



**ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY  
PLANNING DEPARTMENT**

**STAFF REPORT**

**TO: EAST COUNTY BOARD OF ZONING ADJUSTMENTS  
HEARING DATE: AUGUST 27, 2015**

**GENERAL INFORMATION**

**APPLICATION: CONDITIONAL USE PERMIT, PLN2015-00128**

**APPLICANT: BROOKFIELD RENEWABLE ENERGY GROUP**

**OWNER: MULQUEENEY RANCH PROPERTIES, LLC**

**PROPOSALS:** To construct five meteorological masts and equipment (i.e., remote testing facilities) to measure wind regime for future wind energy development (repowering of previously developed wind energy facilities), including four 60-meter (197 feet) towers and one 80-meter (262.5 feet) tower, to be operated for one to three years.

**LOCATION, ASSESSOR'S PARCEL NOS. AND PARCEL AREAS:** 17257 and 17350 Patterson Pass Road, both north and south sides, unincorporated Livermore/ Tracy area of Alameda County, 1,840 feet west of Midway Road (and extending approximately 2.5 miles further west), on Assessor Parcel Numbers: 099B-7900-001-05; 099B-7900-001-07; 099B-7975-001-00; and 099B-8050-001-00.

**ZONING:** A-BE (Agriculture, 160-acre minimum building site area) District

**GENERAL PLAN DESIGNATION:** LPA (Large Parcel Agriculture), East County Area Plan, adopted in 1994 and amended in November 2000 and May 2002.

**ENVIRONMENTAL REVIEW:** The project is subject to the California Environmental Quality Act (CEQA, 1970 as amended), and is consistent with the Program Environmental Impact Report (PEIR) certified by the East County Board of Zoning Adjustments on November 12, 2014. The proposal is therefore reviewed as a tiered project with a checklist pursuant to Section 15168(c) of CEQA Guidelines. The checklist identified a range of specific potential adverse impacts on the environment, which had been previously identified in the PEIR, and for which specific mitigation measures would serve to avoid or reduce those impacts to less-than-significant levels. Based on the checklist, a Mitigation Monitoring and Reporting Program has been proposed, the implementation of which would be required as a condition of approval.

**RECOMMENDATION**

The Board should receive a staff presentation, take public comment on the proposed project application, review the draft resolution and exhibits, including the Mitigation Monitoring and Reporting Programs (MMRPs) for the project, and approve the Conditional Use Permit, subject to the proposed conditions of approval.

## **WIND-RELATED ZONING HISTORY**

January 8, 1955, the 61<sup>st</sup> Zoning Unit initially zoned the parcels and surrounding area as the A (Agriculture) District.

### *For U.S. Windpower:*

- February 3, 1982, C-4180, 24 turbines, 2.4 MW.
- November 17, 1982, C-4326, 71 turbines, 7.1 MW.
- May 11, 1983, C-4437, 9 turbines, 0.9 MW.
- September 11, 1985, C-4950, 441 turbines, 44.1 MW.
- September 11, 1985, C-4957, 34 turbines, 3.4 MW.
- April 30, 1986, C-5065, 16 turbines, 4 MW.
- September 16, 1987, C-5304, 43 turbines, 4.3 MW, plus 1 turbine, 0.4 MW.
- September 23, 1987, C-5318, 37 turbines, 3.7 MW.
- December 9, 1987, C-5359, 37 turbines, 3.7 MW.

### *For Altamont Infrastructure Company, management company for FPL/Green Ridge Power and Altamont Winds, Inc.:*

September 22, 2005, C-8137, renewed and consolidated prior Conditional Use Permits under Mulqueeny ownership as one, for a total of 697 turbines and 70.0 MW of capacity.

### *For Altamont Winds, Inc.:*

September 22, 2005, C-8191, renewed C-5065 for 16 turbines, 4 MW.

Extended history of the prior CUPs in the project area is available in prior staff reports to the EBZA for major wind repowering projects, describing the progressive development of wind energy projects in the area, turbine ownership patterns, early repowering efforts, the 2005 CUP approval process, agreements among the County, operators and environmental advocacy organizations related to repowering efforts. Repowering is the primary strategy to reduce average annual raptor mortality of four focal raptor species, including golden eagle, red-tailed hawk, burrowing owl, and American kestrel.

## **SITE AND CONTEXT DESCRIPTION**

The project area is within the Alameda County portion of the APWRA (except as noted, APWRA hereinafter shall mean the Alameda County portion), which currently includes 43,358 acres, or nearly 68 square miles. The Mulqueeny properties, on which future repowering projects may occur, encompasses about 20 separate parcels over nearly seven square miles, of which about two thirds lies south of Patterson Pass Road. The area is generally characterized by rolling foothills of mostly treeless grassland, primarily used for cattle grazing, with relatively moderate to gentle slopes. Major features of the area include wind turbines, ancillary facilities, an extensive grid of high voltage power transmission lines, substations, microwave towers, a landfill site, Interstate 580 to the north, railroad track lines, ranch houses, and clusters of rural residential homes on Midway Road to the east.

## **GENERAL PLAN POLICIES AND ZONING**

All of the met tower sites are designated by the East County Area Plan (ECAP, 2002) as Large Parcel Agriculture (LPA), which permits one single-family residence per parcel, agricultural uses, agricultural processing facilities, public and quasi-public uses, quarries, landfills and related facilities, wind farms and

related facilities, utility corridors, and similar uses compatible with agriculture. The southeast corner of the parcel proposed for towers 5 and 6 borders a separate area designated as Water Management (WM), which does not permit wind farms or related facilities.

Lands in the project area are zoned A-BE-160 (Agricultural District, with minimum building site areas of 160 acres), which allows for agricultural and other non-urban uses. Within the A District, privately owned wind-electric generators are a conditionally permitted use subject to approval by the East County Board of Zoning Adjustments (EBZA).

## **PROGRAM EIR AND CURRENT PROJECT TIERING**

The Program Environmental Impact Report (PEIR), certified by the County in November, 2014, addresses the anticipated approval of new CUPs to allow replacement of old generation wind turbines with current generation turbines in the Alameda County portion of the APWRA, both broadly on a program level for the entire area. The PEIR also specifically evaluated, on a project level, two project applications, the Patterson Pass Wind and Golden Hills Wind – Phase I Projects. As provided for in the CEQA Guidelines (Section 15168), the certified PEIR allows for subsequent specific project applications to ‘tier’ from the PEIR, to the extent that the subsequent projects lie within the scope of the PEIR, and do not introduce new or substantially different significant impacts that were not addressed in the PEIR. In addition, subsequent projects are expected to be related geographically and to have similar (or less) environmental effects that can be mitigated in ways that are similar to the ways as the projects that were evaluated at the project level in the PEIR.

The Mulqueeny Ranch Wind Project was among a small number of anticipated projects that were evaluated on a program level, including installation of meteorological towers for investigating wind conditions or regimes. The significant and unavoidable adverse impacts of the broad repowering program includes the effects of operations for the life of the permits on avian species, including raptors, other birds and bats migrating through and wintering in the program area, as well as some temporary construction-related impacts, on air quality (due to predicted emissions in excess of regional air district standards) and on traffic operations and transportation, if construction-related traffic were to occur concurrently with the Sand Hill Wind Repowering Project (which has been postponed for the foreseeable future).

Other impacts, that could be reduced to less than significant levels, included effects on scenic vistas and other aesthetic considerations including shadow flicker, potential conversion of recognized Prime Farmland (not including the currently proposed Golden Hills and Patterson Pass Projects), other construction-related air quality and greenhouse gas emission impacts, and a broad range of other impacts on biological resources, including special-status plants, a wide range of terrestrial species, habitat communities, migratory wildlife corridors and nursery sites. Additionally, the projects were determined to have varying potential impacts on historical, archaeological, undocumented human remains or paleontological resources, and in the topic areas of seismic safety, water quality of stormwater runoff, hazardous materials, aviation, transportation and circulation, emergency response, and noise. The significant impacts and mitigation measures are summarized and concisely tabulated in the Executive Summary portion of the PEIR.

To evaluate the met towers in the context of the PEIR, an Environmental Checklist adapted specifically from the PEIR has been used to assess the potential environmental effects of the met tower project. The Checklist, attached to this staff report, indicates that:

- There may be minor temporary visual impacts caused by construction, for which the suggested mitigation measure of limiting construction to daylight hours is expected to prevent any potential disturbance to residences or recreation areas.

- A biological resources study, attached to the checklist, indicates that significant effects on special-status plants are not anticipated, and no mitigation measures would be required.
- The project would involve the use of construction vehicles which could introduce invasive plant species, and as a result, best management practices should be implemented to avoid and minimize special-status species impacts, specifically by incorporating track-control methods for travel in and out of the sites.
- Grassland habitats could be disturbed during construction, and therefore certain best management practices would be required in order to minimize or avoid adverse impacts, and will be required in the project construction documents.
- Construction activity may require implementation other best management practices, pre-construction surveys for birds, including surveys for burrowing owl; such measures would ensure that adverse impacts are minimized or avoided.
- Temporary loss of occupied habitat for western burrowing owl and foraging habitat for tricolored blackbird could result from grassland disturbance. Mitigation Measure BIO-5C may be required, for a qualified biologist to prepare a Grassland Restoration Plan in coordination with CDFW and subject to CDFW approval, if the on-site biologist determines it is appropriate; however, the small scale of the project is not deemed sufficient to warrant compensation measures.
- Loss of grassland could adversely affect habitat for San Joaquin kit fox and other species; implementation of best management practices, a Grassland Restoration Plan and avoidance and minimization measures (i.e., MM BIO-1b, MM BIO-5c, and MM BIO-10a as listed in the PEIR) would reduce the potential impact. Compensation measures are not necessary, considering the size of the project and amount of potential disturbance.
- The guy wires of the met towers could interact adversely with avian species; implementation of MM BIO-11d would include the use of avian safe measures and practices which would reduce the potential impact; specifically, the wires will be at least 4/0 gauge to ensure visibility and must be fitted with bird deterrent devices.
- The project could adversely impact the movement of native resident wildlife species or with established native resident or migratory wildlife corridors, such that best management practices, a Grassland Restoration Plan, and other avian safe measures will be necessary to ensure that such effects are minimized or avoided.
- A cultural resource study of the five met tower sites did not identify any cultural resource sites. Standard construction practices to report unknown cultural resources that could be encountered in the course of the relatively very modest ground disturbing activities would be sufficient to avoid adverse impacts on such resources, including prehistoric resources, human remains, etc.
- A geotechnical or soils report may be required prior to construction activities in order to avoid adverse seismic risks associated with the project construction.

A proposed Mitigation Monitoring and Reporting Programs (MMRP) for the project is attached to the draft resolution to approve the proposed met tower project. In the vast majority of cases, the mitigation measures that applied to the wind repowering projects will not apply to the installation of the met towers. Notably, there are no significant and unavoidable adverse impacts, i.e., that cannot be avoided or reduced to less-than-significant levels with the effective implementation of the identified Mitigation Measures.

## **RESPONSES TO REFERRAL**

On August 4, 2015, the Building Department responded to the referral by stating that building permits for each MET tower would be required, and that a soils report and geological study may be required. As a condition of approval, the project and building permit application must comply with building codes in effect at the time of submission, and a California licensed architect or engineer is to be designated as the design professional responsible for the project design submittal.

On August 20, 2014, the Alameda County Fire Department responded with comments requesting that the applicant provide site plans drawn to appropriate scale, show routes to the “turbines” (MET towers) for emergency access, gates that must be passed for fire department access, and any fire department key boxes. The site plan should show all structures and any water supplies, and as a condition of approval, a ten-foot diameter vegetation clearance zone is to be maintained around each turbine with a vegetation management plan showing how this requirement is met and how it is to be maintained. However, such a clearance zone may be eliminated if agreed to by the Fire Department after further discussion with the state and federal resource agencies.

On August 7, 2015, the Grading Division of the Public Works Agency indicated it had no comments on the proposal; no other agency or public comments have been received.

## **PROJECT DESCRIPTION AND PLANNING CONSIDERATIONS**

The project proponent, Brookfield Renewable Energy Group (Brookfield) plans to erect five temporary meteorological masts (i.e., towers) within the Mulqueeney properties in the southeastern portion of the APWRA, for the purpose of assessing the wind regime for potential future wind farm development. The project consists of the erection of four 60-meter tall met masts, and one 80-meter tall met mast. The met masts will be erected using existing roads on the project site, with no new roads or road widening necessary. The masts would be supported by guy wires, along which bird deterrents, which the CEQA checklist for the project indicated would be required, would be arranged by the tower contractors, based on site biologists recommendations. These typically consisting of brightly-colored or otherwise highly visible balls or spiral spheroids which provide visual cues to avian wildlife. Attached figures illustrate the locations and elevation details of the two types of MET masts. Biological and cultural resource evaluations are also attached.

Each 60-meter tower would consist of a metal base plate, approximately 4-feet square, which is assembled on the surface. No foundation (concrete, gravel, etc.) is necessary to install the base plate. The base plate is held in position by grounding rods driven through each corner. Tower sections are installed on the ground, attached to the base plate, and the tower is tilted up into position. Each tower would be anchored in four directions, with up to three anchors in each direction, depending on topography and soil conditions. Guy wires would be roughly equally-spaced up the tower, and connected to the anchor to achieve tower stability. The actual number of guy wires used in each of the four directions will be based on final engineering at the time of the building permit application and review.

The met masts would be operated for 1-3 years. The towers would be removed following collection of the wind regime data. A repowering project is not yet proposed, pending measurement of the wind regime, and would be proposed in the future if determined to be feasible.

## **SUMMARY**

Alameda County Department referrals have indicated no objections to the project proposal, nor have there been any public comments at this time, following notice to the public. Remote testing facilities are permitted in an “A” Agricultural district with an approved Conditional Use Permit, under Section 17.06.040, Alameda County Zoning Ordinance.

## **TENTATIVE FINDINGS BASED ON INFORMATION AVAILABLE PRIOR TO THE PUBLIC FINDINGS IN SUPPORT OF THE CONDITIONAL USE PERMIT**

*Finding 1: The use is required by the public need.*

The proposed project will help determine if a commercial repowering project is feasible on the project site. The use is required by the public need in that wind energy production in the APWRA represents a major source of renewable energy. A proposed repowering project, if determined to be feasible based on the results of this met mast monitoring project, would replace existing turbines with more efficient turbines, which also have the potential to reduce avian impacts.

*Finding 2: The use will be properly related to other land uses transportation and service facilities in the vicinity.*

The proposed project is an existing wind farm and thus the use is well-suited from a planning and practical perspective for continued use as a wind farm.

*Finding 3: The use, if permitted, under all the circumstances and conditions of the particular case, will not materially affect adversely the health or safety of persons residing or working in the vicinity, or be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood.*

The proposed project would be located within an existing wind farm which does not have persons residing or in the vicinity. Thus, the project would not be materially detrimental to the public welfare or injurious to other property improvements in the project vicinity. The masts will be required to comply with FAA requirements, and the 80-meter tower may be subject to lighting requirements.

*Finding 4: The use will not be contrary to the character or performance standards established for the District in which it is to be located.*

The use will not be contrary to the specific intent clauses or performance standards established for the District in which it is to be considered in that the proposed project is located in the A (Agriculture) zoning district, which has as its stated intent: "to promote implementation of General Plan land use policies for agriculture and other nonurban uses; to conserve and protect existing agricultural uses; and to provide space for and encourage such uses in places where more intensive development is not desirable or necessary for the general welfare." The proposed project would be consistent with this intent because the development of wind power projects is both allowed and encouraged in the APWRA by the East County Area Plan, the project removes minimal land from agricultural production, and the use is appropriately located in non-urban areas and will serve the public welfare and the need for renewable energy.

## **RECOMMENDATION**

The Board should receive a staff presentation, take public comment on the proposed Conditional Use Permit project application, review the draft resolution and exhibits, including the Mitigation Monitoring and Reporting Program (MMRP) for the project, and approve the project (PLN2015-00128) subject to the proposed conditions, which includes implementation of the MMRP.

PREPARED BY: Andrew Young  
REVIEWED BY: Sandra Rivera

Planner III  
Assistant Planning Director

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**DRAFT RESOLUTION NO. Z-15-XX OF**  
**THE EAST COUNTY BOARD OF ZONING ADJUSTMENTS**  
**ADOPTED AT THE HEARING OF AUGUST 27, 2015, CONCERNING**  
**PLN2015-00128**

**WHEREAS** BROOKFIELD RENEWABLE ENERGY GROUP / MULQUEEN-EY RANCH PROPERTIES, LLC has applied for Conditional Use Permit, PLN2015-00128, a request to construct five meteorological masts and equipment (i.e., remote testing facilities) to measure wind conditions, including four 60-meter (197 feet) towers and one 80-meter (262.5 feet) tower, to be operated for one to three years, located on four parcels in the A-BE (Agriculture, 160-acre minimum building site area) District, located at 17257 and 17350 Patterson Pass Road, both north and south sides, unincorporated Livermore/ Tracy area of Alameda County, 1,840 feet west of Midway Road (and extending approximately 2.5 miles further west), on the following four Assessor Parcel Numbers: 099B-7900-001-05; 099B-7900-001-07; 099B-7975-001-00; and 099B-8050-001-00; and

**WHEREAS** the Board did hold a public hearing on said application at the hour of 12:30 p.m. on the 27<sup>th</sup> day of August, in the City of Pleasanton Council Chamber, 200 Old Bernal Avenue, Pleasanton, California; and

**WHEREAS** it satisfactorily appears from affidavits on file that proper notice of said public hearing was given in all respects as required by law; and

**WHEREAS** this application has been reviewed in accordance with the provisions of the California Environmental Quality Act (CEQA) and is considered a tiered project which has been reviewed using a checklist pursuant to Section 15168(c) of CEQA Guidelines, as consistent with the Program Environmental Impact Report (PEIR) certified by the East County Board of Zoning Adjustments on November 12, 2014, such that no new significant impacts not identified in the PEIR would result from the application, and such impacts as could potentially result from the application can be avoided or reduced to less than significant impacts by the implementation of mitigation measures that have been identified in the PEIR; and

**WHEREAS** further in compliance with Section 15091 of the CEQA Guidelines, the Planning Department has prepared a Mitigation Monitoring and Reporting Program, attached herein as Exhibit B, which is required to be implemented by the Permittee and by the County as a condition of approval of the project and that are fully enforceable through permit conditions, agreements, or other measures; and

**WHEREAS** a Staff Report was submitted to the Board recommending the application be conditionally approved; and

**WHEREAS** the Applicant appeared at said public hearings and presented testimony in support of the application; and

**WHEREAS** the Board did hear and consider all said reports, recommendations and testimony as hereinabove set forth;

**NOW THEREFORE,**

**BE IT RESOLVED** that the Board finds that:

- (a) The use is required by the public need as the project will help determine if a commercial repowering project is feasible on the project site. The use is required by the public need in that wind energy production in the APWRA represents a major source of renewable energy, which will serve state and local energy objectives. A proposed repowering project, if determined to be feasible based on the results of this met mast monitoring project, would replace existing turbines with more efficient turbines, which also have the potential to reduce avian mortality impacts.
- (b) The use will be properly related to other land uses and transportation and service facilities in the vicinity as the proposed project is an existing wind farm and thus the use is well-suited from a planning and practical perspective for continued use as a wind farm which includes wind regime-testing facilities.
- (c) The use, if permitted, under all the circumstances and conditions of this particular case, will not materially affect adversely the health or safety of persons residing or working in the vicinity, or be materially detrimental to the public welfare or injuries to property or improvements in the neighborhood as the proposed project would be located within an existing wind farm which does not have persons residing or in the vicinity. The masts will be required to comply with FAA requirements, and the 80-meter tower may be subject to lighting requirements.
- (d) The use will not be contrary to the specific intent clauses or performance standards established for the District in which it is to be considered as remote testing facilities are permitted in an "A" Agriculture District with an approved Conditional Use Permit under Section 17.06.040.P, Alameda County Zoning Ordinance, and further that the A district has as its stated intent, "to promote implementation of General Plan land use policies for agriculture and other nonurban uses; to conserve and protect existing agricultural uses; and to provide space for and encourage such uses in places where more intensive development is not desirable or necessary for the general welfare." The proposed project would be consistent with this intent because the development of wind power projects is both allowed and encouraged in the APWRA by the East County Area Plan, the project removes minimal or extremely little land from agricultural production, and the use is appropriately located in non-urban areas and will serve the public welfare and the need for renewable energy.

**BE IT FURTHER RESOLVED** that the Board does hereby approve the said application as shown by materials labeled Exhibit 'B' dated April 21, 2015 ("Mulqueeney Meteorological Tower Site 1, Site 2, Site 4, Site 5 and Site 6") on file with the Alameda County Planning Department subject to the following conditions:

1. Approval. Approval of this permit authorizes construction of five meteorological masts and equipment (i.e., remote testing facilities) to measure wind conditions, including four 60-meter (197 feet) towers and one 80-meter (262.5 feet) tower, to be operated for one to three years.
2. Compliance and Conditions. Permittee agrees to comply with all applicable regulations, rules and requirements of the County of Alameda and its Agencies, all subdivisions and departments of such agencies, and to comply with specific conditions of approval described herein by the representatives of said agencies, including but not limited to:
  - a. Community Development Agency, Planning Department
  - b. Public Works Agency, Building Inspection Department
  - c. Fire Department, including the Fire Prevention Bureau
  - d. Sheriff's Office

Permittee further agrees to comply with all applicable regulations, rules and requirements of the State of California and United States agencies, including but not limited to the following:

  - e. California State Department of Fish and Wildlife
  - f. United States Fish and Wildlife Service
  - g. Federal Aviation Administration
3. Building Permit. Building permits shall be obtained for each MET tower, and a soils report and geological study may be required. The building permit application shall comply with building codes in effect at the time of submission, and a California licensed architect or engineer is to be designated as the design professional responsible for the project design submittal.
4. Site Plan Details. Applicant shall provide site plans at a scale satisfactory to the Building Inspection Department and Fire Department – Fire Prevention Bureau, showing gate and key box locations, fire and emergency access routes and road widths, water tanks and major structures.
5. Fire Department Approval. Applicant shall contact the Alameda County Fire Department, Fire Prevention Bureau, to obtain a fire clearance certificate. The Bureau may be reached by telephone at (510) 670-5853.
6. Liability. By exercise of this Conditional Use Permit, the Permittee agrees to defend, indemnify and hold harmless the County of Alameda, its officers, employees, agents and

servants for any and all liability caused by the negligence or wrongful act of the Permittee arising out of the exercise of this Conditional Use Permit, and to pay all claims, damages, judgments, legal costs, adjuster fees, and attorney fees related thereto.

7. Indemnification. The Permittee shall defend, indemnify, and hold harmless Alameda County or its agents, officers, and employees from any claim, action, or proceeding against Alameda County or its, agents, officers or employees to attack, set aside, void, or annul Conditional Use Permit, PLN2015-00128, the Program Environmental Impact Report (PEIR) and its analysis of project impacts, the California Environmental Quality Act (CEQA) findings, determination of significant impacts, the Mitigation Monitoring and Reporting Program (MMRP), or any combination thereof. Such indemnification shall include, but not be limited to, an award of costs and attorney's fees incurred by Alameda County in its defense. The County shall promptly notify Permittee of any such challenge.
8. Mitigation Monitoring and Reporting Program. The Permittee shall implement all applicable mitigation measures identified in the Mitigation Monitoring and Reporting Program (MMRP) attached herein as Exhibit C, and as specified individually herein.
9. Inspections and Cost Recovery. The Permittee shall allow staff of the Alameda County Planning Department, Alameda County Public Works Agency, the California Department of Fish & Wildlife, and any other responsible agency to conduct site inspections during construction and operation of the project in order to ensure compliance with approved permits, plans, and conditions of approval. Inspections shall be conducted at the discretion of said agencies. The project sponsor or its successors shall be responsible for payment of all reasonable costs associated with the necessary inspections to confirm implementation of the conditions of approval herein, including costs incurred by the Community Development Agency, the County Fire Department, the Building Inspection Division, the Public Works Agency or any other applicable Federal, State or County department or agency.
10. Maintenance. The remote testing facility shall be regularly maintained to ensure safety and avoid deterioration of appearance (e.g., paint and debris caught in guy wires).
11. Contact Information: Applicant (Brookfield Energy Resources, or its representative or successor, shall maintain at all times contact information on file with the Alameda County Planning Department and at each main access gate to the tower masts.
12. Site Restoration. Permittee shall provide written notification to the Board of Zoning Adjustments upon cessation of operations on the site. The permittee/property owner shall remove all improvements authorized under this permit from the site and the property shall be returned to its pre-application condition within three months of cessation.
13. Project Guarantee. Application for Building Permits to implement any portion of this Conditional Use Permit or operation of the remote testing facility shall be accompanied by a financial guarantee, which shall be indexed annually for inflation, satisfactory to

County Counsel, for the removal of the facility in the event that its use is abandoned or its use permit expires or is terminated. The amount of the guarantee per facility may be reduced or eliminated if, a) the applicant has more than one such remote testing facility in the County, and/or b) the property owner and lessee of the sites provides for removal of unused improvements through their lease agreements that are satisfactory to the County. If the owner or lessee does not remove any obsolete or unused facilities, the financial guarantee shall be used by the County to remove any obsolete or unused facilities. Applicant and/or property owner shall continue to be responsible for full site reclamation, and shall provide additional funding as may be necessary to fully restore the site. Any unused financial guarantee shall be relinquished to the applicant upon termination of the use and removal of facility or transfer of the lease accompanied by a financial guarantee by the new lessee or owner in compliance with zoning requirements in effect at that time.

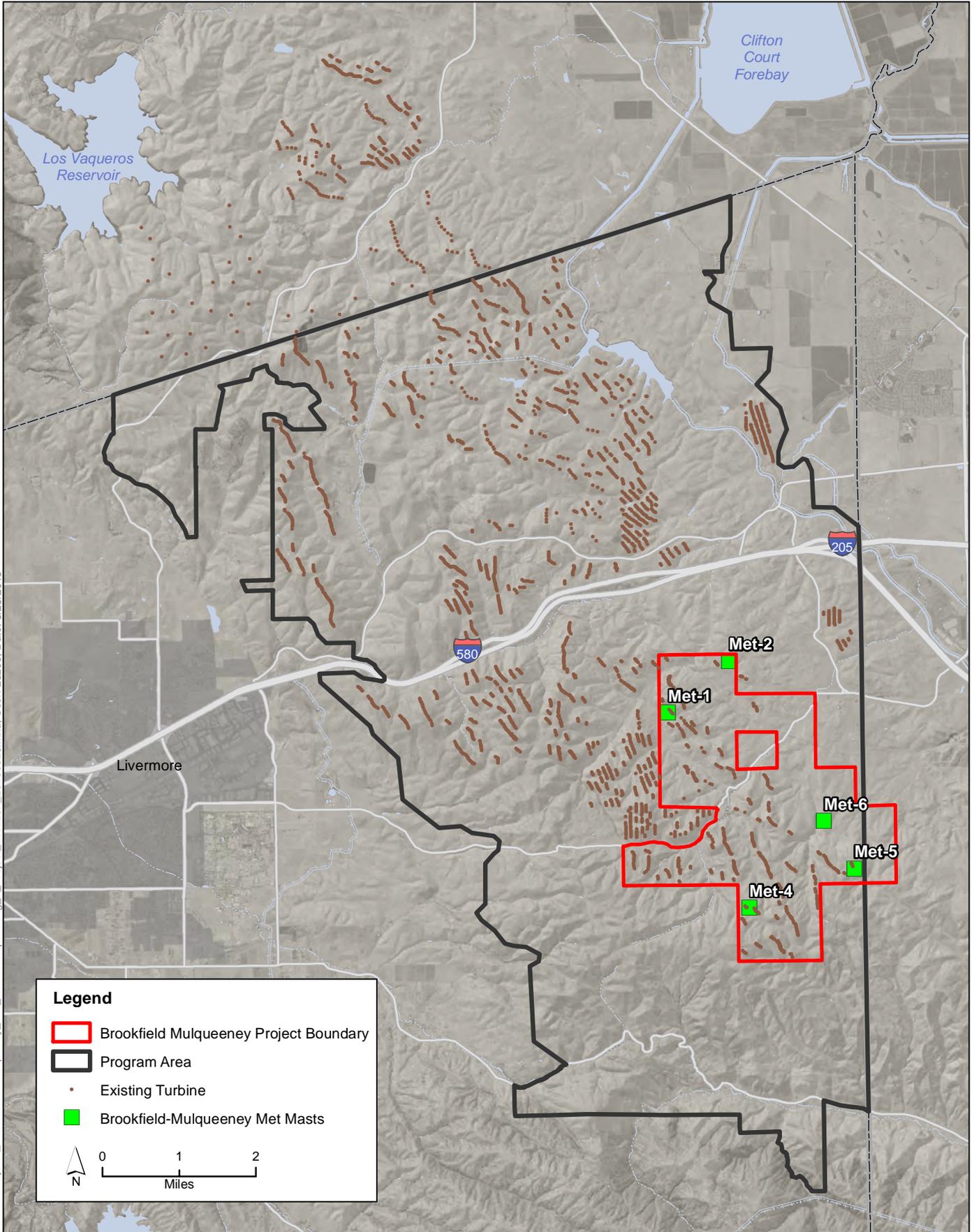
14. Signage. Permittee shall provide signage as required by the permitting authority (e.g. Fire Department, Planning Department) including phone numbers of the utility provider for use in case of an emergency. Signs shall be posted on the major entrances to the sites. The masts or mountings shall not be used for advertising.

Pursuant to Section 17-52.050 of the Alameda County Zoning Ordinance said Conditional Use Permit shall be implemented within a term of three (3) years of its issuance or it shall be of no force or effect.

If implemented, said Conditional Use Permit shall terminate on August 27, 2020 and shall remain revocable for cause in accordance with Section 17-54.030 of the Alameda County Zoning Ordinance.

**EAST COUNTY BOARD OF ZONING ADJUSTMENTS  
ALAMEDA COUNTY PLANNING DEPARTMENT**

Path: K:\Projects\_1\Brookfield\Mulqueeny\_met\_towers\mapdoc\Fig\_1\_Project\_Location\_20150529.mxd; User: 28266; Date: 6/25/2015



**Figure 1**  
**Brookfield-Mulqueeny Met Mast Project**



# Brookfield

## Mulqueoney Meteorological Tower Site 1

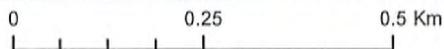


### Legend

- Proposed Met. Tower
- Met Tower 50m Buffer
- Met Tower 30m Buffer
- Substation
- Laydown Yard
- Other Turbine
- NextEra Turbine
- AWI Turbine
- Alameda Parcels

Source: Esri, DigitalGlobe, GeoEye, IGN, GeoEye, Airbus, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

NAD 83 UTM Zone 10 N  
1:7,500





# Brookfield

## Mulqueoney Meteorological Tower Site 4



### Legend

- Proposed Met. Tower
- Met Tower 50m Buffer
- Met Tower 30m Buffer
- Substation
- Laydown Yard
- Other Turbine
- NextEra Turbine
- AWI Turbine
- Alameda Parcels

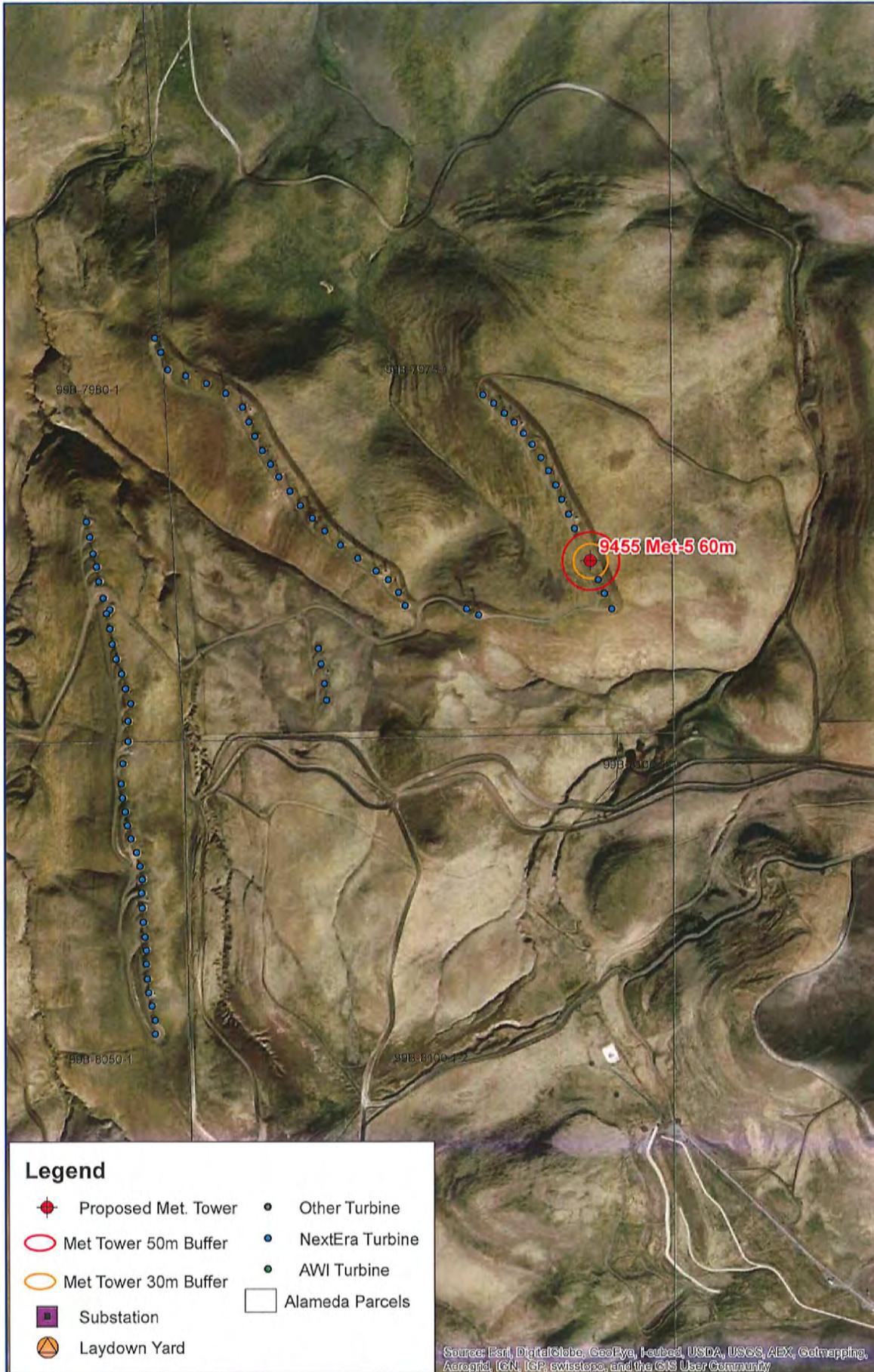
Source: Esri, DigitalGlobe, GeoEye, Earthstar (USA), USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

NAD 83 UTM Zone 10 N  
1:7,500



# Brookfield

## Mulqueeney Meteorological Tower Site 5



### Legend

- Proposed Met. Tower
- Met Tower 50m Buffer
- Met Tower 30m Buffer
- Substation
- Laydown Yard
- Other Turbine
- NextEra Turbine
- AWI Turbine
- Alameda Parcels

Source: Esri, DigitalGlobe, GeoEye, iSat, USDA, USGS, AEX, Geomapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

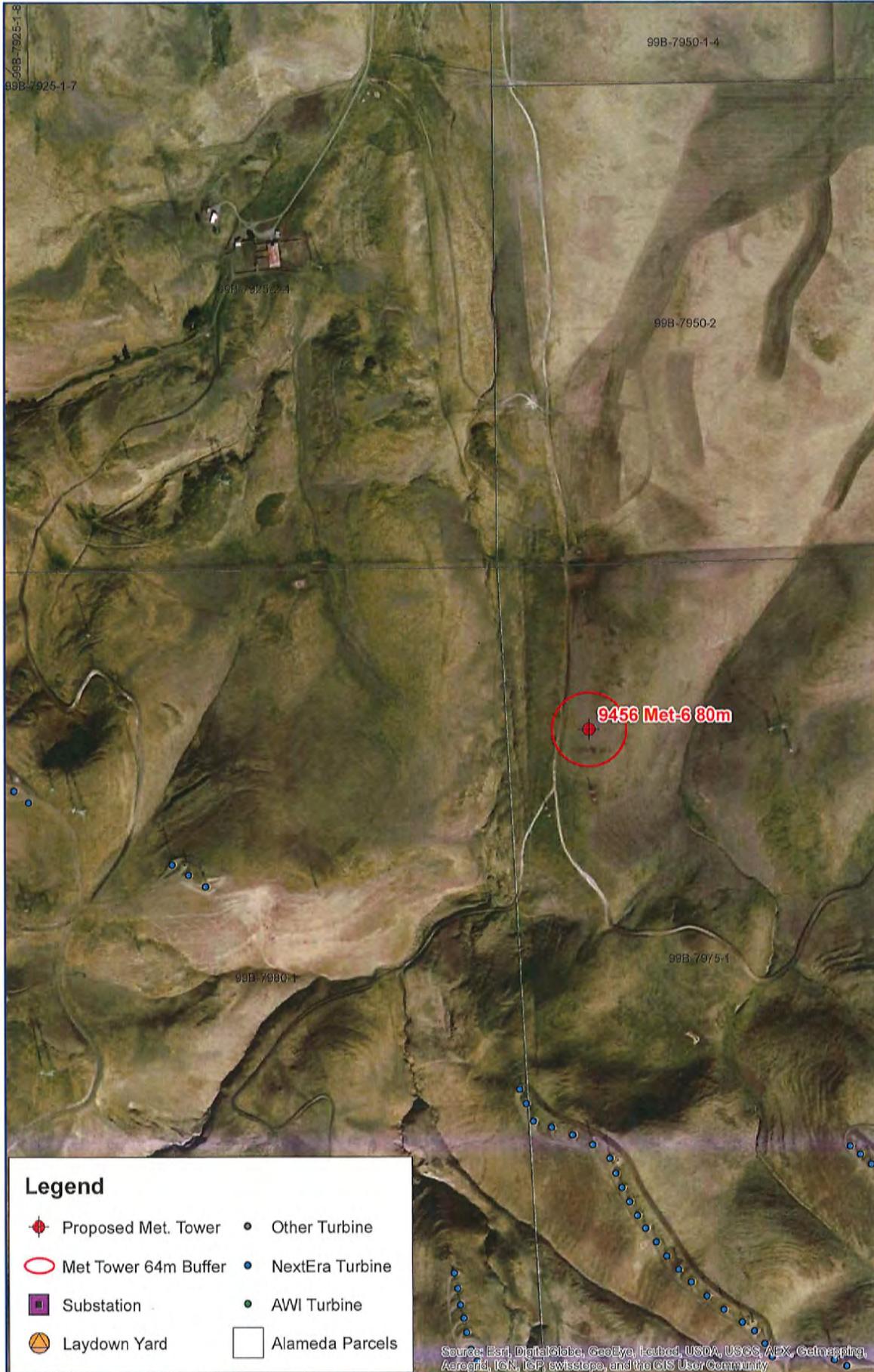
NAD 83 UTM Zone 10 N  
1:7,500

0 0.25 0.5 Km



# Brookfield

## Mulqueeney Meteorological Tower Site 6



**Legend**

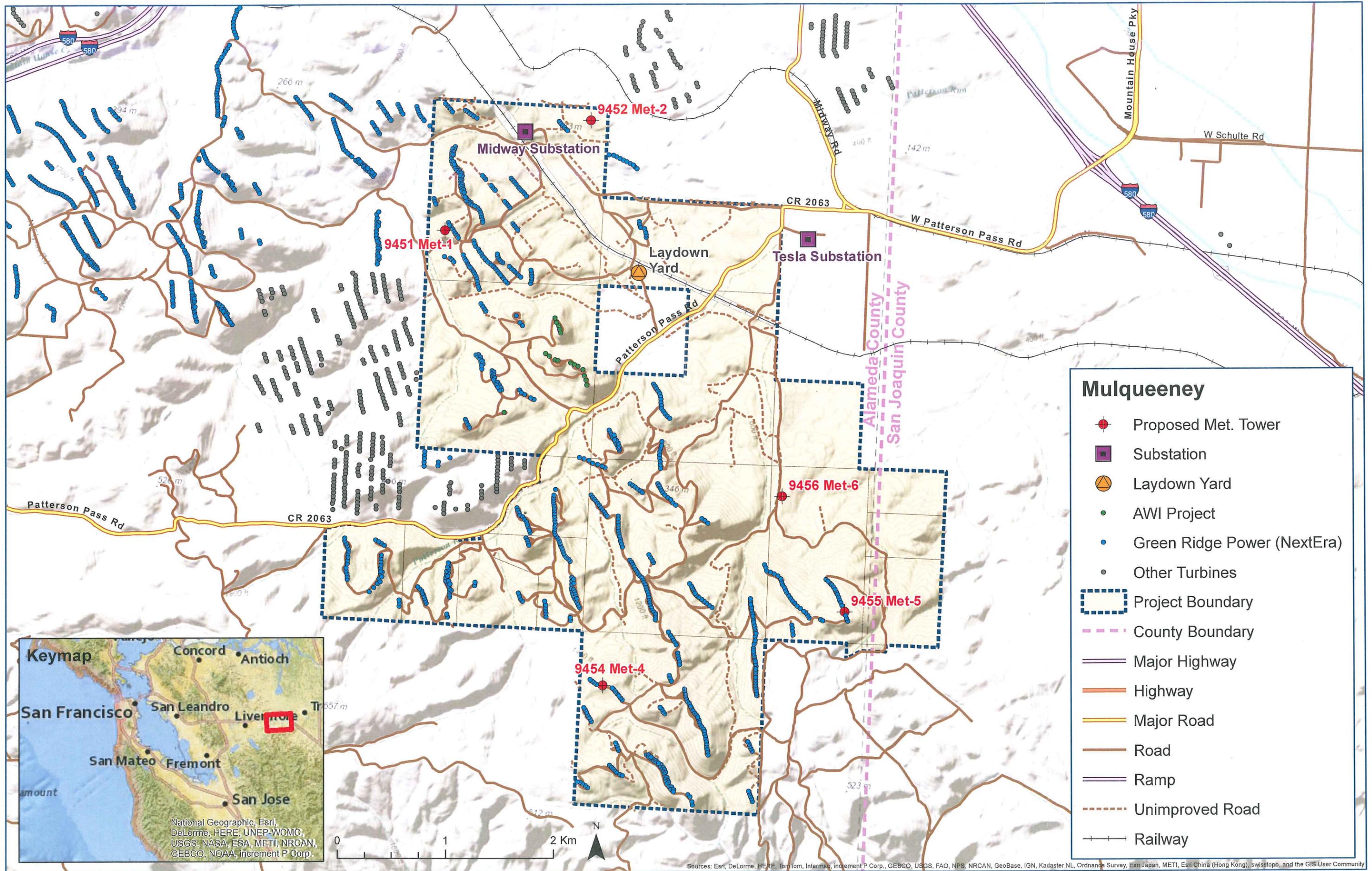
- ⊕ Proposed Met. Tower
- Met Tower 64m Buffer
- Substation
- Alameda Parcels
- Other Turbine
- NextEra Turbine
- AWI Turbine
- Laydown Yard

NAD 83 UTM Zone 10 N  
1:7,500

0 0.25 0.5 Km

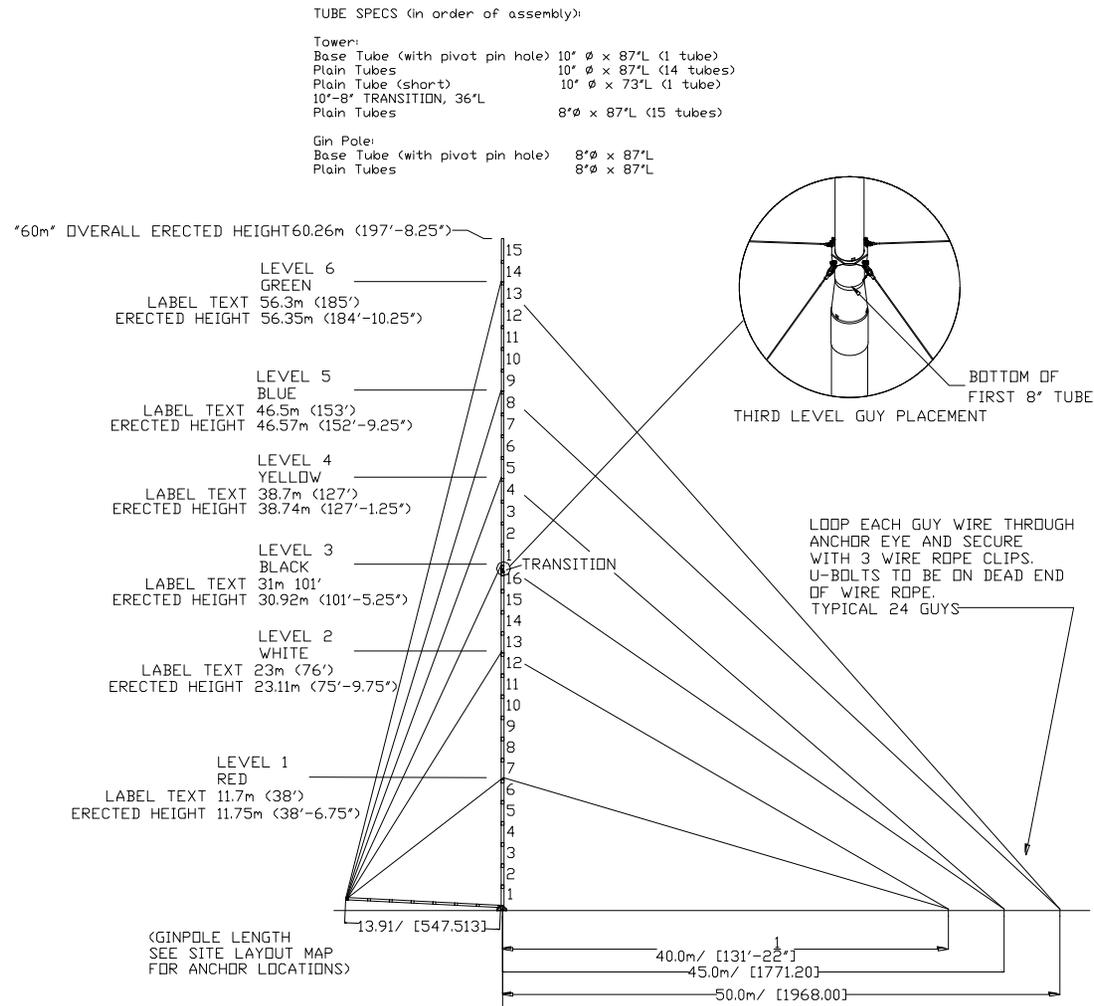


Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

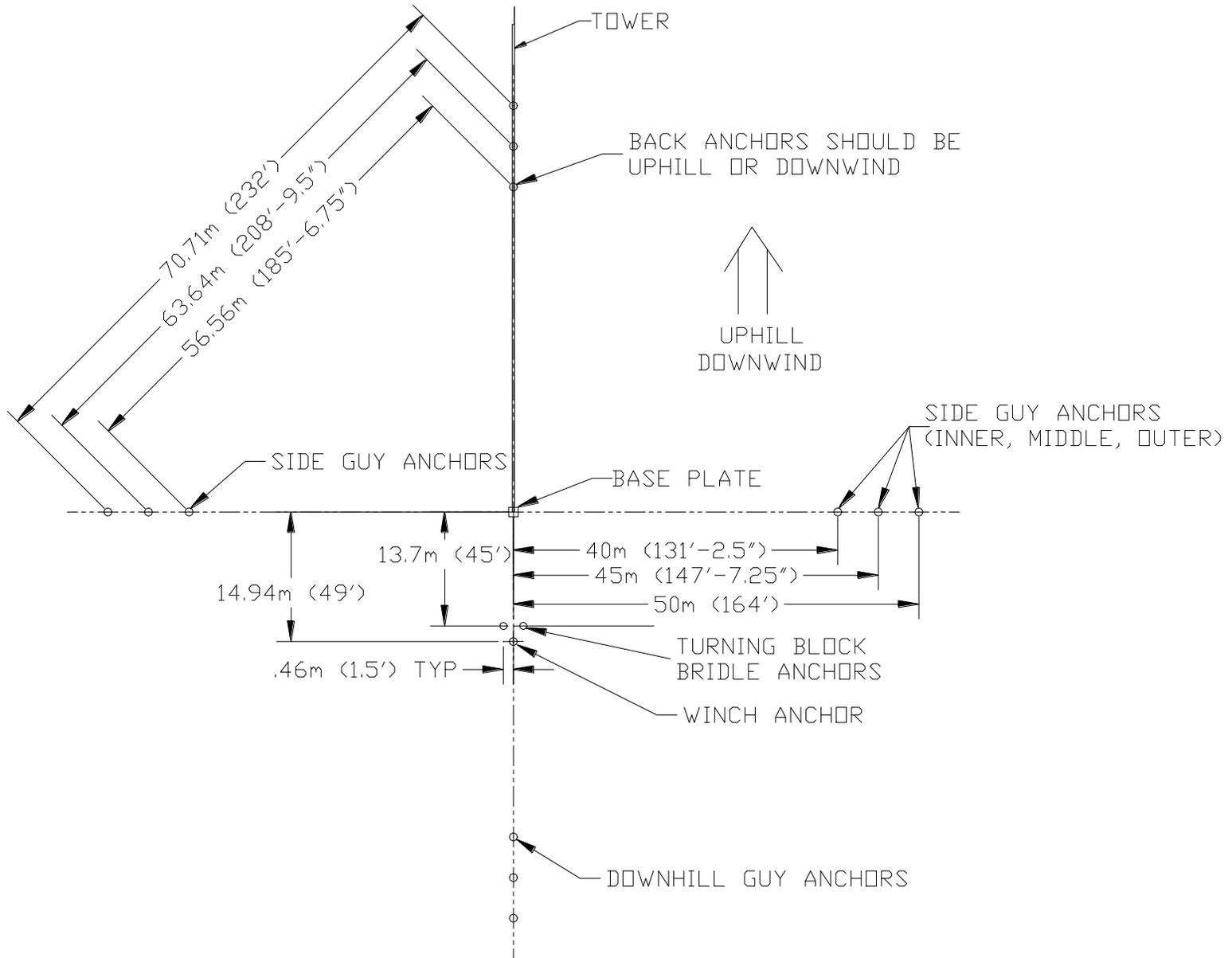


Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

## Tower Layout

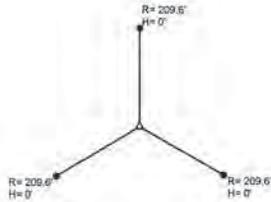


Site Layout



Designed Appurtenance Loading

Elev	Description	Tx-Line
262	(2) 12' Horizontal Boom	
262	(2) Anemometer (6in tall)s	(2) 3/8"
256	12' Horizontal Boom	
256	(1) Wind Vane (6in Tall)	(1) 3/8"
185	3ft Sidearm (1200 & 1800 ONLY)	
185	(1) 12' x 3in Whip	(1) 7/8"
164	(2) 12' Horizontal Boom	
164	(2) Anemometer (6in tall)s	(2) 3/8"
157	12' Horizontal Boom	
157	(1) Wind Vane (6in Tall)	(1) 3/8"
98	(2) 12' Horizontal Boom	
98	(2) Anemometer (6in tall)s	(2) 3/8"
92	12' Horizontal Boom	
92	(1) Wind Vane (6in Tall)	(1) 3/8"



Base Reactions

Total Foundation		Guy Anchor	
Axial (kips)	85.57	Max Vertical (kips)	15.44
Shear (kips)	0.42	Max Horizontal (kips)	28

Material List

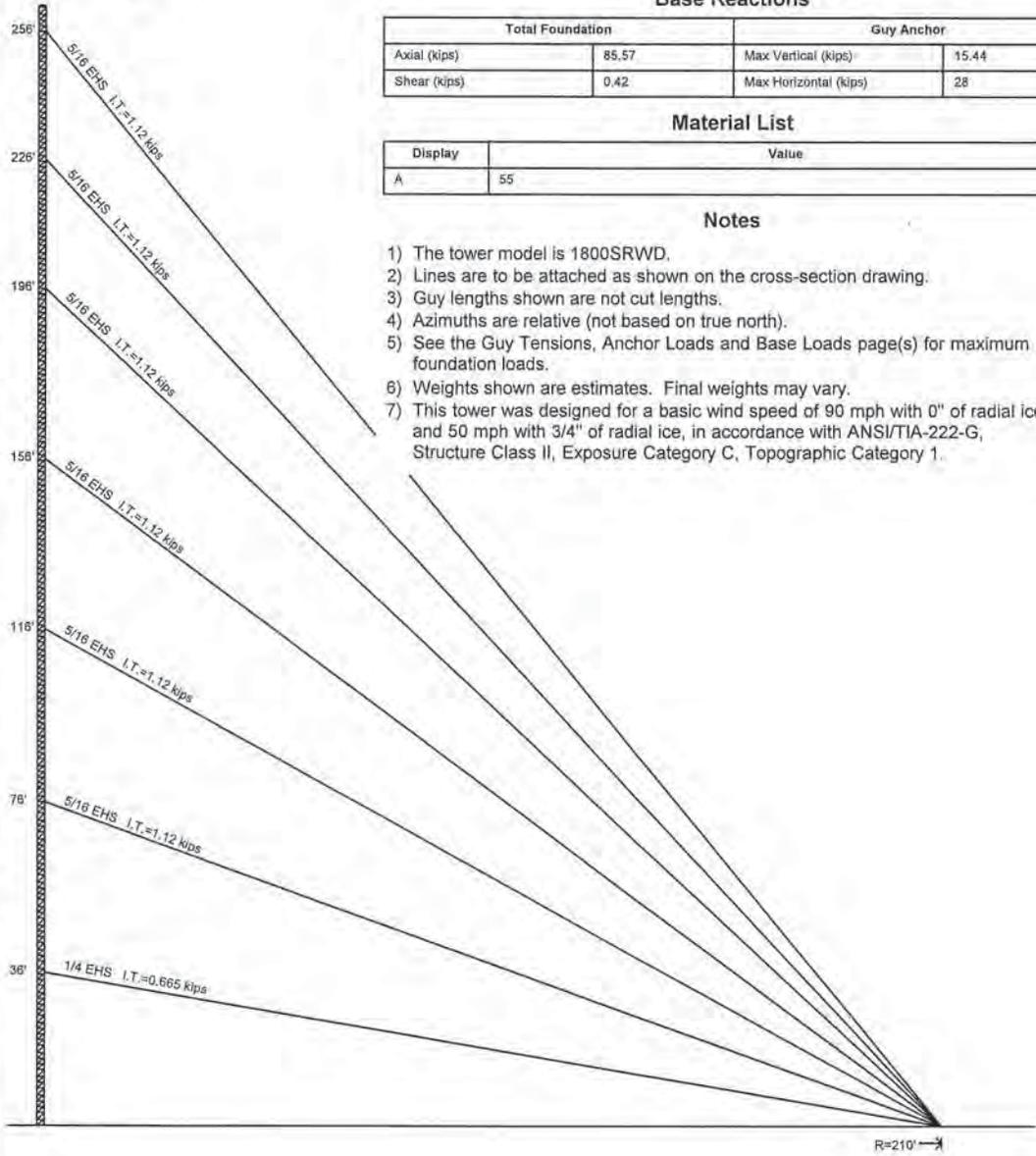
Display	Value
A	55

Notes

- 1) The tower model is 1800SRWD.
- 2) Lines are to be attached as shown on the cross-section drawing.
- 3) Guy lengths shown are not cut lengths.
- 4) Azimuths are relative (not based on true north).
- 5) See the Guy Tensions, Anchor Loads and Base Loads page(s) for maximum foundation loads.
- 6) Weights shown are estimates. Final weights may vary.
- 7) This tower was designed for a basic wind speed of 90 mph with 0" of radial ice, and 50 mph with 3/4" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 1.

SIZES ARE PRELIMINARY AND MAY CHANGE UPON FINAL DESIGN

Logs	1.25 S.R.
Diagonals	0.5 S.R.
Horizontals	0.5 S.R.
Brace Bolts	Welded Sections
Face Width	1.5'
Panel Count/Height	185 @ 1.4286'
Section Weight	



**Sabre Communications Corporation**  
 7101 Southbridge Drive  
 P.O. Box 656  
 Sioux City, IA 51102-0658  
 Phone: (712) 258-6690  
 Fax: (712) 279-0814

Quote: 15-8371-MEG-R1

Customer:

Site Name:

Description: 262' 1800SRWD

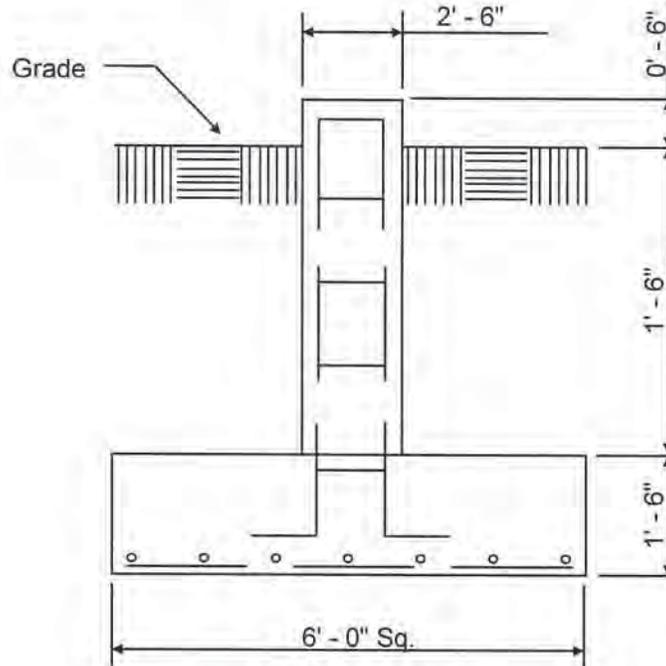
Date: 3/6/2015

By: RKR

Page: 1

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262 ft. Model 1800 SRWD Guyed Tower (18 in. face) At  
90 mph Wind with no ice and 50 mph wind with 0.75 in. Ice per ANSI/TIA-222-G.



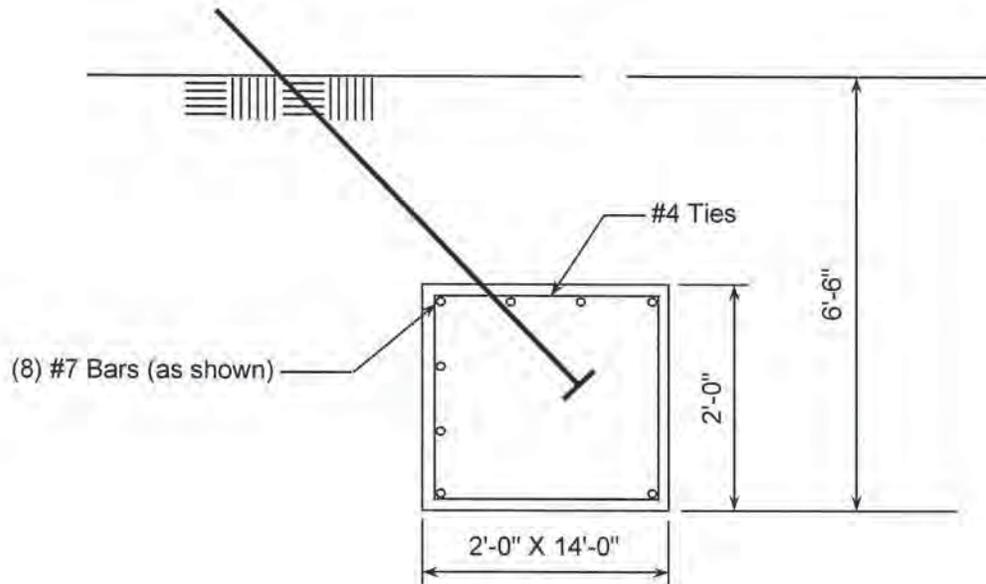
**TOWER BASE**  
(2.36 Cu. Yds. Each)  
(NOT TO SCALE)

Rebar Schedule	
<b>PIER</b>	(6) #7 vertical rebar w/ #3 ties @12" spacing
<b>PAD</b>	(7) #7 horizontal rebar Ea. Way Evenly Spaced Bottom Only

**NOTES**

- 1.) Concrete shall have a minimum 28 day compressive strength of 4000 PSI, in accordance with ACI 318-05.
- 2.) Rebar to conform to ASTM specification A615 Grade 60.
- 3.) All rebar to have a minimum of 3" concrete cover.
- 4.) All exposed concrete corners to be chamfered 3/4".
- 5.) The foundation design is based on the geotechnical report by Renewable Resource Consultants, Project No. 1412513, dated January 29, 2015.
- 6.) The foundation design is based on the following factored reactions:  
Factored Axial load (kips) = 85.57  
Factored Shear (kips) = 0.42
- 7.) See the geotechnical report for compaction requirements, if specified.

262 ft. Model 1800 SRWD Guyed Tower (18 in. face) At  
90 mph Wind with no ice and 50 mph wind with 0.75 in. Ice per ANSI/TIA-222-G.



**GUY ANCHOR**  
(2.07 Cu. Yds. Concrete)  
(3 REQUIRED; NOT TO SCALE)

Rebar Schedule Per Anchor	
<b>GUY ANCHOR</b>	(8) #7 horizontal rebar X 13'-6" (15) #4 ties evenly spaced

**NOTES**

- 1.) Concrete shall have a minimum 28 day compressive strength of 4000 PSI, in accordance with ACI 318-05.
- 2.) Rebar to conform to ASTM specification A615 Grade 60.
- 3.) All rebar to have a minimum of 3" concrete cover.
- 4.) The foundation design is based on the geotechnical report by Renewable Resource Consultants, Project No. 1412513, dated January 29, 2015.
- 5.) The foundation design is based on the following factored reactions:  
Uplift (kips) = 15.44  
Horizontal force (kips) = 28
- 6.) When the soil electrical resistivity is less than 50 ohm-m and/or the measured soil pH values are below 3 or greater than 9, additional corrosion control is required. See the geotechnical report for these parameters and compaction requirements, if specified.



## BUILDING INSPECTION DEPARTMENT

(510) 670-5440 • FAX (510) 293-0960

Public Works Agency  
— Alameda County —

*Daniel Woldesenbet, Ph.D., P.E., Director*

399 Elmhurst Street • Hayward, CA 94544-1395 • [www.acgov.org/pwa](http://www.acgov.org/pwa)

## **Planning Application Review Response**

Date: 8/4/2015

Application: PLN2015-00128, Brookfield Mulqueeny Wind Repowering MET Tower, Conditional Use Permit.

Location: 17257 & 17350 Patterson Pass Rd, Unincorporated Livermore, CA

Planning Date/Staff: 7/15/2015, Andrew Young

BID Staff: Allen Lang

### **Project Review Notes**

1. Small scale Aerial Map showing the locations of the project and proposed locations of 5 MET towers.
2. Construction details of MET towers.

### **Referral Conclusion**

**The Building Department has no objection for the proposed planning Conditional Use Permit. Obtain building permits from Alameda County Building Department for all proposed MET towers.**

### **General Conditions for Building Permit Application:**

1. Soils report and/or geological study may be required.
2. Comply with building codes in effective and submittal requirements at time of submitting for building permits.
3. A California licensed architect or engineer shall be designated as the design professional in responsible charge for the project submittal.

**Notes to applicants:** *The Building Department has not conducted a complete permit search or code review for the proposed planning application. The owner or design professional shall be responsible for the property information filed with the planning application. Once the building permit application is filed with the Building Department, staff will perform building permit history search and code review.*



# Alameda County Fire Department

## Fire Prevention Bureau

### Plan Review Comments

399 Elmhurst Street, Room 120 , Hayward, California 94544 (510) 670-5853 Fax (510) 887-5836

7/28/15

Alameda County  
Community Development Agency  
Planning Department  
224 West Winton Ave., Room 111  
Hayward, California 94544

To	Andrew Young	PLN #	2015-00128
Address	17257 and 17350 Patterson Pass Road		
Job Description	CUP, Construction of 5 meteorological towers.		
Reviewed By	Yvonne Fluehr	(510) 670-5850	

#### **APPLICATION NOT COMPLETE FOR FIRE REQUIREMENTS - WITH CUSTOMER FOR RESPONSE**

**Fire Staff does not recommend that discretionary approval be given until the following issues are addressed and Fire Conditions are issued.**

**Re-submittal Required.** A re-submittal is required for this project. Submit the revised plan along with a copy of any necessary reference materials, cut-sheets, listing sheets and calculations. Include a written itemized response to each comment and where in the re-submittal the specific change or information requested can be found.

**Errors & Omissions.** The purpose of code enforcement is to provide a means to help ensure projects are built to the codes, regulations and standards applicable to the project. Two methods are used towards this goal. First, is the review of the plans, second, are field inspections associated with the work. Between these two methods, it is hoped that all code deficiencies are discovered and corrected.

It is important to note that approval of the plan does not constitute permission to deviate from any code requirement and shall not be construed to be a permit for, or an approval of, any violation of the applicable statute, regulation, code or standard. Approval of a plan or permit presuming to give authority to violate or cancel the provision of any applicable statute, regulation, code or standard shall not be valid.

**Alternate Means.** Any alternate means or equivalences shall be submitted in writing explaining the code provision that will be deviated from, the justification for such deviation, and an explanation on how this deviation meets the intent of the code and the equivalent level of safety intended by the code. This letter and supporting documents must be reviewed and approved for the deviation to be considered acceptable.

#### **Items to be addressed with required re-submittal**

- 1. Provide a site plan drawn to a scale of 1"=20, 30 or 40 feet.**
- 2. On the plans show the routes to the turbines for emergency access. Show any gates across the fire department access and any fire department key boxes.**
- 3. On the site plan show all structures and any water supplies.**

4. **A ten foot vegetation clearance shall be maintained around each turbine. Provide a vegetation management plan showing how this requirement is met and how it is to be maintained.**



# Memorandum

<b>Date:</b>	May 29, 2015
<b>To:</b>	Betsey Biesty, Brookfield Renewable Energy Group
<b>From:</b>	Angela Alcala and Brad Schafer
<b>Subject:</b>	<b>Brookfield Renewable Energy Partners – Mulqueeney Ranch Met Mast Biological Resources Evaluation</b>

## Introduction

The purpose of this memorandum is to provide a description of the potential impacts to biological resources for the proposed Mulqueeney Ranch Met Mast Project (Project). The Project proponent, Brookfield Renewable Energy Partners (Brookfield), has been advised by Alameda County (County) that a Conditional Use Permit (CUP) will be required for the Project. The County advised Brookfield to engage ICF to help determine the level of California Environmental Quality Act (CEQA) review that may be required and how the Project would fit with the existing Program Repowering EIR (Program EIR).

## Project Description

Brookfield desires to erect five meteorological masts within the Altamont Pass Wind Resource Area (APWRA), in Alameda County, California. The masts will be needed to assess the wind regime for potential future wind farm development (repowering), and will be erected using existing roads, with no new roads or road widening necessary. Proposed mast specifics include:

- 4 masts would be 60 meters tall, stand-up monopole design with guy wires, erected on ridgelines with existing masts (but not on the same locations as the existing); and,
- 1 mast would be 80 meters tall, and of lattice and guywire design.

The proposed masts have been designated Met-1, Met-2, Met-4, Met-5, and Met-6.

## Study Area

The *Study Area* reviewed for this analysis consists of the proposed mast footprints and all areas within 100 feet thereof. The proposed mast locations are located on the Midway, California United States Geological Survey topographic map. Table 1, below, provides more detailed information on proposed mast locations, and these locations are depicted on the enclosed Figure 1. Representative photographs of each of the mast locations are provided in the enclosed Attachment A.

**Table 1. Proposed Meteorological Mast Locations**

Mast	Township	Range	Section	¼ Section
Met-1	2 South	3 East	36	SW

<b>Mast</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>¼ Section</b>
Met-2	2 South	3 East	36	NE
Met-4	3 South	4 East	18	NW
Met-5	3 South	4 East	8	SW
Met-6	3 South	4 East	8	NW

*\*All Township, Range, Section per Mount Diablo Base Meridian (MDBM)*

## Background Search and Field Survey

The study area for purposes of assessing biological resources includes a 100-foot radius around each of the five proposed tower sites. In order to determine what types of biological resources could be affected by project activities within the study area, ICF biologists Angela Alcala and Brad Schafer reviewed known species occurrence data for the region (i.e., California Natural Diversity Database [CNDDDB], California Native Plant Society's [CNPS's] online Inventory of Rare and Endangered Plants of California, and U.S. Fish and Wildlife Service [USFWS] list of endangered, threatened, and proposed species) (California Department of Fish and Wildlife 2015<sup>1</sup>; California Native Plant Society 2015<sup>2</sup>; U.S. Fish and Wildlife Service 2015<sup>3</sup>), as well as information contained in the Program EIR. Ms. Alcala also reviewed aerial photographs from Google Earth for the study area and conducted a reconnaissance-level field survey on May 14, 2015 to characterize the biological setting of each of the sites, and to identify whether suitable habitat for sensitive biological resources (i.e., habitat for special-status species, aquatic resources, nesting bird substrate) is present within the study area.

## Results

The study area is located within an existing wind farm within a rural, unincorporated portion of northeastern Alameda County. This area is within the Midway 7.5-minute U.S. Geological Survey topographic map. The region is mostly shrubless and treeless and is generally characterized by rolling to steep foothills of annual grassland. Land use in the study area and vicinity consists largely of cattle-grazing within an actively managed wind farm. The five proposed meteorological towers are within

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<sup>1</sup> California Department of Fish and Wildlife. 2015. California Natural Diversity Database, RareFind 3, Version 3.1.0, May 1, 2015 update. Records search of the Midway USGS 7.5-minute quadrangle.

<sup>2</sup> California Native Plant Society. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available: <<http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi>>. Accessed: May 13, 2015.

<sup>3</sup> U.S. Fish and Wildlife Service. 2015 List of Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Midway USGS 7.5-minute quadrangle. Accessed: May 13, 2015. Available: <[http://www.fws.gov/sacramento/es\\_species/Lists/es\\_species\\_lists-form.cfm](http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm)>.

Conservation Zone 10 in the East Alameda County Conservation Strategy (EACCS) (ICF International 2010)<sup>4</sup> study area.

Annual grassland is the predominant vegetation community within the study area. This vegetation community corresponds to the California annual grassland land cover type identified in the EACCS. It is an herbaceous community dominated by naturalized annual grasses with intermixed perennial and annual forbs. Annual grasslands in the study area are moderately grazed, and dominant species observed during the May 14, 2015 site visit included wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), big heronbill (*Erodium botrys*), redstemmed filaree (*Erodium cicutarium*), Italian ryegrass (*Festuca perennis* [*Lolium multiflorum*]), foxtail barley (*Hordeum murinum* ssp. *leporinum*), purple needlegrass (*Stipa pulchra*), fiddleneck (*Amsinckia menziesii*), gumplant (*Grindelia* sp.), tarweed (*Madia* sp.), Mariposa lily (*Calochortus venustus*), brodiaea (*Brodiaea* sp.), and California poppy (*Eschscholzia californica*).

Wildlife species observed within the study area during the reconnaissance survey included horned lark (*Eremophila alpestris*), Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), common raven (*Corvus corax*), California ground squirrel (*Otospermophilus beecheyi*), and western fence lizard (*Sceloporus occidentalis bocourti*).

A brief discussion of sensitive biological resources (i.e., aquatic resources, special-status plants, and special-status wildlife) that may be present at each of the proposed met towers is discussed below.

## Met-1

Met-1 is located on a hill top approximately 180 feet west of an existing turbine string and associated access road. Access to the site would require overland travel through grassland habitat. No aquatic resources are present within 100 feet of the proposed meteorological tower. The closest aquatic habitat consists of a wetland swale and two stock ponds located downslope from Met-1, approximately 800 feet to the west and southwest, respectively. California red-legged frog and California tiger salamander have been previously documented within these nearby aquatic habitats (CNDDDB 2015). Grassland in and around Met-1 provides suitable upland habitat for both of these amphibian species. Small rodent burrows (approximately 1 to 2 inches in diameter) are present throughout grassland habitat in and around Met-1 and could be used as underground refugia for California tiger salamander and California red-legged frog. Potential upland habitat is also present in the vicinity of Met-1 for San Joaquin kit fox, American badger, Blainville's horned lizard, burrowing owl, and other ground-nesting migratory birds. However, no suitable-sized burrows or dens for burrowing owl, kit fox, or badger and no active bird nests were observed within the study area at the time of the May 14, 2015 site visit. The Met-1 site provides limited habitat for special-status plants which occur in annual grassland habitats, however they are considered unlikely to occur.

Met-1 is within designated critical habitat for California red-legged frog.

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<sup>4</sup> ICF International. 2010. East Alameda County Conservation Strategy. Final Draft. San Jose, California. Prepared for East Alameda County Conservation Strategy Steering Committee, Livermore, California. October. Available at: <http://www.w.eastalco-conservation.org/>

## Met-2

Met 2 is located approximately 600 feet northeast of an existing turbine string and access road. Access to the site would require overland travel through grassland habitat. No aquatic resources are present within 100 feet of the proposed meteorological tower. The closest aquatic habitat consists of a potential intermittent drainage/swale 350 feet to the southeast and a stock pond 0.28 mile to the south. This nearby stock pond as well as several other ponds present within 1.0 mile from Met 2 provide suitable aquatic breeding habitat for California red-legged frog and California tiger salamander. Grassland in and around Met 2 provides suitable upland habitat for both of these amphibian species in addition to San Joaquin kit fox, American badger, Blainville's horned lizard, burrowing owl, and other ground-nesting migratory birds. Small rodent burrows (approximately 1 to 2 inches in diameter) are present throughout grassland habitat in and around Site 2 and could be used as underground refugia for California tiger salamander and California red-legged frog; however, no suitable-sized burrows or dens for burrowing owl, kit fox, or badger and no active bird nests were observed within the study area at the time of the May 14, 2015 site visit. The Met-2 site provides limited habitat for special-status plants which occur in annual grassland habitats, however they are considered unlikely to occur.

Met 2 is within designated critical habitat for California red-legged frog.

## Met-4

Met 4 is located on a hill top within an existing string of turbines and immediately adjacent to an existing access road. No aquatic resources are present within 100 feet of the proposed meteorological tower. The closest aquatic habitat consists of three stock ponds located between 0.2 and 0.3 mile to the northeast and downslope from Met 4. These nearby stock ponds as well as several other ponds present within 1.0 mile from Met 4 provide suitable aquatic breeding habitat for California red-legged frog and California tiger salamander. Grassland in and around Met 4 provides suitable upland habitat for both of these amphibian species in addition to San Joaquin kit fox, American badger, Blainville's horned lizard, burrowing owl, and other ground-nesting migratory birds. Small rodent burrows (approximately 1 to 2 inches in diameter) are present throughout grassland habitat in and around Met 4 and could be used as underground refugia for California tiger salamander and California red-legged frog; however, no suitable-sized burrows or dens for burrowing owl, kit fox, or badger and no active bird nests were observed within the study area at the time of the May 14, 2015 site visit. The Met-4 site provides limited habitat for special-status plants which occur in annual grassland habitats, however they are considered unlikely to occur.

Met 4 is within designated critical habitat for California red-legged frog and is adjacent to but does not overlap with designated critical habitat and USFWS Recovery Unit 5 for Alameda whipsnake (Figure 3-12 in the EACCS). Met 4 is more than 1.0 mile north of scrub- or shrubland communities that provide Primary Constituent Element 1 of critical habitat for Alameda whipsnake. Although Alameda whipsnakes are known to disperse several miles between core habitat areas, the closest shrubland habitat that snakes could disperse to is more than 8 miles to the north of Site 4 and on the opposite side of Interstate 580. Therefore, there is a very low probability that Alameda whipsnake would occur in or near Met 4.

## Met-5

Met 5 is located on a hill top within an existing string of turbines and immediately adjacent to an existing access road. No aquatic resources are present within 100 feet of the proposed meteorological tower. The closest aquatic habitat consists of a pond and intermittent drainage located 0.27 mile east and downslope from Met 5. This stock pond as well as several other ponds present within 1.0 mile from Met 5 provide suitable aquatic breeding habitat for California red-legged frog and California tiger salamander. Grassland in and around Met 5 provides suitable upland habitat for both of these amphibian species in addition to San Joaquin kit fox, American badger, Blainville's horned lizard, burrowing owl, and other ground-nesting migratory birds. Small rodent burrows (approximately 1 to 2 inches in diameter) are present throughout grassland habitat in and around Met 5 and could be used as underground refugia for California tiger salamander and California red-legged frog; however, no suitable-sized burrows or dens for burrowing owl, kit fox, or badger and no active bird nests were observed within the study area at the time of the May 14, 2015 site visit. The Met-5 site provides limited habitat for special-status plants which occur in annual grassland habitats, however they are considered unlikely to occur.

Met 5 is within designated critical habitat for California red-legged frog and is adjacent to but does not overlap with designated critical habitat and USFWS Recovery Unit 5 for Alameda whipsnake (Figure 3-12 in the EACCS). Met 5 is more than 2.0 miles northeast of scrub- or shrubland communities that provide Primary Constituent Element 1 of critical habitat for Alameda whipsnake. Although Alameda whipsnakes are known to disperse several miles between core habitat areas, the closest shrubland habitat that snakes could disperse to is more than 9 miles north of Met 5 and on the opposite side of Interstate 580. Therefore, there is a very low probability that Alameda whipsnake would occur in or near Met 5.

## Met-6

Met 6 is located 130 feet east of an existing access road and 400 feet north of a 500 kV transmission line. This site is within an area that is heavily disturbed by cattle and appears to be used as a cattle rest/laydown area. No aquatic resources are present within 100 feet of the proposed meteorological tower. The closest aquatic habitat consists of a potential intermittent drainage 500 feet to the west. Three stock ponds are present between 0.7 and 1.0 mile from Met 6 and provide suitable aquatic breeding habitat for California red-legged frog and California tiger salamander. Grassland in and around Met 6 provides suitable upland habitat for both of these amphibian species in addition to San Joaquin kit fox, American badger, Blainville's horned lizard, burrowing owl, and other ground-nesting migratory birds. Some small rodent burrows (approximately 1 to 2 inches in diameter) are present within grassland habitat in and around Met 6 and could be used as underground refugia for California tiger salamander and California red-legged frog; however, no suitable-sized burrows or dens for burrowing owl, kit fox, or badger and no active bird nests were observed within the study area at the time of the May 14, 2015 site visit. Large burrows/dens are present in rock outcroppings located 650 feet to the southeast. The Met-6 site provides limited habitat for special-status plants which occur in annual grassland habitats, however they are considered unlikely to occur.

Met 6 is within designated critical habitat for California red-legged frog and is near (1.3 mile) but does not overlap with designated critical habitat and USFWS Recovery Unit 5 for Alameda whipsnake (Figure 3-12 in the EACCS). Met 6 is more than 2.5 miles north of scrub- or shrubland communities that provide

Primary Constituent Element 1 of critical habitat for Alameda whipsnake. Although Alameda whipsnakes are known to disperse several miles between core habitat areas, the closest shrubland habitat that snakes could disperse to is more than 9 miles north of Site 6 and on the opposite side of Interstate 580. Therefore, there is a very low probability that Alameda whipsnake would occur in or near Met 6.

## Summary of Results

In summary, no aquatic resources (i.e., wetlands, streams, vernal pools) are present at or near any of the proposed meteorological tower sites and all five sites provide suitable upland habitat for the California red-legged frog (*Rana draytonii*) (federally threatened), California tiger salamander (*Ambystoma californiense*) (state and federally threatened), Blainville's horned lizard (*Phrynosoma blainvillii*) (species of special concern), San Joaquin kit fox (*Vulpes macrotis mutica*) (state and federally endangered), American badger (*Taxidea taxus*) (species of special concern), burrowing owl (*Athene cunicularia*) (species of special concern), and other ground-nesting migratory birds. All five met tower sites are located within the East Alameda County Conservation Strategy (EACCS) study area limits (ICF International 2010) and are within designated critical habitat for California red-legged frog (75 FR 12816 – 12959, final revised on March 17, 2010). All five sites also provide marginal habitat for special-status plants identified as occurring in annual grassland habitats in the region, although the potential for special-status plants to occur is considered very low.

## Findings and Conclusions

The Program EIR identified 21 potential impacts to biological resources. Table 1, attached, outlines the impacts identified in the Program EIR, the applicability of the identified impacts to the met mast project, and conclusions related to the applicability of the Program EIR mitigation measures and significance of the impacts after applicable mitigation measures.

Please feel free to contact us with any questions at [brad.schafer@icfi.com](mailto:brad.schafer@icfi.com) or [angela.alcala@icfi.com](mailto:angela.alcala@icfi.com), or by phone at 916-737-3000.

Sincerely,



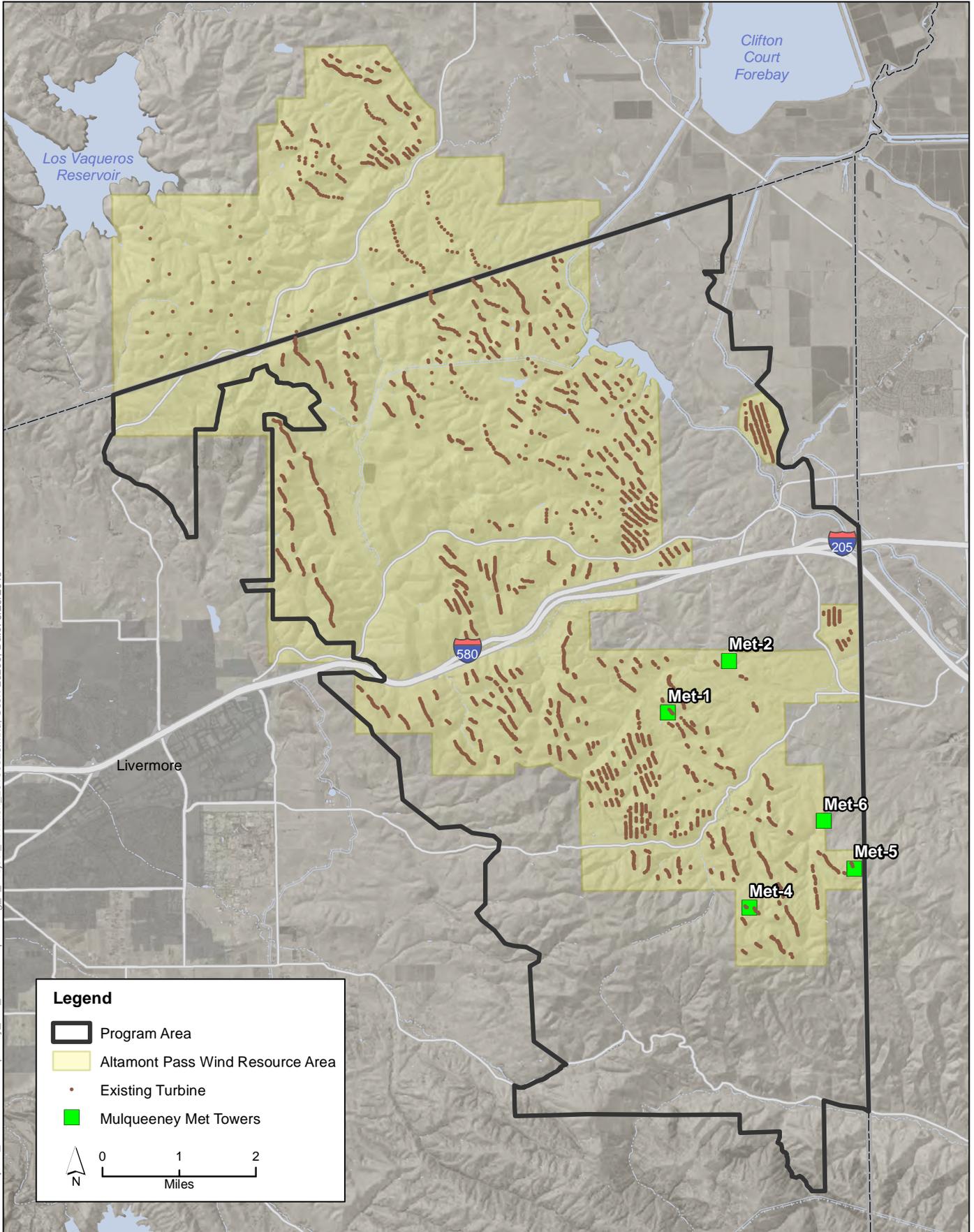
Brad Schafer and Angela Alcala  
ICF Biologists

**Enclosures – Figure 1. Project Location**

**Attachment A. Representative Photographs**

**Table 1. Program EIR Impacts and Mitigation Measures**

Path: K:\Projects\_1\Brookfield\Mulqueeny\_met\_towers\mapdoc\Fig\_1\_Project\_Location\_20150529.mxd; User: 28266; Date: 5/29/2015



**Figure 1**  
**Project Location**





**Photo 1.** Overview of Altamont Hills Windfarm Area



**Photo 2.** Tower Site 1 – Looking Southwest

**Attachment A. Mulqueeney Meteorological Tower Project  
Representative Photographs**



**Photo 3.** Tower Site 2 – Looking East



**Photo 4.** Tower Site 4 – Looking Northeast

**Attachment A. Mulqueeney Meteorological Tower Project  
Representative Photographs**



**Photo 5.** Tower Site 5 - Looking Northwest



**Photo 6.** Tower Site 6 - Looking Northwest

**Attachment A. Mulqueeney Meteorological Tower Project  
Representative Photographs**

**Table 1. Applicability of the Program EIR Biological Resources Impacts and Mitigation Measures to the Mulqueeney Met Mast Project**

Program EIR Identified Impact	Applicability to the Mulqueeney Ranch Met Mast Project	Applicable Mitigation Measures	Significance after Mitigation <sup>1</sup>
<p>BIO-1a: Potential for ground-disturbing activities to result in adverse effects on special-status plants or habitat occupied by special-status plants</p>	<p>The project site contains annual grassland habitat for special-status plant species. Most special-status plant species in the region are associated with wetland habitats or special soil types which are not present on the project site. Additionally, the disturbance area for the project is very small, making effects on special-status plants possible, but unlikely.</p>	<p>BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species</p>	<p>LTS. The implementation of BIO-1b will help to ensure effects on special-status plants are avoided or minimized through the use of best management practices which will confine construction to a small area and inform construction personnel of the importance of minimizing disturbance.</p>
<p>BIO-2a: Adverse effects on special-status plants and natural communities resulting from the introduction and spread of invasive plant species</p>	<p>The proposed project could introduce invasive plant species.</p>	<p>BIO-2: Prevent introduction, spread, and establishment of invasive plant species</p>	<p>LTS. Mitigation measure BIO-2 will ensure that effects from the introduction of invasive plant species are avoided.</p>
<p>BIO-3a: Potential mortality of or loss of habitat for vernal pool branchiopods and curved-footed hygrotus diving beetle</p>	<p>Not applicable. Habitat for vernal pool branchiopods and curved-footed hygrotus diving beetle is not present.</p>	<p>No mitigation measures are required because there is no impact.</p>	<p>NI</p>
<p>BIO-4a: Potential disturbance or mortality of and loss of suitable habitat for valley elderberry longhorn beetle</p>	<p>Not applicable. Habitat for valley elderberry longhorn beetle is not present.</p>	<p>No mitigation measures are required because there is no impact.</p>	<p>NI</p>
<p>BIO-5a: Potential disturbance or mortality of and loss of suitable habitat for California tiger salamander, western spadefoot, California red-legged frog, and foothill yellow-legged frog</p>	<p>The project site contains potential upland habitat for California tiger salamander and California red-legged frog.</p>	<p>BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species                      BIO-5a: Implement best management practices to avoid and minimize effects on special-status amphibians                      BIO-5c: Restore disturbed annual grasslands</p>	<p>LTS. The mitigation measures will ensure that effects to California tiger salamander and California red-legged frog are avoided and minimized through the use of best management practices which will minimize disturbance to their habitat and avoid the disturbance of individuals. The restoration of disturbed areas will further reduce effects on these species.</p>

Program EIR Identified Impact	Applicability to the Mulqueeney Ranch Met Mast Project	Applicable Mitigation Measures	Significance after Mitigation <sup>1</sup>
BIO-6: Potential disturbance or mortality of and loss of suitable habitat for western pond turtle	Not applicable. Habitat for western pond turtle is not present.	No mitigation measures are required because there is no impact.	NI
BIO-7a: Potential disturbance or mortality of and loss of suitable habitat for Blainville’s horned lizard, Alameda whipsnake, and San Joaquin coachwhip	The project site contains potential habitat for Blainville’s horned lizard and San Joaquin coachwhip.	BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species BIO-5c: Restore disturbed annual grasslands BIO-7a: Implement best management practices to avoid and minimize effects on special-status reptiles	LTS. The mitigation measures will ensure that effects to Blainville’s horned lizard and San Joaquin coachwhip are avoided through the use of best management practices which will minimize disturbance to their habitat and avoid the disturbance of individuals. The restoration of disturbed areas will further reduce effects on these species.
BIO-8a: Potential construction-related disturbance or mortality of special-status and non-special-status migratory birds	The project site contains potential habitat for migratory birds.	BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species BIO-5c: Restore disturbed annual grasslands BIO-8a: Implement measures to avoid and minimize potential impacts on special-status and non-special-status nesting birds BIO-8b: Implement measures to avoid and minimize potential impacts on western burrowing owl	LTS. The mitigation measures will ensure that effects on migratory birds are avoided and minimized thorough use of best management practices, which will minimize disturbance to their habitat and individuals, if they are present at the time of construction. The restoration of disturbed areas will further reduce effects on these species.
BIO-9a: Permanent and temporary loss of occupied habitat for western burrowing owl and foraging habitat for tricolored blackbird and other special-status and non-special-status birds	The project will result in a temporary loss of a small amount of habitat for western burrowing owl and tricolored blackbird, however the amount of habitat loss is extremely small.	No mitigation measures are required because the impact is less than significant.	LTS

Program EIR Identified Impact	Applicability to the Mulqueeney Ranch Met Mast Project	Applicable Mitigation Measures	Significance after Mitigation <sup>1</sup>
<p>BIO-10a: Potential injury or mortality of and loss of habitat for San Joaquin kit fox and American badger</p>	<p>The project site contains potential habitat for San Joaquin kit fox and American badger although suitable burrows were not observed at the time of field surveys.</p>	<p>BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species                      BIO-5c: Restore disturbed annual grasslands                      BIO-10a: Implement measures to avoid and minimize potential impacts on San Joaquin kit fox and American badger</p>	<p>LTS. The mitigation measures will ensure that effects to San Joaquin kit fox and American badger are avoided and minimized through the use of best management practices which will minimize disturbance to their habitat and avoid the disturbance of individuals, if individuals are present at the time of construction. The restoration of disturbed areas will further reduce effects on these species.</p>
<p>BIO-11a: Avian mortality resulting from interaction with wind energy facilities</p>	<p>The project may result in some avian mortalities through interaction with guy wires.</p>	<p>BIO-11d: Incorporate avian-safe practices into design of turbine-related infrastructure</p>	<p>LTS. Implementation of mitigation measure BIO-11d includes measures specifying the thickness of guy wires and the placement of bird deterrent devices to minimize avian collisions.</p>
<p>BIO-12a: Potential mortality or disturbance of bats from roost removal or disturbance</p>	<p>No roosting habitat for bats is present in the</p>	<p>No mitigation measures are required because there is no impact.</p>	<p>LTS</p>
<p>BIO-13a: Potential for construction activities to temporarily remove or alter bat foraging habitat</p>	<p>The proposed project is not expected to significantly alter or remove bat foraging habitat.</p>	<p>No mitigation measures were identified in the PEIR because the impact was determined to be LTS.</p>	<p>LTS</p>
<p>BIO-14a: Turbine-related fatalities of special-status and other bats</p>	<p>The proposed project will not involve the construction of wind turbines therefore turbine-related fatalities of bats will not occur.</p>	<p>No mitigation measures are required because there is no impact.</p>	<p>NI</p>

Program EIR Identified Impact	Applicability to the Mulqueeney Ranch Met Mast Project	Applicable Mitigation Measures	Significance after Mitigation <sup>1</sup>
BIO-15a: Potential for road infrastructure upgrades to result in adverse effects on alkali meadow	The project site does not contain any alkali meadow habitats.	No mitigation measures are required because there is no impact.	NI
BIO-16a: Potential for road infrastructure upgrades to result in adverse effects on riparian habitat	The project site does contain any riparian habitat.	No mitigation measures are required because there is no impact.	NI
BIO-17a: Potential for ground-disturbing activities to result in direct adverse effects on common habitats	The project would impact common habitats.	No mitigation measures were identified in the PEIR because the impact was determined to be LTS.	LTS
BIO-18a: Potential for road infrastructure upgrades to result in adverse effects on wetlands	The project site does not contain any wetlands.	No mitigation measures are required because there is no impact.	NI
BIO-19a: Potential impact on the movement of any native resident or migratory wildlife species or established native resident or migratory wildlife corridors, and the use of native wildlife nursery sites	The project may impact the movement of some avian species through interaction with guy wires.	BIO-11d: Incorporate avian-safe practices into design of turbine-related infrastructure	LTS. Implementation of mitigation measure BIO-11d includes measures specifying the thickness of guy wires and the placement of bird deterrent devices to minimize avian collisions.
BIO-20a. Conflict with local plans or policies	The project will not conflict with any plans or policies	No mitigation measures are required because there is no impact.	NI
BIO-21a: Conflict with provisions of an adopted HCP/NCCP or other approved local, regional, or state habitat conservation plan	The project site is not within an area with an adopted HCP/NCCP or other conservation plan.	No mitigation measures are required because there is no impact.	NI

<sup>1</sup>SU = significant and unavoidable; S = significant; LTS = less than significant; NI = no impact.



## Memorandum

<b>Date:</b>	May 29, 2015
<b>To:</b>	Betsey Biesty, Brookfield Renewable Energy Group
<b>Cc:</b>	Brad Schafer, ICF International
<b>From:</b>	Robin D. Hoffman, MA, RPA – Principal Investigator/Archaeologist
<b>Subject:</b>	<b>Brookfield Renewable Energy Partners – Mulqueeney Ranch Met Mast CEQA Cultural Resources Evaluation</b>

## Introduction

The purpose of this memorandum is to provide a description of the potential impacts to cultural resources for the proposed Mulqueeney Ranch Met Mast Project (Project). The Project proponent, Brookfield Renewable Energy Partners (Brookfield), has been advised by Alameda County (County) that a Conditional Use Permit (CUP) will be required for the Project. The County advised Brookfield to engage ICF to help determine the level of California Environmental Quality Act (CEQA) review that may be required and how the Project would fit with the existing Program Repowering EIR (Program EIR). The study described in this memorandum is intended to aid in this determination. For the purpose of this document, the term *cultural resource* is used synonymously with the CEQA term *historical resource*. These terms consist of environmental elements labeled ethnographic (Native American) resources, archaeological (prehistoric and historic-period) resources, and built environment (e.g., buildings, structures) resources.

## Project Description

Brookfield desires to erect five meteorological masts within the Altamont Pass Wind Resource Area (APWRA), in Alameda County, California. The masts will be needed to assess the wind regime for potential future wind farm development (repowering), and will be erected using existing roads, with no new roads or road widening necessary. Proposed mast specifics include:

- 4 masts would be 60 meters tall, stand-up monopole design with guy wires, erected on ridgelines with existing masts (but not on the same locations as the existing); and,
- 1 mast would be 80 meters tall, and of lattice and guywire design.

The proposed masts have been designated Met-1, Met-2, Met-4, Met-5, and Met-6.

## Study Area

The *Study Area* reviewed for this analysis consists of the proposed mast footprints and all areas within 100 feet thereof. For the records search, all areas within 0.25 mile of the Study Area were analyzed. The proposed mast locations are depicted on the Midway, California United States Geological Survey

topographic map. Table 1, below, provides more detailed information on proposed mast locations, and these locations are also depicted on the enclosed map.

**Table 1. Proposed Mast Locations**

<b>Mast</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>¼ Section</b>
Met-1	2 South	3 East	36	SW
Met-2	2 South	3 East	36	NE
Met-4	3 South	4 East	18	NW
Met-5	3 South	4 East	8	SW
Met-6	3 South	4 East	8	NW

*\*All Township, Range, Section per Mount Diablo Base Meridian (MDBM)*

## Regulatory Setting

### California Environmental Quality Act

CEQA requires the lead agency to consider the effects of a project on cultural resources. Two categories of cultural resources are specifically called out in the CEQA Guidelines: historical resources (State CEQA Guidelines Section 15064.5[b]) and unique archaeological sites (State CEQA Guidelines Section 15064.5[c]; California Public Resources Code [PRC] Section 21083.2). Different legal rules apply to the two different categories of cultural resources, though the two categories sometimes overlap where a “unique archaeological resource” also qualifies as an “historical resource.” In such an instance, the more stringent rules for archaeological resources that are historical resources apply, as explained below. In most situations, resources that meet the definition of a *unique archaeological resource* also meet the definition of a *historical resource*. As a result, it is current professional practice to evaluate cultural resources for significance based on their eligibility for listing in the Center for Regional Heritage Research (CRHR).

*Historical resources* are those meeting the requirements listed below.

- Resources listed in or determined eligible for listing in the CRHR (State CEQA Guidelines Section 15064.5[a][1]).
- Resources included in a local register as defined in PRC Section 5020.1(k), “unless the preponderance of evidence demonstrates” that the resource “is not historically or culturally significant” (State CEQA Guidelines Section 15064.5[a][2]).
- Resources that are identified as significant in surveys that meet the standards provided in PRC Section 5024.1[g] (State CEQA Guidelines Section 15064.5[a][3]).

Resources that the lead agency determines are significant, based on substantial evidence (State CEQA Guidelines Section 15064.5[a][3]).

*Unique archaeological resources*, on the other hand, are defined in PRC Section 21083.2 as a resource that meets at least one of the following criteria.

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person. (PRC Section 21083.2[g])

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR (14 California Code of Regulations [CCR] Part 4852), which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. It has yielded, or may be likely to yield, information important in prehistory or history.

To be considered a historical resource for the purpose of CEQA, the resource must also have *integrity*, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is eligible for listing in the CRHR (14 CCR Part 4852[c]). Integrity assessments made for CEQA purposes typically follow the National Park Service (NPS) guidance used for integrity assessments for NRHP purposes (NPS 2002).

Resources that meet the significance criteria and integrity considerations must be considered and treated further. Note that the fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources, or not identified in a historical resource survey does not preclude a lead agency under CEQA from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1 (State CEQA Guidelines Section 15064.5[a][4]).

Notably, a project that causes a substantial adverse change in the significance of a historical resource is a project that may have a significant impact under CEQA (State CEQA Guidelines Section 15064.5[b]). A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource is materially impaired if the project demolishes or materially alters any qualities as follows.

- That justify the inclusion or eligibility for inclusion of a resource on the CRHR (State CEQA Guidelines Section 15064.5[b][2][A],[C]).
- That justify the inclusion of the resource on a local register (State CEQA Guidelines Section 15064.5[b][2][B]).

## California Public Resources Code

The California Public Resources Code (PRC) contains a number of regulations regarding cultural resources and Native American-associated resources. These regulations are summarized below. Because a specific protocol regarding human remains is outlined in the PRC, regulations pertaining to human remains is presented in the following section of this document.

- Section 5097.9 of the California Public Resources Code (PRC) prohibits the interference with the free expression of Native American religion as provided in the United States Constitution and the California Constitution, and cause of severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine on public property, except on a clear and convincing showing that the public interest and necessity so require.
- Section 5097.97—promotes preservation of certain Native American cultural places located on public property, including a sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine, by ensuring access to these places by Native Americans.
- Section 5097.99—prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn and sets penalties for those actions.
- Section 5097.991—states that it is the policy of the State that Native American remains and associated grave artifacts shall be repatriated.
- Sections 5097.993 to 5097.994 (Native American Historic Resource Protection Act)—unlawful to maliciously excavate, remove, destroy, injure, or deface a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the CRHR pursuant to PRC Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site, any inscriptions made by Native Americans at such a site, any archaeological or historic Native American rock art, or any archaeological or historic feature of a Native American historic, cultural, or sacred site on public land.

## Assembly Bill 52

Assembly Bill 52 (Chapter 532, Statutes of 2014) modifies the PRC to establish a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on “tribal cultural resources” with significant environmental impacts (new PRC Section 21084.2). Assembly Bill (AB) 52 only applies to projects that have a notice of preparation or notice of negative declaration/mitigated negative declaration filed on or after July 1, 2015. AB 52’s statement of legislative intent states that tribes may have expertise in tribal history and “tribal knowledge about land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.” The legislative intent also makes clear that CEQA analyses must consider tribal cultural resources, including “the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.” Section 21074 of the new PRC defines a “California Native American Tribe” to mean a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission (NAHC) and defines a *tribal cultural resource* as any of the following:

- (a)(1) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes that are any of the following:
  - (A) Included in the CRHR.
  - (B) Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.
  - (C) Deemed to be significant pursuant to criteria set forth in PRC Section 5024.1(c).
- (2) Sacred places including, but not limited to, Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines that meet either of the following criteria:
  - (A) Listed on the California NAHC's Sacred Lands File pursuant to PRC Section 5097.94 or 5097.96 and a California Native American tribe has submitted sufficient evidence to the lead agency demonstrating that the sacred places are of special religious or cultural significance to the California Native American tribe or contain known graves and cemeteries of California Native Americans.
  - (B) Listed or determined pursuant to criteria set forth in PRC Section 5024.1(g) to be eligible for listing in the CRHR.
- (b) A cultural landscape that meets the criteria of a site is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB52 requires that prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe requests to the lead agency, in writing, to be informed within 30 days of receipt of the formal notification, and requests the consultation. The lead agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. Also, AB52 amends the PRC to so that Native American tribes can propose mitigation measures as part of the consultation process, that these must be considered during the consultation process, and that any mitigation measures agreed upon during the consultation shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource.

## Human Remains

California law sets forth special rules that apply where human remains are encountered during Project construction. As set forth in State CEQA Guidelines Section 15064.5[e], in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, no further excavation or disturbance of the site or any nearby area suspected of overlying adjacent human remains should take place until the following steps are taken.

1. The coroner of the county in which the remains are discovered is contacted to determine that no investigation of the cause of death is required (as required under California Health and Safety Code [HSC] Section 7050.5).
2. If the coroner determines the remains to be Native American:
  - a. The coroner shall contact the Native American Heritage Commission within 24 hours.
  - b. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
  - c. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods (as provided in PRC Section 5097.98), or
  - d. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
    - 1) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
    - 2) The descendant identified fails to make a recommendation; or
    - 3) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission.

## Summary of Methods and Results

### Records Search

On May 13, 2015, ICF Archaeologist Robin Hoffman conducted a records search for the Project at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. The NWIC maintains the official records of the California Historical Resources Information System (CHRIS) of previous cultural resource studies and recorded cultural resources for Alameda County, among other counties. The records search consulted the CHRIS base maps of previously recorded cultural resources and previously conducted cultural resources studies for the Study Area and all areas within 0.25 mile thereof. Additional sources of information, including previously conducted cultural resources surveys and historic maps (USGS and General Land Office), were selectively reviewed to determine areas that have a high potential for the presence of historic-period and prehistoric sites. The following resources were reviewed.

- *California Inventory of Historic Resources* (California Department of Parks and Recreation [DPR] 1976).
- *California Historical Landmarks* (DPR 1996).
- *California Historical Resources Information System*.
  - Directory of properties in the historic property data file for Yolo County (Office of Historic Preservation [OHP] 2007).

- Archeological determinations of eligibility for Yolo County (OHP 2007).
- *USGS Topographic maps, 15-minute Series.*
  - Tesla, California 1907, 1943; Altamont, California 1942.
- *Thompson and West Map of Alameda, California 1878.*
- *General Land Office (GLO) Survey Records.*
  - Mount Diablo Base Meridian: T2S R3E 1857, 1874, 1875; T3S R4E 1862.

The results were collected in the following forms.

- Mapped locations of:
  - Previously recorded archaeological resources;
  - Previously recorded architectural resources; and,
  - Previous cultural resources studies.
- Copies of:
  - Resource records for previously recorded archaeological resources;
  - Resource records for previously recorded architectural resources; and,
  - Reports from previous studies.

Tables 2 and 3 provide summaries of the previously recorded cultural resources and previous cultural resources studies identified during the records search.

## Previously Recorded Cultural Resources

The records searches and literature review identified no previously recorded cultural resources within the Study Area, and one previously recorded cultural resources, CA-ALA-669H, within 0.25 mile of the Study Area. No features were visible in the Study Area on the GLO survey maps or any historic maps.

Recorded in 2014 by Duryea, Jr., CA-ALA-669H is an archaeological site consisting of an historic homestead located approximately 0.23 mile northwest of Met-1. The site is comprised of house remains, shed remains, barn remains, a water tank platform, a well, a corral, a driveway, ornamental trees, and miscellaneous refuse. The homestead appears to have been established around 1900 and was occupied until the 1970s. The site represents one of the earliest historic occupations of the immediate Altamont Pass area. The site has not been re-recorded since its initial recording and has not been evaluated for CRHR-eligibility or eligibility for listing on the National Register of Historic Places (NRHP).

Table 2 provides a summary of the previously recorded cultural resources identified during the records search. Site records for these resources are presented in Appendix B of this report.

**Table 2. Previously Recorded Cultural Resources in or within 0.25 Mile of the Study Area**

Primary	Trinomial	Age	Description	Eligibility	Recorder
P-01-011488	CA-ALA-669H	Historic	Homestead: house, shed, barn, water tank platform, well, corral, driveway, ornamental trees, miscellaneous refuse.	Not evaluated	Duryea, Jr. (2010)

## Previous Cultural Resources Studies

A total of eight previous cultural resources studies have been conducted in or within 0.25 mile of the Study Area. Only one of these (Holman 1982) has included any portion of the Study Area, having

analyzed the Study Area at Met-1 and Met-2. None of these studies included subsurface investigations, only surficial surveys and/or literature review. A summary of these previously conducted cultural resources studies is presented in Table 3.

**Table 3. Previous Cultural Resources Studies Conducted in or within 0.25 Mile of the Study Area**

NWIC Report	Date	Author	Report Title	Relevant Mast
2623	1981	Holman	[No title, Letter report: Archaeological Reconnaissance of the Windpower Generator Farm to be Located on the Jess Ranch East of Livermore in Alameda County, California]	Met-2
2675	1981	Busby et al.	<i>A Cultural Resource Inventory of Lawrence Livermore National Laboratory's Site 300, Alameda and San Joaquin Counties, California</i>	Met-5
2865	1982	Holman	[No title, Letter report: Archaeological Reconnaissance of the Wind Farm Planned for the Lands of Mulqueeney and Haera in the Eastern Portion of Alameda County, California]	Met-1*; Met-2*
5657	1982	Slater and Holman	<i>An Archaeological Reconnaissance of Six Windfarm Parcels Near Altamont Pass, Alameda County, California</i>	Met-2
7071	1984	Holman	<i>RE: Helen Andrade Property Archaeological Reconnaissance</i>	Met-2
11396	1989	BioSystems Analysis, Inc.	<i>Technical Report of Cultural Resources Studies for the Proposed WTG-West, Inc. Los Angeles to San Francisco and Sacramento, California Fiber Optic Cable Project</i>	Met-6
24986	2000	Basin Research Associates, Inc.	<i>Cultural Resources Assessment PG&amp;E Proposed Tri-Valley 2002 Electric Power Capacity Increase Project</i>	Met-2
29775	2005	University of California	<i>Inventory and Evaluation of Archaeological Resources at Lawrence Livermore National Laboratory, Site 300 Alameda and San Joaquin Counties, California</i>	Met-5

\*Covered at least some portion of the Study Area

## Field Methods

On May 14 and May 19, 2015, ICF archaeologist Robin Hoffman conducted a cultural resources pedestrian survey of all portions of the Study Area. Intensive pedestrian survey methods were used, consisting of walking parallel transects spaced at no more than 10 meters apart and inspecting the surface for cultural material or evidence thereof. When ground visibility was poor, cleared areas and areas disturbed by rodents along and between the transect lines were checked with special attention. Notes on any identified cultural resources were collected to meet or exceed site recordation guidelines based on the California Office of Historic Preservation's *Instructions for Recording Historical Resources* (OHP 1995) and CHRIS recommendations. Digital photographs were taken to document ground conditions, and all observations were recorded in the field.

All portions of the Study Area were surveyed. Weather conditions on May 14 were initially cool, breezy, and cloudy, with thunderstorms arriving just after completing the survey of Met-2. The survey was halted and Mr. Hoffman returned on May 19 to survey the Study Area at the remaining proposed mast locations. This day, weather conditions were mild, breezy, and sunny. Almost all portions of the Survey Area were covered in dry grasses, with ground visibility averaging: 50% for Met-1 and Met-2; 75% for Met-4; 35% for Met-5; and 40% for Met-6.

During the field survey, **no cultural resources were identified in the Study Area or in close proximity.**

## Study Findings and Conclusions

During the current study, which included a records search, background research, and field survey, **no cultural resources were identified in the Study Area**, neither archaeological nor built environment. Based on these results, ICF anticipates that the Project would not result in impacts on historical resources, as defined by CEQA.

Table 4, below, illustrates the CEQA checklist criteria for cultural resources and anticipated results for the Project based on this analysis.

**Table 4. CEQA Checklist Criteria for Potential Impacts on Cultural Resources**

<b>Cultural Resources</b>	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Though no cultural resources were identified in this study, it must be noted that the Project would have to meet the requirements set forth in AB52 if the Project notice of preparation or notice of negative declaration/mitigated negative declaration is filed on or after July 1, 2015. This would require identification of potentially interested Native American tribes and allowing for applicable tribes (see AB52 discussion in *Regulatory Context* section) to participate in a formal consultation process as part of the CEQA process. This consultation process could result in the identification of a tribal cultural resource not identified in the current study and alternatives for avoiding impacts or mitigating for impacts on such tribal cultural resources would have to be considered. However, the current study did not identify any cultural resources in the Study Area or in close proximity that could be considered tribal cultural resources, and the likelihood for such resources to be present in the Study Area is low.

Please feel free to contact me with and questions at 916-231-7684 or robin.hoffman@icfi.com.

Sincerely,



Robin D. Hoffman, MA, RPA  
 ICF Principal Investigator/Archaeologist

**Enclosure – Figure 1. Project Location Map**