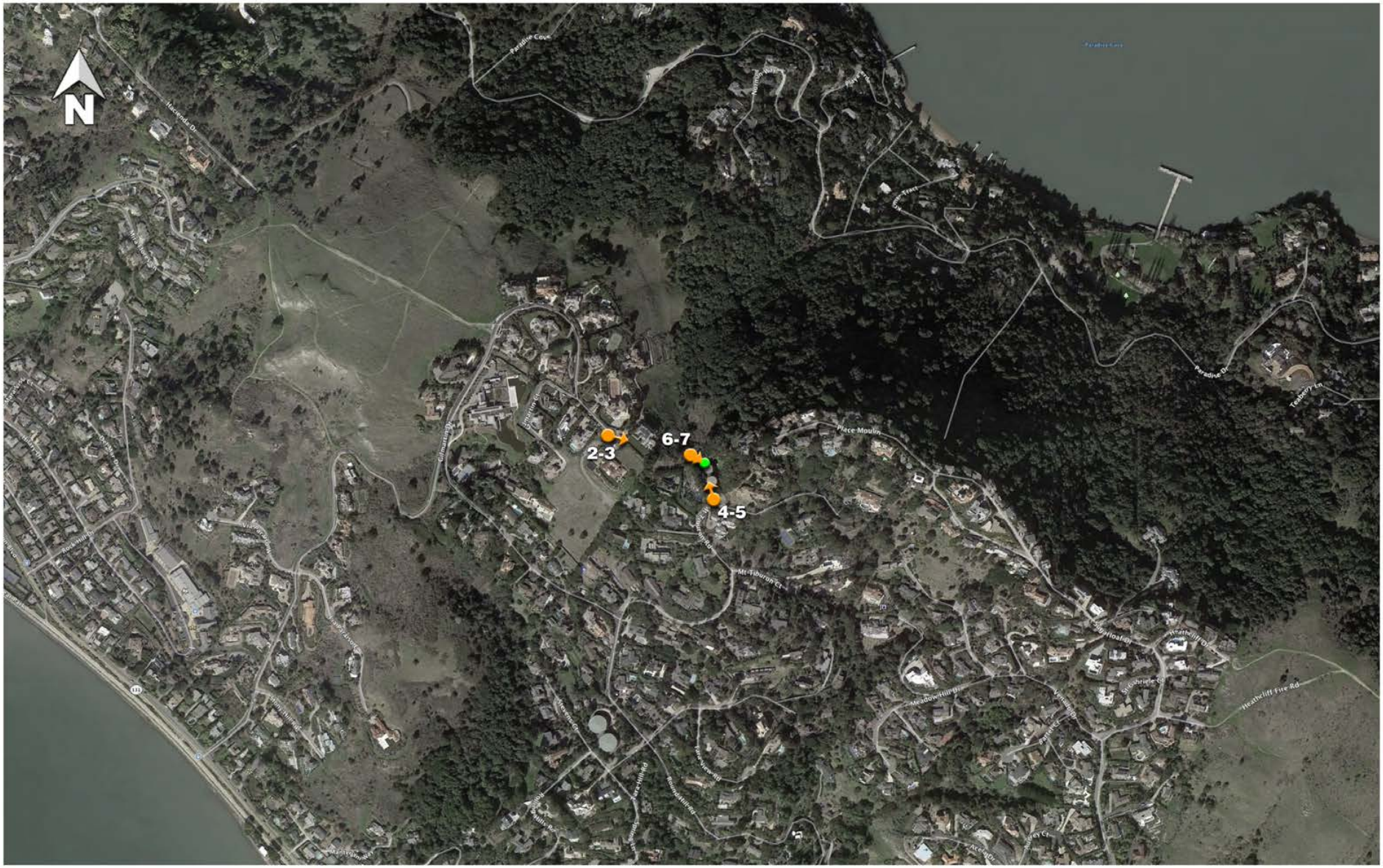

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.I - 1 Mt. Tiburon Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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Current photograph of the view looking southeast from the terminus of Gilmartin Drive.

Source: Previsualists Inc.

Figure V.I - 2 Existing Mt. Tiburon Neighborhood View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking southeast from the terminus of Gilmartin Drive.

Source: Previsualists Inc.

Figure V.I - 3 Proposed Mt. Tiburon Neighborhood View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking north from Mt Tiburon Road.

Source: Previsualists Inc.

Figure V.I - 4 Existing Mt. Tiburon Road View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking north from Mt Tiburon Road.

Source: Previsualists Inc.

Figure V.I - 5 Proposed Mt. Tiburon Road View

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Current photograph of the view looking east from the adjacent parcel, near the public hiking trail.

Source: Previsualists Inc.

Figure V.I - 6 Existing View from Mt. Tiburon Ridge Trail

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking east from the adjacent parcel, near the public hiking trail.

Source: Previsualists Inc.

Figure V.I - 7 Proposed View from Mt. Tiburon Ridge Trail

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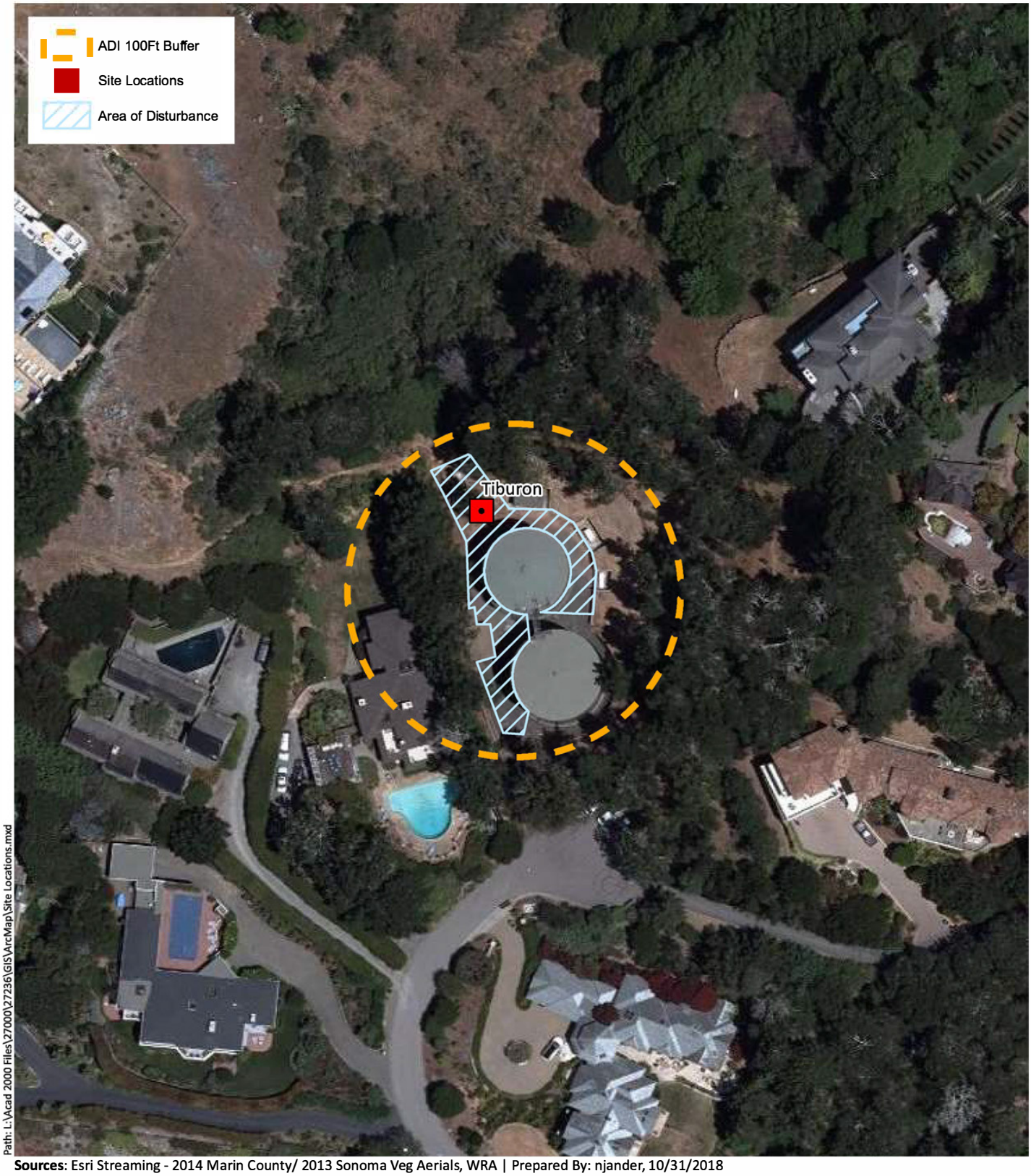

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.I - 8 Mt. Tiburon

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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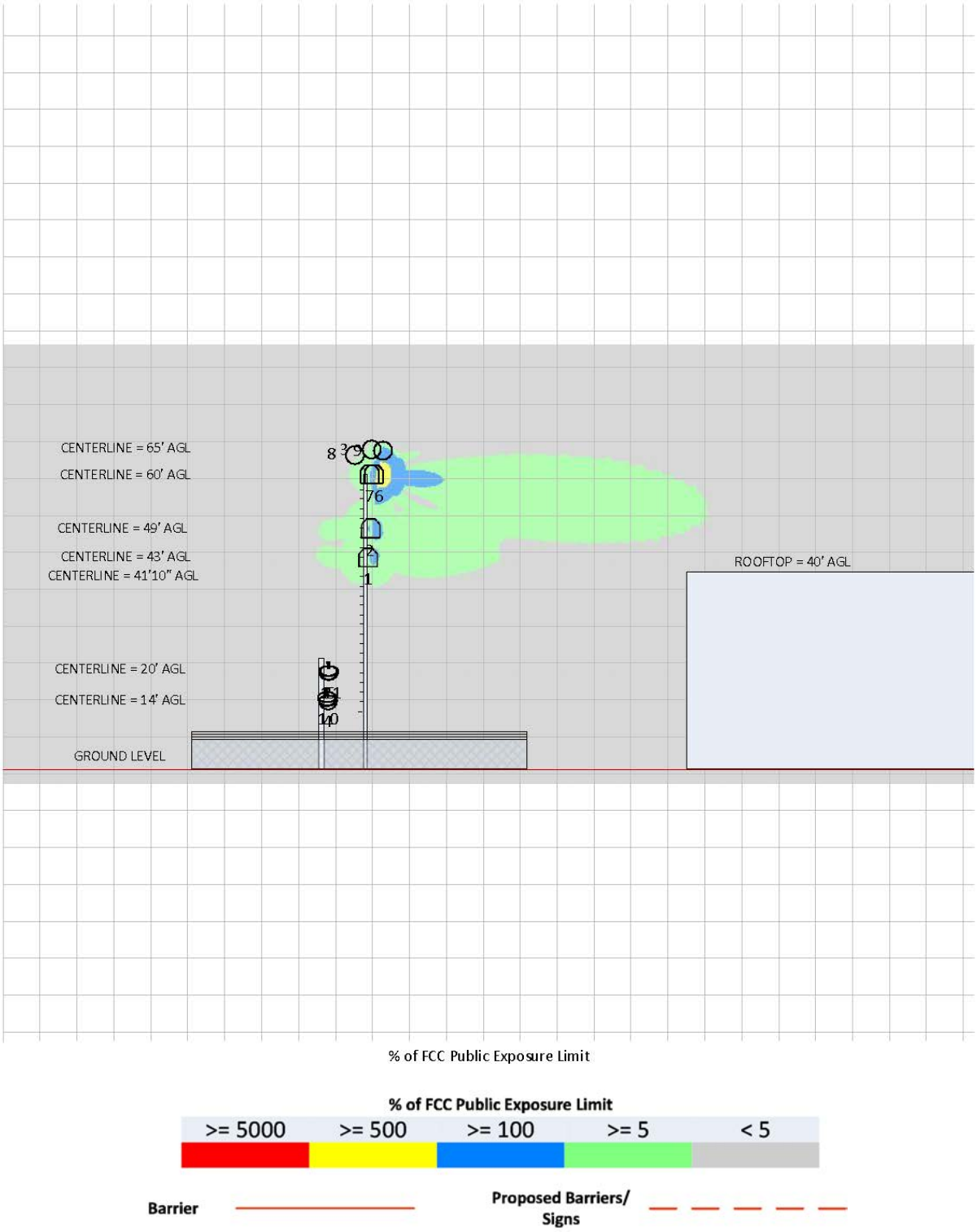

Figure V.I - 9 Mt. Tiburon Simulated All-On RF Exposure - Elevation View

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J. Sonoma Mountain (Site 18)

The Sonoma Mountain Site is an existing communications complex just northwest of the Sonoma Mountain Peak on a grassy, elevated area. The site houses extensive communications infrastructure for Sonoma County and several private entities. Consequently, it is estimated that less than 5% of the visible components at the site would be owned by MERA after proposed project modifications. The prominent feature of the site is a 185-foot lattice tower. The land is owned by Sonoma County, and MERA previously added a 40-foot tower, equipment shelter, emergency generator, and propane fuel tank.

The Next Gen System would add two dishes to the existing 40-foot microwave tower, which already has 32 antennas. The 185-foot tower has 39 antennas, none of which belong to MERA. The Sonoma Mountain Site also includes three other towers ranging in height from approximately 40 feet to 185 feet; each of these towers also include dishes, a shelter, and a propane tank. All of the towers and ancillary facilities at this site are surrounded by chain link fences, and the two 185-foot towers are clearly visible from various off-site locations (Figures V.J-2, V.J-4, and V.J-6). Details of the proposed work for the Next Gen System at the Sonoma Mountain Site are summarized in Table V-10 below and detailed in Chapter III, Project Description. A photo of the existing site is shown in Photo III-11.

The area surrounding this site is rural, with large-lot single-family homes scattered throughout a vegetated landscape. Jack London State Historic Park borders the Sonoma Mountain Site to the east, and its extensive series of hiking trails provide access to the fence line of the site.

Table V–10. Sonoma Mountain Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Sonoma Mountain	Hill top site with 3 buildings and two towers. 185' tower is 3-legged guyed lattice with 20" face. 40' microwave tower has 3 legs, w/ face width of 12'.	Propose minor additions to equipment on existing 40’ microwave tower. 2 microwave dishes added.

1. Aesthetics

Aesthetic resources in the vicinity of the Sonoma Mountain Site include the various parks and preserves in the region. The site is located within a planned expansion of North Sonoma Mountain Regional Park, which is adjacent to Fairfield Osborn Preserve and Jack London Ranch State Park. These parks contain portions of the Bay Area Ridge Trail, in addition to other recreational, public access trails. Popular vista points within the parks include the Bennett Valley Overlook and the State Park Summit. The project site is not visible from either of these vistas due to the region’s topography and the parks’ vegetation.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.J-1. Subsequent Figures V.J-2 through V.J-7 show the anticipated before and after conditions at the Sonoma Mountain Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista;*

Views from the Sonoma Mountain Site are extensive and include hills, mountains, San Pablo Bay, and broad agricultural areas. The Sonoma Mountain Site, however, is an existing large regional communications facility as seen in Figures V.J-2 and V.J-3. Next Gen modifications represent less than 5% of the visible equipment at the site, including minor modifications to equipment on an existing tower and addition to two microwave dishes, so proposed changes to the existing equipment are minor. The facility already has an adverse effect on scenic vistas available, and the proposed modifications are relatively minor in comparison and would not be easily perceptible to a casual onlooker. Therefore, the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

Facilities on the Sonoma Mountain Site are visible, though indistinct, from both the Sonoma and Petaluma Valleys. Highway 12 in Sonoma Valley is a designated state scenic highway, and the closest view of the site is from approximately 3 ½ miles away. Figures V.J-6 and V.J-7 show the anticipated views before and after the project, and no changes are visible from that distance. Highway 101 in Sonoma County is also eligible as a state scenic highway, and the closest views of the site is from approximately 7 ½ miles away. Bennett Valley Road to the north is locally acknowledged as a scenic drive, and the taller towers are plainly visible from approximately 3 miles away, as seen in Figures V.J-4 and V.J-5. However, the changes proposed by the project are not visible from this perspective. Since it is difficult to discern the proposed project modifications from any nearby scenic highway, the project's potential to substantially damage scenic resources within a state scenic highway are ***less than significant***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Views of equipment at the project site are mostly limited to the immediate surroundings and nearby open or clear-cut areas of Sonoma Mountain. The site itself is not currently publicly accessible as all of the towers and ancillary facilities at this site are surrounded by chain link fences, but the nearby open space is planned for annexation into Sonoma Mountain Regional Park. Annexation would make public views near the fence potentially available to future park-goers.

Figure III-41 and III-42, Existing and Proposed Elevations and Site Plan respectively, show the physical changes at the site. The overall changes are minor and include the addition of two microwave dishes to the 40-foot tower. As a result, the project's potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Sonoma Mountain Site. Improvements proposed for this site include minor equipment additions on an existing tower (see Figure V.J-8 for the Area of Direct Impact and a surrounding 100-foot buffer). No sub-surface ground disturbance would occur, so no new historical resources would be accidentally unearthed during ground disturbing activities. As there are no known historical resources present and there is no possibility of accidental discovery, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Sonoma Mountain Site, and ***no impact*** would occur.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018, and concluded on February 8, 2019. FIGR identified potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Sonoma Mountain Site was among these sites. However, as noted above, no ground disturbance is required to add MERA facilities to this site. By implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Sonoma Mountain Site is located within a developed area adjacent to relatively disturbed grassland which provides only marginal habitat for candidate, sensitive, or special-status plant and wildlife species. The proposed improvements consist of minor modifications to an existing tower in a previously developed area and would have ***no impact*** on candidate, sensitive, or special-status species.

b,c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Sonoma Mountain Site were analyzed in Chapter V of the project's original EIR (MERA, 2000). The site is a previously developed communications facility adjacent to disturbed, grazed, non-native annual grassland habitat that supports a low diversity of plant and wildlife species. The EIR determined that no sensitive biological communities were present, and the proposed improvements would have less-than-significant impacts on biological resources. Conditions have not changed significantly since the site was analyzed in the EIR. No sensitive biological communities or federally protected wetlands are present, and the proposed project work would have ***no impact*** on sensitive biological communities and wetlands.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

Although within a broad expanse of open space that provides core habitat for wildlife species, this site is located in a previously developed area. The proposed improvements are limited to upgrades to existing facilities and are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a native wildlife nursery site. Consequently, the project will have ***no impact*** on wildlife movement corridors and nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Sonoma Mountain Site is located within an existing communications facility. Project improvements are limited to minor modifications to existing equipment in previously developed portions of the site and would not have any adverse impact on locally-protected biological resources. Proposed changes at the Sonoma Mountain Site would, therefore, not conflict with any local policies or ordinances protecting biological resources; thus, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of all three questions are addressed for the entire MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Sonoma Mountain Site is located in unincorporated Sonoma County. It is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect; there would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Sonoma Mountain Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 21, 2018, SiteSafe surveyed the Sonoma Mountain Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 26 locations at the Sonoma Mountain Site. The highest emissions recorded during this process were below FCC MPE limits, at less than 1% of the occupational limit and less than 5% of the public limit. The maximum recorded value at all 26 locations was below 1% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the Sonoma Mountain Site is 9,765.9% of the public MPE limit. Such a condition could theoretically occur over 10 feet off the ground within the fenced-off,

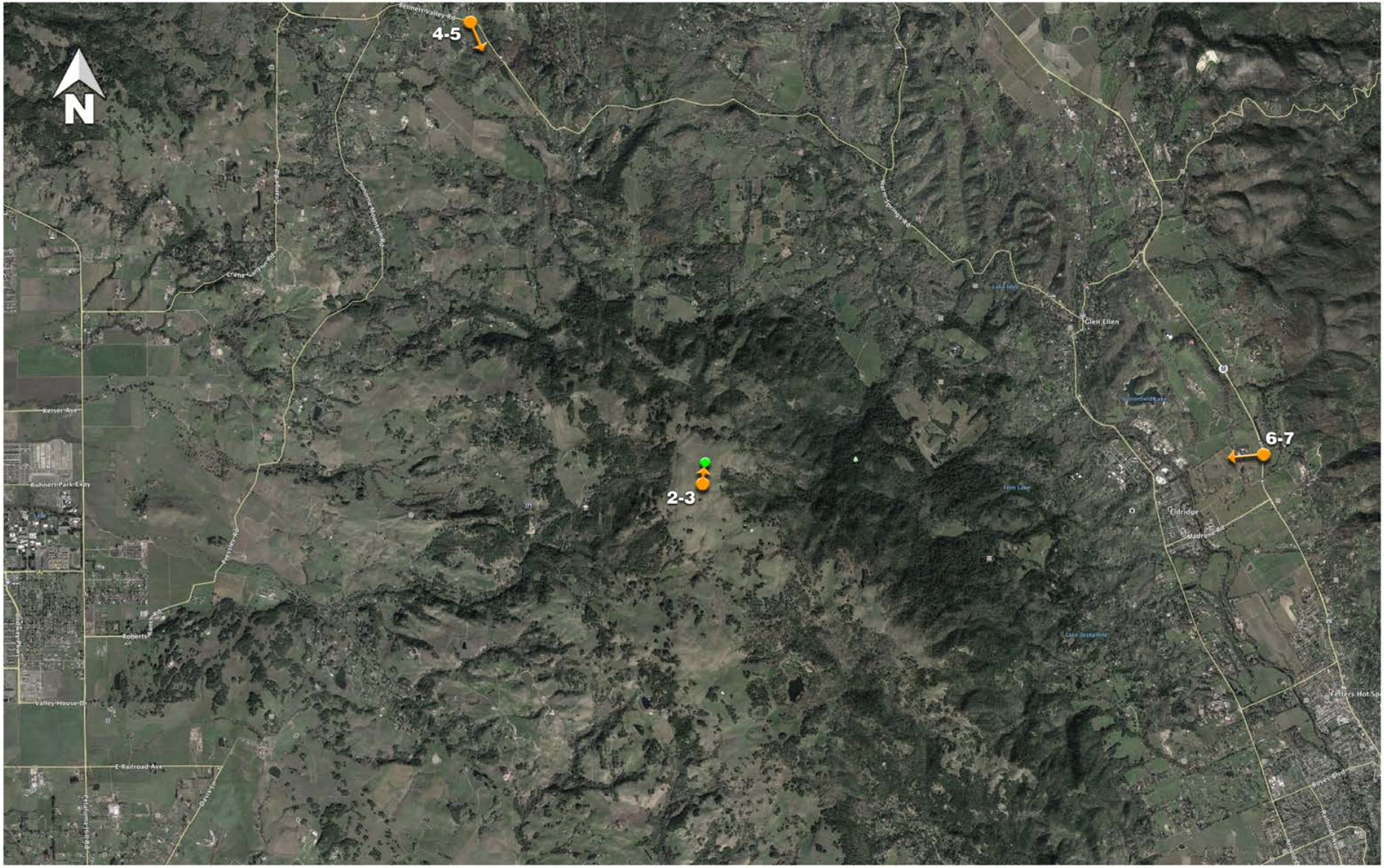
controlled access area encompassing the equipment and its surroundings. Maximum ground level exposure within the fenced off enclosure is currently less than 100% of the public MPE. Outside of the fenced off area, maximum ground-level exposure is less than 5% of the public MPE.

b) Figure V.J-9 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Sonoma Mountain Site, there would be 73 antennas capable of operating at one time during the transition period (for a full inventory, see Page 192 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would cumulatively create a maximum rooftop-level exposure of 9,765.9% of the public MPE limit in a very small and well-defined controlled-access areas. The locations on the rooftop of the three buildings present are inaccessible to the public, and ground-level exposures are all below 100% of the public MPE limit. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, currently installed equipment that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum controlled-area rooftop-level exposure would remain at 9,765.9% of the public MPE limit. Ground-level exposure faced by workers would remain less than 100% of the public MPE, and uncontrolled areas outside of the fenced-off enclosure that are accessible to the public would experience a theoretical maximum ground-level exposure of less than 5% of the public MPE limit. Based on these measurements and the site's layout and signage, SiteSafe found that all facilities at the Sonoma Mountain Site are in compliance with FCC regulations and that MERA need not take any corrective action.

In summary, MERA's operations at the Sonoma Mountain Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during the transition phase and upon completion of the proposed project. The ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Sonoma Mountain Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.J - 1 Sonoma Mountain Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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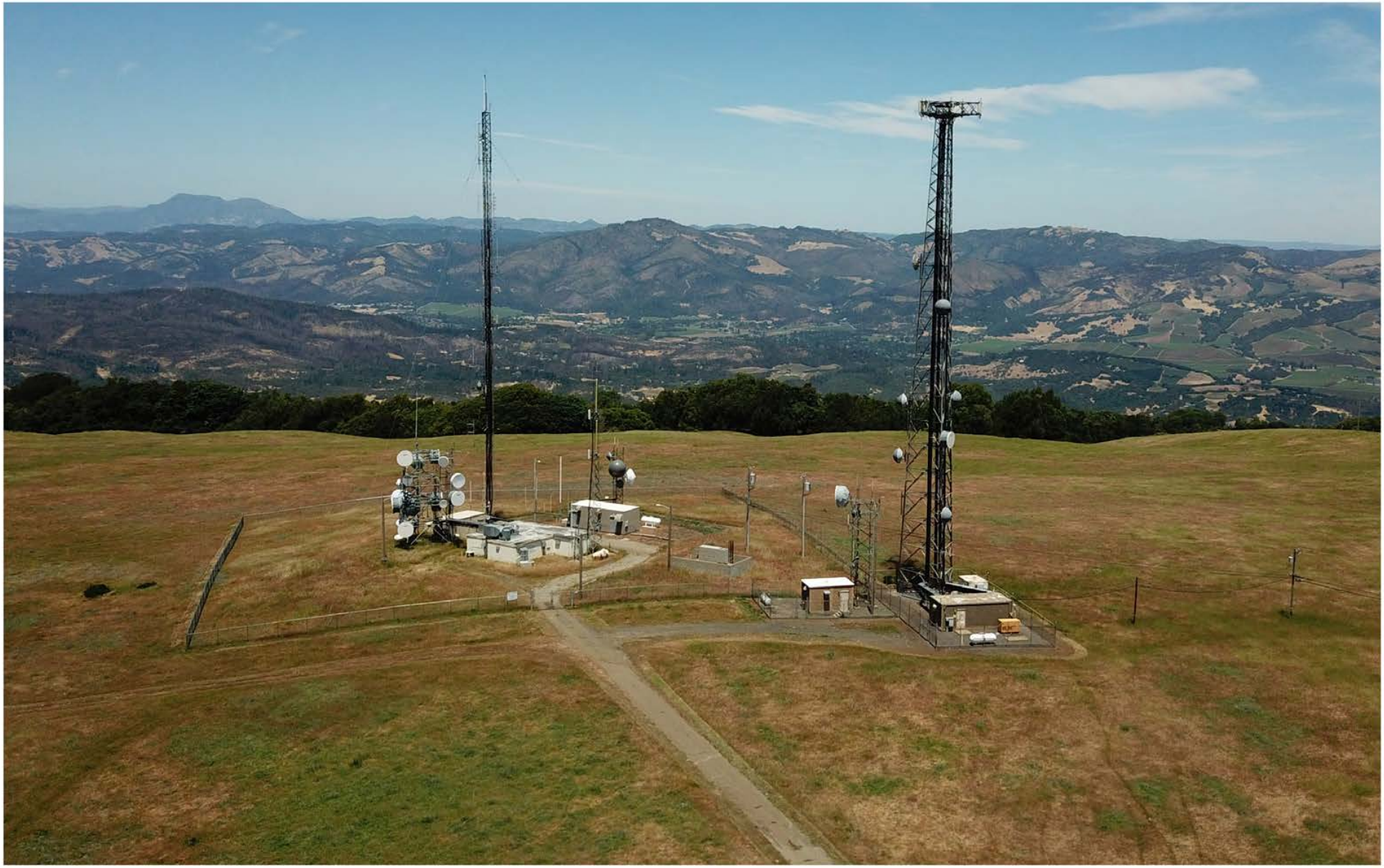

Current photograph of an elevated view looking north from above the private and gated access road. Not a public viewpoint.

Source: Previsualists Inc.

Figure V.J - 2 Existing Near View of Sonoma Mountain Site

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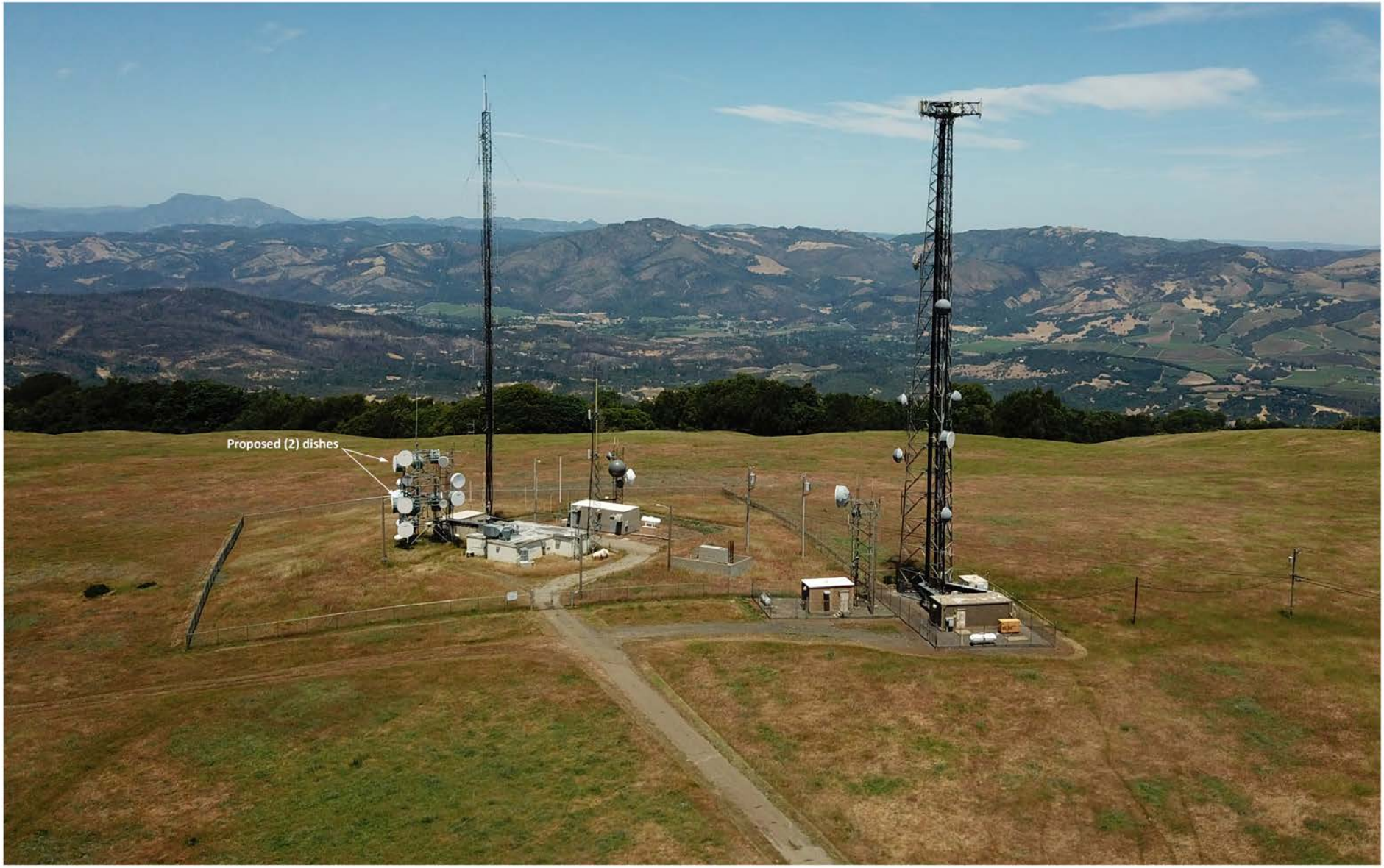

Photosimulation of an elevated view looking north from above the private and gated access road. Not a public viewpoint.

Source: Previsualists Inc.

Figure V.J - 3 Photosimulation Near View of Sonoma Mountain Site

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking southeast from Bennett Valley Road.

Source: Previsualists Inc.

Figure V.J - 4 Existing Sonoma Mountain Site from Bennett Valley Road

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking southeast from Bennett Valley Road. (No visible change)

Source: Previsualists Inc.

Figure V.J - 5 Proposed Sonoma Mountain Site from Bennett Valley Road

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Current photograph of the view looking west from Hwy 12, just north of Madrone Road.

Source: Previsualists Inc.

Figure V.J - 6 Existing View of Sonoma Mountain from Sonoma Valley

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Photosimulation of the view looking west from Hwy 12, just north of Madrone Road. (No visible change)

Source: Previsualists Inc.

Figure V.J - 7 Proposed view from Sonoma Mountain from Sonoma Valley

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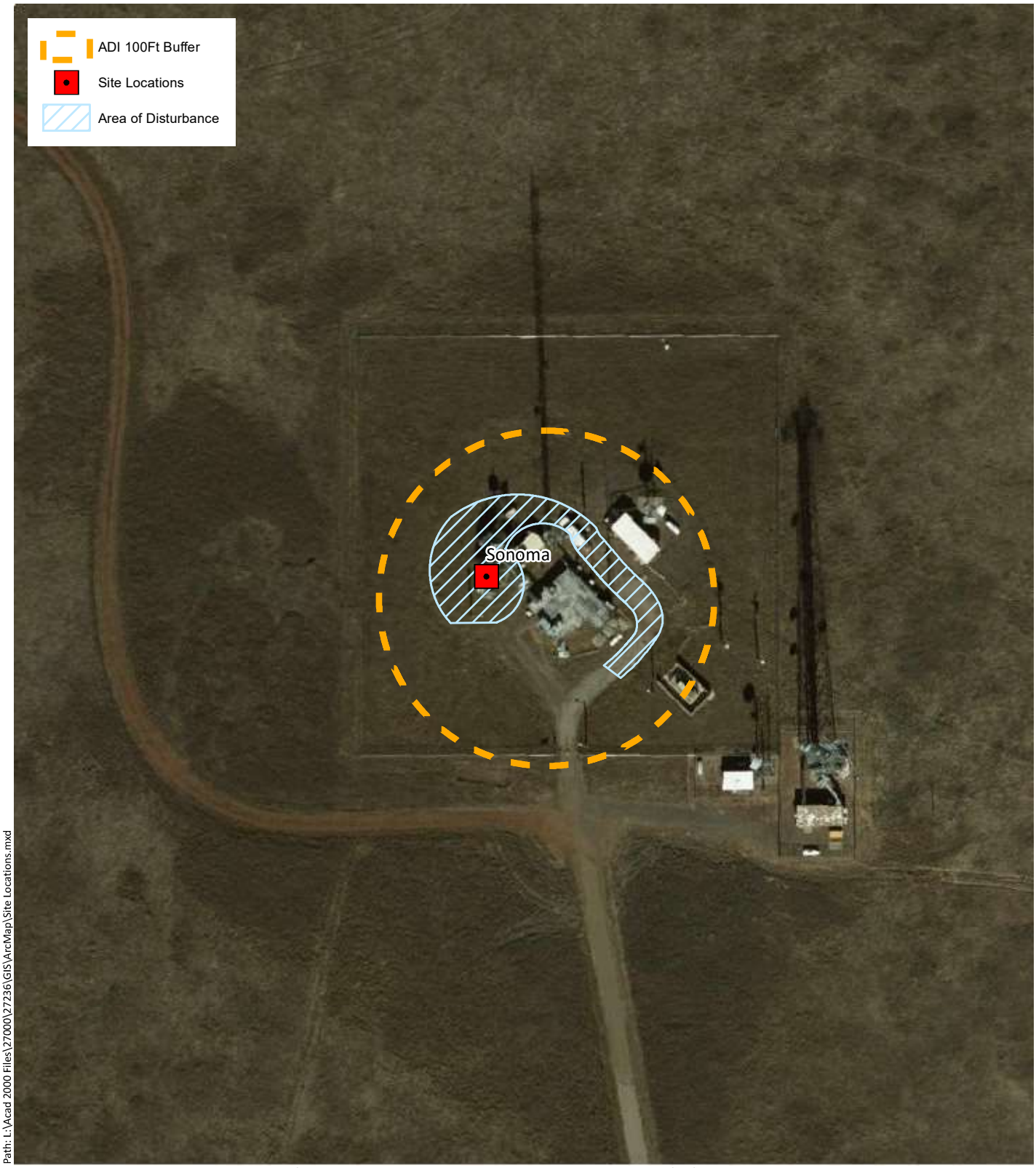
ENVIRONMENTAL CONSULTANTS



Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.J - 8 Sonoma Mountain

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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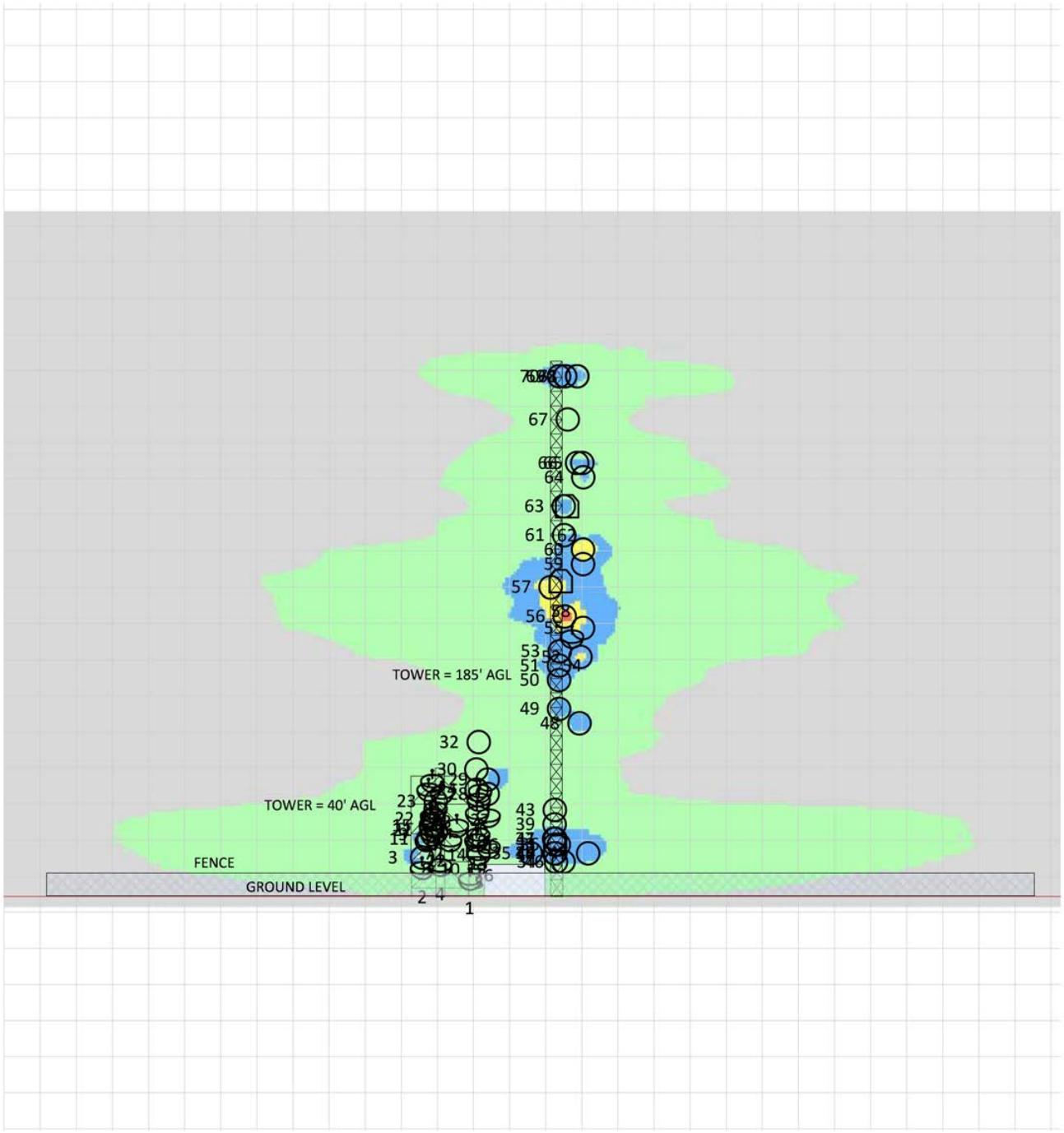

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier — **Proposed Barriers/ Signs**

Figure V.J - 9 Sonoma Mountain All-On RF Exposure - Elevation View

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K. Stewart Point (Site 19)

Details of the proposed work for the Next Gen System at the Stewart Point Site are explained in Chapter III, the Project Description. In summary, the project proposals include minor modifications to existing communications facilities and tower reinforcement. The site is accessed via a graded fire road off of Mesa Road in unincorporated Marin County. The site is leased from a local landowner and currently 100% of the communications equipment is owned by MERA. Under proposed project modifications, MERA would maintain this ownership.

The Stewart Point Site is located west of State Highway 1 and the Bolinas Lagoon on the Bolinas Peninsula. It is just south of the Point Reyes National Seashore, and the immediate vicinity of the site in all directions is heavily vegetated, as shown in Photo III-12 (Chapter III, Project Description). To the south, beyond this vegetative buffer, is the Bolinas Mesa and the Town of Bolinas. The steep area to the east is forested, and a cluster of farms are below the site near State Highway 1. To the west, slopes continue upward before dropping down to RCA Beach. The Stewart Point Site is within the Coastal Zone.

Table V–11. Stewart Point Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Stewart Point	Existing 35' tall x 12" diameter monopole. Existing equipment shelter is 10' x 15' x 9'H with generator.	Propose minor additions to equipment on existing monopole. 1 microwave dish and 3 antennas added, 1 microwave dish and 2 antennas removed. Reinforce existing tower foundation and replace existing HVAC in existing bldg.

1. Aesthetics

Key aesthetic resources near the Stewart Point Site include Bolinas Lagoon, the north unit of Golden Gate National Recreation Area (GGNRA), Point Reyes National Seashore. GGNRA and Point Reyes National Seashore are only distantly visible from the site, meaning that views from the site generally consist of forest, hills and mountains, and the Pacific Ocean. Although these public open spaces and parks are located near the site, the site itself is not particularly visible nor is it located within a public open space. The adjacent parks have extensive trail networks, but the area is largely forested, generally limiting views of the project site to nearby ridgetops. When the CEQA Addendum (MERA, 2006) for this site was prepared the site was more visible from nearby trails, but the site is less visible today due to forest growth and the planting that was done to mitigate previous aesthetic impacts.

Key Observation Points (KOPs) have been selected to represent the array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.K-1. Subsequent Figures V.K-2 through V.K-7 show the before and after conditions at the Stewart Point Site from the three selected KOPs. Figures V.K-2 and V.K-3 show before and after the project images from a close perspective.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Would the project have a substantial adverse effect on a scenic vista;*

Scenic vistas of the site from Ridgecrest Boulevard, as seen in Figures V.K-4 and V.K-5, show a distant view of the site with relation to Bolinas Lagoon and the Pacific Ocean, but the site is not directly visible due to the surrounding vegetation near the site. The same is true from Poplar Road, a closer perspective from the Bolinas Mesa, as seen in Figures V.K-6 and V.K-7. The existing communications facility on the site already has an adverse effect on the few scenic vistas immediately available near the site, and the proposed modifications are relatively minor in comparison to the existing condition. Proposed changes include minor additions to an existing monopole, including the net addition of one microwave dish, which would be relatively inconspicuous to the casual onlooker. Consequently, the impacts of the project are ***less than significant***.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

Facilities at the Stewart Point Site have no potential to adversely affect scenic resources within a state scenic highway, given that the nearest state scenic highway, State Highway 1, is more than a mile away, behind dense vegetation and below the site by nearly 800 feet. As a result, the project will have ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figure III-43 and III-44, Existing and Proposed Elevations and Site Plan respectively, show the physical changes at the site. Existing infrastructure at the Stewart Point Site includes a 10-foot by 15-foot equipment shelter, an emergency generator, a perimeter fence, and a 35-foot tall monopole with antennas that reach to 45 feet tall. Minor equipment modifications on the existing monopole would yield a net increase of one antenna on top of the tower, but would not yield any change in the facility's height. These proposed changes would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Consequently, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Stewart Point Site. Improvements proposed for this site include minor equipment modifications on an existing tower, reinforcement of the tower's foundation, and equipment replacement within an existing equipment shelter. Ground disturbance would be limited to the vicinity of the tower foundations and would extend as deep as approximately 24 inches below ground level. See Figure V.K-8 for the Area of Direct Impact and a surrounding 100-foot buffer.

Given the limited nature of the proposed ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Stewart Point Site would comply with Mitigation Measure CULT-1 (please see Page IV.B-10), which includes procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Stewart Point Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in RPC Section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria began on June 5, 2018 and concluded on February 8, 2019. FIGR identified potential for adverse effects to the significance of tribal cultural resources at 13 Next Gen Sites, and the Stewart Point Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see Pages IV.B-12 and IV.B-13), the project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Stewart Point Site are limited to minor modifications to existing equipment and are not anticipated to impact vegetation within the site. However, native vegetation communities including coyote brush scrub are present at the site, Douglas fir forest is directly adjacent to the site, and several documented occurrences of special-status plant species are within less than 0.5 mile from the site. Therefore, focused protocol-level rare plant surveys were conducted within the site on March 30 and June 20, 2018, as a conservative measure.

The following candidate, sensitive, and special-status species were identified as having a moderate or high potential to be present within undeveloped portions of the site: Blasdale's bent grass, w, Brewer's calandrinia, coastal bluff morning-glory, California bottle-brush grass (*Elymus californicus*), Marin checker lily, Baker's goldfields, marsh microseris, Michael's rein orchid, and coastal triquetrella.

Several reference sites for special-status plant species were visited by WRA botanists prior to surveying the Stewart Point Site, resulting in the following observations: Marin manzanita (observed March 30, 2018 along Mount Vision Road, Point Reyes), Brewer's calandrinia (observed April 8, 2018 along Rocky Ridge Trail, Mt. Tamalpais), California bottle-brush grass (observed May 8, 2018 at Muir Woods), and marsh microseris (observed May 6, 2018 in bud and bloom at Abbotts Lagoon, Point Reyes).

One Marin manzanita individual was observed along the road to the Stewart Point Site, approximately 150 feet southeast of the site along the south side of the gravel road. This individual is located outside of the project site will not be impacted by the project. No additional special-status plant species were observed within or adjacent to the Stewart Point Site. The proposed project work would have less-than-significant impacts on candidate, sensitive, or special-status plant species with implementation of a recommended avoidance measure described below, making impacts to candidate, sensitive, and special-status plant species ***less than significant with mitigation incorporated***.

The following candidate, sensitive, or special-status wildlife species were identified as having a moderate or high potential to be present within undeveloped portions of the site: American badger and California red-legged frog. Project improvements within the Stewart Point Site are limited to minor modifications to existing equipment and are not anticipated to impact wildlife habitat within the site. The proposed project would have ***no impact*** on candidate, sensitive, or special-status wildlife species.

In summary, improvements to the Stewart Point Site would have no direct or indirect adverse impact on special-status wildlife species. Although adverse impacts on candidate, sensitive, or special-status plant species are unlikely, Mitigation Measure BIO-1 further reduces this possibility. Thus, impacts to candidate, sensitive, and special-status species would be ***less than significant with mitigation incorporated***.

Mitigation Measure BIO-1

Within one month prior to commencement of construction, a qualified biologist shall flag the Marin manzanita individual within the Study Area. The qualified biologist shall notify the construction foreman as to the location of the special-status plant and identify the type of flagging used to ensure that contact with this species is avoided by construction crews. Just before construction, orange avoidance fencing shall be temporarily erected around the individual manzanita to keep construction equipment and crews away.

b,c)Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Existing conditions and potential impacts to biological resources associated with the Stewart Point Site were analyzed in the *Addendum to the Marin Public Safety and Emergency Communications System Certified Final Environmental Impact Report*. The Stewart Point Site is an existing MERA facility which contains one existing equipment shelter, and communications equipment within a fenced compound. Access to the site is from an existing gravel road. The site is predominantly developed, but is surrounded by natural vegetation communities including coyote brush scrub to the south and Douglas fir (*Pseudotsuga menziesii*) forest to the north, neither of which are considered sensitive vegetation communities. The EIR determined that no sensitive biological communities were present, and the proposed improvements would have a less-than-significant impact on biological resources.

Conditions have not changed significantly since the site was developed. Project improvements within the Stewart Point Site are limited to minor modifications to existing equipment in previously developed portions of the site and are not anticipated to impact vegetation within the site. A staging area will be in temporary use during construction and will be located on previously disturbed ground so that vegetative disturbance would be avoided. No sensitive biological communities are present, and site upgrades consist of minor modifications to existing facilities in a previously developed area and would have ***no impact*** on sensitive biological communities.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

This site is located in a previously developed area within a broad expanse of open space which represent core habitat areas for wildlife species. The proposed improvements are limited to upgrades to existing facilities and the proposed improvements are not anticipated to significantly impede wildlife movement compared to existing conditions. In addition, the site is not a native wildlife nursery site. As a result, the project will have ***no impact*** on wildlife movement corridors or nursery sites.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As discussed above, wildlife with moderate to high potential to be present in the project site includes American badger and California red-legged frog. No special-status avian species with moderate or high potential to be present were identified; nor were any nesting or roosting areas. As modifications to the Stewart Point Site are confined to a previously developed area, no impacts on nesting or roosting species would occur. Further, there are no landscaping components to modifications at this site, so any requirements for native vegetation in landscaping efforts are not applicable. The Stewart Point Site is within the coastal zone and is subject to the Marin County LCP's policies protecting biological resources. These are discussed in greater detail under Item 4b below. In summary, these policies call for habitat and shoreline protection, and no conflict was identified between the project and these policies.

Given the minor modifications proposed at the Stewart Point Site and the fact that improvements would occur in the footprint of an existing MERA facility, the project would not conflict with local policies or ordinances governing the protection of biological resources; and impacts would be ***less than significant***.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use, and most elements of all three questions are addressed for the entire MERA Next Gen Project as a whole in the preceding chapter, Chapter IV.D Land Use Consistency. However, for sites that are under state or federal jurisdiction, the following additional consistency analysis of applicable state and federal land use policies must be addressed:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Stewart Point Site is within the Coastal Zone of Marin County, and is therefore subject to the requirements of the Coastal Act, the Marin County LCP, and Chapter 22I of the Marin County zoning ordinance, which includes Coastal Zone land use requirements. The site is located within Unit I of the Marin County LCP.

At the time the 2006 EIR Addendum was certified, adding the Stewart Point Site to the system, the site was designated as Agriculture Coastal Zone, one unit per 1-60 acres (C-AG1), and was zoned as Agricultural Production Zone, Coastal (C-APZ). In the certified 2006 Addendum, the MERA facility at this site was deemed consistent with applicable land use policies. It was determined that the project would result in less-than-significant impacts because permitting practices were in place and the work could be approved with either a master plan or use permit along with a coastal permit. The Addendum also determined that the project was consistent with the conservation policies of the LCP, as related to conservation and habitat protection.

The site remains designated as C-AG1 and zoned as C-APZ. In the C-APZ district, any development requires a coastal project permit. The LCP Unit I requires certain habitat, height, scale, design, and hazard considerations. The maximum height at this location is 25 feet for a main building, but utility towers are permitted as tall as 150 feet.

Relevant policies from the LCP Unit I A that are applicable to the Stewart Point Site include:

- Habitat Protection
  23. Development adjacent to wildlife nesting and roosting areas shall be set back a sufficient distance to minimize impacts on the habitat areas. Such development activities shall be timed so that disturbance to nesting and breeding wildlife is minimized and shall, to the extent practical, use native vegetation for landscaping.
- Shoreline Protection and Hazard Areas
  2. Development shall continue to be required to meet the seismic safety standards of the Alquist-Priolo Act as it has been implemented by the County…
- New Development and Land Use:
  21. Existing development standards and the design review ordinance (Chapter 22.52) shall continue to be enforced.

Changes proposed as part of the Next Gen System would take place within the existing footprint of the Stewart Point Site, with minor modifications to existing facilities and foundations. The proposed project component would not introduce a new land use or visual impact to the site, nor would land be removed from agricultural use. The small scale of work within the existing facility footprint and use of a previously developed communications site would ensure that it does not impact sensitive resources or result in any major land use conflicts with surrounding areas.

Project elements would also be designed to meet the aesthetic, design, safety, and noise standards and other relevant policies and regulations in the LCP. This would be achieved by designing to meet seismic requirements and including proper measures to minimize erosion during tower reinforcement. The proposed facility modifications are consistent with the site's coastal zoning, and would not conflict with applicable coastal land use plans or policies at the Stewart Point Site; and, consequently, ***no impact*** to applicable land use polices would occur.

5. Radio Frequency Exposure

MERA-adopted threshold a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Stewart Point Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 23, 2018, SiteSafe surveyed the Stewart Point Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 29 locations at the Stewart Point Site. The highest emissions recorded during this process were below FCC MPE limits, at approximately 4% of the occupational limit and 20% of the public limit. The maximum recorded value at 25 of 29 locations was below 1% of the occupational threshold, with the remaining four locations' maximum values ranging from 1-4% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the General Population MPE limit when calculating the percentage of exposure, as this is a more conservative limit than the occupational limit.

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing condition at the Stewart Point Site is 144.2% of the public MPE limit. This would occur at select locations along the monopole, off the ground within the fenced off, controlled access area. Maximum theoretical ground-level emissions both within and outside of the fenced off area are below 100% of the public MPE.

b) Figure V.K-9 depicts modeled exposures relative to applicable MPE limits during the transition period, when currently installed and new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

   At the Stewart Point Site, there would be 15 antennas capable of operating at one time during the transition period (for a full inventory, see Page 213 of Appendix D), although this condition would be rare given the intermittent nature of voice communications. These antennas would create cumulative theoretical maximum exposure levels of 165.9% of the public MPE limit in a controlled-access rooftop area; ground-level exposure however would be less than 100% of the MPE limit. The transition period, in which testing of the new system occurs while the old system remains operational, is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational. At this point, pre-existing infrastructure that is no longer needed will be removed.

c) With the new system fully in place and the project complete, maximum rooftop-level exposure in controlled-access areas would decrease closer to existing conditions, to 150.9% of the public MPE limit. Theoretical maximum exposures faced by workers would remain less than 100% and uncontrolled areas outside of the controlled-access fence line that are accessible to the public would experience a theoretical maximum of 16.1% of the public MPE limit. Based on these measurements and the site's layout and signage, SiteSafe concluded that all facilities at the site are compliant with FCC regulations and that MERA need not take any corrective action.

In summary, MERA's operations at the Stewart Point Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments and would remain less than 100% of the MPE limits during the transition phase and

upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 100% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Stewart Point Site would be ***less than significant***. No mitigation is required.

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Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.K - 1 Stewart Point Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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ENVIRONMENTAL CONSULTANTS

Current photograph of the site as seen from private property. Closer view than the public Ridge Trail, 0.4 miles to the west.

Source: Previsualists Inc.

Figure V.K - 2 Existing Stewart Point Near View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the site as seen from private property. Closer view than the public Ridge Trail, 0.4 miles to the west.

Source: Previsualists Inc.

Figure V.K - 3 Proposed Stewart Point Near View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking west-northwest from Ridgeline Blvd. Site is not visible, but location is circled.

Source: Previsualists Inc.

Figure V.K - 4 Existing Stewart Point Distant View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking west-northwest from Ridgeline Blvd. Site is not visible, but location is circled.

Source: Previsualists Inc.

Figure V.K - 5 Proposed Stewart Point Distant View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking north-northwest from Poplar Road, along the north side of Bolinas.

Source: Previsualists Inc.

Figure V.K - 6 Existing View of Stewart Point from Bolinas Mesa

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking north-northwest from Poplar Road, along the north side of Bolinas. No visible changes.

Source: Previsualists Inc.

Figure V.K - 7 Proposed View of Stewart Point from Bolinas Mesa

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ENVIRONMENTAL CONSULTANTS

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.K - 8 Stewart Point

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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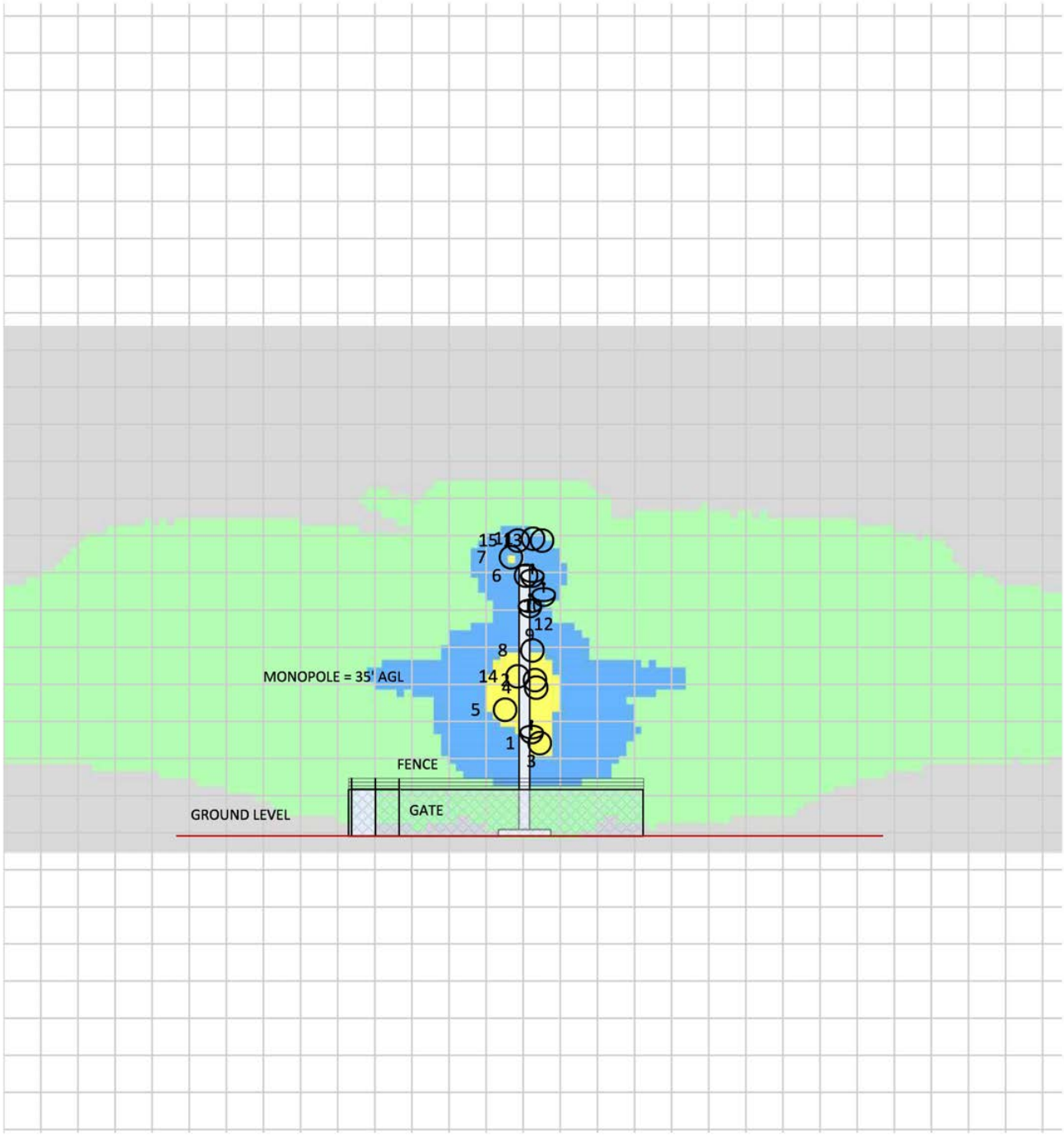

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier — **Proposed Barriers/ Signs**

Figure V.K - 9 Stewart Point All-On RF Exposure - Elevation View

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L. Tomales (Site 20)

The Tomales Site is situated approximately one mile north of the Town of Tomales on a small hilltop that currently contains a cellular facility. The surrounding agricultural land is characterized by grassy, rolling hills, fencing, and open space, as shown in Photo III-13 (Chapter III, Project Description). Development in the area is sparse, with occasional residences punctuating the otherwise open landscape. Much of the area is actively used for grazing, and the site is zoned Costal Agricultural Production Zone (C-APZ).

Details of the proposed work for the Next Gen System at the Tomales Site are explained in Chapter III, Project Description. In summary, proposed project improvements include a new 75-foot monopole, small equipment shelter, emergency generator and fuel tank, and fencing as describe below in Table V-12. The site is accessed via an existing graded road that connects the cellular site with State Route 1.

MERA will lease the land for the radio site from the property owner and will use the existing graded road for access. After project completion, an estimated 70% of the visible components at the hilltop site would be owned by MERA.

Table V–12. Tomales Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Tomales	Existing cell tower and equipment shelter sited to minimize visual impacts.	Propose new 75' tall monopole, new shelter, fence, generator, and fuel tank. 2 microwave dishes and 3 antennas added. New below-ground power cable from SE corner of site to follow same path as existing underground line.

1. Aesthetics

Although the proposed Tomales Site is new to the MERA radio system, the hilltop is already developed with a cellular communications facility. This existing facility consists of a 240 square foot equipment shelter and a 60-kilowatt diesel emergency generator inside of a fenced compound. The antennas for the facility are mounted on two separate monopole towers away from the main compound. One 18-foot high, 6-inch diameter monopole supporting two 4-foot long panel antennas is approximately 300 feet west of the shelter, and one 25-foot high, 6-inch diameter monopole supporting four 4-foot long panel antennas is approximately 300 feet southwest of the shelter. Each monopole is enclosed in 4-foot high cattle fencing. The monopoles are located a minimum of 400 feet west of State Route 1. The existing cellular equipment enclosure is visible from a distance but has limited near distance visibility, since the highway is approximately 300 feet below the peak of the rounded knoll.

Similarly, visibility of MERA's proposed facilities is limited at close distances but would be visible from several distant points along State Route 1. MERA's proposed equipment would include a new equipment shelter, emergency generator, fuel tank, 75-foot monopole, a perimeter fence, and underground power cables. The highest antenna on the proposed monopole would increase

the maximum height to nearly 80 feet. Figures III-45 through III-48 show the proposed physical changes at the project site.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the Tomales Site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.L-1. Subsequent Figures V.L-2 through V.L-9 show the anticipated before and after conditions at the Tomales Site from the four selected KOPs.

Aesthetic resources in the vicinity of the Tomales Site include State Route 1 and the agricultural character of the surrounding landscape. Views from State Route 1 in this area are of the interior coast range, featuring verdant green or golden (depending on the season) grassy hillsides. From other surrounding roads, motorists enjoy scenic views of surrounding agriculture, open space and rolling hills. Occasionally there are broader vistas from elevated roadways overlooking the coastal valleys.

State Route 1 curves around the lower eastern edge of the Tomales Site, and the site's rounded knoll and existing eucalyptus trees prevent close-up views of the existing cellular facility from most of this segment of the highway, although the site is briefly visible to motorists traveling southbound. Other publicly accessible scenic views of the Tomales Site exist further to the north from State Route 1 and from Whittaker Bluff Road, approximately one mile away.

Impact determinations are made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is defined as an aesthetically pleasing overview of a broad landscape. Figures V.L-1 through V.L-9 depict the site's present visual character and simulated visual conditions upon project completion. The Tomales Site appears as a grassy knoll in an agricultural setting with a small structure visible from distant vantage points.

There are no designated scenic vistas in the area, although there is a brief vista from State Route 1, with an overview of the agricultural valley to the northeast looking towards Two Rock and Sonoma Mountain. This view would be unaffected by the project because it is behind the viewer and because the topography limits views toward the project from Two Rock Road. Upon project completion, the new 75-foot monopole would be visible from distant public vantage points, but none of these could be characterized as scenic vistas. Consequently, there is ***no impact****.*

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

State Route 1 is not an officially designated state scenic highway, but it is eligible for designation. Accordingly, this analysis considers State Route 1 (Highway 1) as a scenic roadway due to its quality views of coastal California. Presently, views of the Tomales Site from Highway 1 include the grassy knoll with a backdrop of eucalyptus trees. Development within this viewscape is generally limited to ranch facilities and equipment, barbed wire cattle fencing, power lines, and

the paved roadway. Upon project completion the 75-foot monopole would be visible from State Route 1, particularly to southbound motorists, where the monopole would briefly feature prominently behind the power lines that parallel the highway (Figures V.L-4 and V.L-5). To northbound motorists leaving the Town of Tomales, the very top of the monopole briefly appears above the ridgeline (Figures V.L-6 and V.L-7).

The project would not directly damage any scenic resources such as trees, rock outcroppings, or historic buildings at the Tomales Site. However, the brief view of the coastal agricultural setting as motorists drive south on State Route 1 is a scenic resource that would be altered by the project. Despite the implementation of Mitigation Measure AES-2 calling for screening and color blending design features, the addition of a 75-foot tall monopole and equipment shelter to the grassy knoll, and the visual impact on the landscape is ***significant and unavoidable***.

Mitigation Measure AES-2[3]

A six-foot tall, dark or earth-tone colored, opaque fence shall be incorporated into the perimeter fence on the north and west sides of the MERA facility to screen views of the equipment shelter from State Route 1 and from Whitaker Road. The fence shall also screen the same views of the existing cellular equipment structure, with permission from the owner/operator of that facility. Painted wood, permanently colored composite material (Trex or similar), or black vinyl chain-link with dark vinyl slats are material options suitable to screen views of the equipment structures.

MERA shall maintain the proposed galvanized grey color of the 75-foot monopole because it will result in minimal contrast with the sky on the hilltop location.

Implementation of the described mitigation measures will lessen the visual impacts to a state scenic highway and other scenic roads in the area but the impacts would still remain ***significant and unavoidable***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The visual character of the Tomales area is defined by rolling coastal hills and mostly undeveloped grazing land. The introduction of the 75-foot monopole tower, a prominent structure on top of the knoll (Figures V.L-2 and 3), in an otherwise minimally developed, non-urbanized area would adversely affect the agricultural setting and would substantially affect the visual character and quality of the site and its surroundings as viewed from publicly accessible areas, such as Whitaker Road and State Route 1. Therefore, the impact is ***significant and unavoidable***.

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[3] *Impact AES-1 (new nighttime source of light) is a potential regional impact, because a 'porch' light is specified at nearly all sites. Mitigation Measure AES-1 previously described in Chapter IV.A requires shielding of any potential upward glare and use of timers to automatically turn off lights.*

Mitigation Measure AES-3

Upon completion of tower and structure construction, MERA shall remove all debris from the site, define all vehicular access points and turnarounds, and complete finish grading including road surfacing where needed and soil preparation for planting. Vehicular areas shall be graded to drain and clay soils surfaced with gravel. Areas outside of vehicular zones shall be loosened or scarified if compacted, amended as needed and prepared to facilitate native seed germination. Hydroseed/mulch or hand-broadcast seeding and mulch shall complete site restoration. For sites steeper than 3:1 restored areas shall also include installation of straw waddles perpendicular to the slope at 20-foot intervals.

The equipment shelter, fuel tank, and emergency generator shall be painted dark earth tone colors to minimize contrast in the landscape and chain link fencing shall be black vinyl-coated.

With implementation of the described visual mitigation measures the impact would remain ***significant and unavoidable***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Tomales Site. Ground disturbance would reach depths of approximately five feet below ground level in order to install the foundation of the proposed monopole, the new fence, shelter foundation, fuel tank foundation, and the underground power line. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figures V.L-10 and V.L-11.

Despite the extensive nature of proposed disturbance at this location relative to other Next Gen Sites, accidental discovery of historical resources remains unlikely due to the soil types underlying the site. Nonetheless, work at the Tomales Site would comply with Mitigation Measure CULT-1 (please see page IV.B–10) and California law governing procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Tomales Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public

Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, and the Tomales Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see page IV.B-12 and IV.B-13), the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Tomales Site is surrounded by heavily grazed, disturbed, non-native annual grassland, which provides limited habitat for special-status plant species. However, because of the close proximity (within 5 miles) of numerous documented special-status plant species, and due to the proposed ground disturbance work within previously undeveloped grassland habitat, focused, protocol-level special-status plant surveys were conducted within the site on March 30, May 9, and June 20, 2018.

The following special-status plant species were identified as having a moderate or high potential to be present within undeveloped non-native annual grassland portions of the site: bent-flowered fiddleneck (*Amsinckia lunaris*), fragrant fritillary (*Fritillaria liliacea*), congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), bristly leptosiphon (*Leptosiphon acicularis*), large-flowered leptosiphon (*Leptosiphon grandiflorus*), marsh Microseris, and two-fork clover (*Trifolium amoenum*). Several special-status plant species with potential to occur at the Tomales Site were observed at other locations, including: bent-flowered fiddleneck (observed March 30, 2018 along Highway 1, south of Tomales), fragrant fritillary (observed April 1, 2018 at Nicasio Reservoir), congested-headed hayfield tarplant (observed June 6, 2018 along Bodega Avenue in Petaluma), and bristly leptosiphon (observed April 8, 2018 at Taylor Mountain Regional Park in Santa Rosa). However, no special-status plant species were observed in the biological study area (the project site plus an approximate 100-foot radius), and the proposed project would have no impact on special-status plant species.

The following special-status wildlife species were assessed as having a moderate or high potential to be present at this site: American badger, burrowing owl, grasshopper sparrow, Bryant's savannah sparrow, northern harrier, and California red-legged frog. Burrowing owls inhabit open grassland with sparse or non-existent tree or shrub canopies. Burrowing owl

individuals have been observed in the vicinity as recently as January 2018. Burrows and friable soils were observed during the site visit, including a potential badger burrow. The open grassland can also support nesting and foraging for grasshopper sparrow, white-tailed kite, northern harrier, and Bryant's savannah sparrow. California red-legged frog has been documented within one mile of the study area at Stemple Creek. California red-legged frog may be present in the study area after rain during dispersal events. Unmitigated, the proposed project could adversely affect candidate, sensitive, or special-status species at the Tomales Site, but by implementing Mitigation Measures BIO-2 (see Site 8, Point Reyes Hill) and BIO-3 through BIO-5 (below), impacts would be reduced to less-than-significant levels, and impacts to these species would be ***less than significant with mitigation incorporated.***

Mitigation Measure BIO-3

No more than 14 days before the start of ground disturbance activities at the Tomales Site, a biologist shall conduct pre-construction surveys of the project site and a surrounding 50-foot buffer to determine if American badger dens are present. If a den is determined to be active and occupied by a female with young, ground disturbance and construction activity shall be avoided within 50 feet of the den until the young have matured and dispersed. If a den is determined to be active, but a female with young are not present, burrow exclusion using passive measures such as one-way doors or equivalent shall be attempted for a minimum of three days to discourage their use prior to any project-related ground disturbance. If the biologist determines that the dens have become inactive as a result of the exclusion methods, the dens shall be excavated by hand to prevent them from being re-occupied during construction.

Mitigation Measure BIO-4

Work at the Tomales Site shall be avoided during night hours (half an hour before sunrise to half an hour before sunset) when California red-legged frog may be dispersing across the site. In addition, no ground disturbing work shall occur within 24 hours of rain events that generate greater than 0.25 inch of accumulated precipitation or during rain events predicted to accumulate 0.25 inch of precipitation.

Mitigation Measure BIO-5

A pre-construction burrowing owl survey shall be performed prior to start of ground disturbance activities at the Tomales Site, regardless of the time of year, as burrowing owls may use the project site during the non-nesting season. The survey shall be performed according to the standards set forth by the 2012 CDFW Staff report for Burrowing Owl Mitigation. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless, after consultation with the CDFW, a qualified biologist verifies that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and capable of independent survival.

b-c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The surrounding habitat consists of heavily grazed, disturbed, non-native annual grassland dominated by slim oat, soft chess, and common velvet grass (*Holcus lanatus*), with other predominantly non-native grass and forb species present including ripgut brome, foxtail barley, milk thistle (*Silybum marianum*), hairy cats ear (*Hypochaeris radicata*), and Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*). Non-native annual grassland is not considered a sensitive biological community. No sensitive biological communities are present, including federally protected wetlands, so that site proposed project work would have ***no impact*** on sensitive biological communities or federally protected wetlands.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

The Tomales Site is adjacent to an existing cellular communications site in an otherwise undeveloped portion of Marin County and is new to the MERA Radio System. Proposed improvements include a new monopole, equipment shelter, fence, emergency generator, fuel tank, and underground power line. Of these, the fence would have the most potential to interfere with wildlife movement. The proposed fence would be six feet tall, and the fenced compound would be 35 by 39 feet wide, enclosing a total area of 1,365 square feet. Outside of the fence, the area would remain as undeveloped, open grassland. As the proposed fence would be relatively short and is surrounded by otherwise undeveloped land, it would not present a substantial impediment to wildlife movement. The Project would not substantially interfere with the movement of native residence or migratory wildlife species or with established native resident or wildlife corridors or nursery sites; thus, impacts would be ***less than significant***.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Tomales Site is located within the jurisdiction of Unit 1 of the Marin LCP, a state-wide program with local implementation at the county scale. LCP Unit 1 policies and regulations protecting biological resources potentially relevant to the Tomales Site include Policies Habitat Protection 23, 25, and 26. Policy 23 requires that disturbance to nesting and breeding wildlife be minimized, Policy 25 requires that impediments to wildlife movement be avoided, and Policy 26 requires that upland grassland feeding areas be protected against significant disruption of habitat values.

Mitigation Measures BIO-2, BIO-3, and BIO-5 require pre-construction surveys for breeding and nesting wildlife that may use the project site and buffers around disturbance areas should any active nests or burrows be identified. With implementation of these measures, the Project would not conflict with Policy 23. The new fence proposed for the Tomales Site would enclose a small area and would be surrounded by otherwise open space. The proposed fence is not sufficiently large as to preclude wildlife movement and dispersal throughout the area. As such, there would be no conflict with Policy 25. The non-native grassland present within the site is of limited habitat value and is predominately used for cattle grazing. The area of permanent vegetation removal would not be sufficiently large to degrade the quality of the adjacent grassland. Consequently, there would be no conflict with Policy 26.

In conclusion, with incorporation of Mitigation Measures BIO-2, BIO-3, BIO-4, and BIO-5 to reduce impacts to breeding wildlife, there would be no conflict with the Marin County LCP's policies protecting biological resources, and impacts would be ***less than significant with mitigation incorporated.***

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed, as follows:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Tomales Site is located within the jurisdiction of Unit II of the LCP. It is designated as C-AG-1 (Agriculture Coastal Zone) and zoned C-APZ-60 (Agriculture Production Zone Coastal). Within LCP Unit II, an emergency radio facility is a permitted use in the C-APZ zone, subject to a Coastal Development Permit. The emergency radio facility also meets the definition of a 'Project' under the Coastal Zone regulations that also makes it subject to a Coastal Development Permit. The C-APZ zone is a master planning district, typically requiring the approval of a master plan evaluated against a set of agricultural-related criteria, but the Marin CDA Director can waive the master plan requirement. The County Development Code for the Coastal Zone in this area allows for a building height up to 25 feet and a tower height up to 150 feet on the property. The Development Code grants the Zoning Administrator the authority to approve a use permit and coastal permit for a public utility or service; however, MERA is not subject to this County-level permit and will be working with the County (as an agent of the State) to acquire a Coastal Development Permit. Furthermore, Section 22.57.0331(17) allows "Construction or alteration of gas, electric, water, communication or flood control facility unrelated to an agricultural use, as approved by the appropriate government agency". As a result, the emergency radio facility is a permitted use in the C-APZ-60 zone.

Section 22.70.040I exempts towers from the zoning district height limit provided the tower does not cover more than 15% in area of the lot nor has a base greater than 1,600 square feet. The maximum tower height is limited to 150 feet. The proposed emergency radio monopole has a base diameter of 32 inches and a height of 75 feet, well within the base and height limits of the exemption provisions. The proposed project is therefore consistent with the site's coastal zoning policies.

As discussed in Chapter IV.D (Land Use Consistency), the Marin LCP Unit II Land Use Plan sets certain development and land use guidelines to minimize aesthetic, noise, and biological effects. In compliance with these design considerations, the proposed project would cluster new improvements with existing communications infrastructure on site, construct underground utility lines (to reduce visual impacts and reduce exposure to possible wildfire), and include measures

to avoid impacts to streams and riparian habitat. Implementation of biological resources Mitigation Measures BIO-1 through BIO-5 will protect habitat and sensitive flora and fauna. The proposed project is therefore consistent with the site's coastal land use policies.

The underground power line at the Tomales Site would be located partially within the State Route 1 right-of-way (ROW). Installation of an underground power line, which starts within the ROW but leads away from the road and out of the ROW, would require an encroachment permit from the California Department of Transportation (Caltrans). The encroachment in the Caltrans ROW would not create a public hazard, disrupt highway operations, pose a maintenance problem, restrict pedestrian facilities, or interfere with future highway construction,[4] and therefore, by conditions of the permit, and the requirements of the proposed project, the power line installation would not pose a disruption or hazard within the Caltrans ROW.

Given that the project would be designed to comply with the requirements of the LCP Unit II and would not pose a disruption or hazard within the State Route 1 ROW there would be no conflict with applicable land use plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental impact. Consequently, ***less-than-significant*** impacts would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Tomales Site (Site 20) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. Existing communications infrastructure at the site is minimal, so rather than measuring baseline RF emissions during a site visit, SiteSafe used an inventory and diagrams of proposed infrastructure at the site to model RF emissions levels relative to Maximum Permissible Exposure (MPE) limits from the proposed communications system improvements and determine the site's current compliance with applicable FCC RF regulations.

SiteSafe modeled these conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the general public MPE limit when calculating the percentage of exposure, which is five times more stringent than the limit set for workers in controlled areas.

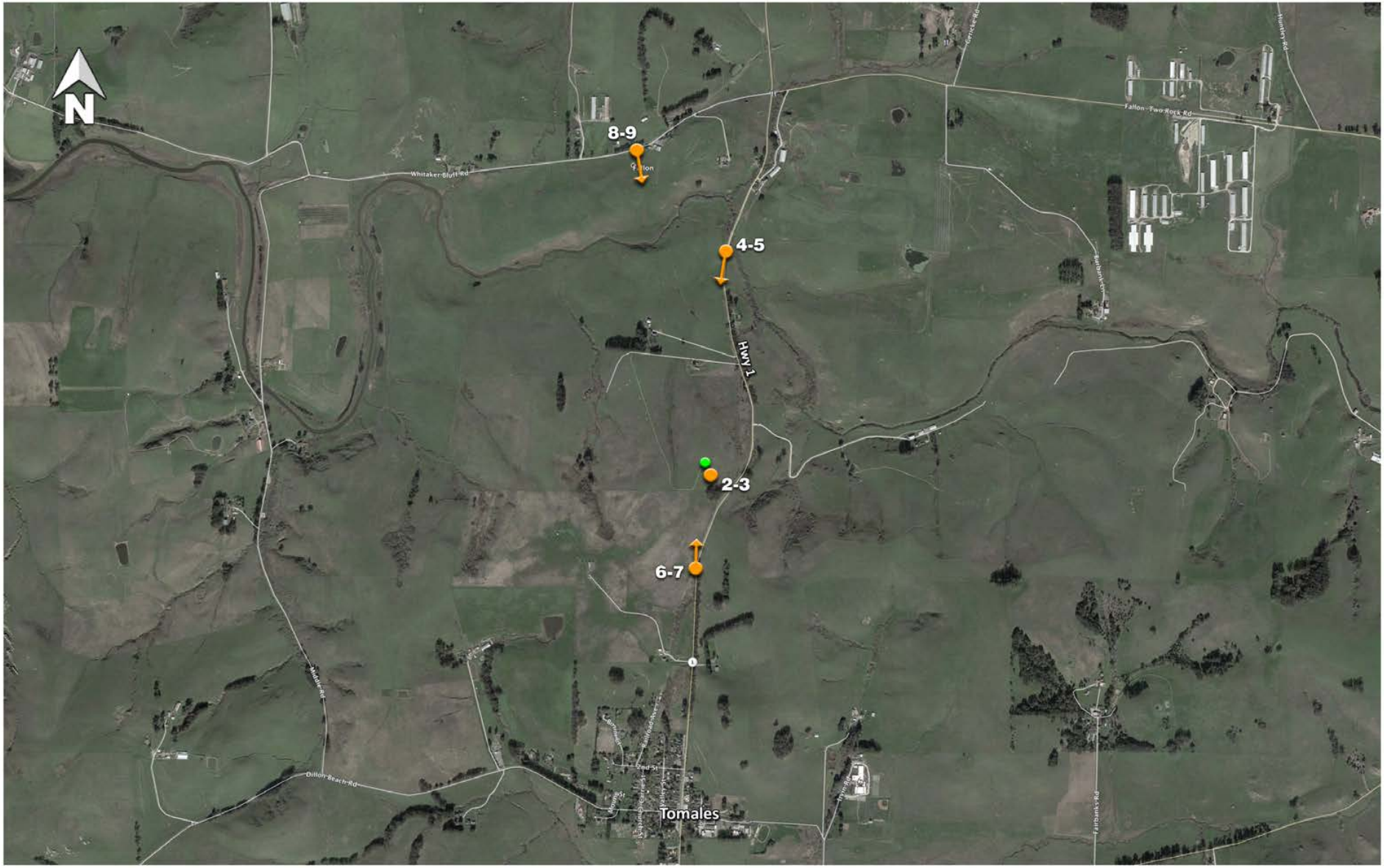
At the Tomales Site, there would be 10 antennas capable of operating at one time (for a full inventory, see Page 227 of Appendix D). These antennas would cumulatively create a maximum rooftop exposure level in a controlled area of 196.8% of the public MPE limit. This controlled area

[4] California Department of Transportation, "Encroachment Permits Manual," April 2018, http://www.dot.ca.gov/trafficops/ep/docs/entire_manual.pdf. Accessed September 11, 2018.

is on a locked rooftop that is not accessible to the public due to its location and a 6-foot fence surrounding the site. It also is not typically accessed in the course of normal work, so worker exposure to this spot would be irregular.

Ground-level exposures, however, would be less than 5% of the public MPE limit, both inside and outside the security fence, due to the tower's height. SiteSafe's modeling of RF exposures in an elevation view can be viewed in Figure V.L-12, at the end of this section. The figure shows that uncontrolled areas (accessible to the public) would experience a maximum (worst-case modeling scenario) of less than 5% of the MPE public limit. SiteSafe therefore concluded that all MERA facilities at the Tomales Site would comply with FCC regulations.

In summary, MERA's operations at the Tomales Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during each phase of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 5% of the MPE limit and therefore do not pose a danger to personnel in the area. As the project would not result in RF emissions in excess of the FCC's MPE limits, the impacts from RF emissions at the Tomales Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.L - 1 Tomales Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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ENVIRONMENTAL CONSULTANTS

Current photograph of the site as seen looking north from the hilltop, on private property. Not a public viewpoint.

Source: Previsualists Inc.

Figure V.L - 2 Existing Tomales Near View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the new MERA Next Gen 75-foot tall monopole and equipment structure on the site as seen looking north from the hilltop, on private property. Not a public viewpoint. Source: Previsualists Inc.

Figure V.L - 3 Proposed Tomales Near View

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking south from southbound Hwy 1 approaching the site.

Source: Previsualists Inc.

Figure V.L - 4 Existing Tomales View from Highway 1 Looking South

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view with the 75-foot tall monopole looking south from southbound Hwy 1 approaching the site.

Source: Previsualists Inc.

Figure V.L - 5 Proposed Tomales View from Highway 1 Looking South

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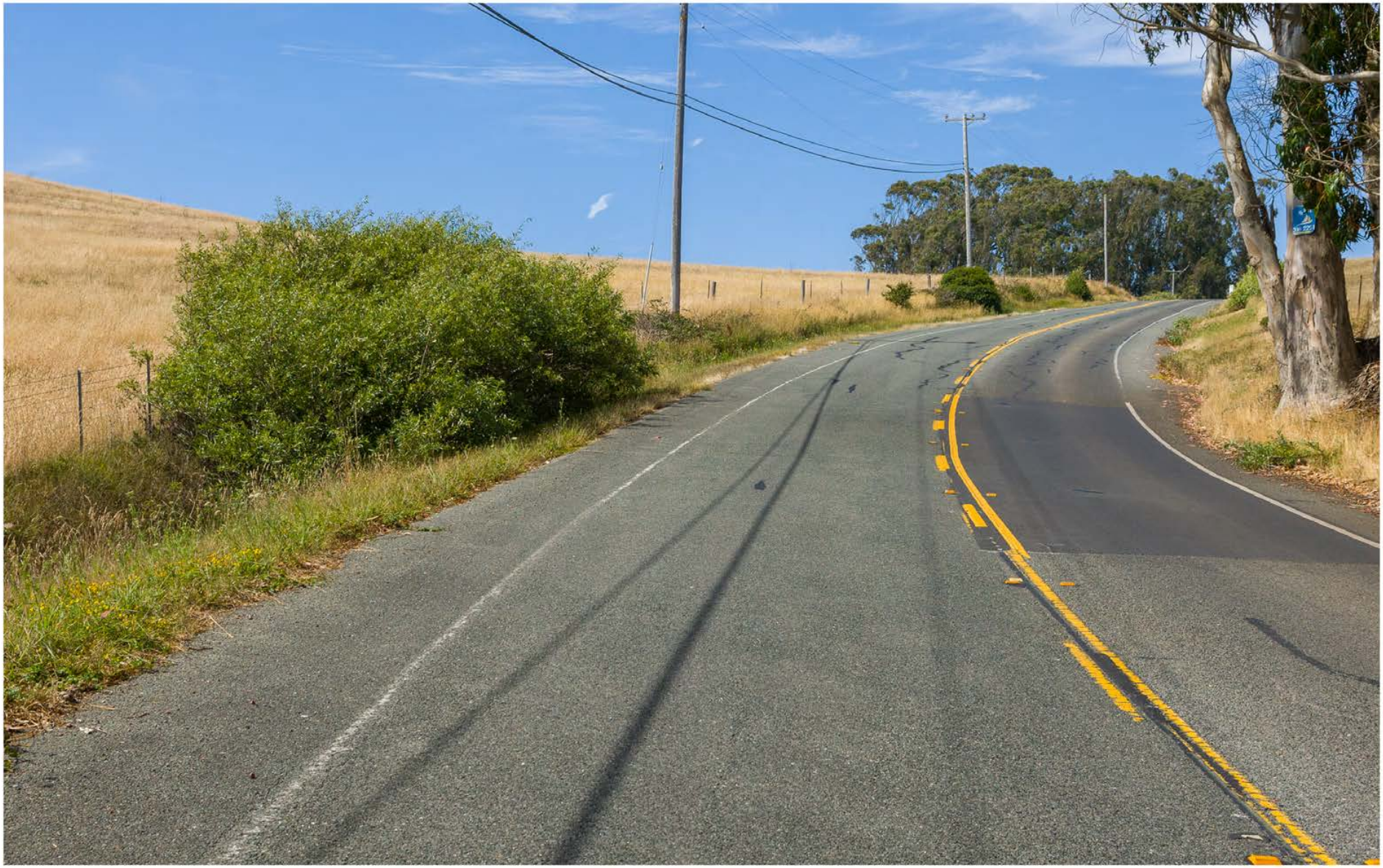

Current photograph of the view looking north from northbound Hwy 1, approaching the site.

Source: Previsualists Inc.

Figure V.L - 6 Existing Tomales View from Highway 1 Looking North

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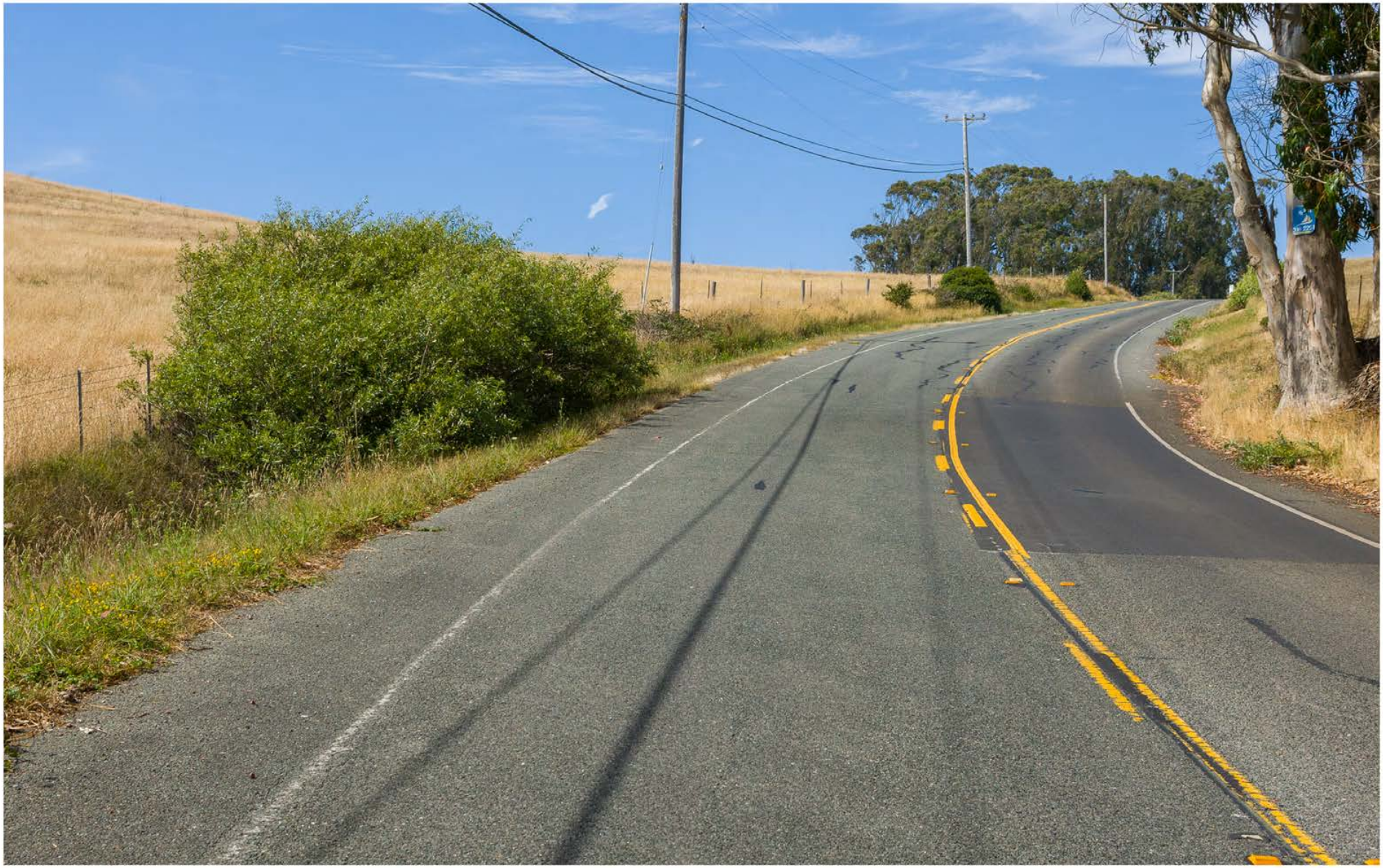

Photosimulation of the view looking north from northbound Hwy 1, approaching the site.

Source: Previsualists Inc.

Figure V.L - 7 Proposed Tomales View from Highway 1 Looking North

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking south from Whittaker Bluff Road, approximately 5,000 feet to the site.

Source: Previsualists Inc.

Figure V.L - 8 Existing Tomales View from Whittaker Bluff Road.

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view with the proposed 75-foot tall monopole and equipment building looking south from Whittaker Bluff Road, approximately 5,000 feet to the site. Source: Previsualists Inc.

Figure V.L - 9 Proposed Tomales View from Whittaker Bluff Road.

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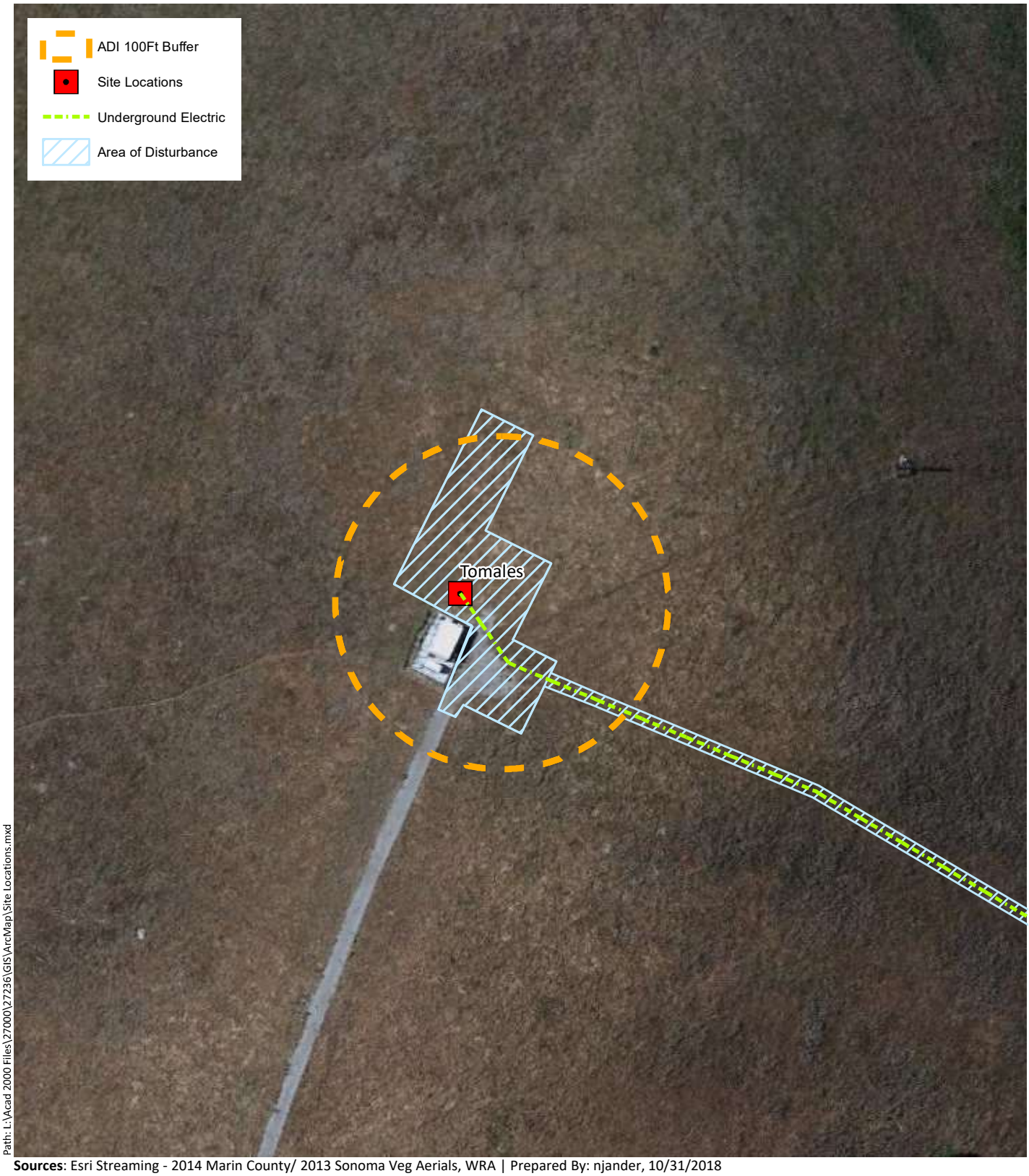

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.L - 10 - Tomales

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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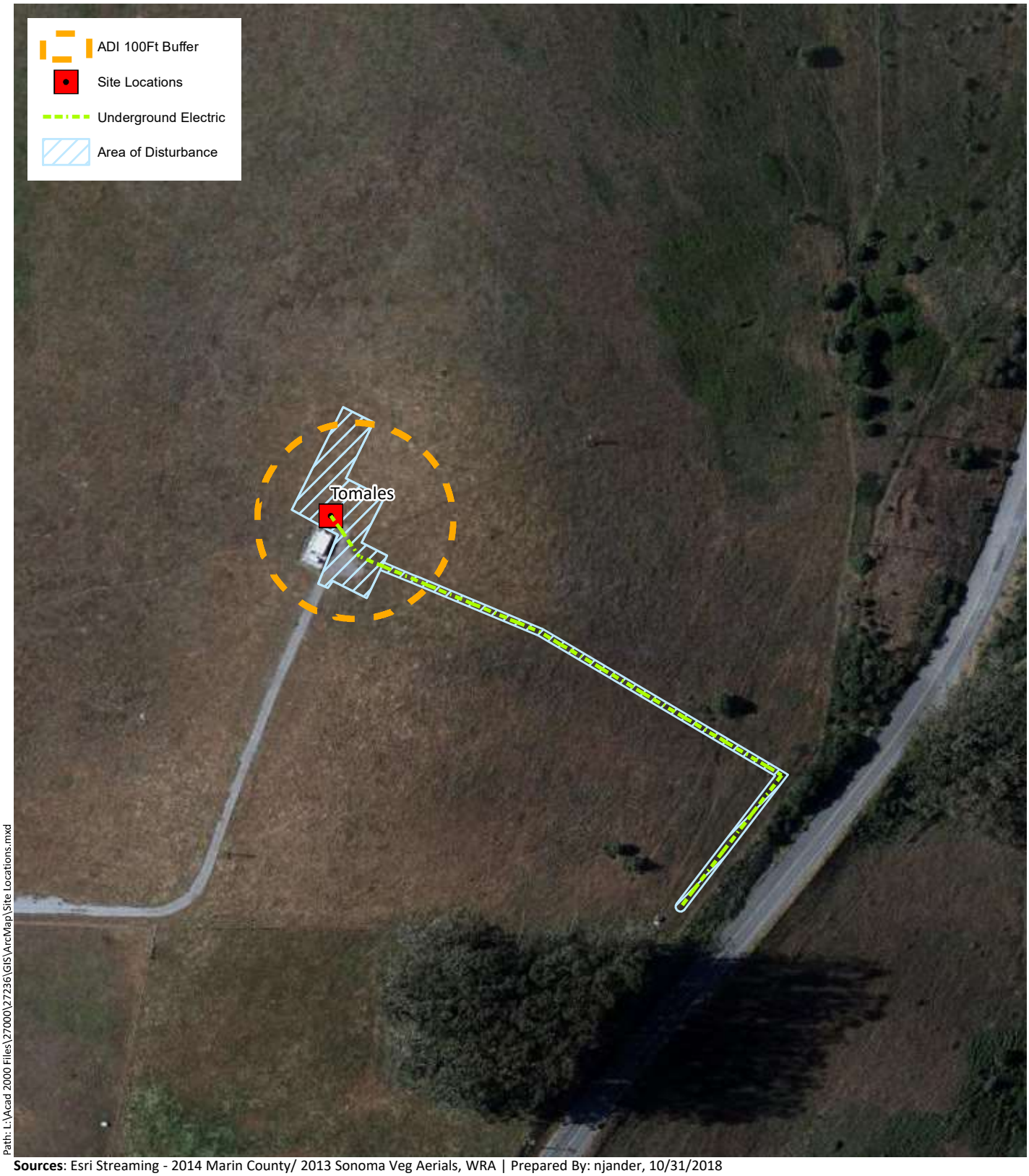

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.L - 11 Tomales

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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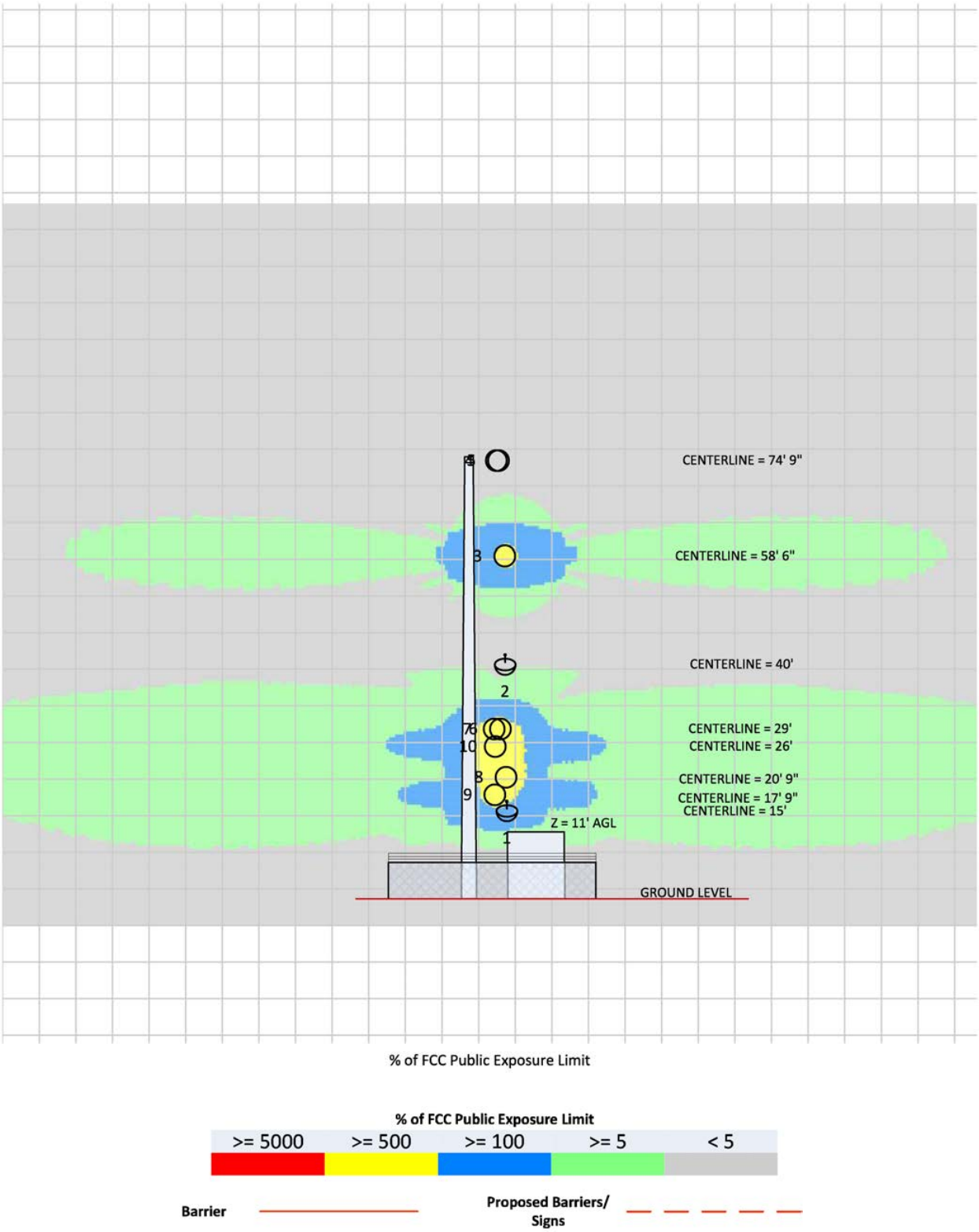


Figure V.L - 12 Tomales Simulated All-On RF Exposure - Elevation View

M. Coyote Peak (Site 21)

The Coyote Peak Site is located just north of Marshall Petaluma Road in northwest unincorporated Marin County in a primarily agricultural and open space region (Figure V.M-1). The site is situated within Walker Creek Ranch, a public-owned property and home of the Marin County Outdoor School, which hosts private retreats as well as outdoor education programs for youth. Aesthetic resources in the area include the rolling green or golden hills (depending on the season) that dominate the region.

The site is accessed via Walker Creek Ranch, as shown in Photo III-14 (Chapter III, Project Description). Coyote Peak sits on a ridgetop with a vegetated northern face and a grass covered open slope facing the ranch.

Details of the proposed work for the Coyote Peak Site are described in Chapter III, Project Description and summarized in Table V-13 below. In short, proposed improvements include a 60-foot monopole, equipment shelter, emergency generator and fuel tank, enclosure fencing, and underground power cable. The existing 1.5-mile graded dirt access road would undergo improvements to facilitate construction and improve drainage (Figures V.M-2 and V.M-3).

An estimated 98% of the visible components at the Coyote Peak Site would be owned by MERA after proposed project modifications. Also located at the site are two existing water wellheads, each with solar panels and a small shed enclosed by a fence, all owned by others. The new tower, equipment shelter, emergency generator, and fuel tank would be 100% owned by MERA.

Table V–13. Coyote Peak Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Coyote Peak	Two water well pump heads on ridgetop within actively grazed range lands. Controlled access through Walker Creek Ranch, a Marin County Outdoor Education Facility.	Propose new 60' tall monopole, shelter, fence, generator, and fuel tank. New antennas include 2 microwave dishes and 3 antennas. 1.5 Mile road requires regrading with cuts 3-8 feet deep in short areas, and widening of three turns. Underground power line, from valley floor to ridge, to be under the road.

1. Aesthetics

KOPs (key observation points) have been selected to represent the array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided. Figures V.M-2 through V.M-9 show the anticipated before and after conditions at the Coyote Peak Site from four selected KOPs.

Impact determinations are made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista?

Ridgelines and mountain tops are among Marin County's important scenic resources, and the Coyote Peak Site is located on a prominent ridge. This ridgeline is not accessible to the general public, so public views of the site are limited to distant views from below, such as the Walker Creek Ranch entrance from the Marshall Petaluma Road (Figures V.M-4 and V.M-5), or the closer Ranch parking lot (V.M-6 and V.M-7).

Reworked segments of the site access road will be temporarily more visible due to earth disturbance along the roadway, but restoration plantings and time will diminish access road visibility. Overall, the 75-foot monopole would be the most visible feature on the ridgeline from nearby and distant ridges and hillsides. The new monopole would have a limited effect on these scenic vistas however, because publicly available views of the project site are quite distant. The simulated view from Chileno Valley Road (Figures V.M-8 and V.M-9) shows the barely visible monopole absorbed into the broad surrounding landscape. More proximate views are either screened by topography or access is limited by private property. As a result, proposed project improvements at Coyote Peak would not have a substantial adverse effect on available scenic vistas and the visual impact is ***less than significant***.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no designated or eligible state scenic highways within or near the Coyote Peak Site. State Route 1 is eligible for state scenic highway designation, but it is approximately five miles west of the site. Construction at the Coyote Peak Site would, therefore, not affect any scenic resources within a state scenic highway, and ***no impact*** would occur.

c) Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Coyote Peak Site sits on a hilltop at an elevation of roughly 970 feet. Figures III-48 through III-50 simulate the proposed physical changes at the site, including the new 75-foot monopole, equipment shelter, emergency generator and fuel tank, and perimeter fencing (Figures V.M–2 and V.M-3). These facilities would exist within an outdoor education center that, in part, relies on visual quality of the setting to convey the value of nature to students. Mitigation Measures AES-3 (see Site 20, Tomales) and AES-4 (below) would reduce impacts, but since the project would add significant new infrastructure and substantially affect the visual character of the site, the impact would be ***significant and unavoidable***.

<u>Mitigation Measure AES-4</u>

MERA shall screen close up views of the Coyote Peak Site by including opaque fencing in the perimeter fence around the project site to screen the generator and fuel tank. The fence shall be at least ten feet away from any structure.

However, even with implementation of Mitigation Measures AES-3 and AES-4 the impacts to the site will continue to be ***significant and unavoidable***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Coyote Peak Site. Improvements proposed for this site include installation of a new monopole, equipment shelter, fence, emergency generator, fuel tank, and underground power line. Additionally, the 1.5-mile access road would be improved in some sections. Ground disturbance would occur in each of these areas and would reach maximum depths of approximately eight feet below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figures V.M-10 and V.M-11.

Although ground disturbance would be extensive relative to other Next Gen Sites, the possibility of accidental discovery of historical resources remains unlikely due to the soil types underlying the site. Nonetheless, work at the Coyote Peak Site would comply with Mitigation Measure CULT-1 (please see page IV.B-10), which provides procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Coyote Peak Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, and the Coyote Peak Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (please see page IV.B-12 and IV.B-13), the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The Coyote Peak Site contains non-native annual grassland, coyote brush scrub, and seasonal wetlands that could potentially support several special-status plant species documented within the vicinity of the proposed project. The following special-status species were assessed as having a moderate or high potential to be present within undeveloped non-native annual grassland and coyote brush scrub portions of the site: bent-flowered fiddleneck, Baker's larkspur (*Delphinium bakeri*), fragrant fritillary (*Fritillaria liliacea*), and congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*).

Due to the proposed ground disturbance work within previously undeveloped grassland habitat, focused, protocol-level special-status plant surveys were conducted within the site on March 30, May 9, and June 20, 2018. Several reference sites for all special-status plant species with potential to occur at the Coyote Peak Site were visited, resulting in the following observations: bent-flowered fiddleneck (observed March 30, 2018 along Highway 1 south of Tomales), Baker's larkspur (observed May 9, 2018 along Marshall-Petaluma Road), fragrant fritillary (observed April 1, 2018 at Nicasio Reservoir), and congested-headed hayfield tarplant (observed June 6, 2018 along Bodega Avenue in Petaluma). However, no special-status plant species were observed in the biological study area (the project site plus an approximate 100-foot radius), and the proposed project would have no impact on special-status plant species.

The following special-status species were assessed as having a moderate or high potential to be present at this site: American badger, golden eagle, grasshopper sparrow, white-tailed kite, Bryant's savannah sparrow, and California red-legged frog. The study area contains grasslands, woodland and rolling hills that may support foraging and nesting by special-status birds. Additionally, the open herbaceous habitat may support badger and grasshopper sparrow. California red-legged frog has been documented to occur near the study area at Walker Creek. The study area does not contain breeding habitat to support California red-legged frog; however, the species may disperse across the study area during rain events.

The project site is within designated California red-legged frog critical habitat (unit MRN-2), but Project construction and operation activities are not anticipated to alter the use of the land by California red-legged frog. Grading and road improvements would occur on an existing graded road and would not impede movement of frogs across the landscape. Project activities would not remove habitat essential for the conservation of California red-legged frog, and Mitigation Measure BIO-7 would ensure that construction activities do not adversely affect the California red-legged frog, if one were to be found.

Because no impacts to candidate, sensitive, or special-status plants would occur and impacts to special-status wildlife would be mitigated to less-than-significant levels by implementation of Mitigation Measures BIO-6 through BIO-8, impacts would be ***less than significant with mitigation incorporated***.

Mitigation Measure BIO-6

No more than 14 days before the start of ground disturbance activities at the Coyote Peak Site, a biologist shall conduct pre-construction surveys within 50 feet of the project site to determine if American badger dens are present. If a den is determined to be active and occupied by a female with young, ground disturbance and construction activity shall be avoided within 50 feet of the den until the young have matured and dispersed. If the den is determined to be active, but a female with young is not present, burrow exclusion using passive measures such as one-way doors or equivalent shall be attempted for a minimum of three days to discourage their use prior to any project-related ground disturbance. If the biologist determines that the dens have become inactive as a result of the exclusion methods, the dens shall be excavated by hand to prevent them from being re-occupied during construction.

Mitigation Measure BIO-7

Work at the Coyote Peak Site shall be avoided during night hours (half an hour before sunrise to half an hour before sunset) when California red-legged-frog individuals may be dispersing across the project site. In addition, no ground disturbing work may occur within 24 hours of rain events that generate greater than 0.25 inch of accumulated precipitation or during rain events predicted to accumulate 0.25 inch of precipitation.

Within 48 hours prior to installation of temporary steel grates spanning the top of bank of the ephemeral streams, a qualified biologist shall survey intermittent streams within the project site. If California red-legged frog are observed during the survey, work shall not proceed in that area until the qualified biologist verifies that the frogs have left the area on their own and there is no potential for the proposed work activities to result in injury or mortality. In addition, if California red-legged frog are observed in the study area during the preconstruction survey, a biological monitor shall be present for the remainder of ground disturbing activities.

Mitigation Measure BIO-8

Project activities at the Coyote Peak Site shall occur, to the extent feasible, outside of the nesting season from September 1 – January 31. If this is not possible, and project activities are initiated during the nesting season, then a nesting bird survey shall be conducted by a qualified wildlife biologist no more than 14 days prior to the start of project activities. If nests are identified, a no-disturbance buffer shall be implemented to avoid impacts to nesting birds. The radius of a surrounding buffer will be determined by a qualified biologist and shall range from 25 feet to 500 feet depending on the species and protection status of that species.

b-c) Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The Coyote Peak Site consists primarily of non-native annual grasslands and developed areas including the existing access road. The grazed non-native grasslands that overlay the proposed ridge top construction site are not considered a sensitive natural community. Non-native annual

grasslands within the study area are dominated by slim oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), and soft chess (*Bromus hordeaceus*), with other native and non-native grasses and forbs present including laciniate checker bloom (*Sidalcea malviflora* ssp. *laciniata*), sun cup (*Taraxia ovata*), flax (*Linum bienne*), hairy cats ear, and hayfield tarweed (*Hemizonia congesta* ssp. *lutescens*).

However, the access road environs contain several potential wetland and non-wetland waters features which parallel or intersect the existing road through underground culverts. Aquatic features observed include ephemeral streams, drainage ditches, ditch wetlands, and seasonal wetland seep. All of these features are likely to be considered jurisdictional under Section 404 and 401 of the Clean Water Act (CWA). Ephemeral streams present within the study area are also likely to be considered jurisdictional features under Section 1600-1616 of the California Fish and Game Code (CFGC).

Three ephemeral streams intersect the existing dirt access road through underground culverts. Two of the ephemeral streams are located in the southeastern portion of the project site at the first hairpin turn. These two streams are both approximately three feet wide between ordinary high water marks, and approximately six feet wide between tops of bank, and they flow in a southeasterly direction into culverts underneath the existing road, converging into one stream to the south of the road. The other ephemeral stream is similar in dimensions and is located in the north-central portion of the study area along the road, where road widening is proposed.

Drainage ditches and ditch wetlands are also present, paralleling the existing road in the southeastern portion of the project site, and a seasonal wetland seep is present bordering the west side of the road at approximately the middle point between the bottom of the road and the ridgeline. The seasonal wetland seep and wetland ditches are dominated by hydrophytic rushes and forbs including brownhead rush (*Juncus phaeocephalus*), common bog rush (*Juncus effusus*), and pennyroyal (*Mentha pulegium*). The area mapped as seasonal wetland seep and wetland ditch likely contain a prevalence or dominance of hydrophytic vegetation, hydric soils, and wetland hydrology sufficient to meet the requirements as jurisdictional features under Section 404 of the Clean Water Act.

No other sensitive natural communities are present within or would be impacted by the Project. Impacts to observed wetlands would be avoided through Mitigation Measure BIO-8, so overall impacts would be ***less than significant with mitigation incorporated***.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

The proposed road grading and underground power line work would not impede the movement of terrestrial or avian wildlife species. Other planned improvements at the top of the hill would be confined within the area enclosed by the proposed fence. The fence would be six feet tall, and the compound would be 35 by 40 feet wide, covering a total area of 1,400 square feet. As the area around the fence would remain undeveloped, wildlife would still be able to freely move throughout the area. Additionally, Mitigation Measure BIO-7 would ensure that the project would

not interfere with the movement of California red-legged frog. The Project would, as a result, not interfere substantially with the movement of any native resident migratory wildlife species, and impacts would be ***less than significant with mitigation incorporated***.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No local policies or ordinances governing the protection of biological resources applicable to the Coyote Peak Site were identified. Further, all potential impacts to biological resources at the Coyote Peak Site would be mitigated to less than significant levels. Therefore, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Coyote Peak Site is located in unincorporated Marin County. The Coyote Peak Site is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. Since there would be no conflict with any such policies, ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

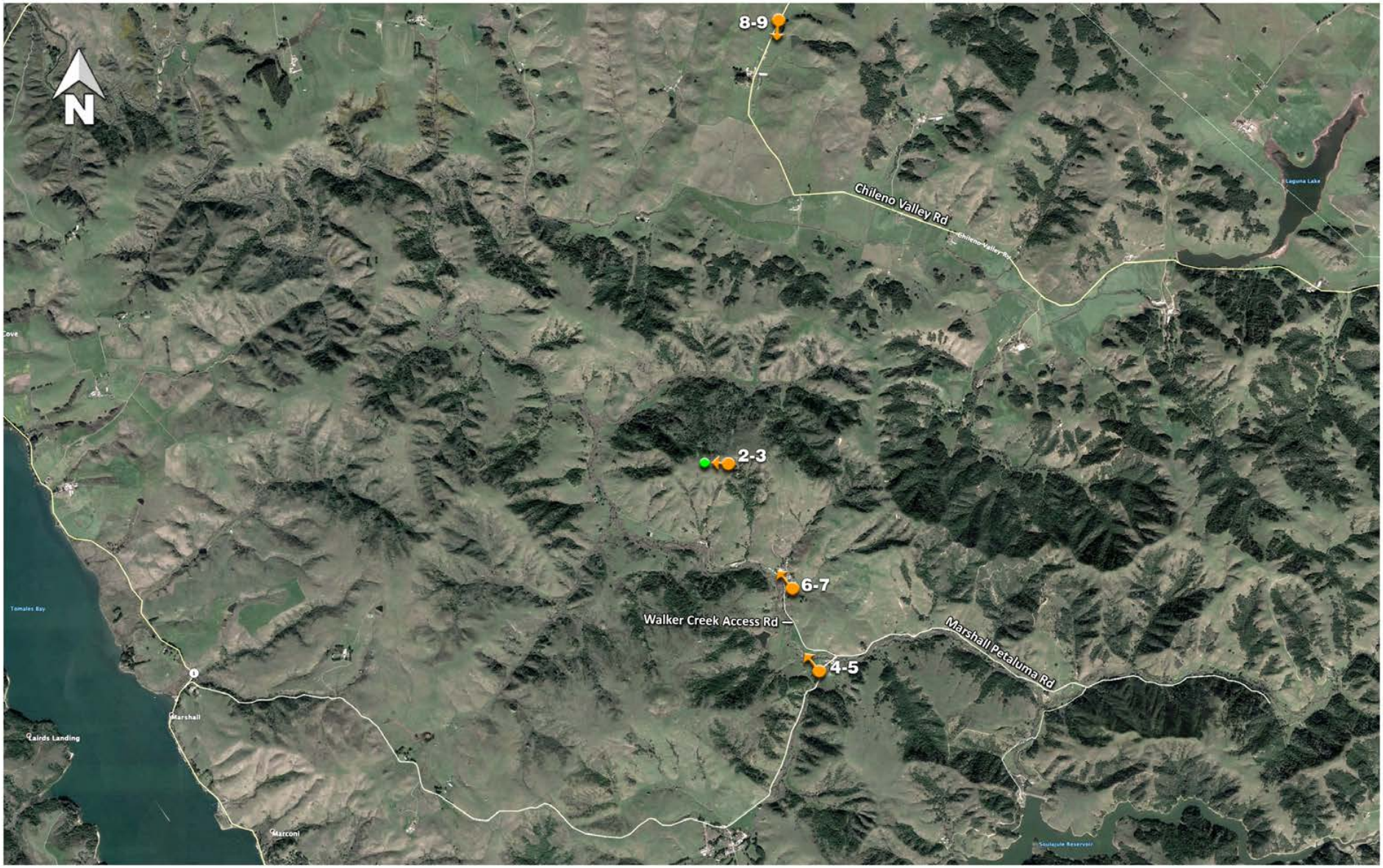
Evaluation of exposure limits for RF emissions at the Coyote Peak Site (Site 21) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. Existing communications infrastructure at the site is minimal, so rather than measuring baseline RF emissions during a site visit, SiteSafe used an inventory and diagrams of proposed infrastructure at the site to model electromagnetic emissions levels relative to Maximum Permissible Exposure (MPE) limits from the proposed communications system improvements and determine the site's current compliance with applicable FCC RF regulations.

SiteSafe modeled these conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the general public MPE limit when calculating the

percentage of exposure, which is five times more stringent than the limit set for workers in controlled areas.

At the Coyote Peak Site, there would be five antennas capable of operating at one time (for a full inventory, see page 235 of Appendix D). These antennas would cumulatively create a maximum ground-level exposure of less than 1% of the public MPE limit. RF emission models at the Coyote Peak Site predict that any RF emissions in excess of public MPE limits would only occur between 45 and 50 feet above the ground where neither the public nor workers would be exposed. SiteSafe's modeling of RF exposures in an elevation view can be viewed in Figure V.M-12, at the end of this section. The figure shows that uncontrolled areas (accessible to the public) would experience a maximum (worst-case modeling scenario) of less than 5% of the MPE public limit and therefore SiteSafe concluded that all MERA facilities at the Coyote Peak Site would comply with FCC regulations.

In summary, MERA's operations at the Coyote Peak Site currently comply with the FCC's controlled/occupational and uncontrolled/public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 1% of the public MPE limits for uncontrolled/general public environments and would remain less than 1% of the MPE limits during each phase of the proposed project. A fence will surround the perimeter of the site, but MPE levels inside the fence would not expose workers to more than 1% of the public MPE limit at ground level. As the project would not result in RF emissions in excess of the FCC's MPE limits, the impacts from RF emissions at the Coyote Peak Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.M - 1 Coyote Peak Aerial with Photo Locations

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Current photograph of an up close view of the existing water well-head at Coyote Peak, a restricted area with no public access.

Source: Previsualists Inc.

Figure V.M - 2 Existing Coyote Peak Near View

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Photosimulation of the view with the proposed 75-foot tall monopole and equipment building in front of the existing water well-head at Coyote Peak, a restricted area with no public access.

Figure V.M - 3 Proposed Coyote Peak Near View

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Current photograph of a telephoto zoom view looking north from Marshall Petaluma Road near the gate to the property.

Source: Previsualists Inc.

Figure V.M - 4 Existing View of Coyote Peak from Marshall Petaluma Road

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the proposed 75-foot tall monopole in a telephoto lens view looking north from Marshall Petaluma Road near the gate to the property. Source: Previsualists Inc.

Figure V.M - 5 Proposed View of Coyote Peak from Marshall Petaluma Road

wra ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking northwest from the porch of the admin office.

Source: Previsualists Inc.

Figure V.M - 6 Existing View of Coyote Peak from Walker Creek Ranch

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Photosimulation of the view with the proposed 75-foot tall monopole looking northwest from the porch of the administrative office. Tower not visible from Walker Creek Ranch Buildings, but the reconstructed access road (to the right) is visible on the ridge.

Source: Previsualists Inc.

Figure V.M - 7 Proposed View of Coyote Peak from Walker Creek Ranch

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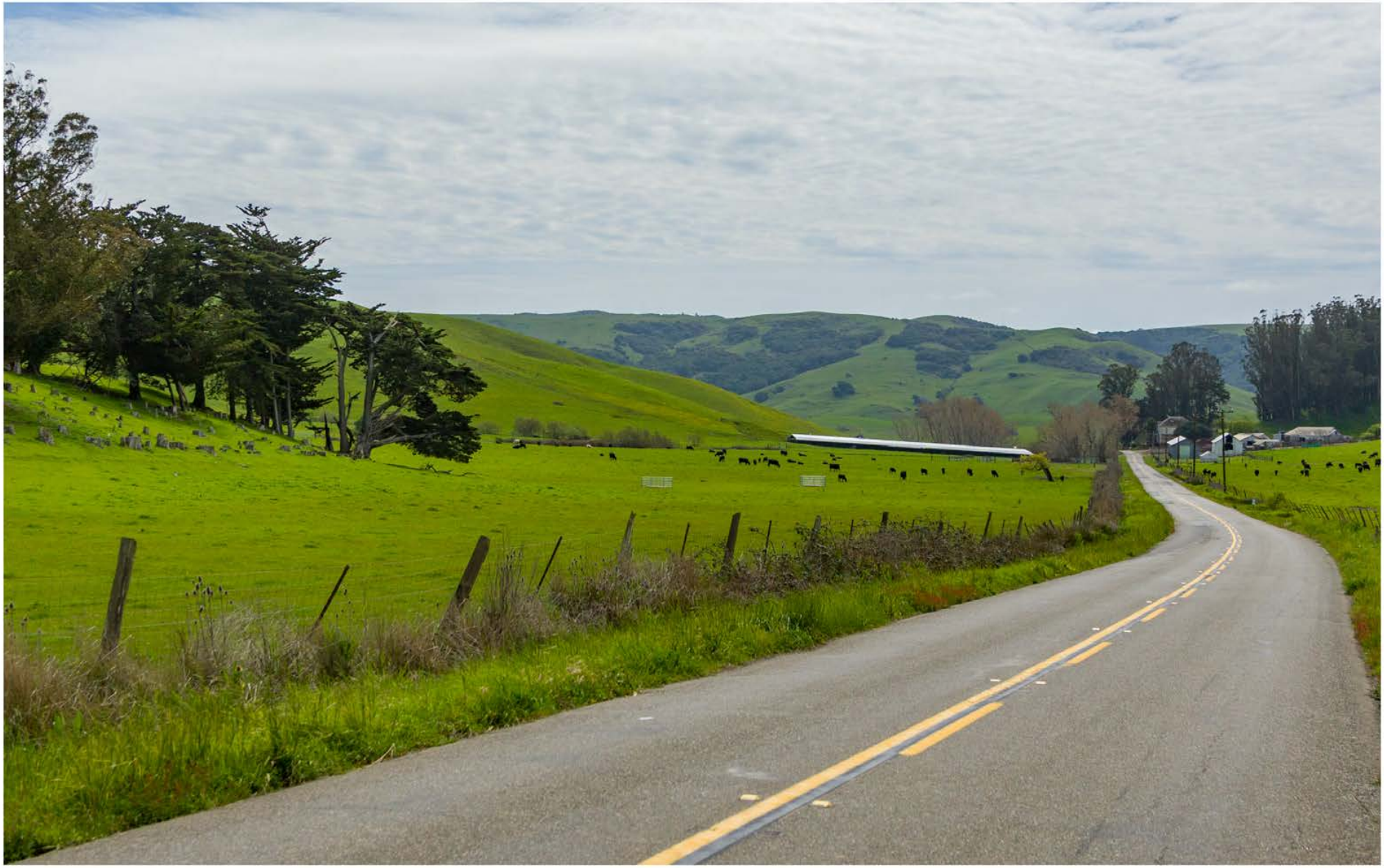
ENVIRONMENTAL CONSULTANTS



Current photograph of the view looking south from Chileno Valley Road.

Source: Previsualists Inc.

Figure V.M - 8 Existing View of Coyote Peak from Chileno Valley Road.

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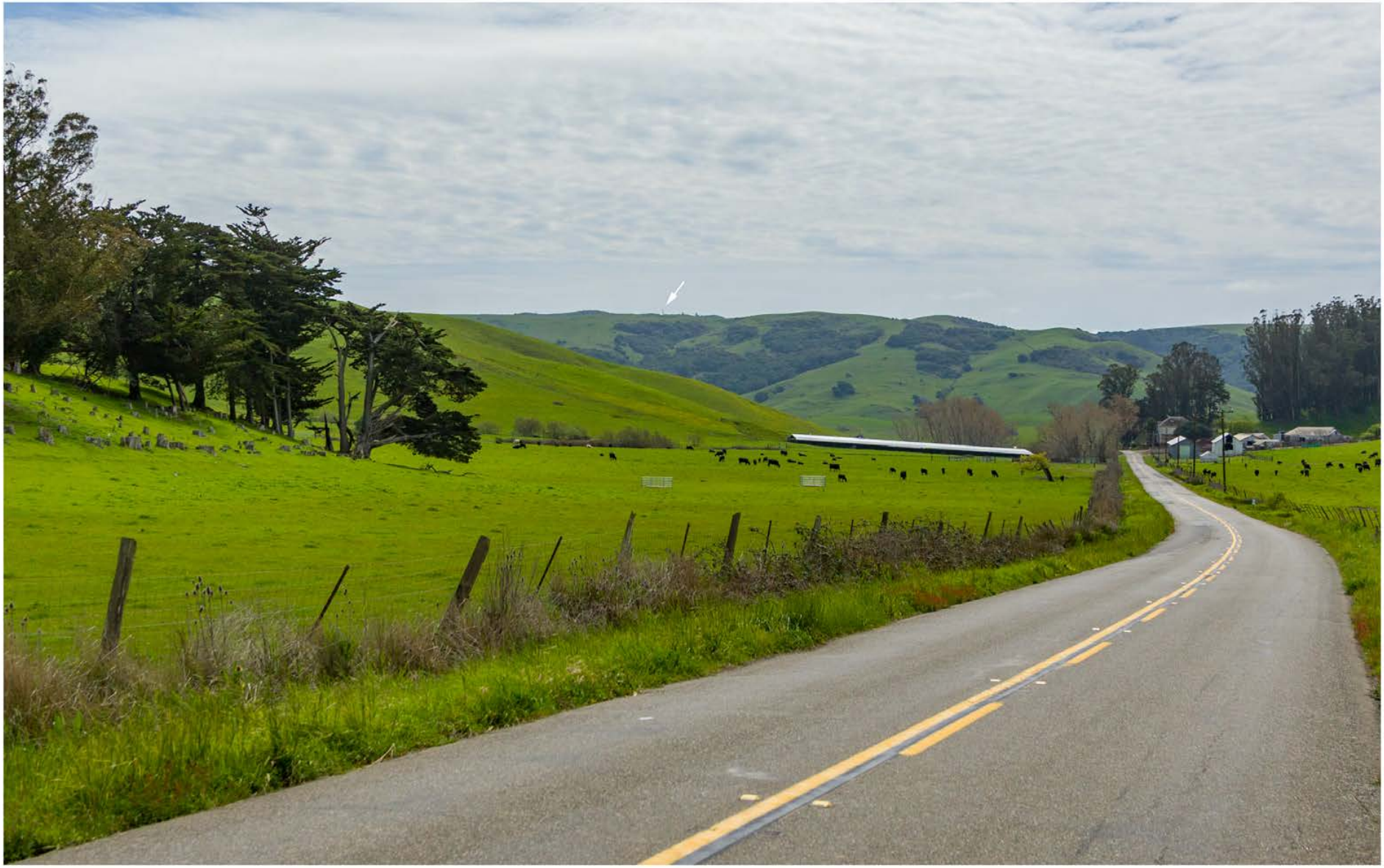

Photosimulation of the view looking south from Chileno Vallley Road.

Source: Previsualists Inc.

Figure V.M - 9 Proposed View of Coyote Peak from Chileno Valley Road.

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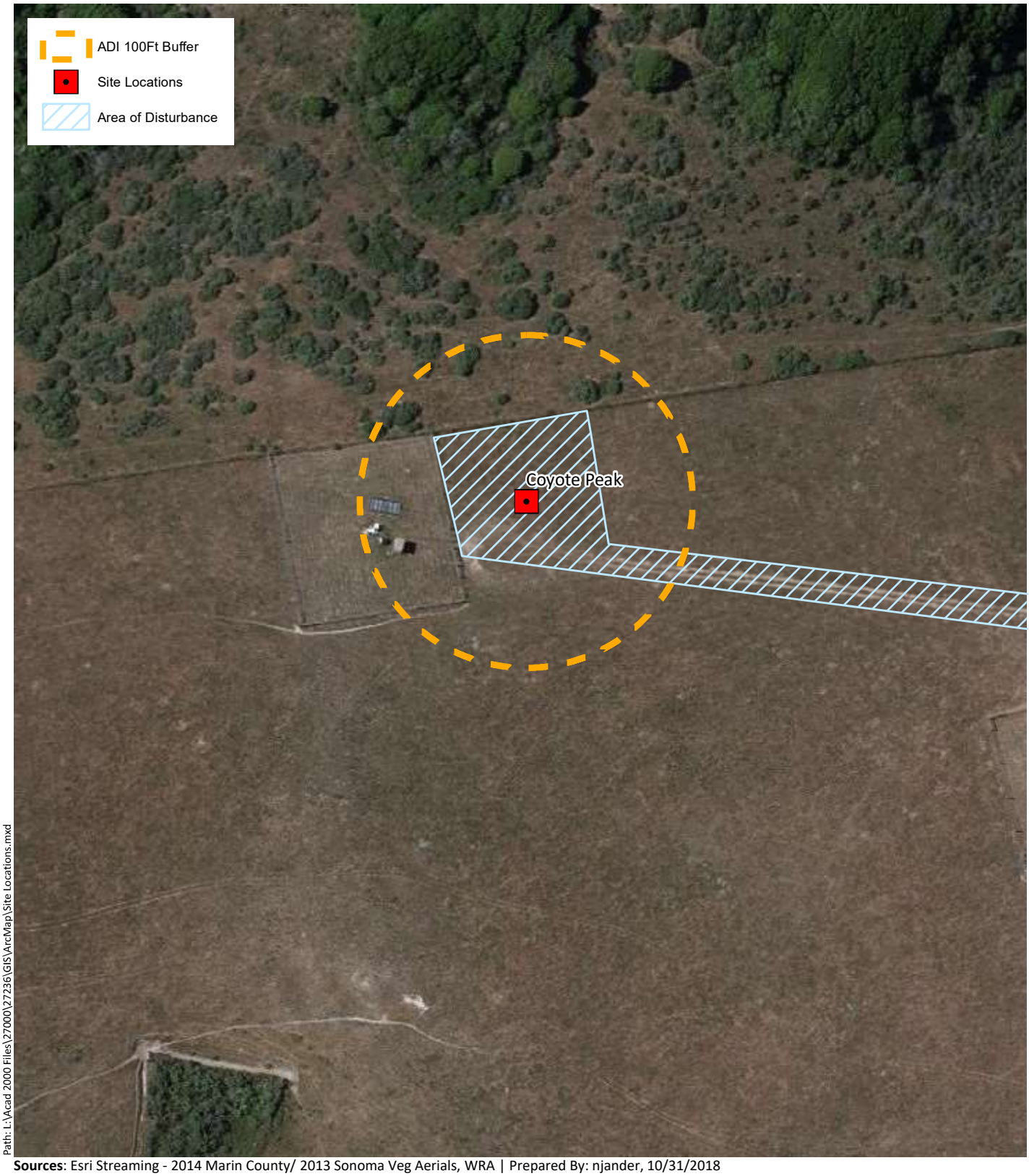
ENVIRONMENTAL CONSULTANTS



Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

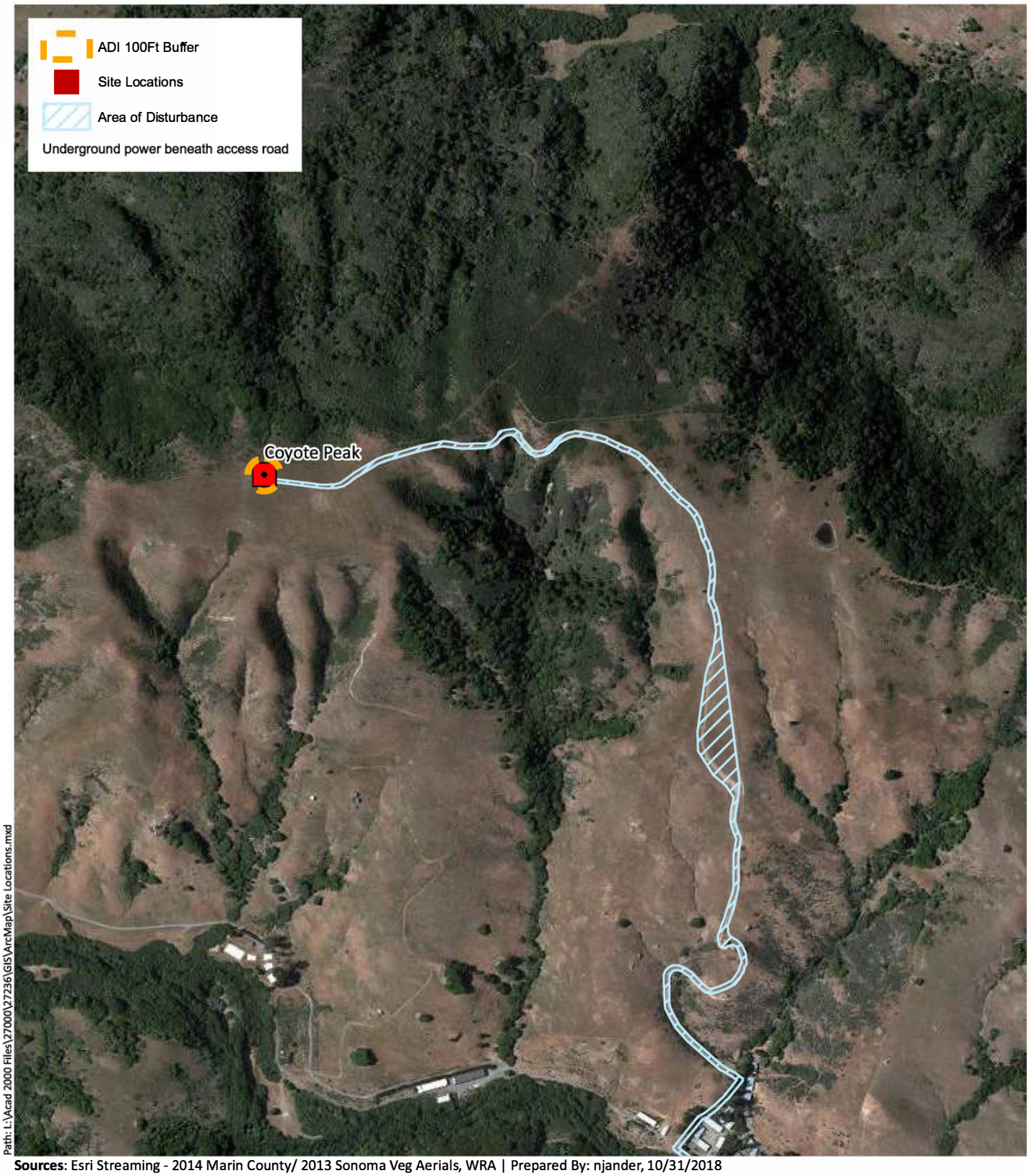
Figure V.M - 10 Coyote Peak

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

N

wra ENVIRONMENTAL CONSULTANTS



Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

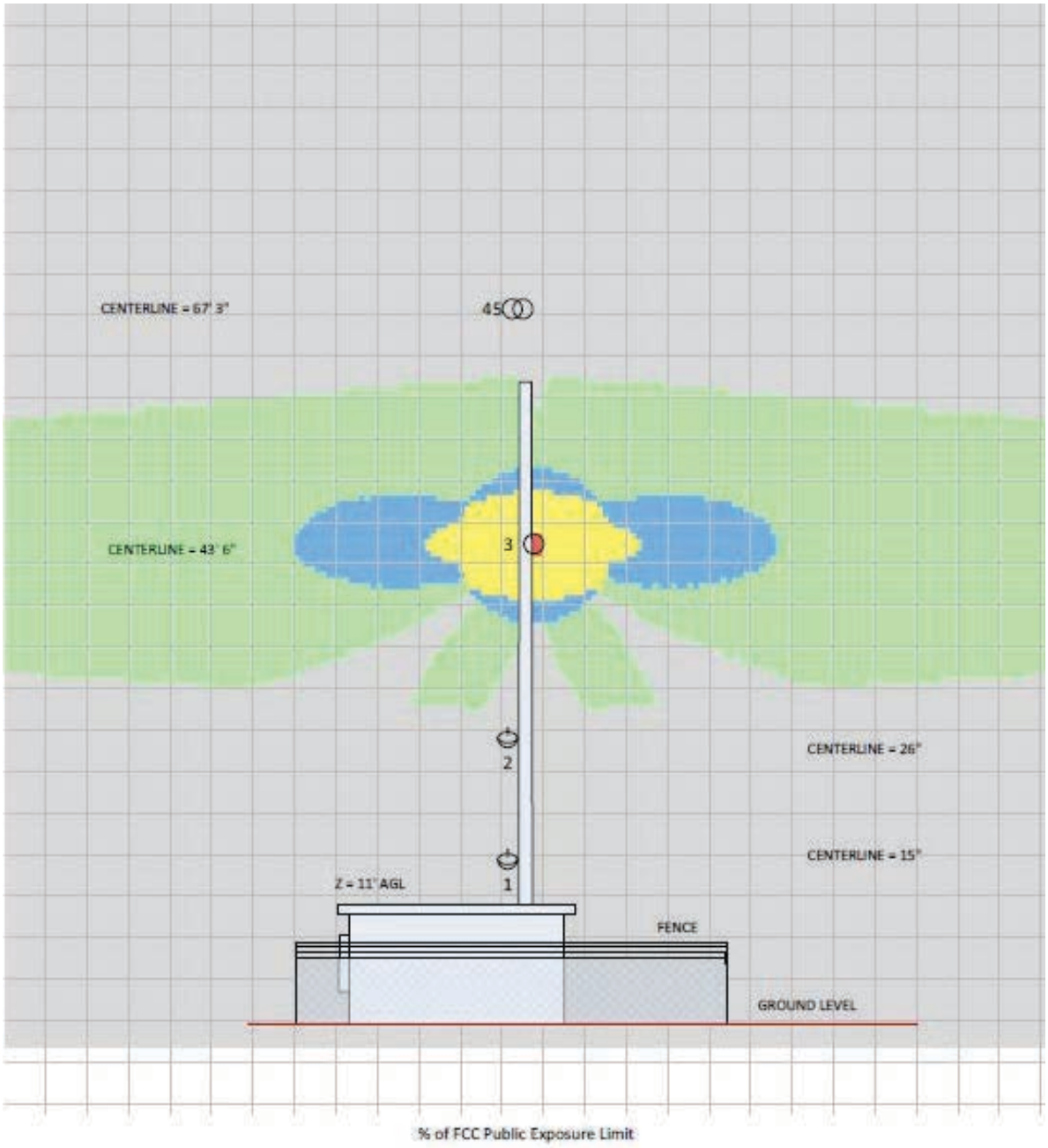
Figure V.M - 11 Coyote Peak Access Road

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 250 500 Feet

N

wra ENVIRONMENTAL CONSULTANTS



% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier ——— **Proposed Barriers/ Signs** — — — — —

Figure V.M - 12 Coyote Peak Simulated All-On RF Exposure - Elevation View

N. Skyview Terrace Water Tank Water Tank (Site 22)

The Skyview Terrace Water Tank Site is located on a ridge next to an existing Marin Municipal Water District water tank. The site is near Lucas Valley Road off of Highway 101 and is accessed via a paved residential road that terminates at the existing unpaved road to the water tank.

Details of the proposed work for the Next Gen System as the Skyview Terrace Water Tank Site are summarized in Section III, Project Description. The proposed changes include the introduction of a new equipment shelter, a new 35-foot monopole with two microwave dishes, a fence, an emergency generator, and a fuel tank, as summarized below in Table V-14.

The site is located on a hilltop in the City of San Rafael. The north and south faces of the ridge are vegetated with trees and brush, and the west and east faces of the ridge are open and grassy, as shown in Photo III-15 (Chapter III, Project Description). The site is bordered to the north, south, and west by residential development. Highway 101 and commercial development are located to the east. Additionally, there are parking areas to the west of the site at the bottom of the ridge, which provide access to a pedestrian trail. This trail is part of a trail network through the area, which provides access to the site from adjacent residential and commercial areas.

The proposed project would comprise an estimated 80% of the visible components on the ridge. The existing water tank site is shielded by a berm and is not particularly visible.

Table V–14. Skyview Terrace Water Tank Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Skyview Terrace Water Tank	Next to existing MMWD water tank near Lucas Valley Road. Visible from Hwy 101.	Propose new 35' tall monopole with 2 microwave dishes, shelter, fence, generator, and fuel tank.

1. Aesthetics

The Skyview Terrace Water Tank Site is located in public open space maintained by the City of San Rafael and the County of Marin. The southern half of the open space ridgeline is wooded while the northern half, where the project site is located, is relatively open and grassy. The existing water tank is located just above the project site and is screened by a berm that surrounds the tank. These are partially to directly visible, depending on elevation and distance from nearby residential neighborhoods, State Highway 101, and Smith Ranch Road.

Foreground views from the project site are toward the developed areas of San Rafael, although the site's elevation offers distant views of Big Rock Ridge to the west and views of San Pablo Bay to the east. These distant natural features provide scenic backdrops to nearby suburban development and roads.

a) Would the project have a substantial adverse effect on a scenic vista?

The Skyview Terrace Water Tank Site is located atop a ridgeline (Figure V.N-1), and the site and the access road offer public vistas of Big Rock Ridge, San Pablo Bay, Mount Tamalpais and the City of San Rafael (Figures V.N-2 through V.N-7). The proposed 35-foot tall MERA facility would

be located adjacent to the access road and would obstruct the scenic vista available from the ridgeline site (Figures V.N-4 and 5) such that the project would have a substantial adverse effect on a scenic vista from a public open space, creating an impact that is ***significant and unavoidable***.

Mitigation Measure AES-5

The public trail that extends southward from the access road shall be reconstructed to allow pedestrians to access the open space area south of the MERA site where views to Mt. Tamalpais and Big Rock Ridge would be unobstructed by the project. After implementation of mitigation the impact would remain **significant and unavoidable**.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Since the nearest portion of Highway 101 that is eligible for designation as a state scenic highway is approximately four miles north of the site, project work at this site would not damage any scenic resources or views within a state scenic highway, and ***no impact*** would occur.

c) Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Skyview Terrace Water Tank Site is located in an open area that contains patches of dense vegetation which limit views of the site from the south. In portions of the open space devoid of tree cover, the site is visible just downhill from the existing water tank. The construction of a 35-foot monopole and equipment shelter on a currently undeveloped hilltop would bring a significant visual change to the open area, and the change would be visible from distant residential neighborhoods, Highway 101, and from trails within the open space. The 35-foot monopole would be prominent from several vantage points, and the fenced equipment structure and monopole would affect existing visual character and quality of the hilltop open space. Consequently, the project impact is ***significant and unavoidable***.

Mitigation Measure AES-6

A combination of berms, opaque fencing and native grassland hydroseeding shall be installed to screen views of the equipment shelter from points east and west of the ridgeline. Equipment on the site shall be aligned to maximize space for the berm construction and the trail (Mitigation Measure AES-5). The top of the berm and the six-foot tall fence shall be contoured to mimic the broad naturalized landform of the ridgeline and shall be high enough to screen the shelter (but not the monopole) from lower elevation views such as Highway 101 to the east and Park Ridge Road to the west. Berms shall be mulched and hydroseeded to minimize erosion potential and to allow for germination during winter rains. Any erosion of the berm shall be immediately repaired.

After implementation of mitigation the 35-foot tall monopole and microwave dishes would still be visible and therefore the impact would remain ***significant and unavoidable***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Skyview Terrace Water Tank Site. Ground disturbance would be limited to the vicinity of the proposed infrastructure and would reach a maximum depth of five feet below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figure V.N-8.

Given the limited nature of ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Skyview Terrace Water Tank Site would comply with Mitigation Measure CULT-1 (see page IV.B-10), which provides procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Skyview Terrace Water Tank Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, and the Skyview Terrace Water Tank Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (see page IV.B-12 and IV.B-13), the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Proposed project improvements would be located within a previously developed and disturbed portion of the ridgeline that has little vegetation cover. However the open grassland habitat surrounding the project site could potentially support special-status plant species. As a result, focused protocol-level rare plant surveys were conducted within the site area on April 4, May 8, and June 12, 2018.

The following special-status species have a moderate or high potential to be present within undeveloped non-native annual grassland portions of the site: bent-flowered fiddleneck, congested-headed hayfield tarplant, bristly leptosiphon, and marsh microseris. Reference site visits for all aforementioned special-status plant species were performed with the following results: bent-flowered fiddleneck (observed March 30, 2018 along Highway 1 south of Tomales), congested-headed hayfield tarplant (observed June 6, 2018 along Bodega Avenue in Petaluma), bristly leptosiphon (observed April 8, 2018 at Taylor Mountain Regional Park in Santa Rosa), and marsh microseris (observed May 6, 2018 in bud and bloom at Abbotts Lagoon, Point Reyes). However, no special-status plant species were observed in the biological study area (the project site plus an approximate 100-foot radius), meaning that the proposed project improvements would not have an impact on special-status plant species.

Grasshopper sparrow has a moderate potential to be present in the vicinity, given the previously disturbed project site. Improvements within the Skyview Terrace Water Tank Site are limited, including a new 35-foot tower and an associated 1,050 square foot fenced area, shelter, generator, and fuel tank, and are not anticipated to impact vegetation or nesting habitat for this species. Accordingly, proposed improvements would have no impact on special-status wildlife species. Since the proposed project would not adversely affect candidate, sensitive, or special-status plant or wildlife species, ***no impact*** would occur.

b-c) Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The location of the proposed new radio communications facility is a previously disturbed pullout along the gravel access road serving the existing water tank. The surrounding habitat within the study area consists of non-native annual grassland dominated by slim oat, with other predominantly non-native grass and forb species present including ripgut brome, purple false brome (*Brachypodium distachyon*), soft chess, purple needle grass (*Stipa pulchra*), fennel (*Foeniculum vulgare*), yellow star thistle (*Centaurea solstitialis*), common fiddleneck (*Amsinckia intermedia*), and hairy cats ear. Non-native annual grassland is not considered a sensitive biological community, and no sensitive biological communities, including protected wetlands, are present. Site upgrades would be confined to previously developed or disturbed areas.

Consequently, the Project would have ***no impact*** on sensitive biological communities, including protected wetlands.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

The Skyview Terrace Water Tank Site is bordered by existing residential and commercial development, and the ridge on which improvements are proposed has limited utility as a wildlife movement corridor. Further, the area of proposed improvements would have a small footprint (1,050 square feet, within the 30-foot by 35-foot fenced area) and would not present a substantial barrier to wildlife movement. Thus, the Project would not substantially interfere with the movement of any native resident or migratory wildlife species; and ***no impact*** would occur.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No potential impacts to biological resources at the Skyview Terrace Water Tank Site were identified, and proposed improvements would not adversely impact biological resources, meaning that ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Skyview Terrace Water Tank Site is not located on or within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. There would be no conflict with any such policies, and ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

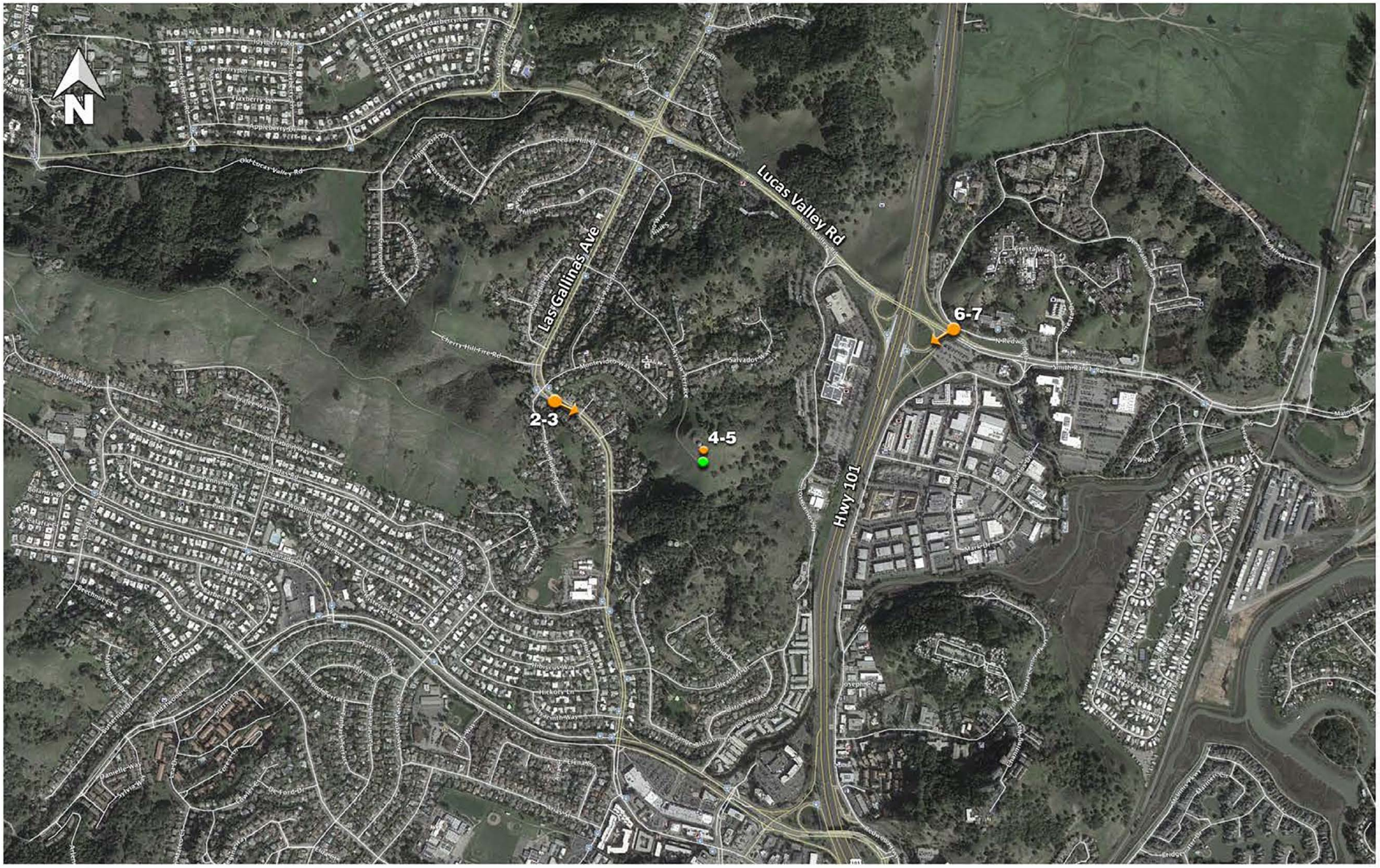
Evaluation of exposure limits for RF emissions at the Skyview Terrace Water Tank Water Tank Site (Site 22) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. Existing communications infrastructure at the site is minimal, so rather than measuring baseline RF emissions during a site visit, SiteSafe used an inventory and diagrams of

proposed infrastructure at the site to model electromagnetic emissions levels relative to Maximum Permissible Exposure (MPE) limits from the proposed communications system improvements and determine the site's current compliance with applicable FCC RF regulations.

SiteSafe modeled these conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the general public MPE limit when calculating the percentage of exposure, which is five times more stringent than the limit set for workers in controlled areas.

At the Skyview Terrace Water Tank Water Tank Site, there would be two antennas capable of operating at one time (for a full inventory, see Page 243 of Appendix D). These antennas would cumulatively create a maximum ground-level exposure of less than 1% of the public MPE limit. SiteSafe's modeling of RF exposures in an elevation view can be viewed in Figure V.N-9, at the end of this section. The figure shows that both controlled and uncontrolled areas (accessible to the public) would experience a maximum (worst-case modeling scenario) of less than 5% of the MPE public limit and therefore SiteSafe concluded that all MERA facilities at the Skyview Terrace Water Tank Water Tank Site would comply with FCC regulations.

In summary, MERA's operations at the Skyview Terrace Water Tank Water Tank Site currently comply with the FCC's controlled/occupational and uncontrolled/public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 1% of the public MPE limits for uncontrolled/general public environments and would remain less than 1% of the MPE limits during each phase of the proposed project. A fence will surround the perimeter of the site, but MPE levels inside the fence would not expose workers to more than 1% of the public MPE limit at ground level. As the project would not result in RF emissions in excess of the FCC's MPE limits, the impacts from RF emissions at the Skyview Terrace Water Tank Water Tank Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.N - 1 Skyview Terrace Water Tank Aerial with Photo Locations

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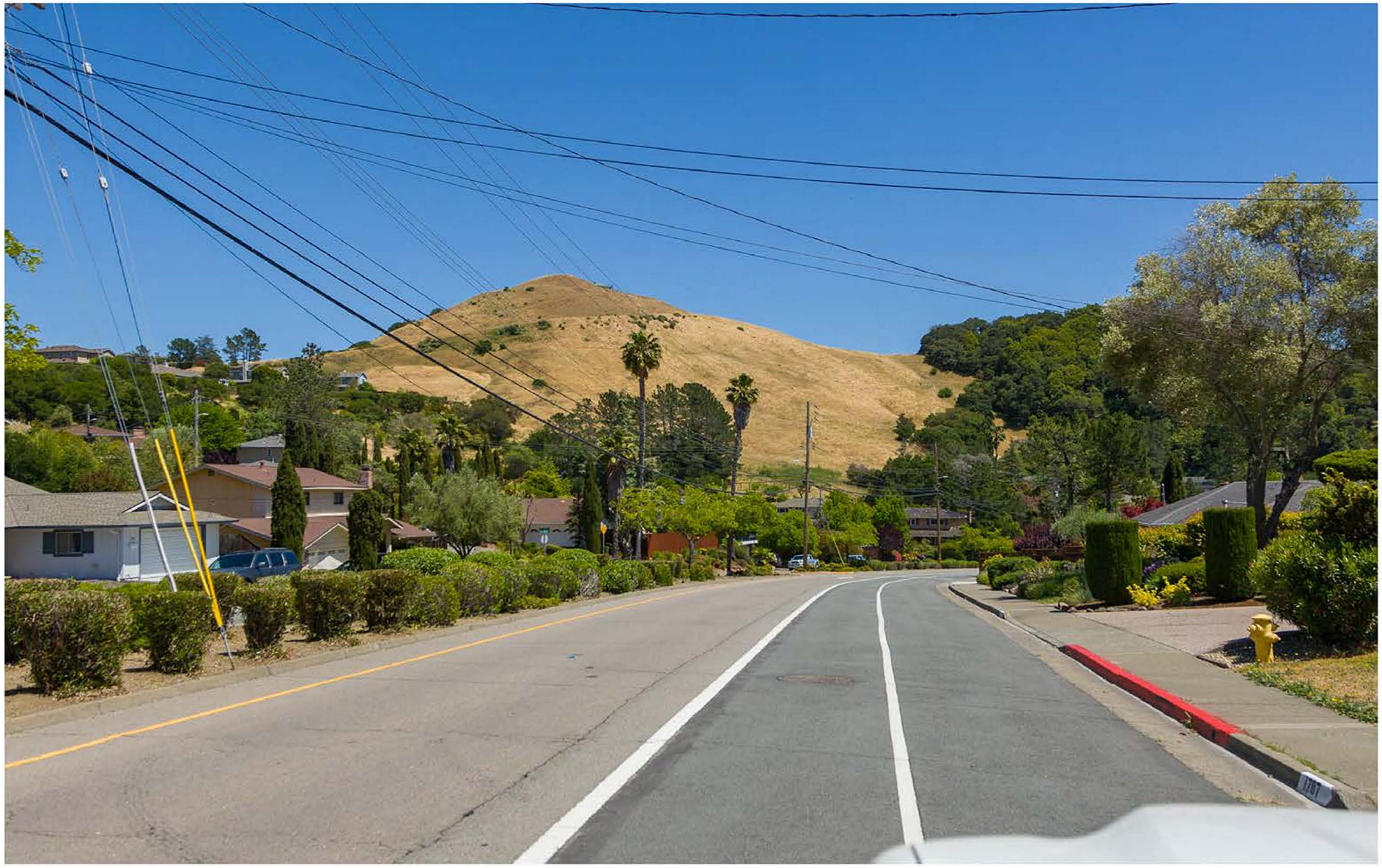
ENVIRONMENTAL CONSULTANTS

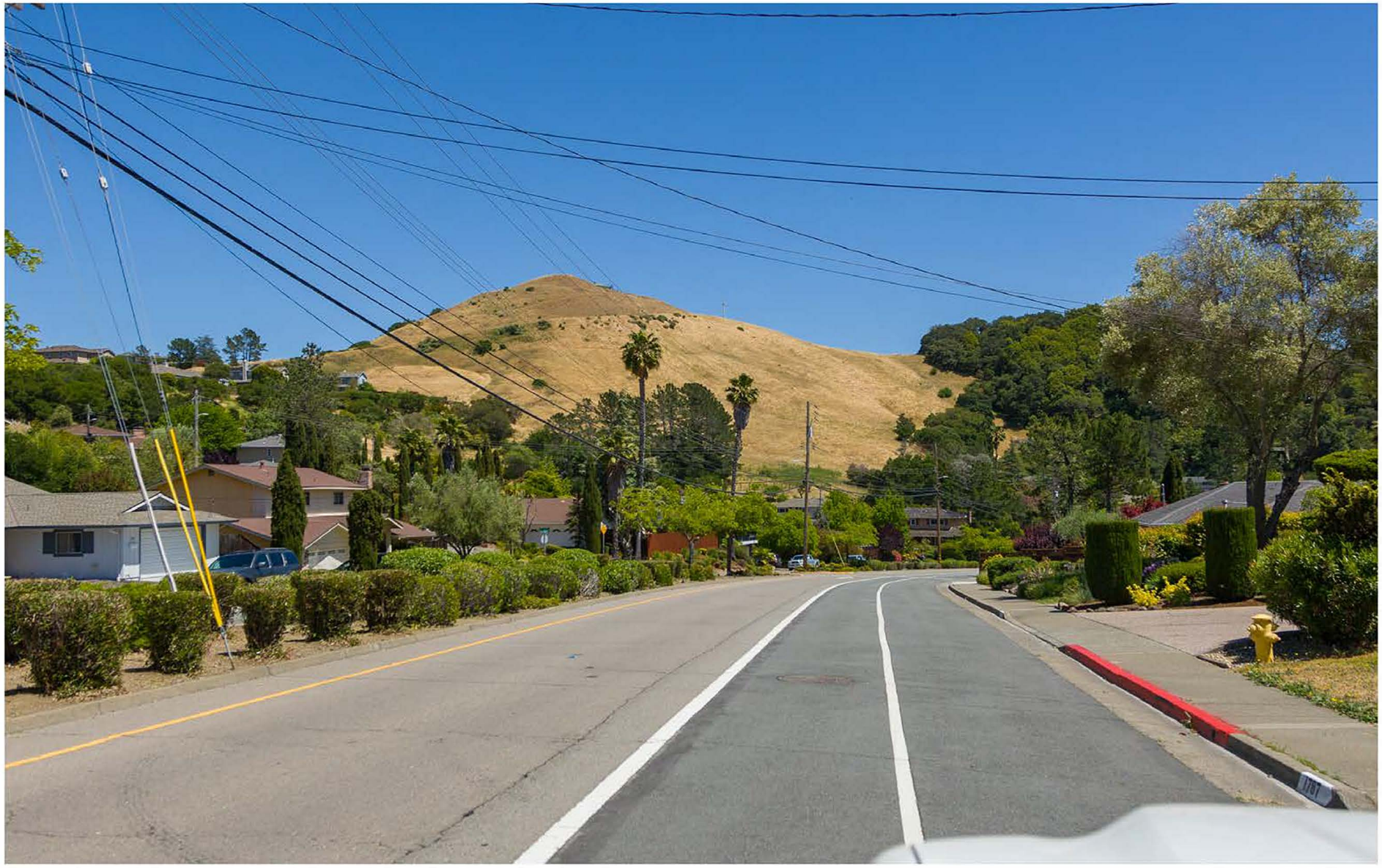


Current photograph of the view looking southeast from Las Gallinas Avenue.

Source: Previsualists Inc.

Figure V.N - 2 Existing Skyview Terrace Water Tank from Las Gallinas Avenue

wra ENVIRONMENTAL CONSULTANTS



Photosimulation with the 35-foot monopole in the view looking southeast from Las Gallinas Avenue.

Source: Previsualists Inc.

Figure V.N - 3 Proposed Skyview Terrace Water Tank from Las Gallinas Avenue

wra ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking south on the hilltop by the water tank, showing an up close view of the site.

Source: Previsualists Inc.

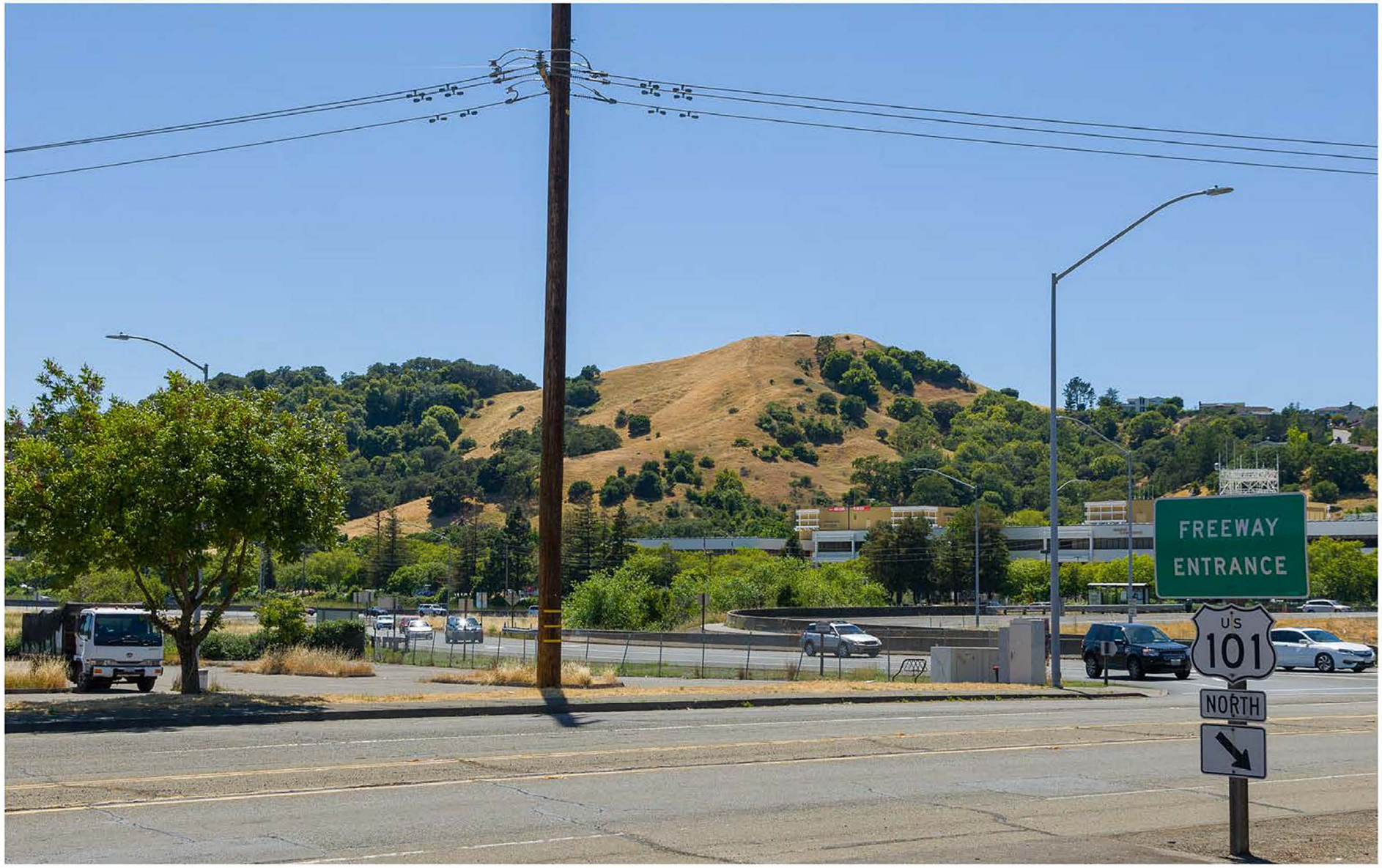
Figure V.N - 4 Existing Skyview Terrace Water Tank Near View

wra
ENVIRONMENTAL CONSULTANTS

Photosimulation of the 35-foot monopole and equipment structure in the view looking south from the hilltop by the water tank, showing an up close view of the site. Source: Previsualists Inc.

Figure V.N - 5 Proposed Skyview Terrace Water Tank Near View

wra ENVIRONMENTAL CONSULTANTS



Current photograph of the view looking southwest from Smith Ranch Road at Hwy 101.

Source: Previsualists Inc.

Figure V.N - 6 Existing Skyview Terrace Water Tank from Smith Ranch Road

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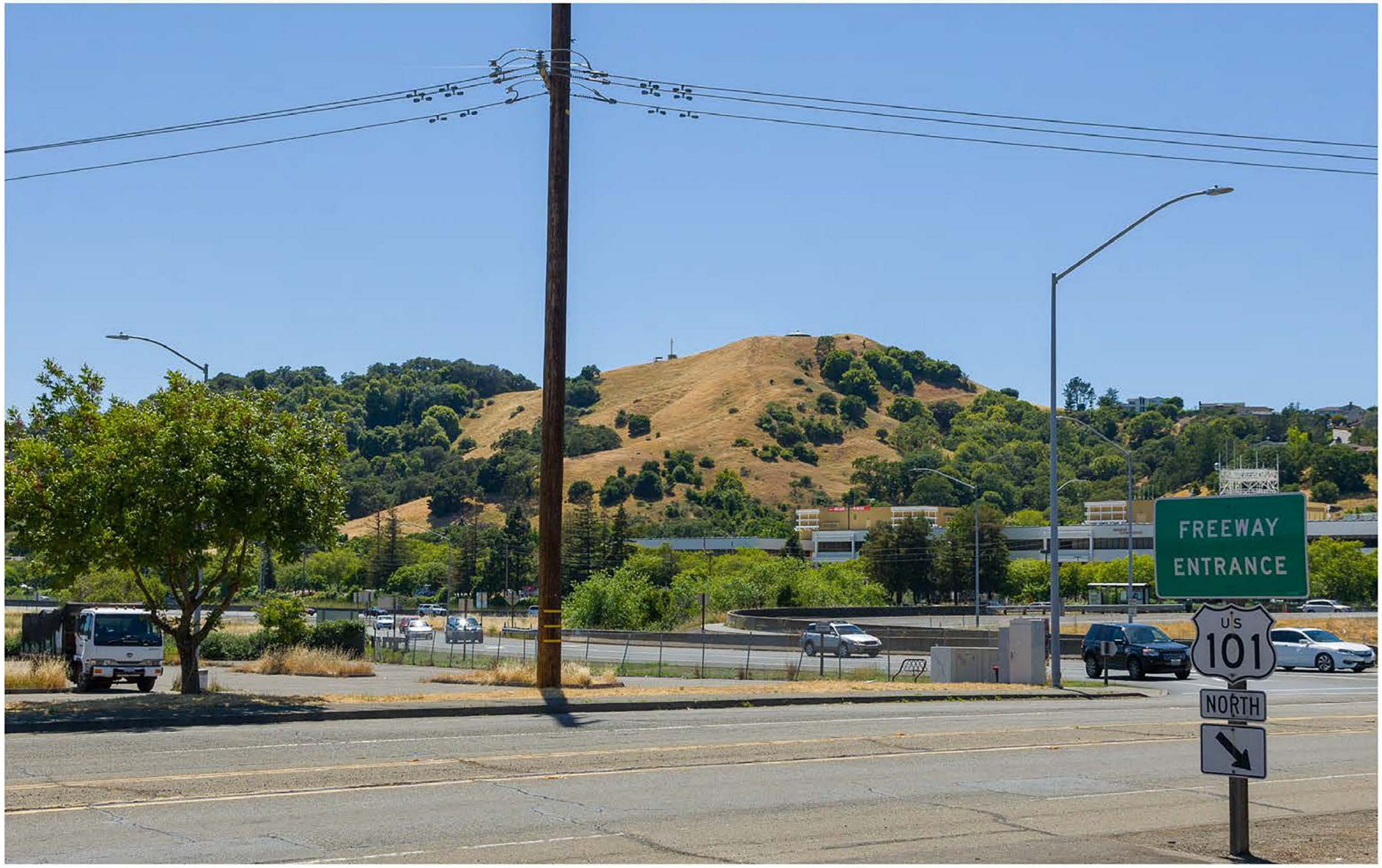
ENVIRONMENTAL CONSULTANTS



Photosimulation of the 35-foot monopole and equipment structure in the view looking southwest from Smith Ranch Road at Hwy 101.

Source: Previsualists Inc.

Figure V.N - 7 Proposed Skyview Terrace Water Tank from Smith Ranch Road

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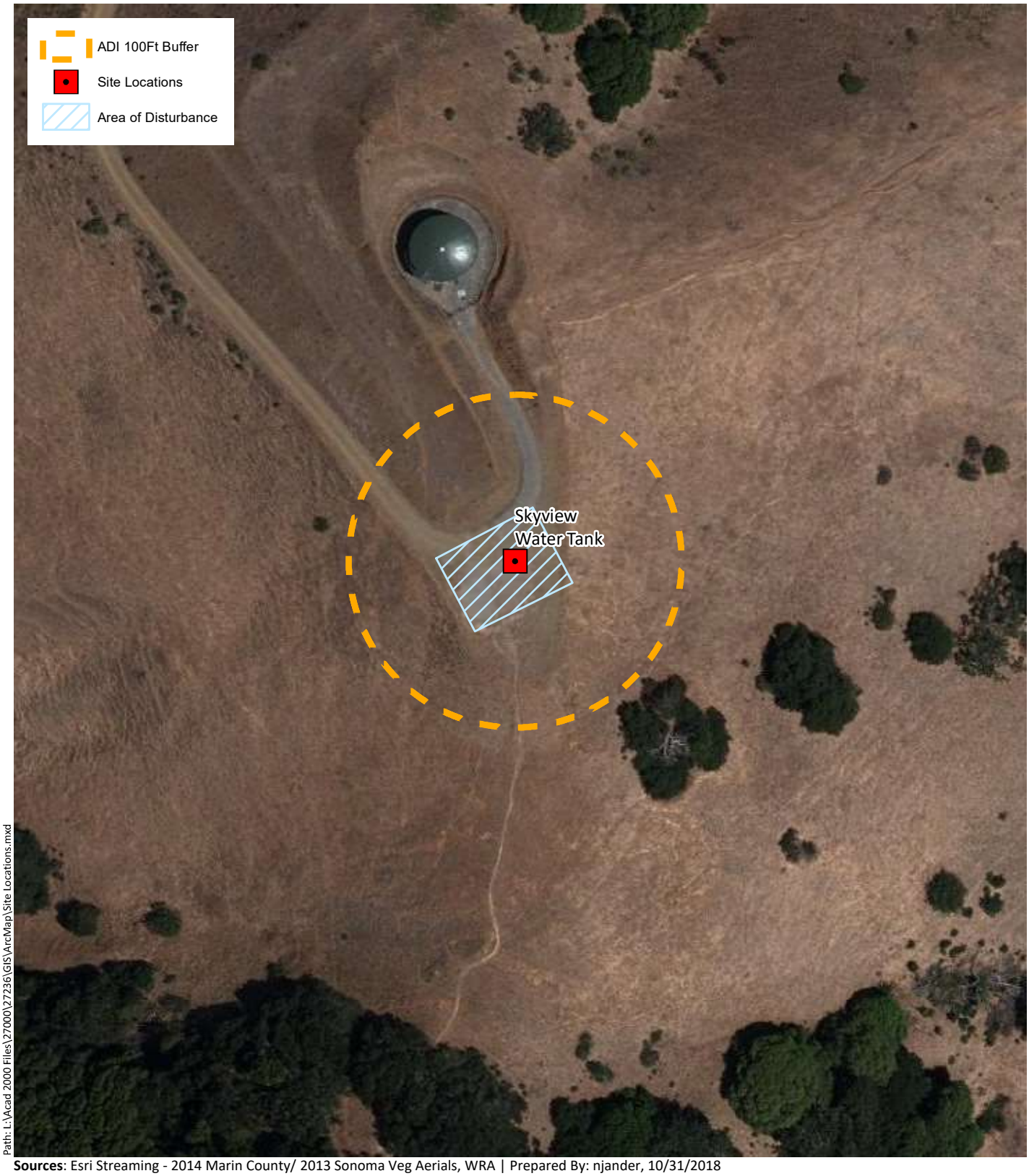

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.N - 8 Skyview Terrace Water Tank

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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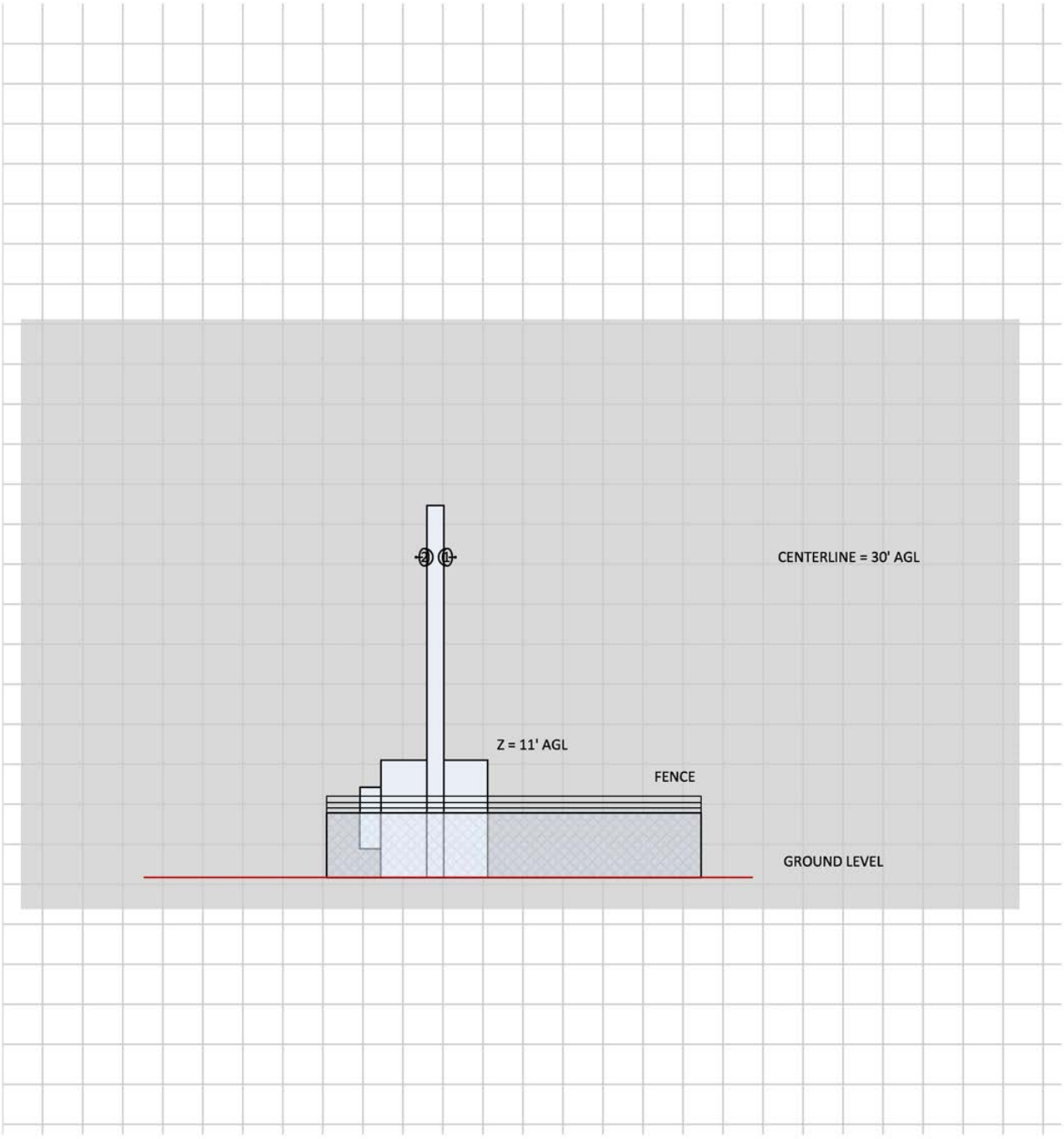

% of FCC Public Exposure Limit

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier — **Proposed Barriers/ Signs**

Figure V.N - 9 Skyview Terrace Water Tank Simulated All-On RF Exposure - Elevation View

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O. Muir Beach (Site 23)

This proposed MERA site is in Muir Beach and would be located within an already disturbed and developed parcel of land adjacent to the parking lot for the Golden Gate National Recreation Area's (GGNRA) Muir Beach Scenic Overlook. The proposed improvements would be located next to an existing water tank, which is highly visible from both nearby homes and the scenic overlook. Proposed MERA improvements include the introduction of a new 60-foot high monopole that will reach 70 feet in height with antennas, plus an equipment shelter, emergency generator, fuel tank, one microwave dish on top of the existing water tank, a wooden fence, and landscaping. A new fire station unaffiliated with MERA is being considered on the same site. Details of the proposed work for the Muir Beach Site are described in Chapter III, Project Description and summarized below in Table V-15.

To the west, the Scenic Overlook provides views of the Pacific Ocean and coastal cliffs. Overlook features also include a pedestrian path and picnic area as shown in Photo III-16 (Chapter III, Project Description). The scenic overlook's restroom is next to the MERA's proposed enclosure.

Table V–15. Muir Beach Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Muir Beach	Existing Muir Beach Community Services District Water Tank. Next to existing GGNRA scenic overlook parking lot and public restrooms.	Propose new 60' tall monopole, with 3 antennas, a shelter, fence, generator and fuel tank, plus one new microwave dish on existing water tank.

1. Aesthetics

The Muir Beach Site is located adjacent to the Muir Beach Scenic Overlook within the GGNRA. As previously mentioned, the overlook features picnic tables and rest facilities as well as sweeping views of Muir Beach, coastal cliffs, and the Pacific Ocean. Hiking trails through GGNRA and a short access road off of State Route 1 provide access to the overlook. The Marin County portion of State Route 1 is eligible, although not officially designated, as a state scenic highway.

KOPs have been selected to represent the array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.O-1. Subsequent Figures V.O-2 through V.O-7 show the anticipated before and after conditions at the Muir Beach Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista?

The proposed project improvements would be set back from the scenic overlook parking lot and rest area. As the proposed radio site is located east of the scenic overlook, the views of the Pacific

Ocean to the west, and existing vistas of the ocean and coastal bluffs to the north and south would not be affected.

Existing tree cover hides the proposed site when viewed from ridgelines and the Coastal Trail to the north, so that the views of the ocean from these vantage points are not altered. (Figures V.O-2 and 3). As a result, the project would not adversely affect a scenic vista; and impacts would be ***less than significant***.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Muir Beach Water Tank site is just west of State Route 1. While not officially designated, State Route 1 is an eligible state scenic highway with outstanding views of the Pacific Ocean. The Muir Beach Site is not visible from State Route 1, as views are obstructed by topography and tree canopy, meaning that there is ***no impact*** from the project to scenic resources within the highway.

c) Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The construction of a monopole with antennas reaching 70 feet in height would affect the visual character of the Muir Beach scenic overlook, even though the existing parking lot and water tank already do so. Views to the east towards Mt. Tamalpais are most affected, as the new monopole would dominate the vista of the mountains (Figures V.O-6 and 7). As such, the project's impact is on existing visual character is ***significant and unavoidable***.

<u>Mitigation Measure AES -7</u>

The monopole shall be painted the same rusty-brown color as the restroom and shall blend with the adjacent water tank, as shown in Figure V.O-7. The back side of microwave dishes, and other equipment on the top of the water tank (to the extent feasible) shall be painted to match the tower. Front surfaces of microwave dishes cannot be painted and shall remain grey. Landscaping and opaque fencing are provided as part of the project to screen views of the equipment structure.

Other feasible mitigation opportunities are limited at this site given the height requirements of the monopole, and the impact would remain ***significant and unavoidable*** after mitigation.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Muir Beach Site. Ground disturbance would be limited to the vicinity of the proposed monopole, shelter, fence, generator, and fuel tank, and would reach a maximum depth of five feet below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figure V.O-8.

Given the limited nature of ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Muir Beach Site would comply with Mitigation Measure CULT-1 (see page IV.B-10), which includes procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Muir Beach Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, and the Muir Beach Site was among these sites. However, by implementing Mitigation Measures TRIBE-1, TRIBE-2, and TRIBE-3 (see page IV.B-12 and IV.B-13), the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be ***less than significant with mitigation incorporated***.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Muir Beach Site are not anticipated to impact vegetation within the site. The project site does not contain suitable habitat for special-status plant species. However, due to the presence of a documented occurrence of Point Reyes horkelia, a special-status species plant, from 1972 at approximately 0.7 miles south of the site, a focused protocol-level survey was conducted for this species on June 6, 2018. However, no special-status plant species were observed in the biological study area (the project site plus an approximate 100-foot radius), so that proposed site improvements would not impact special-status plant species.

Nesting birds including oak titmouse, a special status species, have a moderate potential to be present in the vicinity of the project site. While improvements within the Muir Beach Site would not impact vegetation, due to the proximity of dense tree cover, there is some potential for project construction activities to disturb nesting birds. Implementation of Mitigation Measure BIO-2 would ensure these impacts are less than significant. No other activities are planned with the potential to harm other candidate, sensitive, or special-status wildlife species.

In summary, improvements within the Muir Beach Site are not likely to impact special-status wildlife species. No candidate, sensitive, or special-status plant species are present. With implementation of Mitigation Measure BIO-2 (see Site 8, Point Reyes Hill), impacts to all candidate, sensitive, or special-status species would be ***less than significant with mitigation incorporated***.

b-c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Recent aerial imagery shows that the property on which the MERA facilities would be located was disturbed as recently as 2010 when the current water tank was built and a former water tank was decommissioned.

The surrounding habitat consists of landscaped ornamental trees and shrubs including Monterey cypress (*Hesperocyparis macrocarpa*), prickly Moses (*Acacia verticillata*), and California wax myrtle (*Morella californica*), with ruderal herbaceous vegetation and occasional remnant native shrubs present including coyote brush and California sagebrush (*Artemisia californica*). Landscaped/ornamental areas are not considered a sensitive community. No sensitive biological communities are present, including protected wetlands, and site upgrades consist of minor modifications to existing facilities in a previously developed area; thus, the Project would have ***no impact*** on sensitive biological communities and protected wetlands.

d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?*

This project site is located within an existing developed property surrounded on one or more sides by residential development, a parking lot, and associated roads and hardscapes that are not core or vital habitat areas or corridors for wildlife species. The proposed MERA improvements will not significantly impede wildlife movement relative to existing site conditions. Consequently, the project would have ***no impact*** on wildlife movement corridors or nursery sites.

e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The Muir Beach Site is located in GGNRA and is within the California Coastal Zone, so that it is subject to the policies of the GGNRA General Management Plan (GMP) and the Marin County Local Coastal Plan (LCP). The GMP sets forth general goals for the management of the Park but does not establish any policies or ordinances applicable to the proposed project. The LCP's Habitat Protection Policies 23, 35, and 26 govern the protection of nesting and breeding wildlife, wildlife movement, and minimization of disturbance to grassland feeding areas, respectively.

Since proposed project improvements are in previously developed or disturbed areas, and the improvements largely occur on existing facilities. Therefore, the Project would not impede wildlife movement, interfere with nesting or breeding, or degrade the quality of grassland for feeding. There would therefore be ***no impact*** regarding conflict with local policies or ordinances protecting biological resources.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

b) *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?*

The site property, owned by the Muir Beach Community Services District, was previously improved with two water tanks, although one was recently demolished. There is some existing communications equipment affixed to the top of the remaining tank. A new fire station unaffiliated with MERA is also being considered at the property. The proposed MERA facilities will be built in an already developed portion of the CSD site near the remaining water tank, and existing trees and proposed planting would create a buffer between the proposed development and the scenic overlook, the overlook parking lot, and restrooms.

The Muir Beach Site is within the jurisdiction of Unit 1 of the Marin County LCP and adjacent to the GGNRA under the jurisdiction of the GGNRA GMP. The site is designated as C-SF3

(Rural/Residential Coastal Zone) and zoned as C-R-A-B4 (Residential, Agricultural 1 acre lot Coastal Zone). Per Marin County's Coastal Zone regulations, the C-R-A district permits residential use, combined with small-scale agricultural activities. Public utilities are conditionally permitted per section 22.88.010.2 of Marin County's interim coastal zone regulations; however, MERA is not subject to this County-level permit and will be working with the County (as an agent of the State) to acquire a Coastal Development Permit, as required per Chapter 22.56.040, for a state or local public agency project that is not exempted or otherwise requiring a coastal project permit.

LCP policies require new development to be adequately set back from the Muir Beach Bluffs and limit impacts on wildlife habitat and movement corridors. The GGNRA GMP does not set forth any substantive land use requirements but does state that the NPS will work to improve beach and trail access and preserve Muir Beach's natural setting, among other goals for the site.

The proposed project is consistent with the land development and preservation policies contained in the LCP Unit 1. The biological surveys and analysis completed for the Muir Beach Site determined that the project site does not contain suitable habitat for special status plant species. Although nesting birds have a moderate potential to occur in the vicinity of the subject property, the biological analysis found that proposed improvements would not impact special status wildlife species and would not disrupt wildlife movement.

Proposed MERA improvements are well set back from the coastal bluffs, being located inland of the GGNRA parking lot, picnic area, and scenic overlook, and sited on an existing developed site. MERA improvements will be structurally engineered to withstand seismic events and are not located on any known fault traces.

The proposed MERA equipment shelter is less than 15 feet in height and the proposed 60-foot monopole is the minimum height needed to connect with the overall emergency radio network. Furthermore, the proposed shelter, monopole, and antennas will not obstruct or degrade existing views toward the ocean and coastline from the scenic overlook.

The proposed project will require minimal grading and will be designed to connect with the property's current drainage system. Project design features include additional landscaping bordering the GGNRA parking lot, and facilities are sited to take advantage of existing vegetation screening. While the proposed 60-foot monopole will be a highly visible feature on the CSD's property, so is the existing water tank by which it would be located. MERA proposals at this site are conditionally permitted under the Marin County Zoning Ordinance and do not otherwise conflict with Marin County LCP land use plans, policies, or regulations. Therefore impacts would be ***less than significant***.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Muir Beach Site (Site 23) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm.

SiteSafe's complete methodology and findings are detailed in Appendix D. Existing communications infrastructure at the site is minimal, so rather than measuring baseline RF emissions during a site visit, SiteSafe used an inventory and diagrams of proposed infrastructure at the site to model RF emissions levels relative to Maximum Permissible Exposure (MPE) limits from the proposed communications system improvements and determine the site's current compliance with applicable FCC RF regulations.

SiteSafe modeled these conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the general public MPE limit when calculating the percentage of exposure, which is five times more stringent than the limit set for workers in controlled areas.

At the Muir Beach Site, there would be 11 antennas capable of operating at one time (for a full inventory, see Page 253 of Appendix D). These antennas would cumulatively create a maximum ground-level exposure of less than 1% of the public MPE limit. SiteSafe's modeling of RF exposures in an elevation view can be viewed in Figure V.O-9, at the end of this section. The figure shows that uncontrolled areas (accessible to the public) would experience a maximum (worst-case modeling scenario) of less than 5% of the MPE public limit and therefore SiteSafe concluded that all MERA facilities at the Muir Beach Site would comply with FCC regulations.

In summary, MERA's operations at the Muir Beach Site currently comply with the FCC's controlled/occupational and uncontrolled/public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 1% of the public MPE limits for uncontrolled/general public environments and would remain less than 1% of the MPE limits during each phase of the proposed project. A fence will surround the perimeter of the site, but MPE levels inside the fence would not expose workers to more than 1% of the public MPE limit at ground level. As the project would not result in RF emissions in excess of the FCC's MPE limits, the impacts from RF emissions at the Muir Beach Site would be ***less than significant***. No mitigation is required.

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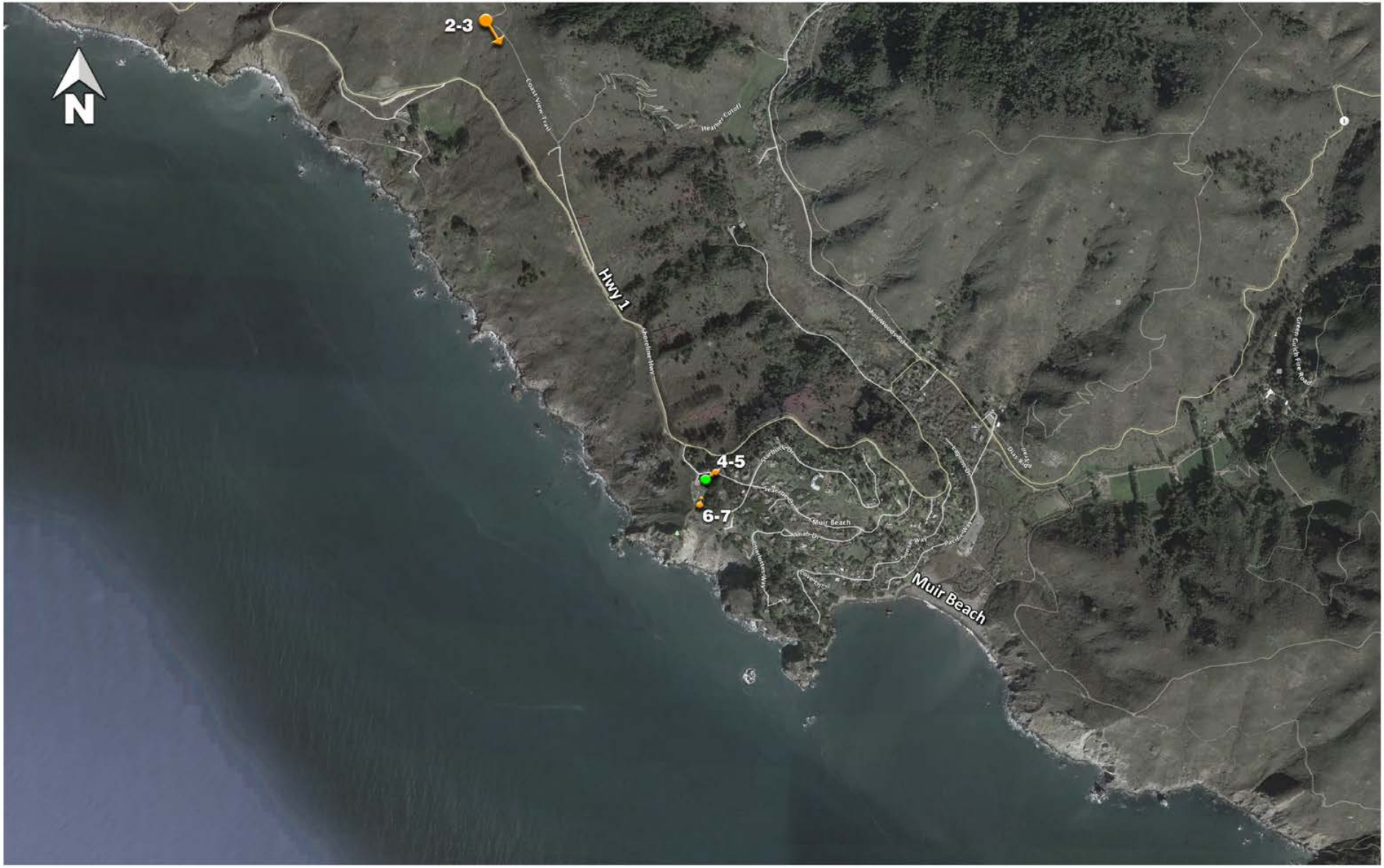

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.O - 1 Muir Beach Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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Current photograph of the view looking south from the California Coastal Trail overlooking Hwy 1.

Source: Previsualists Inc.

Figure V.O - 2 Existing Muir Beach from California Coastal Trail

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Photosimulation of the view looking south from the California Coastal Trail overlooking Hwy 1.

Source: Previsualists Inc.

Figure V.O - 3 Proposed Muir Beach from California Coastal Trail

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Current photograph of the view looking southwest from Seacape Drive.

Source: Previsualists Inc.

Figure V.O - 4 Existing Muir Beach Neighborhood View

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Photosimulation with the new 60-foot tall monopole and microwave dish in the view looking southwest from Seacape Drive.

Source: Previsualists Inc.

Figure V.O - 5 Proposed Muir Beach Neighborhood View

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Current photograph of the view looking northeast from the Muir Beach Overlook.

Source: Previsualists Inc.

Figure V.O - 6 Existing Muir Beach from GGNRA Scenic Overlook

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Photosimulation with the new 60-foot tall monopole and microwave dish in the view of Mt Tamalpais looking northeast from the Muir Beach Overlook. Source: Previsualists Inc.

Figure V.O - 7 Proposed Muir Beach from GGNRA Scenic Overlook

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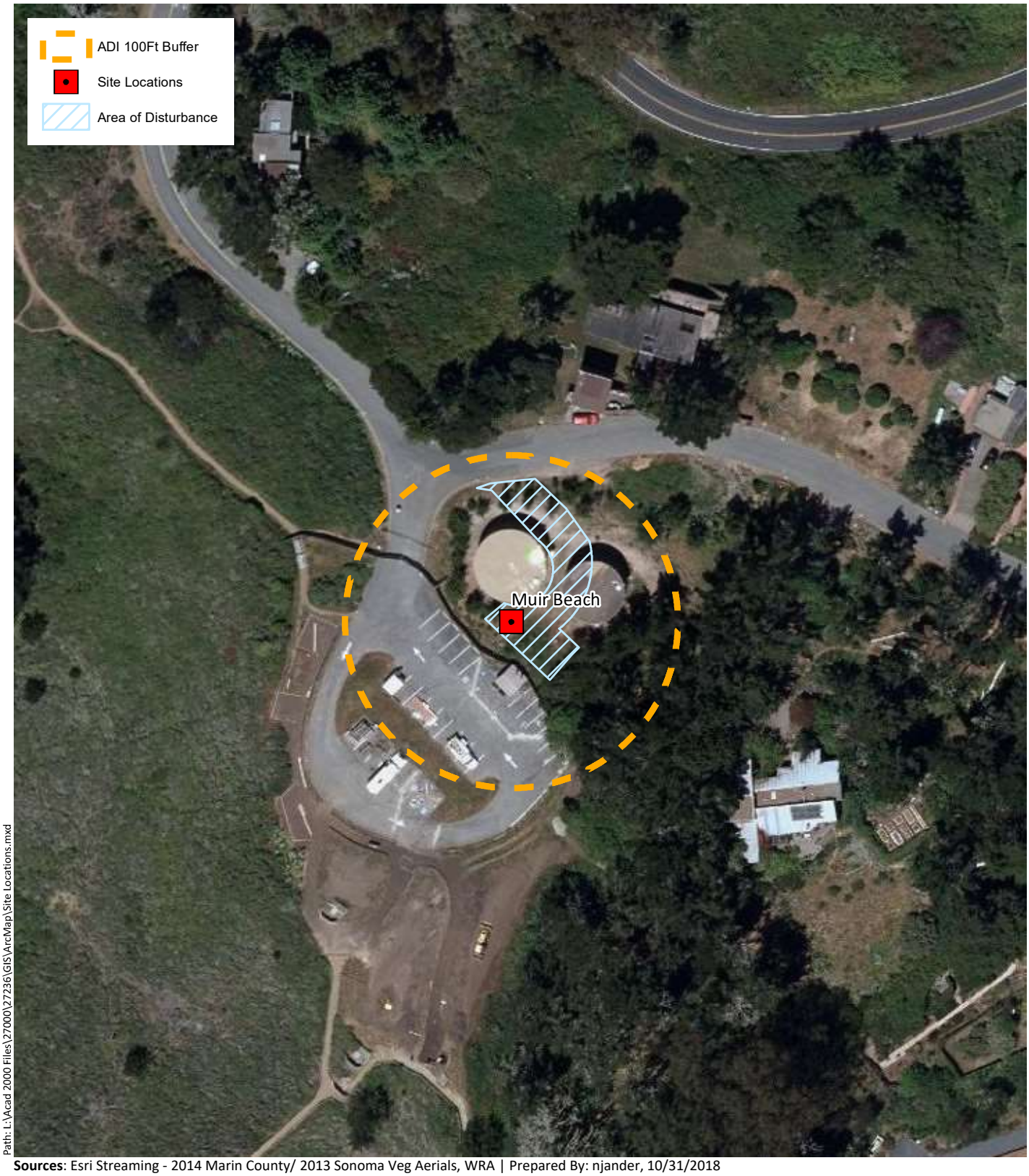

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.O - 8 Muir Beach

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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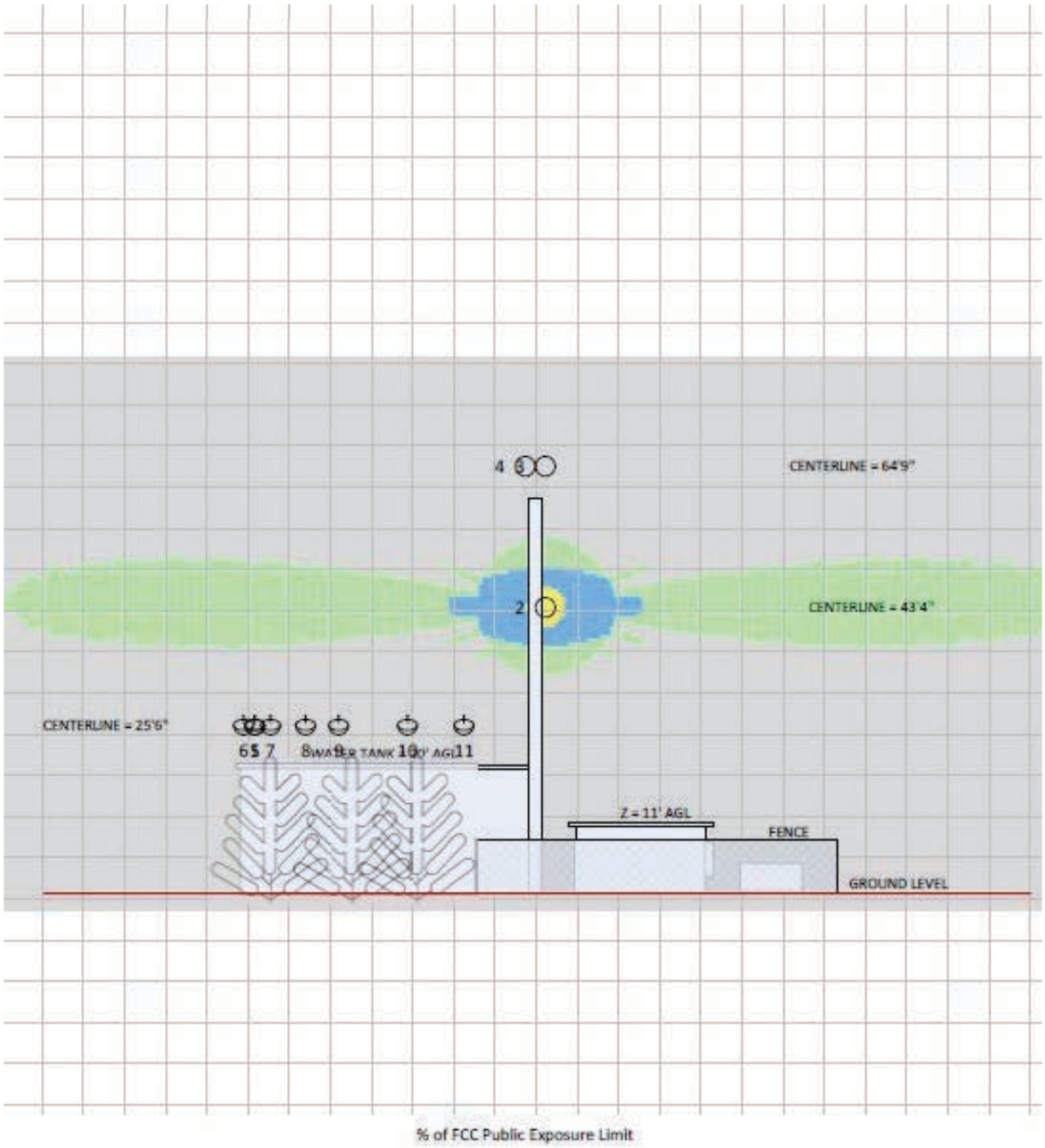
wra ENVIRONMENTAL CONSULTANTS



% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier ——— **Proposed Barriers/ Signs** — — — — —

Figure V.O-9 - Muir Beach Simulated All-On RF Exposure - Elevation View

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P. Wolfback Ridge (Site 24)

The Wolfback Ridge improvements will be located within a large privately-owned active communications complex situated on a grassy hilltop surrounded by the GGNRA. Site access exists via State Highways 101/1 to Wolfback Ridge Road, which joins an unpaved graded road terminating at the gated site. The existing site has multiple towers over 100-feet tall with numerous FM radio station antennas. Proposed Next Gen System improvements include reinforcement of an existing tower and minor equipment modifications including two microwave dishes and four antennas on an existing tower and new equipment in the existing building, as summarized below in Table V-16. Additional information is provided in Chapter III, Project Description.

Located on an inholding just inside the boundaries of GGNRA, the Wolfback Ridge Site is near a number of popular recreational trails. The project is bordered by GGNRA open space to the north, south, and west, as shown in Photo III-17 (Chapter III, Project Description). To the east, single-family residences sit atop the neighboring ridgelines. Beneath these ridges and residences runs Highway 101/1, from which the project site cannot be viewed. More distant views from Richardson Bay and Tiburon are available.

Table V–16. Wolfback Ridge Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Wolfback Ridge	Very active antenna site with multiple tall towers on private hilltop site surrounded by GGNRA.	Propose 2 microwave dishes and 4 antennas on existing 100' tower, new generator, and fuel tank. Reinforce existing tower foundation. Propose use of existing building and fence.

1. Aesthetics

The Wolfback Ridge Site is an existing developed communications facility with multiple tall towers on a hilltop surrounded by the Marin Headlands in the GGNRA. The hilltop is above 1,100 feet in elevation and is visible from many distant vantage points, although nearby views are only available from the west within the GGNRA. Public trails popular among residents and GGNRA visitors traverse the ridgeline and are in the valleys to the west. GGNRA's "Radio Tower Trail" provides direct access to the site's fence line. The peak of the hill, where the project is situated, is currently fenced to prevent public access.

Key Observation Points (KOPs) have been selected to represent the array of public viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.P-1. Subsequent Figures V.P-2 through V.P-5 show the anticipated before and after conditions at the Wolfback Ridge Site from the three selected KOPs.

The impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

c) Would the project have a substantial adverse effect on a scenic vista?

The existing communications facility already has a substantial adverse effect on the scenic vistas available from and around the site, and the proposed modifications are relatively minor, and will not worsen any impacts. Consequently, the impacts of the project are ***less than significant***.

d) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The site is in the Marin Headlands, west of the Waldo Grade above State Highways 101/1. Waldo Grade is not an officially designated state scenic highway, but is eligible for designation, and it is the primary route for motorists crossing the Golden Gate Bridge, an important aesthetic and cultural resource of Marin County. The steep topography and dense vegetation along the highway, however, block the project site from view from all nearby vantage points along the highway so that the project has no potential to adversely affect scenic resources within a state scenic highway. Therefore, the impact is ***less than significant***.

c) Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Figures III-56 and III-57 show the relatively minor physical changes at the site. The fenced off hilltop already contains several 100-foot towers. An estimated 5% of the visible components at the Wolfback Ridge Site would be owned by MERA after proposed project modifications are installed. There are 60 antennas on seven towers at the site, and MERA would add six antennas on one tower. However, these modifications would not alter the maximum height of the existing tower. Proposed changes would not affect the overall visual character of the site, and, as a result, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

<u>Cultural Resources</u>

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

According to the Cultural Resources Report authored by GANDA, which incorporated records searches and site visits, there are no known historical resources pursuant to Section 15064.5 within or near the Wolfback Ridge Site. Ground disturbance would be limited to the vicinity of the proposed tower foundations and would extend approximately 24 inches below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figure V.P-6.

Given the limited nature of ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Wolfback Ridge Site would comply with Mitigation Measure CULT-1 (see page IV.B-10), which provides procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a

substantial adverse change in the significance of a historical resource in or near the Wolfback Ridge Site, and impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, but the Wolfback Ridge Site was not among these sites. As this site was not determined during the tribal consultation process to have potential for a substantial adverse change in the significance of tribal cultural resources, ***no impact*** would occur.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Wolfback Ridge Site are limited to minor modifications to existing equipment and are not anticipated to impact vegetation within the site. The surrounding coastal scrub habitat is unlikely to support special-status plant species known to occur in the vicinity of the site. Franciscan thistle (*Cirsium andrewsii*), a special-status plant species which is historically known to occur in the Marin Headlands, is restricted to drainage and seep areas (sometimes serpentine seeps), not present at the Woflback Ridge site. No candidate, sensitive, or special-status plant or wildlife species are likely to occur in the study area (the project site plus an approximate 100-foot radius), and therefore site upgrades would have ***no impact*** on these species.

b-c) Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The habitat surrounding the Wolfback Ridge Site consists of coastal scrub dominated by coyote brush, which is not considered a sensitive biological community. No sensitive biological communities or protected wetlands are present, and site upgrades consist of minor modifications to existing facilities in a previously developed area; thus, the Project would have ***no impact*** on sensitive biological communities or federally protected wetlands.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

This site is located at a previously developed location within a broad expanse of open space. The proposed improvements are limited to upgrades to existing facilities, and the proposed improvements are not anticipated to significantly impede wildlife movement compared to existing conditions. Consequently, the Project would have ***no impact*** on wildlife movement corridors.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No local policies or ordinances applicable to the Wolfback Ridge Site were identified. Further, the site is highly developed, and proposed modifications are comprised of small alterations to existing infrastructure. As a result, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Wolfback Ridge Site is located within a pre-existing, active telecommunications complex surrounded by GGNRA. The site is subject to the requirements of the GGNRA GMP. The GMP aims to preserve natural resources and enhance recreational opportunities within GGNRA, but it does not outline any substantive requirements that might apply to the Wolfback Ridge Site.

Proposed modifications at the Wolfback Ridge Site are minor and would occur entirely within the footprint of a pre-existing telecommunications site. An existing building, tower, and fence would be used, but tower foundations would be reinforced, a new emergency generator and fuel tank would be constructed, and new equipment would be installed on the tower. Given that this site is already developed for telecommunications use and is fenced off from the rest of GGNRA, the small modifications proposed at the site would not interfere with any of the goals of the GMP pertaining to resource management or recreational opportunity. Given that there are no other applicable land use plans or policies with which MERA must comply, the proposed modifications at the Wolfback Ridge Site would not conflict with any applicable land use plan, policy, or

regulation adopted for the purposes of avoiding or mitigating an environmental impact. Thus, there would be ***less-than-significant*** impacts

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

The Wolfback Ridge Site is a very active communications site with powerful FM radio station antennas. MERA proposes to lease space on an existing radio tower.

Evaluation of exposure limits for RF emissions at the Wolfback Ridge Site is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 24, 2018, SiteSafe surveyed the Wolfback Ridge Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured existing baseline RF emissions at 29 controlled locations (not accessible to the public) at the Wolfback Ridge Site. The highest emissions recorded during this process were below FCC occupational MPE limits, at approximately 28%. The maximum recorded level at 12 of the 29 locations was below 5% of the occupational threshold, while the maximum recorded levels at the remaining 17 locations ranged from 5-28% of the occupational threshold.

SiteSafe subsequently modeled theoretical maximum cumulative RF levels under three conditions of RF exposure: a) the "existing condition", b) the "all systems on" condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-tern "proposed condition" in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the public MPE limit when calculating the percentage of exposure, as this is five times more stringent than the occupational limit, and therefore more conservative. Their findings are discussed below:

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing conditions at the Wolfback Ridge Site is currently 50,141.5% of the public MPE limit. This maximum theoretical emissions level would occur in a gated area more than 13 feet above ground level, blocked from the public by a 6-foot fence. Ground-level emissions are presently under 100% of the public MPE in publicly accessible areas near the site.

b) Figure V.P-7 depicts modeled exposures relative to applicable MPE limits during the transition period, when the currently installed and the new transmitting devices will function simultaneously as the new system is being tested. The highest emissions associated with the project are anticipated to occur during the transition period, as this is when the highest

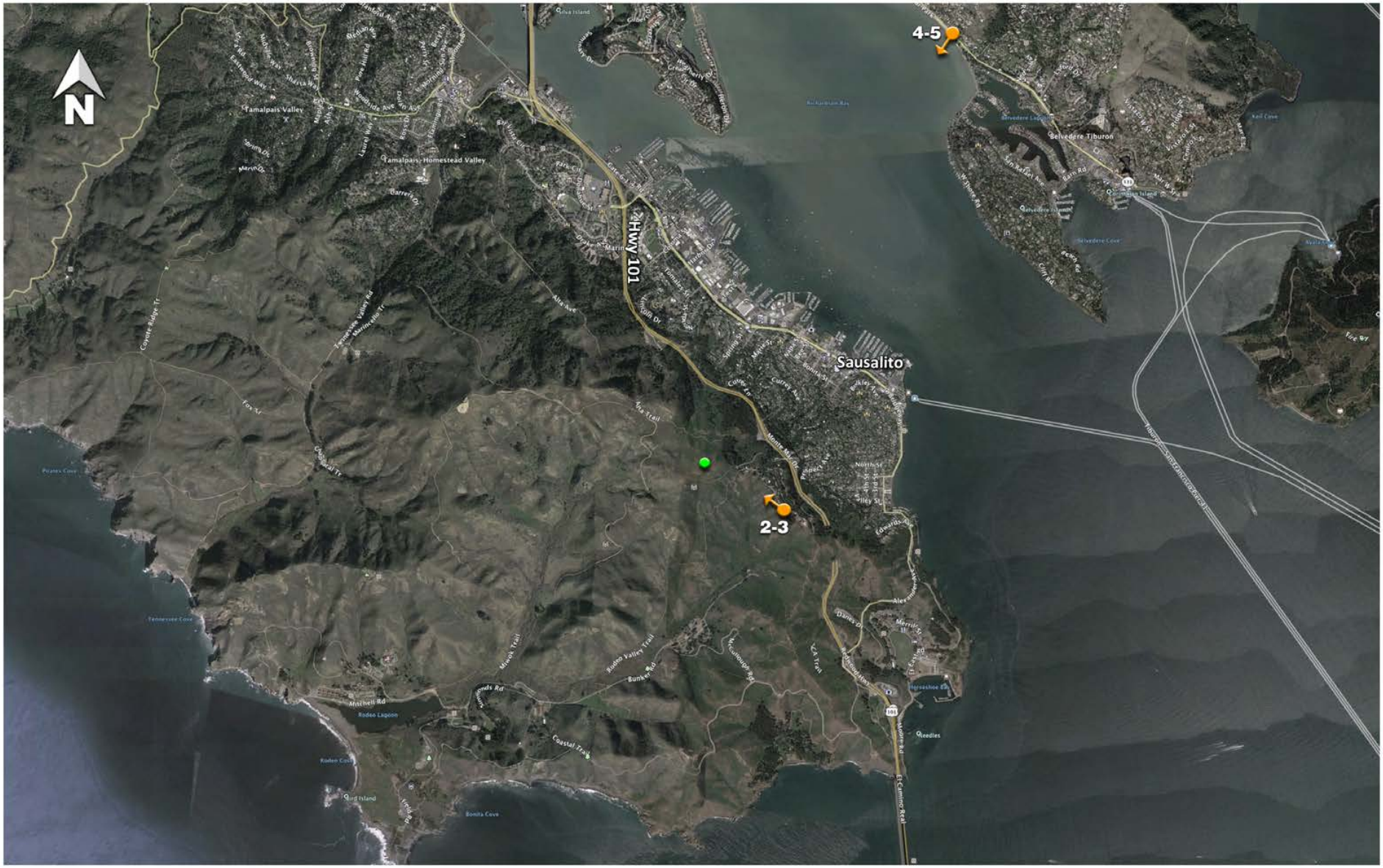
number of transmitting devices, both existing and proposed, could feasibly operate simultaneously.

At the Wolfback Ridge Site, there would be 62 antennas capable of operating at one time (for a full inventory, see page 266 of Appendix D), although this condition would be very rare given the intermittent nature of voice communications. These antennas would have the capacity to cumulatively create a theoretical maximum exposure level of 50,141.5% (no change from the theoretical maximum of the existing antennas) of the public MPE limit at heights of 13 feet and greater along the communications towers. Ground-level exposure in the controlled, fenced-off area would be more than 100% of the public MPE limit. Ground-level exposure outside of the fence encompassing the equipment would remain at less than 100% of the public MPE. The transition period is temporary and anticipated to last for up to two years until the Next Gen System is fully tested and operational, at which point currently installed equipment that is no longer needed will be removed.

c) Because the MERA antenna is a small component in relation to the other transmitters, with the new system fully in place and the project complete, maximum exposure levels would remain consistent with existing and transition conditions at 50,141.5% of the public MPE limit. Ground-level exposure faced by workers in fenced-off areas would remain greater than 100% and uncontrolled areas accessible to the public would create ground-level exposure of less than 100% of the public MPE limit.

Based on these measurements and models, SiteSafe found that other operators at the site are exceeding RF emissions in certain controlled areas of the site that could pose a risk to workers in the area without safety training, but that the proposed MERA antenna will not make a significant difference in RF emissions at the site. SiteSafe recommended that these other operators should lower the power of the FM antennas or implement an RF Safety Plan, but stated clearly that MERA is not responsible for these actions. Due to the site's layout and 6-foot barrier to public access, SiteSafe concluded that all uncontrolled areas with public access were below 100% of the public MPE limit and that no additional signage is required.

In summary, MERA's operations at the Wolfback Ridge Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 100% of the MPE limits for uncontrolled/general public environments and would remain less than 100% of the MPE limits during the transition phase and upon completion of the proposed project. While emissions at the Wolfback Ridge Site may exceed FCC's safety-based MPE limits inside of the fenced compound, where the general public will not be able to gain access, the Next Gen System would not exacerbate this possibility or change baseline maximum emissions levels. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Big Rock Ridge Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.P - 1 Wolfback Ridge Aerial with Photo Locations

MERA Next Generation Communications System SEIR

Current photograph of the view looking northwest from Wolfback Ridge Road.

Source: Previsualists Inc.

Figure V. P - 2 Existing Wolfback Ridge from Access Road

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Photosimulation of the view looking northwest from Wolfback Ridge Road. **Source: Previsualists Inc.**

Figure V.P - 3 Proposed Wolfback Ridge from Access Road

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Current photograph of the view looking south from Tiburon using a telephoto lens.

Source: Previsualists Inc.

Figure V. P - 4 Existing Wolfback Ridge Distant View from Tiburon

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Photosimulation of the view looking south from Tiburon using a telephoto lens.

Source: Previsualists Inc.

Figure V.P - 5 Proposed Wolfback Ridge Distant View from Tiburon

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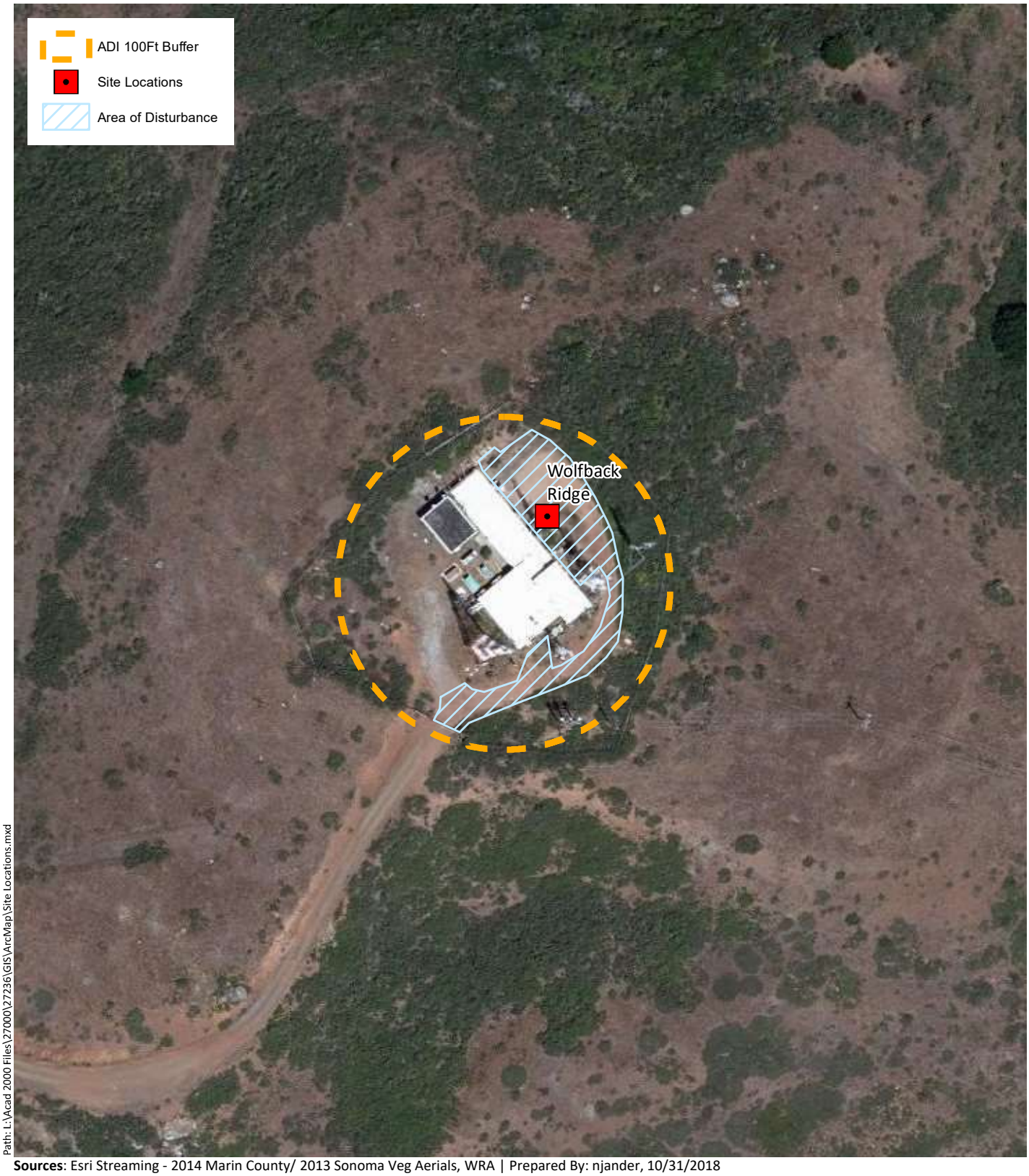

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Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.P - 6 Wolfback Ridge

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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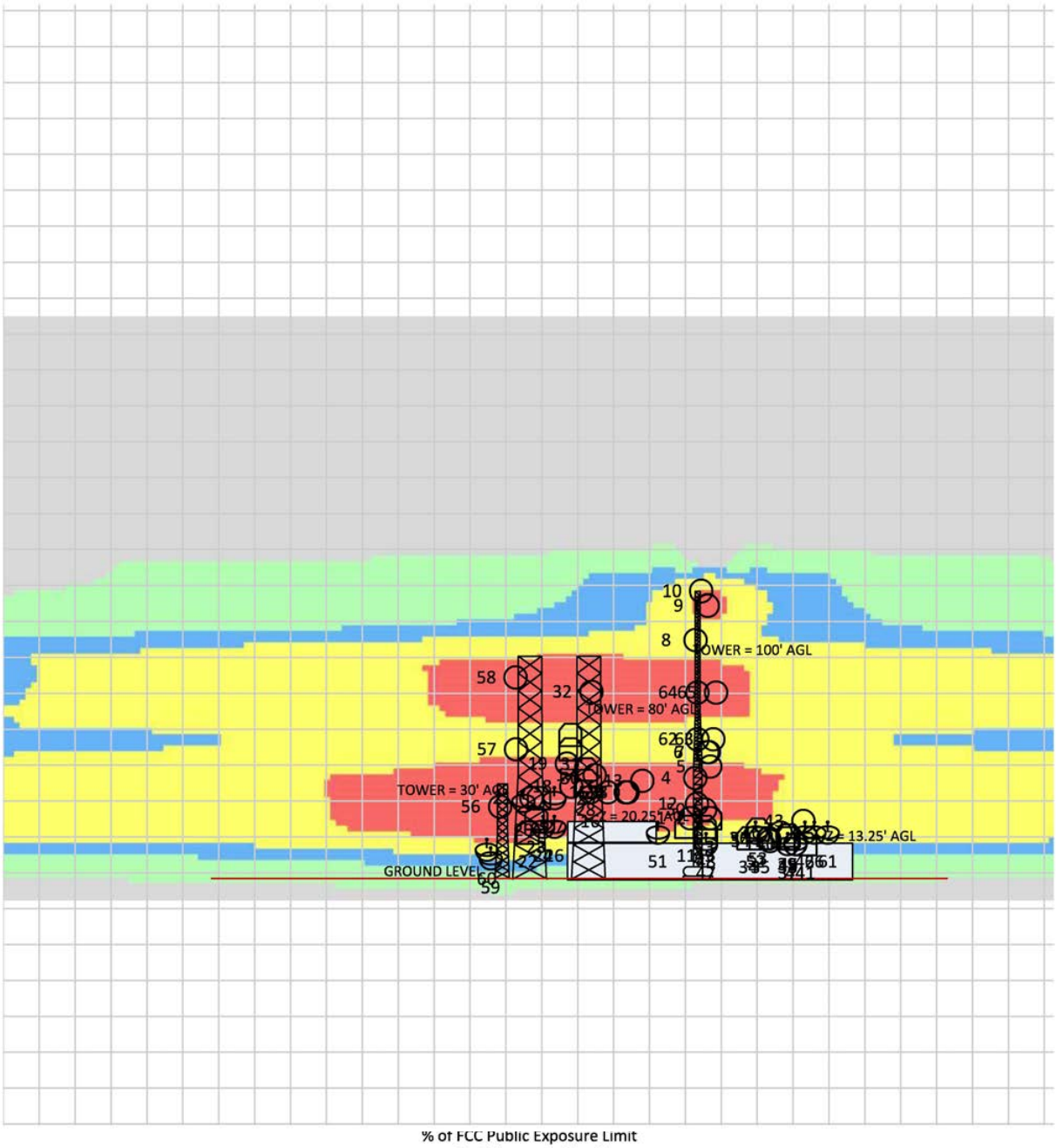

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Barrier ——— **Proposed Barriers/ Signs** — — — — —

Figure V.P - 7 Wolfback Ridge Simulated All-On RF Exposure - Elevation View

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Q. Mt. Burdell OTA (Site 25)

The Mt. Burdell OTA Site is an existing communications facility located in northeastern unincorporated Marin County, north of Novato. The Mt. Burdell OTA Site is bordered to the east by Olompali State Historic Park, to the south by the Marin County Mt. Burdell Preserve, and to the west by agricultural land. Beyond the State Park, nearby land uses to the east of the site include Marin County Airport-Gnoss Field and State Highway 101. The area immediately surrounding the OTA site is mostly forested to the north and generally open to the south, as shown in Photo III-18 (Chapter III, Project Description).

MERA proposes to move its operations from its former Mt. Burdell Site to the nearby Mt. Burdell OTA Site. At the new site, MERA plans to reinforce an existing monopole foundation and make minor equipment modifications on the pre-existing monopole, as summarized below in Table V-17. The Mt. Burdell OTA Site is accessed by dirt roads through private agricultural land.

Table V–17. Mt. Burdell OTA Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Mt. Burdell OTA	Existing communications site with existing 60' tall monopole. MERA is moving from existing Mt. Burdell site (#12).	Will use existing 60' monopole, remove one antenna, and add 2 additional microwave dishes and 4 additional antennas. Reinforce existing tower foundation and replace existing HVAC in existing shelter.

1. Aesthetics

The Mt. Burdell OTA Site is just outside of the southwestern boundary of Olompali State Historic Park and just outside of a Marin County-designated Ridge and Upland Greenbelt Area (RUGA). The public park contains historic elements associated with the Miwok people who once inhabited the area, as well as popular views of the Petaluma River and San Pablo Bay from the east-facing slopes of Mount Burdell. While the project site itself is not publicly accessible, nearby hiking trails bring visitors to open spaces on Mt. Burdell to admire the area's extensive views.

The OTA site is located on a ridge at the edge of the densely vegetated north slopes of Mt. Burdell, meaning that existing communications infrastructure is relatively well-hidden from the public view. State Highway 101 runs to the east of the project site, but it is considerably lower in elevation and motorists' views of the existing 60-foot tower are distant and are very limited by the surrounding vegetation. Recreationists using the park can see only portions of the tower that rise above the tree line from select vantage points particularly to the south.

Key Observation Points (KOPs) have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure V.Q-1. Subsequent Figures V.Q-2 through V.Q-7 show the anticipated before and after conditions at the Mt. Burdell OTA Site from the two selected KOPs.

The impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) *Have a substantial adverse effect on a scenic vista?*

The Mt. Burdell OTA Site is a relatively small existing communications facility, and Next Gen modifications to the existing equipment are minor. The existing communications facility on the site has no effect on the scenic vistas available in the surrounding open space areas and the proposed modifications are relatively minor in comparison to the existing facility, and, consequently, the impacts of the project are ***less than significant***.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project has no potential to adversely affect scenic resources within a state scenic highway given that there are no scenic highways nearby, and, therefore, there is ***no impact***.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figure III-58 and III-59 show minor physical changes at the site. Proposed changes that could alter views of the project site include the addition and removal of antennas and microwave dishes from the existing tower. These changes would yield a slight increase in the amount of equipment installed on the tower and also a 6-inch reduction of the height of the highest antenna on the tower.

The existing communications site includes a two-story building with a small tower and antennas on the roof, an existing 60-foot monopole, an emergency generator, and visible electrical equipment. MERA will add four omni antennas and two dishes to the existing monopole. Total MERA contribution to visible equipment would be approximately 10%. Proposed changes would not affect the overall visual character of the site and, as a result, the impact is ***less than significant***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found that the single cultural resource in the vicinity of the Mt. Burdell OTA Site is the Burdell Stone Wall. This wall consists of dry-stacked stone wall between three and four feet in height, running in a north-south alignment approximately 10 feet east of the chain link fence surrounding the Mt. Burdell OTA Site. This stone wall is a component of a larger collection of Burdell Stone Walls (HF-4) within Olompali State Historic Park.

Ground disturbance would be limited to the area around the tower foundations and would extend to a maximum depth of approximately two feet below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figure V.Q-8. Given the limited nature of ground disturbance, it is unlikely that the Burdell Stone Wall would be adversely affected or that any buried historic resources would be unearthed. Nonetheless, project work at this site would comply with Mitigation Measure CULT-1 (see page IV.B-10), which imposes stop work procedures in the event of accidental discoveries.

Because the project would comply with Mitigation Measure CULT-1 in the event that historic resources are discovered, the project would not cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5. Consequently, impacts would be ***less than significant with mitigation incorporated***.

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, but the Mt. Burdell OTA Site was not among these sites. As this site was not determined during the tribal

consultation process to have the potential for a substantial adverse change in the significance of tribal cultural resources, ***no impact*** would occur.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Mt. Burdell OTA Site are limited to minor modifications to existing equipment and are not anticipated to impact vegetation within the site. No candidate, sensitive, or special-status plant or wildlife species are likely to occur in the study area (the project site plus an approximate 100-foot radius). The project would therefore have ***no impact*** on these species.

b-c) Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

The habitat surrounding the site consists of coast live oak woodland, dominated by coast live oak and California bay (*Umbellaria californica*). Coast live oak woodland is secure globally and is apparently secure statewide, so it is not typically considered a sensitive biological community. However, the Marin Countywide Plan, which sets forth policies for sustainable development and protection of natural resources in unincorporated Marin County calls out oak woodlands as a sensitive community threatened by Sudden Oak Death, development, and poor land management. The proposed work at the Mt. Burdell OTA Site consists of minor modifications to existing facilities in a previously developed area with no tree or vegetation removal proposed. No Coast live oak woodlands would be adversely affected. No other sensitive communities, including protected wetlands, are present. As Coast live oak woodlands would be avoided and no other sensitive natural communities or wetlands are present, ***no impact*** would occur.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

This site is located within a previously developed site within a broad expanse of open space. The proposed improvements are limited to upgrades to existing facilities, and the proposed improvements are not anticipated to significantly impede wildlife movement compared to existing conditions. Consequently, the Project will have ***no impact*** on wildlife movement corridors.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Mt. Burdell OTA Site is adjacent to Olompali State Historic Park, and all work would occur in previously developed or disturbed areas. Since the proposed improvements would not conflict with any of the Park's policies protection biological resources, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

> *b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?*

The Mt. Burdell OTA Site is located in northeastern unincorporated Marin County adjacent to the boundaries of Olompali State Historic Park. MERA is not subject to the requirements of the Marin Countywide Plan and Zoning Ordinance pursuant to the principle of intergovernmental immunity. Thus, the Marin Countywide Plan and Zoning Ordinance do not apply to the Mt. Burdell OTA Site, and impacts in this area would be ***less than significant***.

5. Radio Frequency Exposure

> *MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?*

Evaluation of exposure limits for RF emissions at the Mt. Burdell OTA Site (Site 25) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. On August 22, 2018, SiteSafe surveyed the Mt. Burdell OTA Site to inventory all transmitting antennas currently on the site, measure existing electromagnetic radiation levels relative to Maximum Permissible Exposure (MPE) limits, and determine the site's current compliance with applicable RF regulations.

During the site visit, SiteSafe measured baseline RF emissions at 18 locations at the Mt. Burdell OTA Site. The highest emissions recorded during this process were below established MPE limits, at less than 1% of the occupational limit and less than 5% of the public limit. The maximum recorded level at all 18 locations was below 1% of the occupational threshold.

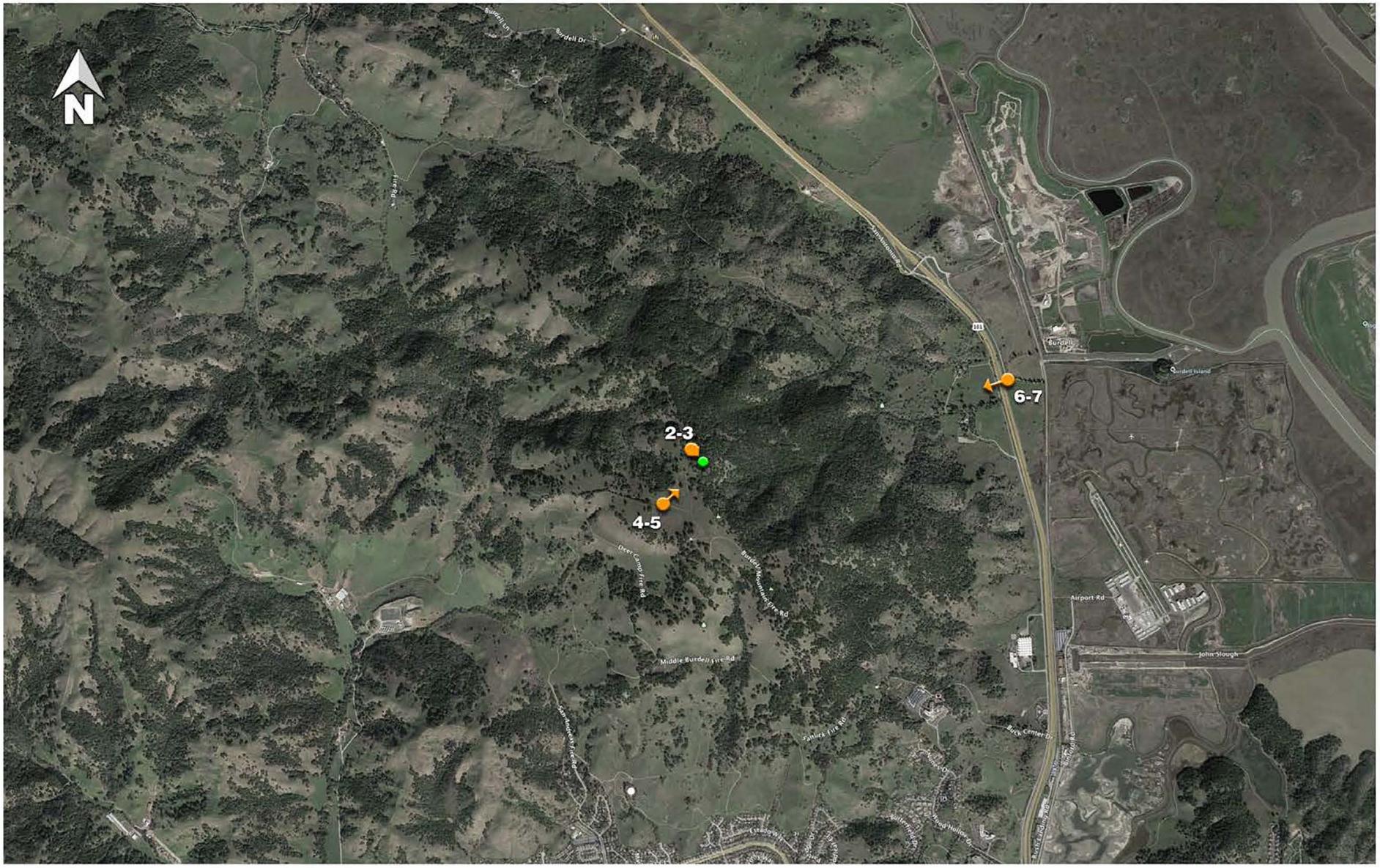
SiteSafe subsequently modeled three conditions of RF exposure: a) the existing condition, b) the 'all systems on' condition, which is the theoretical worst-case RF exposure scenario during the transition period, and c) the long-term 'proposed condition' in which the existing system's antennas are removed and the remaining antennas plus the new Next Gen antennas are operating. SiteSafe modeled all three conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the public MPE limit when calculating the percentage of exposure, as this is five times more stringent than the occupational limit, and therefore more conservative. Their findings are discussed below:

a) SiteSafe's models showed that the theoretical maximum exposure produced by the existing conditions at the Mt. Burdell OTA Site is 8.7% of the public MPE limit, in an area blocked from the public by a 6-foot fence. Ground-level exposure would be less than 5% of the MPE both inside and outside the fenced area.

b) At the Mt. Burdell OTA Site, there would be 15 antennas capable of operating at one time (for a full inventory, see page 290 of Appendix D). These antennas would cumulatively create a maximum exposure of 9.1% of the public MPE limit, which would be in inaccessible areas, in a fenced area limiting public access, and would be mounted at least 25 feet above ground level. Ground-level exposure would remain less than 5% of the MPE both inside and outside the fenced perimeter of the site.

c) With the new system fully in place and the project complete, maximum exposure would remain at 9.1% of the public MPE limit at 25 feet or higher above the ground. Uncontrolled areas accessible to the public (outside the fence), however, would experience a theoretical maximum of less than 5% of the public MPE limit. An elevation view of the simulated "all antennas on" exposure can be viewed in Figure V.Q-9. Based on these measurements and the site's layout and signage (location shown on page 282 of Appendix D, and examples of signage depicted in Chapter III, Project Description), SiteSafe concluded that all equipment would comply with FCC regulations and that MERA need not take any action.

In summary, MERA's operations at the Mt. Burdell OTA Site currently comply with the FCC's uncontrolled/general public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during the transition phase and upon completion of the proposed project. Likewise, the ground-level RF emissions within the fenced controlled/occupational environment are and will remain less than 5% of the MPE limit. As the project would not result in RF emissions in excess of the FCC's Maximum Permissible Exposure limits, the impacts from RF emissions at the Point Reyes Hill Site would be ***less than significant***. No mitigation is required.



Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.Q - 1 Mt. Burdell OTA Aerial with Photo Locations

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Current photograph of the view looking southeast from the dirt access road on private property at the compound.

Source: Previsualists Inc.

Figure V. Q - 2 Existing Mt. Burdell OTA Near View

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Photosimulation of the view looking southeast from the dirt access road on private property at the compound.

Source: Previsualists Inc.

Figure V.Q - 3 Proposed Mt. Burdell OTA Near View

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Current photograph of the view looking east from near the fenceline of the Mount Burdell Open Space Preserve.

Source: Previsualists Inc.

Figure V. Q - 4 Existing Mt. Burdell OTA Distant View

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Photosimulation of the view looking east from near the fenceline of the Mount Burdell Open Space Preserve.

Source: Previsualists Inc.

Figure V.Q - 5 Proposed Mt. Burdell OTA Distant View

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Current photograph of the site as seen looking west from the nearest and most visible public road, Hwy 101 at Silviera Ranch Rd.

Source: Previsualists Inc.

Figure V.Q - 6 Existing Mt. Burdell OTA from Highway 101

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Photosimulation of the site as seen looking west from the nearest and most visible public road, Hwy 101 at Silviera Ranch Rd.

Source: Previsualists Inc.

Figure V.Q - 7 Proposed Mt. Burdell OTA from Highway 101

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Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.Q-8. Mt Burdell OTA

MERA Next Generation Communications System
Marin and Sonoma Counties, California

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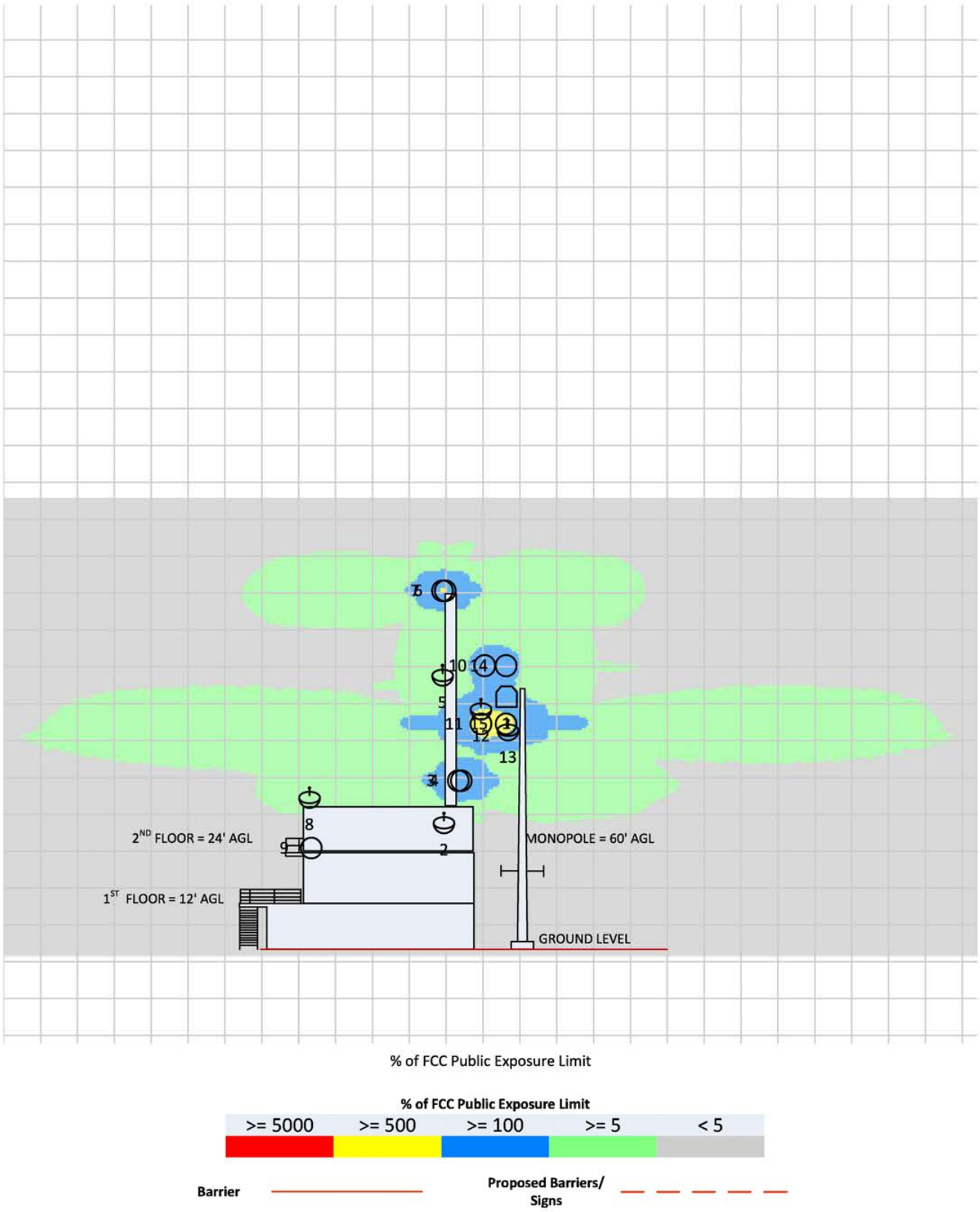

Figure V.Q-9 - Mt. Burdell OTA Simulated All-On RF Exposure - Elevation View

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R. Mill Valley Water Tank (Site 26)

The Mill Valley Water Tank Site is located in the City of Mill Valley at the intersection of Sequoia Valley Road and Edgewood Avenue. Details of the proposed work for the Next Gen System at this site are described in Chapter III, Project Description. In short, the work includes the installation of new equipment on property owned by the Marin Municipal Water District. New equipment would include a monopole, equipment shelter, fence, emergency generator, and fuel tank, as summarized below in Table V-18.

The Mill Valley Water Tank Site is located in a residential neighborhood. A buffer of tall trees surrounds the existing water tank, as shown in Photo III-19 (Chapter III, Project Description), beyond which single-family residences neighbor the project site to the north, south, and east. To the west is an open space area associated with the Mill Valley Reservoir. Other adjacent land uses include a portion of the Dipsea Trail, which runs just south of the site. The Mill Valley Water Tank Site is zoned Open Area (OA).

A large Marin Municipal Water District (MMWD) water tank exists at the site which is largely screened from view by existing trees. Proposed equipment would be 100% owned by MERA, and also be mostly screened from public view. Due to the size of the water tank, overall MERA equipment at the site would constitute approximately 20% of the total equipment potentially visible at the site (without considering shielding from vegetation). The monopole, however, would be taller than the existing treetops.

Table V–18. Mill Valley Water Tank Site, Existing and Proposed Exterior Equipment

Site Name	Existing Infrastructure at Site	Proposed Physical Changes
Mill Valley Water Tank	Existing MMWD 500,000 Gal Water Tank in trees. At Sequoia at Edgewood.	Propose new 55' tall monopole, with one microwave dish and 4 antennas on the south side of the existing water tank. . A new shelter, fence, generator, and fuel tank are proposed in the trees on the east side of existing water tank.

1. Aesthetics

The Mill Valley Water Tank Site is on a forested ridgeline on Sequoia Valley Road at Edgewood Avenue. The proposed facilities would be placed next to the existing 500,000-gallon MMWD water tank which dominates the site. The water tank is situated close to several private residences, but it is enclosed by a perimeter fence and hidden from the view by a thick band of trees. One 38-foot tall pine tree would be removed as part of the project, but all other trees would remain. The Dipsea Trail occupies the southern edge of the water tank site next to Sequoia Valley Road. Although the site is not a public park or open space, Edgewood Park, Homestead Valley Open Space, and Old Mill Park are all located close to the site.

KOPs have been selected to represent the full array of viewpoints from which the site is visible. Simulated before and after conditions are portrayed for each KOP in the figures that follow, and a map showing the site and the representative vantage points is provided as Figure

V.R-1. Subsequent Figures V.R-2 through V.R-7 show the anticipated before and after conditions at the Mill Valley Water Tank Site from the three selected KOPs.

An impact determination is made using the KOPs in conjunction with proximate protected scenic resources such as parks and scenic highways. As part of the determination, the following thresholds were considered:

a) Would the project have a substantial adverse effect on a scenic vista?

Important scenic vistas in Marin County include hillsides, ridgelines, the Pacific Ocean, San Francisco and San Pablo Bays, and protected open spaces, but the Mill Valley Water Tank Site is located in a residential neighborhood where none of these features are present. Although several parks and open spaces are nearby, these do not have views of the site, as it is tucked back from the street and hidden from view by existing tree canopy. As there are no scenic vistas in or near the Mill Valley Water Tank Site, the project would not adversely affect a scenic vista, and ***no impact*** would occur.

d) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no designated or eligible state scenic highways within or near the Mill Valley Water Tank Site. The nearest eligible state scenic highway is State Route 1, approximately 1.1 miles to the south. As there are no designated or eligible state scenic highways within or near the Mill Valley Water Tank Site, project work at this site would not damage any scenic resources or views within a state scenic highway, and ***no impact*** would occur.

e) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Figures III-60 and III-61 show the proposed physical changes to the site. The most prominent visual change proposed is the addition of a 55-foot monopole and the 2-inch diameter whip antennas that rise 11-feet above the monopole. The water tank is slightly over 30-feet tall, and the trees surrounding the site are nearly 60-feet tall; meaning that antennas would rise above the tree line by approximately ten to 15 feet and would be partially visible from various vantage points in the area.

As shown in Figures V.R-2 through V.R-7, installation of a new monopole and antennas would bring some visual change. These improvements would be minimally visible from the nearby roadways and neighborhoods, and visual change would be minor and mostly shielded by tree canopy and the water tank. Given the small degree to which views of the project site would change from public vantage points, the project would not substantially affect the existing visual character or quality of the site. However, it is possible that some local residents would consider the change to the existing visual character of the water tank site and the surrounding neighborhood as significant. Given the potential for disagreement and the inability to fully mitigate the visibility of those portions of the tower and antennas that exceed the height of the surrounding treetops, the change in the visual character of the neighborhood is ***significant and unavoidable***.

Mitigation Measure AES-8

The monopole shall be painted a dark color on the bottom to blend with the adjacent water tank and vegetation. Above the top of the tank the tower shall be galvanized steel to minimize contrast with the sky.

After implementation of mitigation the upper-most portions of the 60-foot tall monopole would still be visible and therefore the impact would remain ***significant and unavoidable***.

2. Cultural and Tribal Cultural Resources

Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

The Cultural Resources Inventory Report (GANDA, October 2018) commissioned for this project, which incorporated records searches and site visits, found no known historical resources pursuant to Section 15064.5 within or near the Mill Valley Water Tank Site. Ground disturbance in the vicinity of the proposed improvements would extend as deep as approximately 24 inches below ground level. The Area of Direct Impact and a surrounding 100-foot buffer are shown in Figure V.R-8.

Given the limited nature of ground disturbance, accidental discovery of historical resources is unlikely. Nonetheless, work at the Mill Valley Water Tank Site would comply with Mitigation Measure CULT-1 (see page IV.B-10), which provides procedures for the accidental discovery of historical resources. By implementing Mitigation Measure CULT-1, the project would not cause a substantial adverse change in the significance of a historical resource in or near the Mill Valley Water Tank Site, and impacts would be ***less than significant with mitigation incorporated.***

Tribal Cultural Resources

a,b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Public agencies are required to consult with California Native American tribes that are on the Native American Heritage Commission's (NAHC) consultation list and are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to the California Environmental Quality Act (CEQA). Consultation with the Federated Indians of Graton Rancheria (FIGR) began on June 5, 2018, and concluded on February 8, 2019. FIGR identified a potential for adverse change to the significance of tribal cultural resources at 13 Next Gen Sites, but the

Mill Valley Water Tank Site was not among these sites. As this site was not determined during the tribal consultation process to have the potential for a substantial adverse change in the significance of tribal cultural resources, ***no impact*** would occur.

3. Biological Resources

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Project improvements within the Mill Valley Water Tank Site are situated on previously developed or disturbed areas inside the existing perimeter fence. However, due to the presence of open grassland and coast live oak woodland habitat that could potentially support special-status plant species, focused protocol-level rare plant surveys were conducted within the site on March 30, May 8, and June 20, 2018. The following special-status species were assessed as having a moderate or high potential to occur within undeveloped non-native annual grassland portions of the site: bent-flowered fiddleneck, Oakland star-tulip, and congested-headed hayfield tarplant.

Reference sites for all aforementioned special-status plant species were visited, resulting in the following observations: bent-flowered fiddleneck (observed March 30, 2018 along Highway 1 south of Tomales), Oakland star-tulip (observed March 21, 2018 at Ring Mountain Open Space Preserve), and congested-headed hayfield tarplant (observed June 6, 2018 along Bodega Avenue in Petaluma). Approximately 10 Oakland star-tulip individuals were observed within the biological study area (the project site plus an approximate 100-foot radius) in coast live oak woodland and non-native annual grassland to the south of the project site. This population is located outside of the project site and will not likely be impacted by the Project. Nonetheless, Mitigation Measure BIO-9 is provided to ensure that no Oakland star tulips are harmed during construction. No additional special-status plant species were observed in the study area.

Northern spotted owl and Nuttall's woodpecker have moderate potential to occur in the vicinity of the project site. The study area is subject to anthropogenic disturbance due to surrounding development and no special-status wildlife species are likely to occur in the study area. While improvements within the Mill Valley Water Tank Site would not impact vegetation, due to the proximity of dense tree cover, there is some potential for project construction activities to disturb nesting birds. Implementation of Mitigation Measure BIO-2 would ensure these impacts are less than significant. No other activities are planned with the potential to harm other candidate, sensitive, or special-status wildlife species.

In summary, improvements within the Mill Valley Water Tank Site are not likely to impact special-status wildlife species and Mitigation Measure BIO-2 would ensure this. Oakland star tulip is the only special-status plant species with potential to occur at the Mill Valley Water Tank Site, and mitigation measure BIO-9 would reduce the likelihood of adverse effects to less-than-significant levels. With implementation of Mitigation Measures BIO-2 (see Site 8, Point Reyes Hill) and BIO-9 (below), impacts to all candidate, sensitive, or special-status species would be ***less than significant with mitigation incorporated***.

Mitigation Measure BIO-9

Within two weeks prior to commencement of construction, a qualified biologist shall flag the Oakland star-tulip population within the study area. The qualified biologist shall notify the construction foreman as to the location of the special-status plant population and work with the foreman to install flagging to ensure that this population is properly avoided by construction crews.

b-c) Would the project Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA)?

Habitat surrounding the Mill Valley site consists of remnant coast live oak woodland interspersed with planted coast redwood (*Sequoia sempervirens*) trees, and non-native annual grassland. Coast live oak woodland is considered a sensitive biological community. However, site upgrades are situated on previously developed or disturbed areas inside the existing perimeter fence. No tree or vegetation removal is proposed. Coast live oak woodlands will be avoided by the Project, and the Project would have ***no impact*** on sensitive biological communities, including federally protected wetlands and riparian habitat.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

This site is located in a previously developed area surrounded on one or more sides by suburban residential development which does not represent core habitat areas nor vital habitat corridors for wildlife species. The proposed improvements are not anticipated to significantly impede wildlife movement compared to existing conditions. Consequently, the Project will have ***no impact*** on wildlife movement corridors.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No local policies or ordinances protecting biological resources applicable to the Mill Valley Water Tank Site were identified. Further, activity at this site would be confined to an existing, fenced off and developed area and would not impact biological resources. As no local policies protecting biological resources are applicable to the Mill Valley Water Tank Site and the Project has little potential to impact biological resources, ***no impact*** would occur.

4. Land Use Consistency

CEQA Guidelines Appendix G asks three questions regarding land use. Questions a) and c) are addressed in Chapter IV.D (Land Use Consistency), which looks at Land Use issues for the MERA Next Gen Project as a whole. However, for sites that are under state or federal jurisdiction, consistency with threshold b) of the Guidelines must be addressed as follows:

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan,

specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effect?

The Mill Valley Water Tank Site is located in the City of Mill Valley. It is not located within state or federal lands, including the coastal zone, NPS lands, CSP lands, FAA lands, or the Caltrans ROW. Based on the principle of intergovernmental immunity MERA is not subject to City of Mill Valley regulations. Thus, there are no applicable land use plans, policies, or regulations adopted by an agency with jurisdiction over this site for the purposes of avoiding or mitigating an environmental effect. Since there would be no conflict with any such policies, ***no impact*** would occur.

5. Radio Frequency Exposure

MERA-adopted threshold (a) Would the project cause Radio Frequency exposure to exceed established FCC exposure limits for workers or the general public?

Evaluation of exposure limits for RF emissions at the Mill Valley Water Tank Site (Site 26) is based on an analysis conducted by SiteSafe, LLC, an independent RF and engineering consulting firm. SiteSafe's complete methodology and findings are detailed in Appendix D. Existing communications infrastructure at the site is minimal, so rather than measuring baseline RF emissions during a site visit, SiteSafe used an inventory and diagrams of proposed infrastructure at the site to model RF emissions levels relative to Maximum Permissible Exposure (MPE) limits from the proposed communications system improvements and determine the site's current compliance with applicable FCC RF regulations.

SiteSafe modeled these conditions for controlled areas (accessible only to workers meeting RF safety training criteria), but they used the general public MPE limit when calculating the percentage of exposure, which is five times more stringent than the limit set for workers in controlled areas, and therefore more conservative.

At the Mill Valley Water Tank Site, there would be five antennas capable of operating at one time (for a full inventory, see Page 303 of Appendix D). These antennas would cumulatively create a maximum ground-level exposure of 4.3% of the public MPE limit. SiteSafe's modeling of RF exposures in an elevation view can be viewed in Figure V.R-9, at the end of this section. The figure shows that uncontrolled areas (accessible to the public) would experience a maximum (worst-case modeling scenario) of less than 5% of the MPE public limit. Therefore SiteSafe concluded that all MERA facilities at the Mill Valley Water Tank Site would comply with FCC regulations.

With the new system fully in place and the project complete, maximum exposure would remain at 9.1% of the public MPE limit at 25 feet or higher above the ground. Uncontrolled areas accessible to the public (outside the fence), however, would experience a theoretical maximum of less than 5% of the public MPE limit. Based on these measurements and the site's layout and signage (location shown on page 282 of Appendix D, and examples of signage depicted in Chapter III, Project Description), SiteSafe concluded that all equipment would comply with FCC regulations and that MERA need not take any action.

In summary, MERA's operations at the Mill Valley Water Tank Site will comply with the FCC's controlled/occupational and uncontrolled/public RF exposure limits. The SiteSafe report found that the existing ground-level RF emissions were less than 5% of the public MPE limits for uncontrolled/general public environments and would remain less than 5% of the MPE limits during each phase of the proposed project. A 6-foot fence will surround the perimeter of the site, but MPE levels inside the fence would not expose workers to more than 5% of the public MPE limit at ground level. As the project would not result in RF emissions in excess of the FCC's MPE limits, the impacts from RF emissions at the Mill Valley Water Tank Site would be ***less than significant***. No mitigation is required.

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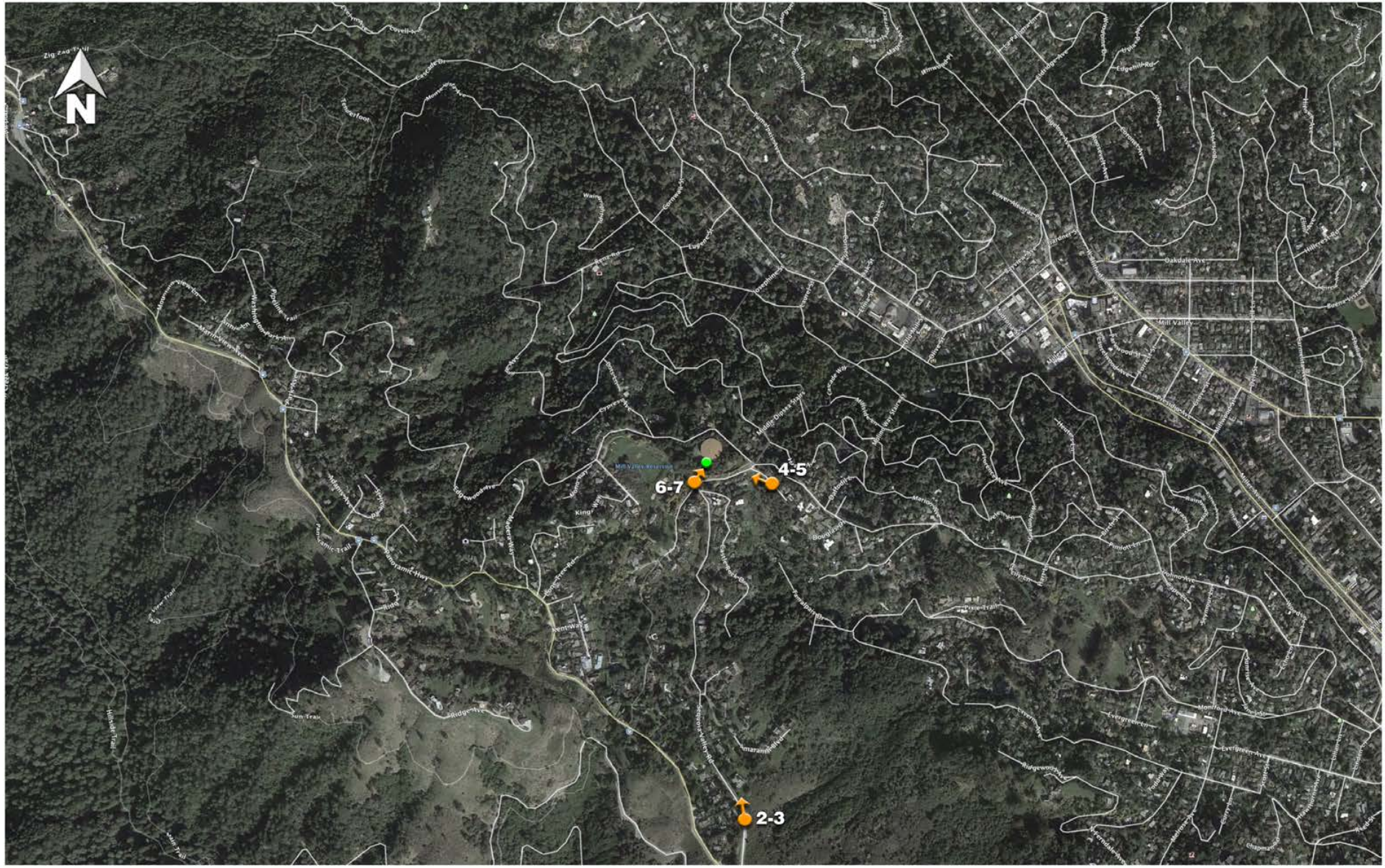

Aerial photograph showing the viewpoints for the photosimulations.

Source: Previsualists Inc.

Figure V.R - 1 Mill Valley Water Tank Aerial with Photo Locations

MERA Next Generation Communications System SEIR

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking north from Sequoia Valley Road.

Source: Previsualists Inc.

Figure V. R - 2 Existing Mill Valley Water Tank from Sequoia Valley Road

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking north from Sequoia Valley Road.

Source: Previsualists Inc.

Figure V.R - 3 Proposed Mill Valley Water Tank from Sequoia Valley Road

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ENVIRONMENTAL CONSULTANTS

Current photograph of the view looking northwest from across Sequoia Valley Road.

Source: Previsualists Inc.

Figure V. R - 4 Existing Mill Valley Water Tank Neighborhood View

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ENVIRONMENTAL CONSULTANTS

Photosimulation of the view looking northwest from across Sequoia Valley Road.

Source: Previsualists Inc.

Figure V.R - 5 Proposed Mill Valley Water Tank Neighborhood View

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Current photograph from the Dipsea Trail.

Source: Previsualists Inc.

Figure V. R - 6 Existing Mill Valley Water Tank from the Dipsea Trail

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Photosimulation of the vew from the Dipsea Trail.

Source: Previsualists Inc.

Figure V.R - 7 Proposed Mill Valley Water Tank from the Dipsea Trail

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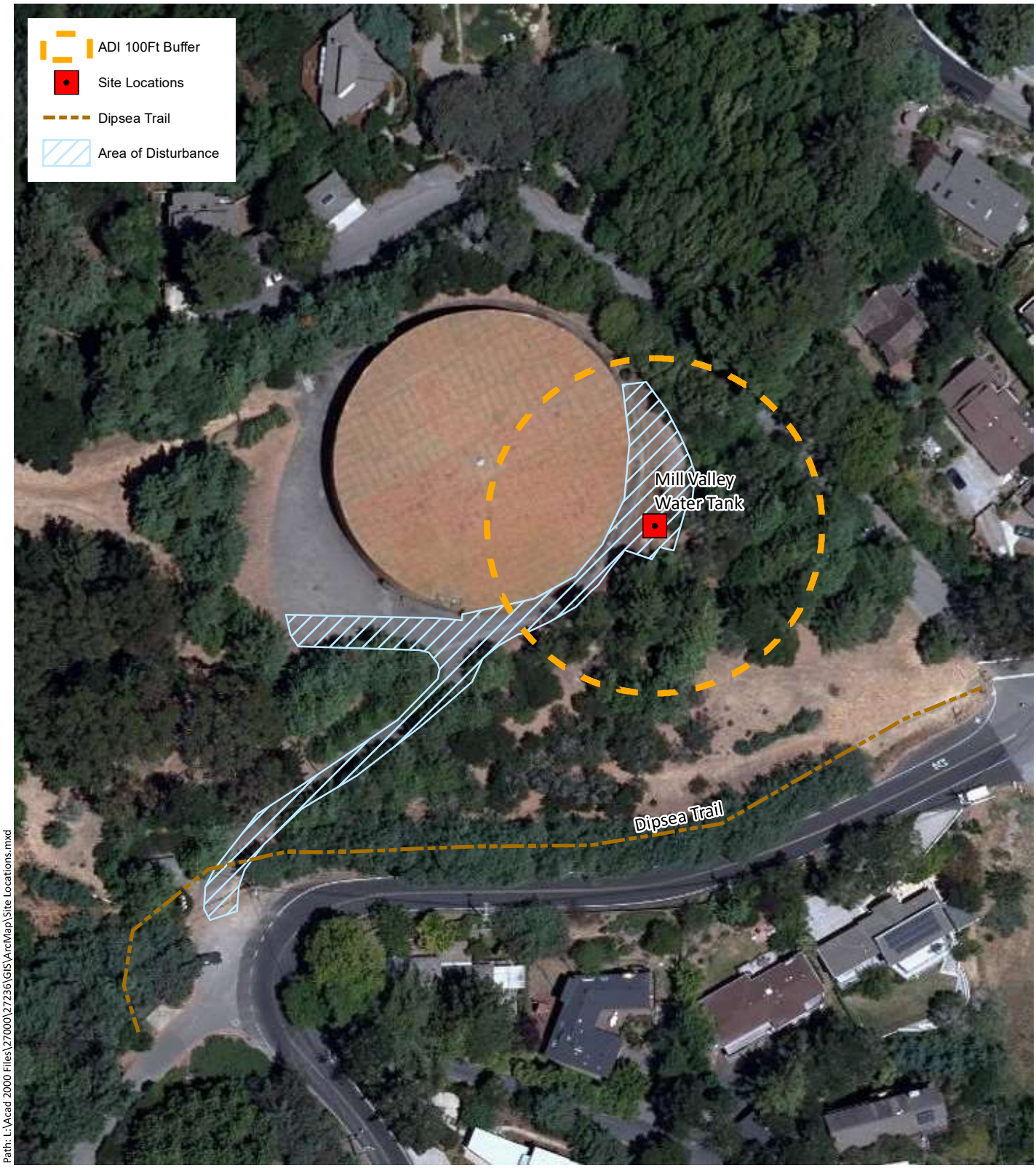

Path: L:\Acad 2000 Files\27000\27236\GIS\ArcMap\Site Locations.mxd

Sources: Esri Streaming - 2014 Marin County/ 2013 Sonoma Veg Aerials, WRA | Prepared By: njander, 10/31/2018

Figure V.R-8. Mill Valley Water Tank

MERA Next Generation Communications System
Marin and Sonoma Counties, California

0 50 100 Feet

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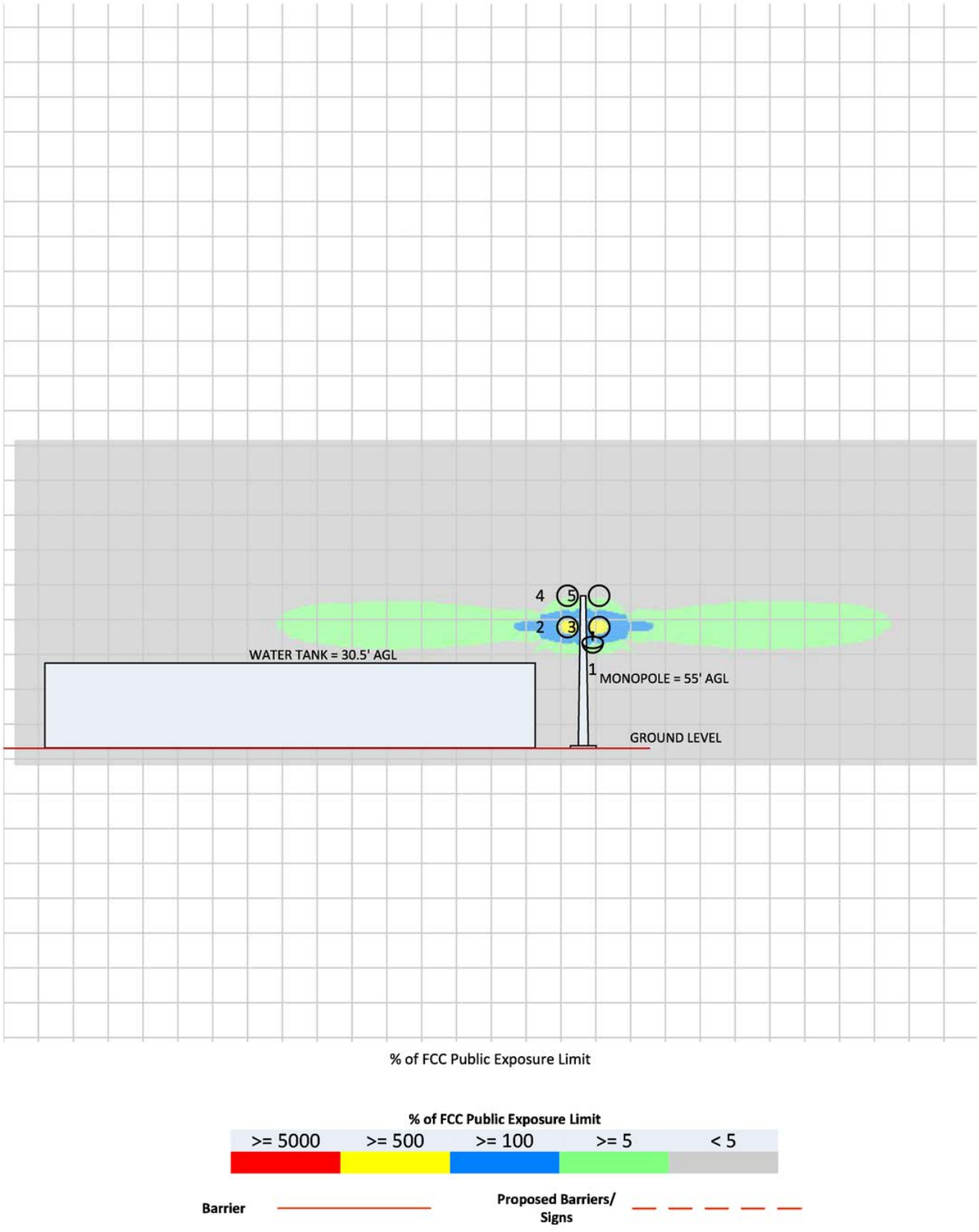

Figure V.R-9. Mill Valley Water Tank Simulated All-On RF Exposure - Elevation View

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S. Decommissioned Sites

This section discusses the five sites to be decommissioned as part of the Next Gen Project. These sites were analyzed in the original EIR (MERA 2000) and were found to be without significant impacts in all but one case, Forbes Hill. Decommissioning would eliminate MERA's use of the sites, but in many cases the sites will remain active by other radio operators.

Forbes Hill (Site 9)

The MERA equipment at the Forbes Hill site is to be decommissioned after the Next Gen System becomes operational. Decommissioning includes removal of all MERA microwave dishes and antennas, the outdoor generator and fuel tank, and internal electronic equipment. The Forbes Hill site also includes the 60-foot tall lattice tower, the perimeter fence around the equipment structure, water and power utilities that all combine to make a fully operational communications facility. Complete decommissioning would include removal of the entire operational facility.

Mt. Burdell (Site 12)

The MERA equipment at the Mt. Burdell site is to be decommissioned and will not be operational as part of the Next Gen System. MERA will remove equipment and cease all maintenance activities, but the site will remain operational, and it will be maintained by others.

Mill Valley City Hall (Site 15)

The MERA equipment at the Mill Valley City Hall site is to be decommissioned and will not be operational as part of the Next Gen System. Decommissioning will include the removal of all MERA equipment, and MERA will cease all maintenance activities.

Mill Valley Public Safety Building (Site 16)

The MERA equipment at the Mill Valley Public Safety Building site is to be decommissioned and will not be operational as part of the Next Gen System. Decommissioning will include the removal of all MERA equipment, and MERA will cease all maintenance activities.

Bay Hill Road (Site 17)

The MERA equipment at the Bay Hill Road site is to be decommissioned and will not be operational as part of the Next Gen System. MERA will remove MERA equipment and will cease all maintenance activities, but the site will remain operational and will be maintained by others.

Summary of Impacts at Decommissioned Sites

Aesthetics

Decommissioning would have little effect on Aesthetics at four decommissioned sites (Mt. Burdell, Mill Valley City Hall, Mill Valley Public Safety Building, and the Bay Hill Site). These sites will continue to function as communications facilities for other providers after MERA leaves, so the removal of MERA equipment will have negligible impact..

The total decommissioning of the Forbes Hill facility would benefit the visual character of the site and the surrounding neighborhood by eliminating the tower that is identified as a significant and unavoidable impact in the original EIR (MERA 2000). Prescribed Mitigation Measures (tower painting, landscaping) would no longer be required. The equipment structure, fuel tank, generator, and fencing would all be removed and the site would be graded smooth and restored with hydroseeded native grasses. Removal of the Forbes Hill Site would be a beneficial impact and overall impacts of the Next Gen Project decommissioning at five sites would be ***beneficial.***

Cultural and Tribal Cultural Resources

Decommissioning would not require subsurface excavations and would not affect Cultural and Tribal Cultural Resources in any category at any decommissioned site. Therefore, there is ***no impact****.*

Biological Resources

Decommissioning would not affect any sensitive Biological Resources at any site in any category, and there is ***no impact****.*

Land Use Consistency

Decommissioning would not affect Land Use Consistency in any category at any site, and there is ***no impact****.*

Radio Frequency Exposure

Decommissioning would lower the potential RF emissions, by reducing the number of emitters at active sites. Therefore, the impact would be ***beneficial***.

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