

**MERA NEXT GENERATION SYSTEM  
SUMMARY PROJECT DESCRIPTION IN ADVANCE OF CEQA  
SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (SEIR)**

**PROJECT SPONSOR AND LEAD AGENCY**

The Marin Emergency Radio Authority (MERA) is a joint powers agency established February 28, 1998 under authority granted by the California Government Code (Article 1, Section 6500 of Chapter 5, Division 7, Title I) by, for and among its Members. MERA’s purpose is to plan, finance, implement, manage, own, and operate a multijurisdictional and countywide public safety, public service, and emergency radio system. MERA is the Lead Agency for the Next Generation Project pursuant to the California Environmental Quality Act (CEQA) Article 4, Section 15051.

MERA is comprised of 25 public safety and public service member agencies. Members of MERA include the County of Marin, several municipal governments, the fire protection districts, several community service districts, and several public utilities districts. The following is a list of all current community participants in MERA.

**Table 1: MERA Member Agencies**

<p><b>Municipal Members</b></p> <ul style="list-style-type: none"> <li>City of Belvedere</li> <li>Town of Corte Madera</li> <li>Town of Fairfax</li> <li>City of Larkspur</li> <li>City of Mill Valley</li> <li>City of Novato</li> <li>Town of Ross</li> <li>Town of San Anselmo</li> <li>City of San Rafael</li> <li>City of Sausalito</li> <li>Town of Tiburon</li> </ul> <p><b>County of Marin</b></p> <ul style="list-style-type: none"> <li>All Departments</li> </ul>	<p><b>Public Utility and Community Service Districts</b></p> <ul style="list-style-type: none"> <li>Inverness Public Utility District</li> <li>Marin Community College District</li> <li>Marin Municipal Water District</li> <li>Marin Transit</li> <li>Marinwood Community Services District</li> </ul> <p><b>Police and Fire Protection Districts</b></p> <ul style="list-style-type: none"> <li>Bolinas Fire Protection District</li> <li>Central Marin Police Authority</li> <li>Kentfield Fire Protection District</li> <li>Novato Fire Protection District</li> <li>Ross Valley Fire Department</li> <li>Southern Marin Fire Protection District</li> <li>Stinson Beach Fire Protection District</li> <li>Tiburon Fire Protection District</li> </ul>
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**CEQA BACKGROUND AND PURPOSE**

A detailed Initial Study and Environmental Impact Report (EIR) were prepared for the original Marin Public Safety and Emergency Communication System EIR (SCH# 1999092073). The Initial Study identified potential impacts in five areas and the Draft EIR (MERA 1999), detailed the potential impacts to Land Use, Biological Resources, Aesthetic Resources, Radio Frequency (RF) Hazards and Cultural Resources. The Final EIR for the original MERA project was certified in November 2000 and was

amended to include the Stewart Point (Martinelli) Site in 2006. These environmental studies remain valid for the sites and equipment evaluated. The Next Gen SEIR will evaluate the new environmental impacts resulting from the proposed MERA Next Gen System upgrades and will define compliance activities needed to address new regulations put into place since the original EIR was certified.

### **PROBABLE ENVIRONMENTAL EFFECTS**

The Next Gen System is anticipated to have similar environmental effects as those previously evaluated the original MERA EIR, certified in 2000, including potential impacts to biological, aesthetic and cultural resources, hazards and hazardous materials (including Radio Frequency analysis), and consistency with updated land use requirements. All other CEQA topics relevant to the project will also be considered in the SEIR.

### **NEXT GEN PROJECT DESCRIPTION AND SITE LOCATIONS**

The Next Gen System would update MERA's current communications network 'backbone' to utilize new radio frequencies in the 700MHz band to comply with an FCC mandate that public agency radio systems (including MERA) vacate the 480MHz, UHF (T-band) frequencies currently utilized. The Next Gen system would also utilize Project 25 (P25) technology to provide improved public service and emergency radio coverage within the County of Marin. The Next Generation System will improve regional and wide-area conversations between dispatch operators and mobile units operating throughout most of Marin County. Individual cities and member agencies share this common backbone for compartmentalized communication links and inter-departmental group communications. The backbone is shared, but retains autonomous operation within agencies. This structure allows greater cooperation for public safety while preserving local sovereignty.

***Next Gen Project Objectives:*** The Next Gen project improves necessary and required communications between member agencies to benefit residents, businesses, and visitors. MERA has defined six objectives for the Next Generation System:

1. Install a new radio communications system as approved in Measure A by a vote of the public in November 2014.
2. Modify the existing MERA system with new 700 MHz equipment to meet revised FCC requirements by 2023.
3. Improve Marin County communications coverage to reduce 911 response times and ensure reliable communications among first responders during all disasters, and everyday operations.
4. Provide Next Gen System communications coverage to meet 97% reliability in the Motorola contracted coverage area with delivered audio quality of 3.4 or better as measured by TSB-88 testing methods.
5. Integrate the new Emergency Operations Facility (EOF) into the communications system.
6. Maintain compliance with all land use, permitting and California Environmental Quality Act (CEQA) requirements.

The MERA sites are linked to provide centralized management and control, and operate jointly to provide local and wide-area communications and recording. Nine sites provide radio coverage for the more densely populated Highway 101 corridor in Marin County. Other sites cover Western Marin County, but radio coverage in the hilly terrain there remains spotty. Currently six dispatch centers (Sheriff dispatch center, County backup dispatch, Woodacre fire dispatch, Fairfax PD, Novato PD, San Rafael PD) are linked to the overall MERA system. Some linkages utilize microwave and others use hard wire connections.

The MERA Next Gen System would retain and upgrade 10 of the currently functioning sites, add equipment to eight sites, decommission five sites and relocate the Prime Site from the Marin County Civic Center to the Marin County Sheriff Dispatch Center in San Rafael. All of the new Next Gen sites are previously developed, some with communications equipment, others are water tank sites and one is relatively vacant with two water well-heads in northern rural Marin County. Below is a summary of the existing and proposed MERA Next Generation sites.

**Table 2: Summary of Existing and Proposed Sites for the MERA Next Gen System**

<b>Existing Sites</b>	<b>Proposed Sites (with existing infrastructure)</b>
<ul style="list-style-type: none"> <li>• Civic Center</li> <li>• Big Rock Ridge</li> <li>• Mt. Tamalpais</li> <li>• Mt. Barnabe</li> <li>• Point Reyes Hill</li> <li>• Dollar Hill</li> <li>• San Pedro Ridge</li> <li>• Mt. Tiburon</li> <li>• Sonoma Mountain</li> <li>• Stewart Point</li> </ul>	<ul style="list-style-type: none"> <li>• Prime Site (Sheriff’s Dispatch Center)</li> <li>• Tomales (existing cell phone site)</li> <li>• Coyote Peak (a water well head site)</li> <li>• Skyview Terrace (an MMWD water tank site)</li> <li>• Muir Beach (a local water tank site)</li> <li>• Wolfback Ridge (an existing broadcast tower)</li> <li>• Mt. Burdell (an existing broadcast tower)</li> <li>• Mill Valley Water Tank (MMWD water tank)</li> </ul>

The five sites to be decommissioned as part of the Next Gen System are: Forbes Hill in San Rafael, Mt. Burdell near Novato, Mill Valley City Hall and Mill Valley Police Station, and the Bay Hill Road site in Sonoma County.

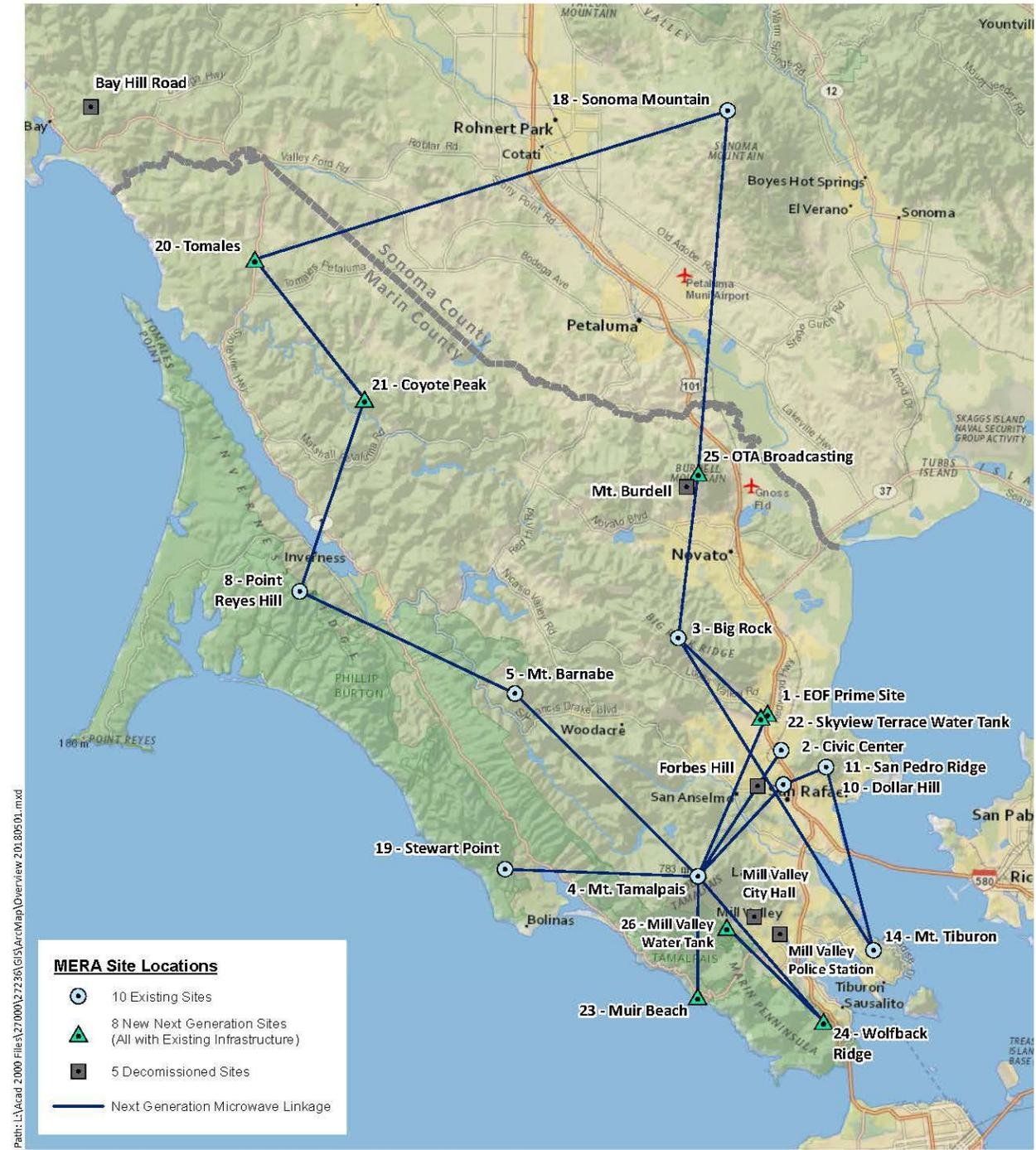
The updates to the existing sites, as well as the development of the new sites, are considered together as a change to the Marin Emergency Public Safety and Emergency Communications Radio System Project (SCH#1999092073) under CEQA.

**MERA Next Gen System Site Locations:** Figure 1 shows the Next Gen System site locations and configuration including microwave linkages. Table 3 below, provides baseline or existing conditions information as well as a description of proposed physical changes at each site. Also included in the table are Assessor’s Parcel Numbers (APN), jurisdiction information, latitude/longitude coordinates and ground elevations at each of the project sites.

**Next Gen Project Construction and Grading:** Upon MERA's approval of the Next Gen Project, construction would begin as soon as leases and any other necessary entitlements and agreements are secured. Site construction is expected to take less than one year for the entire Next Gen System. Construction activities and their duration at any given site would vary according to the nature of the site-specific facilities. Site construction may last as long as three months at any one site. Only one site, Coyote Peak, would require selective grading of an existing access road.

As noted above, several sites include the construction of new shelter buildings and fencing. Upon completion of all construction, Motorola would conduct testing and optimization of the system, which would take approximately one year. During this period, known as the change-over period, both the existing MERA system and the Next Gen System would be operational to provide emergency backup during testing. Regular operation of the Next Gen System is expected to begin in 2023. The proposed project is expected to operate for 20 years. During that time, regular inspections and maintenance would occur on each site.

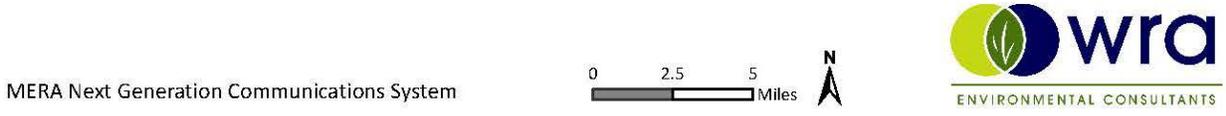
**Figure 1. MERA Next Generation System Configuration**



Path: L:\Acad 2010 Files\27000\27236\GIS\ArcMap\Overview 20180501.mxd

Sources: National Geographic Basemap, WRA | Prepared By: czumwalt, 5/3/2018

**Figure X. MERA Next Generation System Configuration**



**Table 3. MERA Next Gen project Description Summary by Site (2 pages)**

Site No.	Site Name	Assessor's Parcel Number (Source Marin Map 2017)	FINAL Coordinates (3-28-18)	Ground Elev (feet)	Existing Infrastructure at Site Communications Towers, Buildings and Equipment	Proposed Physical Changes at Site for MERA Next Gen System (May 7, 2018)
1	EOF - Prime Site (Emergency Operations Facility)	165-220-11 site	38.019167, 122.541528	29.0	Existing (Ex.) rooftop communications equipment at Sheriff's Dispatch Center with antennas on lattice structure supporting existing dispatch systems.	New Prime Site for MERA Next Gen System - New 3' dia. and 6' dia. microwave (MW) dishes to be placed above lattice structure. 16 vertical whip antennas added outside of lattice structure.
<b>Existing MERA Sites Proposed for Next Gen System (Green)</b>						
2	Civic Center	179-270-11	37.999056, -122.531306	46.0	Ex. antennas on roof, no tower. Bldg is on Federal Register of Historic Places and has design guidelines to be considered.	Add one new 3' dia. MW dish on roof, no tower
3	Big Rock	164-300-04 site 164-310-14 Access Rd to SW	38.059194, 122.604250	1,886.0	Ex. 120' tower w 4 legs, each 12' width. 2 Ex. Buildings, each ~20' x 20' x 9' high.	Propose minor equipment changes on existing tower. Reinforce existing tower foundation. 3 dishes and 4 antennas added, 4 dishes and 3 antennas removed.
4	Mt. Tamalpais	197-120-31	37.929006, 122.587084	2,516.0	Ex. 70' tall monopole, 12" dia., is among many other monopoles and antennas at fully developed mountain top radio operations site surrounded by approximately 20 MW dishes on 8-10' poles.  2 Ex. Concrete Buildings: MERA building is H9'-W15', L 20'. Second building is 30' diameter with dome shaped roof.	Propose minor equipment changes on existing MERA monopole. 4 antennas added, 2 antennas removed. Reinforce existing tower foundation. New MERA generator and 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.
5	Mt. Barnabe	168-240-01 site 168-240-20 Facility to N 168-240-21 Access to S. 166-080-09 Access to W	38.026751, -122.716321	1,470.0	Existing County fire Lookout and Sonoma Radio Tower. Ex. 75' tall 3 leg tower, with 12' width legs. Ex. 25' tall x 2' diameter MW monopole.	Propose minor equipment changes on existing tower. 3 antennas added, 3 antennas removed. Minor equipment changes on existing monopole 2 microwave dishes added, 3 microwave dishes removed. Reinforce tower/ monopole foundations, replace HVAC units in Ex. building.
6	Bolinas Fire Station	193-030-20	<b>Dropped from Original MERA System - Not Proposed for Next Gen System</b>			no action
7	Bolinas Ridge	197-120-30	<b>Dropped from Original MERA System - Not Proposed for Next Gen System</b>			no action
8	Point Reyes Hill	109-160-23 site 109-140-37 East	38.079836, -122.866944	1,324.0	Ex. hilltop site occupied by large, visually concealed FAA Vortac antenna surrounded by PRNS. 2 Ex. CBA buildings within smaller fenced site, each building ~ 20' x 10' x 9' H. One Ex. 17' tall x 12" diameter monopole, and one 29' wood utility pole with mounted MW dishes.	Propose to replace existing 29' wood utility pole with a new 40' monopole to support two new 3' dia MW dishes. Reinforce existing monopole foundations. New cable bridge between E. building and new monopole. Replace HVAC units in existing bldg.  Propose minor equipment changes on second existing monopole. 3 antennas added, 3 antennas removed
9	Forbes Hill	010-261-02	<b>Not Proposed for Next Gen System</b>			<b>MERA DECOMMISSION</b> - MERA will retain and maintain building, site and tower. MW dishes and antennas will be removed. Site will NOT be operational for the Next Gen System.
10	Dollar Hill	011-051-02 site 11-051-34, 011-131-03 West 011-084-41 East	37.980262, -122.529354	663.0	65' tall, 3 Leg tower with 12' face width. 2 Ex. CBA buildings ~ 10' x 20' x 9' H. Ex. water tank and Pump, not in use.	Propose minor equipment changes on existing tower. 2 microwave dishes and 8 antennas added, 2 microwave dishes and 3 antennas removed Reinforce existing tower foundation.
11	San Pedro Ridge	015-250-21 site 015-250-53 Access Rd 186-470-77 to west	37.990205, 122.500139	1,062.0	100' tall, 3 leg tower each with 12' face width. Ex. concrete building 9' x 15' x 9H. Fenced enclosure.	Propose minor equipment changes on existing tower. 2 microwave dishes and 4 antennas added, 2 microwave dishes and 2 antennas removed Reinforce existing tower foundation.
12	Mt. Burdell* (see #25 for OTA site)	125-180-17 Site 125-180-58 Rd+surrounds	<b>Not Proposed for Next Gen System</b>			<b>MERA DECOMMISSION</b> - MERA will not renew the lease at this site, will remove all MERA equipment and will perform no additional maintenance. The site WILL remain operational and will be maintained by existing owners and lessees.
13	Novato Police Dept	153-061-28	<b>Dropped from Original MERA System - Not Proposed for Next Gen System</b>			no action. (MW link and dispatch center owned by City of Novato to remain)

MERA Next Gen System - Preliminary Project Description

Site No.	Site Name	Assessor's Parcel Number (Source Marin Map 2017)	FINAL Coordinates (3-28-18)	Ground Elev (feet)	Existing Infrastructure at Site Communications Towers, Buildings and Equipment	Proposed Physical Changes at Site for MERA Next Gen System (May 7, 2018)
14	Mt. Tiburon	058-261-39 Site 058-261-38 Tank + surrounds	37.890440, -122.464796	518.0	Ex. 60' tall monopole and another ex. 22' monopole Ex. equipment shelter.	Propose minor equipment changes on existing tower. 2 microwave dishes and 4 antennas added, 2 microwave dishes and 3 antennas removed. Reinforce existing tower foundation and replace existing HVAC in existing shelter.
15	Mill Valley City Hall	028-014-16 Site	<b>Not Proposed for Next Gen System</b>			<b>MERA DECOMMISSION</b> - All MERA equipment to be removed and no additional maintenance provided. The site WILL remain operational for Mill Valley.
16	Mill Valley Police Station	030-250-01 Site	<b>Not Proposed for Next Gen System</b>			<b>MERA DECOMMISSION</b> - All MERA equipment to be removed and no additional maintenance provided. The site WILL remain operational for Mill Valley.
17	Bay Hill Road	100-190-07	<b>Not Proposed for Next Gen System</b>			<b>MERA DECOMMISSION</b> - MERA will not renew the lease at this site, will remove all MERA equipment and no additional maintenance will be performed. The site WILL remain operational for existing owners and lessees.
18	Sonoma Mountain	136-190-09 (No confirmation of APN)	38.348389, -122.578333	2,448.0	Hill top site with 3 bldgs and two towers. 190' tower is 3 legged guyed lattice with 20" face. Microwave tower is 3 leg, w/ face width of ~12'. CBA buildings are ~10' x 20' x 9"H.	Propose minor additions to equipment on existing tower. 2 microwave dishes added.
19	Stewart Point (AKA Martinelli)	Added to Original MERA with a CEQA Amendment 188-090-15	37.930389, 122.720194	779.0	Ex. 35' tall x 12" dia. monopole with building on fenced site. Ex. CBA Bldg. ~10' x 15' x 9"H.	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.
<b>New Sites Proposed for Next Gen System (Blue)</b>						
20	Tomasles	Added to Original MERA with a CEQA CE 100-050-42	38.261015, 122.903629	487.0	Existing Cell tower sited to minimize visual impacts.	Propose new 75' tall monopole, new shelter, fence, generator and water tank. New below ground power cable from SE corner of site to follow same path as existing underground line.
21	Coyote Peak (Walker Creek Ranch)	Next Gen System Only 106-110-03 106-130-08 Adj to N.	38.185833, -122.825167	968.0	Two water well pump heads on ridgetop within actively grazed range lands. Access through Walker Creek Ranch, a Marin Co. Outdoor School.	Propose new 75' tall monopole, shelter, fence, generator and fuel tank. 1.5 Mile road will require grading and widening of at least one turn. A new 4,000 LF above ground power line needed from valley floor to ridge.
22	Skyview Terrace (EOF Water Tank)	Next Gen System Only 165-220-02 site 165-220-03 Access Rd + surrounds	38.017000, 122.546000	387.0	Next to existing MMWD water tank near Lucas Valley Road. Visible from Hwy 101.	Propose new 60' tall monopole, shelter, fence, generator and fuel tank.
23	Muir Beach	Next Gen System Only 199-262-11 site 199-290-23 overlook 199-262-10 Adj. Res to SE	37.863289, 122.585512	367.0	Existing Muir Beach Community Services District Water Tank. Next to existing GGNRA scenic overlook parking lot and public restrooms.	Propose new 60' tall monopole, shelter, fence, generator and fuel tank, plus new MW dishes on ex. water tank.  Also a new fire station proposed on same site in next 3 years. (Not part of MERA project)
24	Wolfback Ridge	Next Gen System Only 200-120-02 site 200-120-06 Access Rd.	37.851085, 122.498376	1,115.0	Very active antenna site with 100' tower on private hill top site surrounded by GGNRA.	NEW to MERA. Propose new equipment on existing 100' tower, new generator and fuel tank. Reinforce existing tower foundation. Will use existing building and fence.
25	OTA Broadcasting at Mt Burdell	Next Gen System Only 125-160-01 site 125-120-03 Access Rd. to W	38.149888, 122.593239	1,573.0	Ex Communications site with existing 60' tall monopole. MERA is moving from ex Mt. Burdell site (#12).	NEW to MERA. Will use ex. 60' monopole, remove antennas, and add additional microwave dishes and antennae. Reinforce existing tower foundation and replace existing HVAC in existing shelter.
26	Mill Valley Water Tank	Next Gen System Only 046-070-03	37.902735, 122.558010	565.0	Existing MMWD 500,000 Gal Water Tank in trees. At Sequoia at Edgewood.	Propose new 60' tall monopole, shelter, fence, generator and fuel tank on South side of Ex water tank.